IOWA DEPARTMENT OF NATURAL RESOURCES

IOWA SOLID WASTE CHARACTERIZATION

TABLE OF CONTENTS

TABLES

EXECUTIVE SUMMARY

SECTION 1

SECTION 2

SECTION 3

APPENDIX

EXECUTIVE SUMMARY

STUDY OBJECTIVES

The primary objectives of the Iowa Solid Waste Characterization Study (Study) include the following:

- To develop a statewide waste characterization identifying the types and estimated quantities of solid waste disposed.
- To identify materials continuing to be disposed which present additional opportunities to meet Iowa's 50% waste reduction and recycling goal.

METHODOLOGY

A two season waste sort was conducted at five Iowa facility sites in the fall of 1997 and spring of 1998. The facilities included in the study were the following:

- Des Moines County Regional Solid Waste Landfill;
- South Central Iowa Regional Solid Waste Agency Landfill;
- Floyd-Mitchell County Solid Waste Agency Landfill;
- Monona County Solid Waste Transfer Station; and
- Iowa City Solid Waste Landfill.

Nearly 100,000 lbs. of materials composing more than 420 samples were sorted for the Study. The percentages for individual material categories were weighted based upon the actual tonnage received at each facility. The results of the two season waste sort were then combined with compatible existing waste composition data to develop a statewide waste characterization.

RESULTS

The Iowa statewide waste characterization is depicted in the table and figure below.

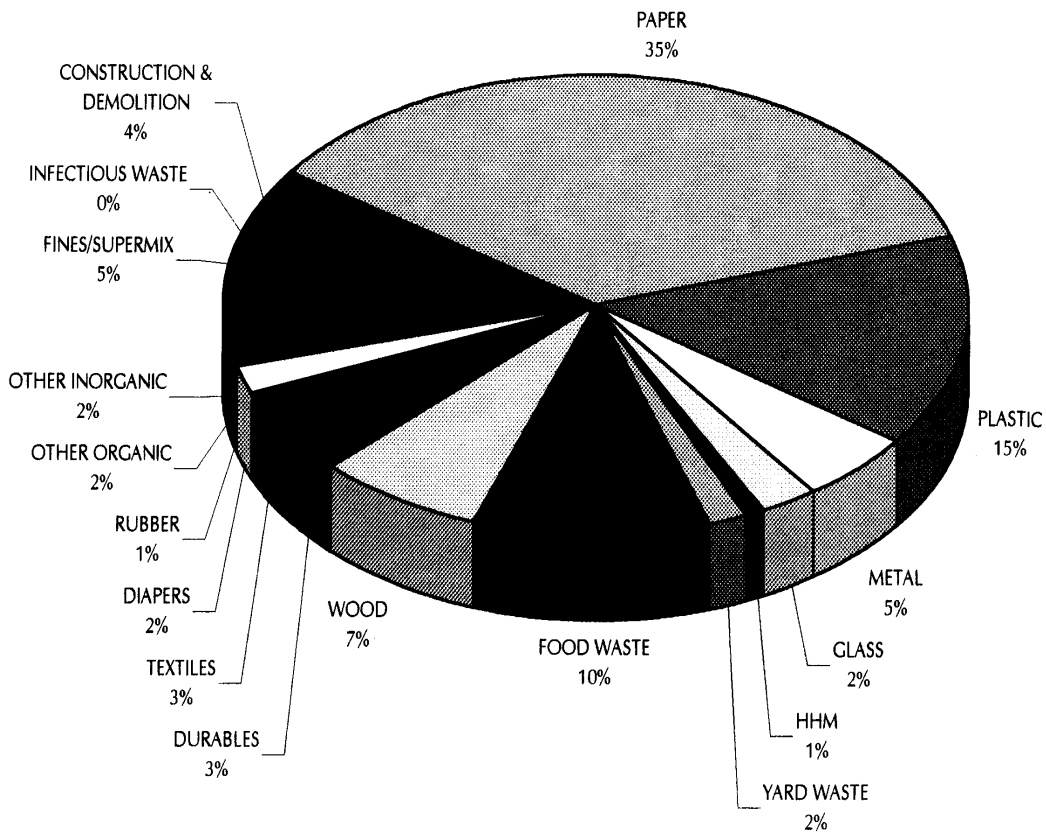
TABLE 1 1998 IOWA STATEWIDE MSW CHARACTERIZATION [1]		
	PERCENTAGES	TONNAGES
PAPER	35.1%	774,593
Newspaper	4.1%	90,642
Magazines	2.6%	57,394
High Grade/ Office	2.2%	48,965
OCC and Kraft Bags	9.4%	207,789
Mixed Recyc Paper	5.2%	115,591
Other Non- Recyclable Paper	10.5%	231,006
PLASTIC	15.1%	333,168
#1 PET Containers	0.3%	6,438
#1 PET Deposit	0.1%	3,039
#2 HDPE Containers	1.0%	22,590
All Other Numbered Containers	0.7%	15,619
Other Plastic Not Numbered	7.7%	169,513
Film/Wrap/Bags	5.7%	125,196
METAL	5.1%	112,414
Alum Non-Deposit Beverage Containers	0.1%	2,252
Alum Deposit Beverage Containers	0.1%	2,860
Ferrous Food	1.1%	24,888
Other Ferrous Scrap	3.2%	70,682
Other Non-Ferrous Scrap	0.6%	12,879
GLASS	2.4%	53,652
Clear	1.1%	24,827
Green	0.1%	1,355
Blue [5]	0.0%	108
Brown	0.1%	2,575
Deposit Glass Containers	0.4%	8,808
Other/ Mixed Cullet	0.8%	18,688
HHM	0.7%	16,472
Automotive Products	0.3%	7,132
Paints and Solvents	0.1%	2,797
Pesticides, Herbicides & Fungicides	0.0%	258
Household Cleaners	0.0%	600
Batteries (lead -acid)	0.0%	885
Batteries (other)	0.0%	952
Other (HHM containers w/product inside)	0.2%	3,489
YARD WASTE	1.8%	40,029
Yard Waste	1.6%	35,621
Pumpkins	0.3%	7,364
FOOD WASTE	10.3%	226,597
Food Waste	10.3%	226,597

TABLE 1 1998 IOWA STATEWIDE MSW CHARACTERIZATION [1]		
	PERCENTAGES	TONNAGES
WOOD	7.1%	156,494
Non-Treated Wood	3.1%	67,231
Treated Wood	4.0%	88,155
DURABLES	2.8%	60,468
All Electrical and Household Appl.	1.3%	28,433
Other Durables	2.5%	53,513
TEXTILES	3.3%	73,669
Textiles and Leather	3.3%	73,669
DIAPERS	2.1%	45,739
Diapers	2.1%	45,739
RUBBER	0.7%	15,002
Rubber	0.7%	15,002
OTHER ORGANIC	2.4%	52,867
Other Organic	2.4%	52,867
OTHER INORGANIC	1.8%	39,928
Other Inorganic	1.8%	39,928
FINES/SUPERMIX	4.6%	100,873
Fines/ Supermix	4.6%	101,493
INFECTIOUS WASTE	0.2%	3,391
Infectious Waste	0.2%	3,391
CONSTRUCTION & DEMOLITION	4.4%	98,058
C&D	4.4%	98,058
TOTAL	100.0%	2,203,848

(1) Calculated using weighted percentages from selected waste composition studies and FY 1998 reported disposal tonnages.

(2) Numbers may not sum due to rounding.

1998 Iowa Statewide MSW Characterization



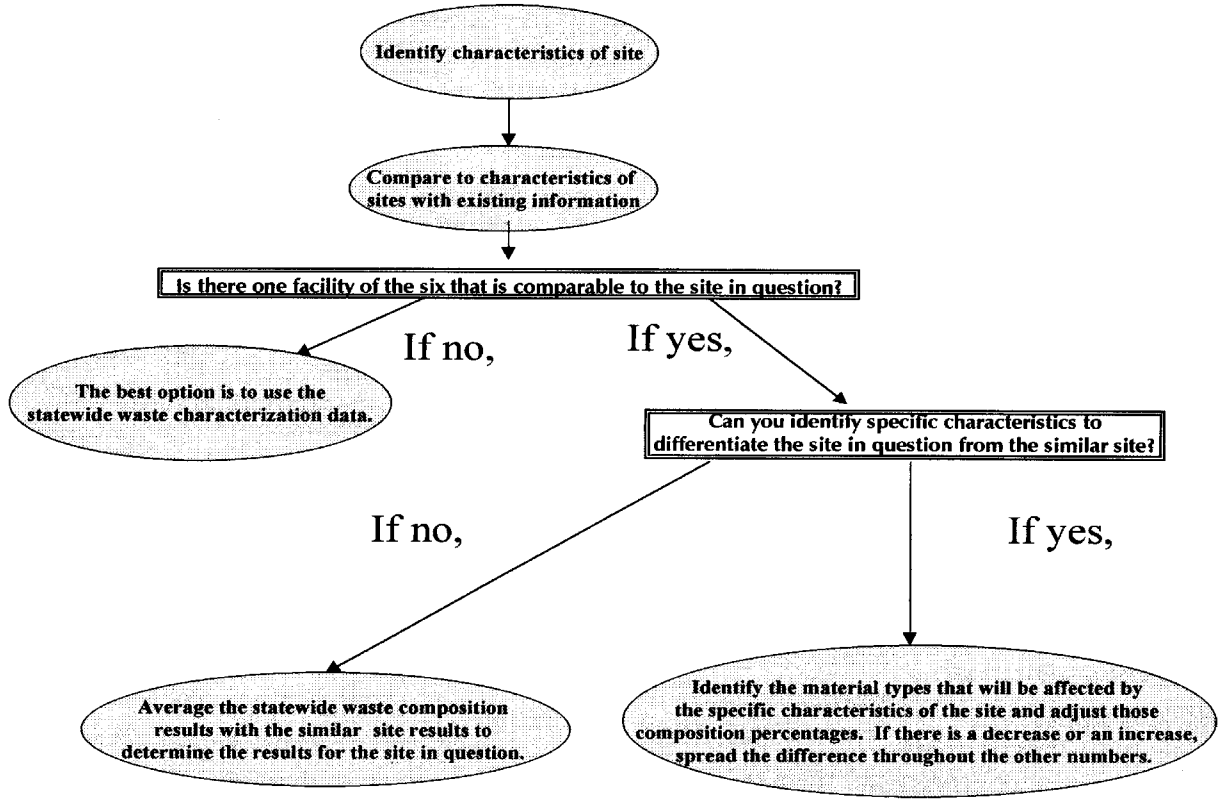
Opportunities for additional waste diversion include the following:

- OCC;
- mixed recyclable paper;
- food waste;
- wood; and
- textiles.

Further assessment of the materials composing "other plastic", "film/wrap/bags", and "construction and demolition" categories should be conducted to determine materials recovery potential.

NON-PARTICIPATING FACILITIES CHARACTERIZATION METHODOLOGY

Because facilities not participating in the waste sorts have need to characterize their individual waste streams, a methodology was developed using a set of solid waste planning variables. The recommended approach is depicted in the following flow diagram.


Identify characteristics of site
Compare to characteristics of sites with existing information
Is there one facility of the six that is comparable to the site in question?
If no,
If yes,
The best option is to use the statewide waste characterization data.
Can you identify specific characteristics to differentiate the site in question from the similar site?
If no,
If yes,
Average the statewide waste composition results with the similar site results to determine the results for the site in question.
Identify the material types that will be affected by the specific characteristics of the site and adjust those composition percentages. If there is a decrease or an increase, spread the difference throughout the other numbers.

SECTION 1
WASTE CHARACTERIZATION FIELD SORTS

INTRODUCTION

This section includes a description of the characterization methodology, a discussion of the applicable statistical interpretation, and the results of the two-season waste characterization sorting events used in completing the Iowa Solid Waste Characterization Study (Study).

METHODOLOGY

The methodology used by R. W. Beck, Inc. (R. W. Beck) to conduct the sorting events at each of the sites included the following steps:

- confirmed material definitions;
- conducted pre-sort site assessments;
- defined waste sort protocol;
- conducted waste sorts;
- reviewed collected data; and
- used a statistical model to develop composition results.

Each step is critical to developing a representative waste characterization for individual facility sites and statewide.

MATERIAL DEFINITIONS

The material categories selected for this Study were based upon discussions with the Iowa Department of Natural Resources (IDNR) staff and R. W. Beck waste composition experience. The primary objectives of the study directly influenced the waste categories selected. The material categories are consistent with the following objectives:

- To develop a statewide waste characterization identifying the types and estimated quantities of solid waste received for disposal at Iowa landfills and transfer stations.
- To identify materials continuing to be disposed which present additional opportunities to meet Iowa's 50% waste reduction and recycling goal.

A set of 45 categories were selected for this study. The definitions of each of these categories are included in the Appendix for reference. Based upon the objectives described above, the use of the following categories was critical:

- Recyclable mixed paper was distinguished from non-recyclable paper per regional market specifications.
- Deposit containers were distinguished from non-deposit containers in the plastic, metal, and glass categories.
- Multiple subcategories for household hazardous materials were included.
- Treated wood as opposed to non-treated wood was included to identify the recoverable segment of the wood wastes substream.
- Construction and demolition materials were categorized separately from such categories as wood, metals, plastic and old corrugated containers because these materials are generally collected and transported separately.
- A subcategory for pumpkins was identified as part of yard waste because of the seasonal time period the fall sort was completed.
- A category labeled special wastes was created in the solid waste composition results for wastewater grit and sludge, foundry sand, water plant screenings, ash, and other industrial processed wastes.

PRE-SORT SITE ASSESSMENT

R.W. Beck staff conducted site visits of the six potential sorting sites prior to initiating the actual waste sorts. These site assessments were conducted in September and October of 1997. During these site assessments, R.W. Beck discussed with the respective facility operators their standard operations (i.e. including materials recovery practices and record keeping), logistics for conducting the sort at each site, equipment needs, and the scheduled dates for each of the sorts.

Prior to the individual facility site visits, we forwarded a data request to the respective facility operators for facility disposal information. The data request was for facility transaction information for a period of at least three weeks within the last 90 days. This information was reviewed to identify the average weekly and daily quantities of materials received at each respective facility, types of hauling vehicles used at each facility, and an overview of the scope of the activity at each facility. The site visits also involved clarifying the data received from each of the facility operators prior to developing the waste sort protocol.

WASTE SORT PROTOCOL

Development of protocol is essential to obtaining consistent and reliable waste characterization data. Because the potential for local communities to directly influence the management of the residential waste stream is greater than with the industrial/commercial/institutional (ICI) waste stream, gathering reliable data for the residential generator type was considered critical to the Study. Moreover, waste materials are transported to each of the facilities from residential generators, ICI generators, and by waste haulers with materials from a mix of

generator types (mixed). Consequently, the protocol includes identifying the various samples as originating from three generator types - residential, ICI, and mixed. Results were developed for each of these generator types as well as for a combination of the three generator types.

The protocol included sorting samples from the municipal solid waste received at each of the facilities. It was not feasible to sort construction and demolition materials (C&D) and special wastes. Therefore, except for the quantities of C&D mixed in with the MSW, the quantities of C&D materials received were calculated per facility records. C&D and special waste quantities were then factored into the overall waste characterization to develop a separate "solid waste" characterization for each individual facility site and statewide. The solid waste characterization represents all solid waste materials landfilled whereas the MSW waste characterization is limited to primarily those materials subject to the state landfill tonnage fees.

CONDUCT WASTE SORTS

A two season waste sort was initiated at each of the facility sites in the fall of 1997. One week sorting events were conducted at five of the six potential sites over a five week period during the months of October and November. The fall sort at the North Dallas County Landfill was initiated on November 10, but was discontinued because of concerns related to the facility staffing needed to complete the sorting event. The spring sorting event took place during the months of May and June. One week sorting events were conducted at each of the five sites over a five week period. The Iowa solid waste facilities where the fall 1997 and spring 1998 waste sorting events were completed included the following:

- Des Moines County Regional Solid Waste Landfill;
- South Central Iowa Regional Solid Waste Agency Landfill;
- Floyd-Mitchell County Solid Waste Agency Landfill;
- Monona County Solid Waste Transfer Station; and
- Iowa City Solid Waste Landfill.

Notwithstanding the Iowa City Landfill and Monona County waste sorts, R.W. Beck provided approximately one and one-half days of oversight assistance at each facility site during the fall and spring sorts. Iowa City contracted directly with R.W. Beck to provide staff to conduct the actual waste sorts for the Study. Monona County contracted directly with R. W. Beck to provide staff assistance to conduct the waste sorting event in the spring of 1998.

The oversight assistance provided included an introduction to the material categories and their definitions, an overview of health and safety issues, and initial training as related to the sorting and sampling procedures. Each facility operator/owner provided a waste sort supervisor, adequate sorting staff, and a sorting table to conduct the sorting events. The IDNR, with input from R. W.

Beck, provided the needed health and safety equipment at each site, as well as a scale for weighing the sorted waste materials.

The selection of vehicles to secure waste materials for sampling was based upon the data from the pre-sort site assessment completed at each facility. At each site, vehicles were randomly selected from within each of the three generator types - residential, ICI, mixed. This approach assures sort data from each of these generators which can be used to develop a waste characterization for each generator type and combined generator types. From the randomly selected loads, a minimum of 200 pound samples were taken for sorting. Two to three hundred pound samples are considered the appropriate size to provide representative results. The various samples were randomly selected from the selected loads using various random cell selection processes.

Once each sample was selected, the materials were pre-sorted for any hazardous or infectious wastes. The materials were then sorted by facility staff into individual containers representing the various 45 material categories. Then, each container was weighed to determine the quantity of materials by material type in each sample. These weights were recorded on individual data sheets to document the sorting process. The data was then forwarded to R. W. Beck for review and analysis.

REVIEW COLLECTED DATA

Upon completing the sampling and sorting of materials, the data collected were reviewed to ensure accuracy and identify any unusual sample data. Per review of the data sheets, and discussions with R. W. Beck and facility staff, the need to assess the general composition of the fines/supermix was identified. This category represents those materials remaining after the samples have been sorted that are difficult to physically sort and/or visually identify as specific material types. The most frequently recorded fines/supermix components identified by the waste sorters included the following:

- food residuals;
- paper and plastic packaging;
- dirt/grit; and
- other unidentifiable organics and inorganics.

As previously stated, individual C&D loads and special waste loads were not sampled separately. Thus, the quantity data for these materials were developed via review of actual facility records during the various weeks of the individual sorting events.

STATISTICAL MODELING

The data collected during each of the five sorting events in the spring and fall were input into R. W. Beck's specially designed waste composition statistical

model (Model). The Model statistically manipulates the data to calculate both the mean and 90% confidence intervals as waste composition measures. In evaluating the results, both measures should be considered. The mean represents the average percentage of material composing the waste stream. The 90% confidence interval represents that there is a 90% level of confidence that the true population mean falls within the upper and lower intervals. The narrower the intervals the less variability in the data. Following the completion of the spring 1998 sorts, the confidence intervals narrowed and the reliability of the reported results was enhanced with the additional data.

For the solid waste composition results, confidence intervals are not provided because the C&D and special wastes categories were not sampled separately and thus confidence intervals were not available. Only a mean percentage for these material types are provided.

RESULTS

INTRODUCTION

The results for each of the five sites are provided in the appendix to the report. A waste characterization for each of the three generator types, an overall municipal solid waste characterization, and an overall solid waste characterization is provided for all five sites. The results from the five sites were then aggregated to develop overall combined waste characterizations for the following:

- municipal solid waste;
- solid waste;
- residential; and
- ICI.

This information is provided for both the spring and fall sorts as well as combined totals for both seasons.

OVERALL RESULTS – SPRING AND FALL SORTS

Provided below is a summary table representing the aggregated results for municipal solid waste characterization and solid waste characterization.

TABLE 1
WASTE CHARACTERIZATION FIELD SORTS
OVERALL RESULTS

CATEGORY	MSW COMPOSITION[1] (MEAN PERCENTAGES)	SOLID WASTE COMPOSITION[2] (MEAN PERCENTAGES)
Paper	32.2	24.3
Plastic	14.4	14.0
Metal	6.0	4.4
Glass	2.6	2.2
HW[3]	0.8	.5
Yard Waste	1.7	1.3
Food Waste	10.7	5.9
Wood	6.4	5.3
Durables	3.8	3.3
Textiles	4.2	3.4
Diapers	2.3	2.1
Rubber	0.8	.6
Other Organic	1.7	1.3
Other Inorganic	1.7	1.6
Fines/Supermix	5.2	3.6
Infectious Waste	0.7	.1
Construction and Demolition	4.8	23.9
Special Wastes	0.0	2.3

(1) Includes only the residential, ICI, and mixed generator type results.
(2) Includes C&D and special wastes as well as the MSW.
(3) Represents the household hazardous materials in the residential waste stream and hazardous waste materials identified in the ICI waste stream.

The municipal solid waste (MSW) composition represents the combined composition of the residential, ICI, and mixed generator types. We recommend this characterization be used when comparing results to other regions and states. The solid waste composition represents all generator types including residential, ICI, mixed, construction and demolition, and special wastes. This characterization should be used when identifying materials composing a substantial portion of the overall waste stream that are being landfilled.

The following table illustrates the aggregated results for the residential and ICI compositions.

TABLE 2
WASTE CHARACTERIZATION FIELD SORTS
RESULTS BY GENERATOR TYPE

CATEGORY	RESIDENTIAL COMPOSITION[1] (MEAN PERCENTAGES)	ICI COMPOSITION[2] (MEAN PERCENTAGES)
Paper	28.9	32.4
Plastic	10.4	18.5
Metal	7.2	5.4
Glass	2.5	3.2
HW[3]	0.8	0.8
Yard Waste	2.9	0.8
Food Waste	10.8	10.2
Wood	6.4	8.5
Durables	6.4	2.6
Textiles	5.5	2.5
Diapers	3.7	0.8
Rubber	0.7	1.0
Other Organic	1.8	1.7
Other Inorganic	1.9	1.9
Fines/Supermix	5.8	2.9
Infectious Waste	0.4	0.8
Construction and Demolition	4.0	6.1

(1) From the sampling of 113 vehicle loads and the sorting of more than 25,200 pounds of materials.
(2) From the sampling of 161 vehicle loads and the sorting of more than 37,560 pounds of materials.
(3) Represents the household hazardous materials identified in the residential waste stream and the hazardous wastes identified in the ICI waste stream.

As expected, the confidence intervals narrowed as the information was aggregated from both sorting events (see detailed results in appendix.). This illustrates that the data is more reliable as a larger number of sorts are conducted.

In addition, when comparing the residential and the commercial generator overall results, in general it was found that the residential results had narrower confidence intervals. This can be attributed to the greater diversity of materials in the commercial waste stream.

FALL 1997 RESULTS

As previously discussed in the "Interim Report: Iowa Waste Characterization," overall, a total of 212 samples weighing nearly 25 tons were sorted during the 1997 fall sort. Notwithstanding the Monona County facility sort, the number of samples sorted at each site ranged from 44 to 52. Because of the relatively small quantity of materials received at the Monona County facility, a total of 20 samples were sorted.

The following table illustrates the results for the municipal solid waste composition and the solid waste characterization.

TABLE 3
WASTE CHARACTERIZATION FIELD SORTS
FALL 1997 RESULTS [1]

CATEGORY	MSW COMPOSITION [2] (MEAN PERCENTAGES)	SOLID WASTE COMPOSITION [3] (MEAN PERCENTAGES)
Paper	33.7	25.5
Plastic	12.3	9.3
Metal	6.0	4.6
Glass	2.6	1.9
HW [4]	.8	.6
Yard Waste	1.9	1.4
Food Waste	11.4	8.6
Wood	6.2	4.7
Durables	2.5	1.9
Textiles	3.1	2.4
Diapers	2.8	2.1
Rubber	.5	.4
Other Organic	1.8	1.4
Other Inorganic	2.0	1.5
Fines/Supermix	5.9	4.5
Infectious Waste	.7	.6
Construction and Demolition	5.8	26.0
Special Wastes	0.0	2.2

(1) Represents the characterization results for only one seasonal sorting event of a two season sort.
(2) Includes only the residential, ICI, and mixed generator type results.
(3) Includes C&D and special wastes as well as the MSW.
(4) Represents the household hazardous materials identified in the residential waste stream and the hazardous wastes identified in the ICI waste stream.

Table 4 provides a waste characterization for the two primary MSW generator types - residential and ICI. This table is provided to assist in identifying materials being disposed by these two generator types that could be targeted for recovery.

TABLE 4
WASTE CHARACTERIZATION FIELD SORTS
FALL 1997 RESULTS BY GENERATOR TYPE [1]

CATEGORY	RESIDENTIAL COMPOSITION [2] (MEAN PERCENTAGES)	ICI COMPOSITION [3] (MEAN PERCENTAGES)
Paper	29.0	35.5
Plastic	8.5	15.5
Metal	6.0	6.6
Glass	2.7	3.1
HW[4]	1.0	.6
Yard Waste	3.3	.6
Food Waste	10.9	10.9
Wood	7.4	7.7
Durables	5.5	1.5
Textiles	5.1	1.3
Diapers	3.8	.9
Rubber	.4	.6
Other Organic	2.5	1.5
Other Inorganic	1.7	2.6
Fines/Supermix	6.5	3.0
Infectious Waste	.6	.6
Construction and Demolition	5.1	7.4

(1) Represents the characterization results for only one seasonal sorting event of a two season sort.
(2) From the sampling of 58 vehicle loads and the sorting of more than 13,200 pounds of materials.
(3) From the sampling of 86 vehicle loads and the sorting of more than 20,473 pounds of materials.
(4) Represents the household hazardous materials identified in the residential waste stream and the hazardous wastes identified in the ICI waste stream.

SPRING 1998 RESULTS

Overall, a total of 212 samples weighing nearly 24 tons were sorted during the spring sort. Excluding the Monona County Transfer Station, the number of samples that were sorted at each site ranged from 41 to 55. At the Monona County Transfer Station, 17 samples were sorted.

The following table illustrates the spring results for the MSW and solid waste characterization.

TABLE 5
WASTE CHARACTERIZATION FIELD SORTS
SPRING 1998 RESULTS [1]

CATEGORY	MSW COMPOSITION [2] (MEAN PERCENTAGES)	SOLID WASTE COMPOSITION [3] (MEAN PERCENTAGES)
Paper	30.8	23.5
Plastic	16.5	13.6
Metal	6.0	4.7
Glass	2.6	2.2
HW[4]	0.8	0.5
Yard Waste	1.5	1.2
Food Waste	10.0	7.3
Wood	6.6	5.8
Durables	5.4	4.5
Textiles	5.3	4.5
Diapers	1.9	1.5
Rubber	1.1	0.8
Other Organic	1.7	1.3
Other Inorganic	1.5	1.4
Fines/Supermix	4.4	3.1
Infectious Waste	0.6	0.5
Construction and Demolition	3.8	21.3
Special Wastes	0.0	2.4

(1) Represents the characterization results for only one seasonal sorting event of a two season sort.
(2) Includes only the residential, ICI, and mixed generator type results.
(3) Includes C&D and special wastes as well as the MSW.
(4) Represents the household hazardous materials identified in the residential waste stream and the hazardous wastes identified in the ICI waste stream.

WASTE CHARACTERIZATION FIELD SORTS

Table 6 provides a waste characterization for the two primary MSW generator types - residential and ICI. This table is provided to assist in identifying materials being disposed by these two generator types that could be targeted for recovery.

TABLE 6
WASTE CHARACTERIZATION FIELD SORTS
SPRING 1998 RESULTS BY GENERATOR TYPE [1]

CATEGORY	RESIDENTIAL COMPOSITION [2] (MEAN PERCENTAGES)	ICI COMPOSITION [3] (MEAN PERCENTAGES)
Paper	28.9	28.7
Plastic	12.3	22.0
Metal	8.4	3.9
Glass	2.3	3.4
HW[4]	0.7	1.0
Yard Waste	2.4	1.1
Food Waste	10.7	9.4
Wood	5.3	9.4
Durables	7.4	3.9
Textiles	5.8	3.8
Diapers	3.7	0.6
Rubber	1.0	1.5
Other Organic	1.1	2.0
Other Inorganic	2.1	1.0
Fines/Supermix	5.0	2.9
Infectious Waste	0.2	1.0
Construction and Demolition	2.9	4.7

(1) Represents the characterization results for only one seasonal sorting event of a two season sort.
(2) From the sampling of 55 vehicle loads and the sorting of more than 11,980 pounds of materials.
(3) From the sampling of 75 vehicle loads and the sorting of more than 17,000 pounds of materials.
(4) Represents the household hazardous materials identified in the residential waste stream and the hazardous wastes identified in the ICI waste stream.

CONCLUSIONS AND RECOMMENDATIONS

The results of the waste characterization field sorts provide individual site characterization information for MSW and Solid Waste, as well as by generator type (residential, ICI, and mixed). Individual site results can be evaluated to identify types of materials being disposed that present materials recovery opportunities.

The table below depicts the MSW characterization results by individual site.

TABLE 7
WASTE CHARACTERIZATION FIELD SORTS
COMPARISON OF MSW RESULTS [1]

CATEGORY	SOUTH CENTRAL	FLOYD-MITCHELL	IOWA CITY	DES MOINES	MONONA	RANGE
PAPER	**29.3%**	**34.0%**	**32.2%**	**28.9%**	**43.1%**	**28.9% - 43.1%**
Newspaper	4.0%	1.9%	3.3%	2.1%	7.7%	
Magazines	2.4%	1.5%	3.0%	1.8%	5.5%	
High Grade/ Office	2.3%	1.5%	2.6%	1.9%	4.2%	
OCC and Kraft Bags	6.7%	12.2%	6.2%	8.0%	10.7%	
Mixed Recyc Paper	4.6%	5.4%	5.7%	4.9%	8.0%	
Other Non- Recyclable Paper	9.4%	11.5%	11.3%	10.2%	6.9%	
PLASTIC	**19.0%**	**12.4%**	**15.1%**	**12.9%**	**9.6%**	**9.6% - 19.0%**
#1 PET Containers	0.2%	0.2%	0.3%	0.2%	0.3%	
#1 PET Deposit	0.1%	0.1%	0.2%	0.2%	0.3%	
#2 HDPE Containers	0.8%	1.3%	1.0%	0.9%	1.2%	
All Other Numbered Containers	0.5%	1.4%	0.8%	0.7%	0.5%	
Other Plastic Not Numbered	11.5%	4.9%	7.8%	7.5%	3.4%	
Film/Wrap/Bags	6.0%	4.5%	5.2%	3.5%	4.0%	
METAL	**5.9%**	**7.5%**	**5.0%**	**5.8%**	**5.7%**	**5.0% - 7.5%**
Alum Non-Deposit Beverage Containers	0.0%	0.1%	0.0%	0.1%	0.1%	
Alum Deposit Beverage Containers	0.1%	0.1%	0.1%	0.2%	0.3%	
Ferrous Food	1.0%	3.6%	0.9%	1.1%	2.0%	
Other Ferrous Scrap	4.1%	2.6%	3.5%	3.7%	2.8%	
Other Non-Ferrous Scrap	0.7%	1.2%	0.4%	0.7%	0.5%	

TABLE 7
WASTE CHARACTERIZATION FIELD SORTS
COMPARISON OF MSW RESULTS [1]

CATEGORY	SOUTH CENTRAL	FLOYD-MITCHELL	IOWA CITY	DES MOINES	MONONA	RANGE
GLASS	**3.9%**	**1.8%**	**2.6%**	**2.4%**	**1.8%**	**1.8% - 3.9%**
Clear	0.9%	1.0%	1.1%	1.0%	1.0%	
Green	0.0%	0.1%	0.0%	0.0%	0.1%	
Blue	0.0%	0.0%	0.0%	0.0%	0.0%	
Brown	0.0%	0.3%	0.1%	0.2%	0.2%	
Deposit Glass Containers	0.1%	0.0%	0.9%	0.1%	0.3%	
Other/ Mixed Cullet	2.9%	0.4%	0.5%	1.1%	0.2%	
HM	**0.5%**	**1.1%**	**0.6%**	**0.7%**	**1.4%**	**0.5% - 1.4%**
Automotive Products	0.2%	0.4%	0.1%	0.3%	0.6%	
Paints and Solvents	0.2%	0.3%	0.0%	0.2%	0.4%	
Pesticides, Herbicides & Fungicides	0.0%	0.0%	0.0%	0.0%	0.1%	
Household Cleaners	0.0%	0.1%	0.1%	0.0%	0.1%	
Batteries (lead -acid)	0.0%	0.0%	0.0%	0.0%	0.0%	
Batteries (other)	0.1%	0.1%	0.1%	0.1%	0.1%	
Other (HHM containers w/product inside)	0.1%	0.1%	0.3%	0.0%	0.1%	
YARD WASTE	**0.7%**	**1.5%**	**2.3%**	**1.4%**	**3.7%**	**0.7% - 3.7%**
Yard Waste	0.6%	1.5%	1.7%	1.3%	1.1%	
Pumpkins	0.0%	0.0%	0.7%	0.1%	2.6%	
FOOD WASTE	**6.2%**	**14.6%**	**13.0%**	**8.1%**	**10.6%**	**6.2% - 14.6%**
Food Waste	6.2%	14.6%	13.0%	8.1%	10.6%	
WOOD	**8.1%**	**3.1%**	**5.9%**	**10.5%**	**2.6%**	**2.6% - 10.5%**
Non-Treated Wood	4.5%	1.2%	2.2%	4.0%	1.4%	
Treated Wood	3.7%	1.9%	3.7%	6.5%	1.2%	

TABLE 7 WASTE CHARACTERIZATION FIELD SORTS COMPARISON OF MSW RESULTS [1]						
CATEGORY	SOUTH CENTRAL	FLOYD-MITCHELL	IOWA CITY	DES MOINES	MONONA	RANGE
DURABLES	**4.4%**	**2.8%**	**2.9%**	**6.2%**	**4.0%**	**2.8% - 4.4%**
All Electrical and Household Appl.	1.5%	1.6%	1.4%	2.0%	1.4%	
Other Durables	2.9%	1.2%	1.5%	4.1%	2.6%	
TEXTILES	**4.2%**	**3.7%**	**4.1%**	**4.9%**	**4.1%**	**3.7% - 4.9%**
Textiles and Leather	4.2%	3.7%	4.1%	4.9%	4.1%	
DIAPERS	**1.8%**	**2.6%**	**2.4%**	**2.3%**	**2.8%**	**1.8% - 2.8%**
Diapers	1.8%	2.6%	2.4%	2.3%	2.8%	
RUBBER	**0.5%**	**0.8%**	**0.5%**	**1.4%**	**1.0%**	**0.5% - 1.4%**
Rubber	0.5%	0.8%	0.5%	1.4%	1.0%	
OTHER ORGANIC	**0.9%**	**2.3%**	**1.9%**	**1.9%**	**1.3%**	**0.9% - 2.3%**
Other Organic	0.9%	2.3%	1.9%	1.9%	1.3%	
OTHER INORGANIC	**2.0%**	**0.7%**	**2.1%**	**2.7%**	**0.6%**	**0.6% - 2.7%**
Other Inorganic	2.0%	0.7%	2.1%	2.7%	0.6%	
FINES/SUPERMIX	**4.4%**	**7.0%**	**4.5%**	**3.9%**	**6.9%**	**3.9%- 7.0%**
Fines/ Supermix	4.4%	7.0%	4.5%	3.9%	6.9%	
INFECTIOUS WASTE	**2.1%**	**0.4%**	**0.2%**	**0.2%**	**0.2%**	**0.2% - 2.1%**
Infectious Waste	2.1%	0.4%	0.2%	0.2%	0.2%	
CONSTRUCTION & DEMOLITION	**6.1%**	**3.5%**	**4.8%**	**6.7%**	**0.7%**	**0.7% - 6.7%**
C&D	6.1%	3.5%	4.8%	6.7%	0.7%	

[1] Subcategory percentages may not sum to category totals or 100 due to rounding.

As illustrated above, the percentages for individual material types range from one site to another.

Some conclusions which can be drawn from the results include:

- service areas with less curbside recyclable materials collection availability (i.e. Monona, Floyd-Mitchell) tend to dispose of a higher percentage of paper;
- the paper category has the largest range from site to site with plastic, food waste, and wood materials representing materials categories with at least an 8 percentage point range;
- several categories including metals, glass, hazardous wastes, yard wastes, textiles, diapers, durables, rubber, infectious wastes, other organic, and other inorganic have a narrow range of three percent or less; and
- significant percentages of recyclable and compostable materials such as OCC, mixed recyclable paper, and food waste continue to be disposed.

SECTION 2
STATEWIDE CHARACTERIZATION

INTRODUCTION

The results of the waste characterization field sorts provide useful information for each of the individual service areas participating in the Study. These overall results provide the baseline for developing a statewide waste characterization. This section of the report includes the following:

- an estimated statewide waste characterization;
- changes in the waste stream as compared to the 1990 Iowa statewide waste characterization; and
- identification of the types of materials continuing to be disposed which potentially are recoverable.

METHODOLOGY

The methodology, used by R. W. Beck to develop a statewide waste characterization included the following steps:

- review of the existing characterization information for Carroll County, Metro Waste Authority, Union County, and the Bluestem Solid Waste Agency provided by the IDNR;
- combined the selected existing waste characterization information with the results from the 1997-1998 waste characterization field sorts; and
- applied the overall combined weighted average percentages for the various material categories to the estimated quantities of materials disposed in Iowa for Fiscal Year 1998 (July 1997 - July 1998).

REVIEW OF EXISTING DATA

The IDNR provided excerpts from waste characterization studies conducted for the Carroll County Solid Waste Management Commission, Metro Waste Authority, and Union County. R. W. Beck had previous access to the Bluestem Solid Waste Agency waste characterization study results. These studies were all conducted in 1994-1996. All material subcategories included in the Carroll County, Metro Waste Authority, and Union County, studies were compared. The reported results of these individual studies are provided in the table below.

TABLE 1
EXISTING IOWA MSW CHARACTERIZATION STUDIES
COMBINED GENERATOR RESULTS

	Union County [1]	Carroll County [2]	Metro Waste Authority [3]
PAPER	36.5%	29.2%	30.5%
Newsprint (Includes telephone books)	5.5%		6.6%
Newsprint		4.2%	
Corrugated	9.9%		5.1%
Corrugated (Includes Kraft paper)		7.0%	
Office Paper	1.9%	2.9%	
White Office Paper			2.7%
Other Paper (Includes mixed paper)	11.3%		
Other Paper		8.2%	
Magazines	5.2%	1.8%	2.2%
Mixed Paper		2.0%	
Mixed Paper (Includes other paper)			8.9%
Paper Board	2.7%		5.0%
Boxboard (Includes envelopes)		3.1%	
PLASTICS	14.2%	11.6%	13.7%
HDPE Plastic	1.7%	0.9%	
HDPE Carbonated Container			0.3%
HDPE Non-carbonated Container			0.7%
PET Plastic	1.7%	0.3%	
PETE Carbonated Container			0.2%
PETE Non-Carbonated Container			0.4%
Other Plastic (Includes Other Plastic Containers (#3-7)	9.4%		
Other Plastics		9.0%	7.3%
Polystyrene	1.4%	0.9%	3.9%
Other Plastic Containers (3-7)		0.5%	0.9%
METAL	4.8%	4.6%	9.1%
Steel Food Cans	1.8%	1.5%	5.7%
Aluminum Cans	0.6%	0.2%	
Aluminum Carbonated Container			0.1%
Aluminum Non-Carbonated Container			0.1%
Other Metals	2.1%		
Other Ferrous		1.9%	1.9%
Other Aluminum	0.3%	0.5%	0.7%
Nonferrous		0.5%	0.6%
GLASS	2.7%	2.6%	2.6%
Glass Food Containers	2.3%	1.7%	
Carbonated Glass Container			0.7%
Non-Carbonated Glass Container			N/A
Other Glass	0.4%	0.9%	N/A

TABLE 1
EXISTING IOWA MSW CHARACTERIZATION STUDIES
COMBINED GENERATOR RESULTS

	UNION COUNTY [1]	CARROLL COUNTY [2]	METRO WASTE AUTHORITY [3]
HOUSEHOLD HAZARDOUS WASTE	1.5%	1.0%	1.7%
Household Hazardous Waste	1.5%	1.0%	1.7%
YARD WASTE	1.5%	2.5%	5.1%
Yard Waste	1.5%	2.5%	5.1%
FOOD WASTE	18.7%	20.4%	5.2%
Food Waste	18.7%	20.4%	5.2%
WOOD	1.5%	5.0%	5.2%
Wood Waste	1.5%		5.2%
Dimensional Lumber/Pallets		1.9%	
Other Wood		3.1%	
TEXTILES	3.7%	3.8%	3.5%
Textiles	3.7%	2.1%	
Carpet/Rugs/Leather		1.7%	
Textiles			N/A
Carpet/rugs			N/A
DIAPERS	2.0%	4.4%	1.4%
Diapers	2.0%	4.4%	1.4%
MISCELLANEOUS			22.1%
Miscellaneous			22.1%
OTHER ORGANIC	5.3%	8.6%	N/A
Miscellaneous Organics	5.3%	8.6%	N/A
OTHER INORGANIC	1.0%	6.4%	N/A
Miscellaneous Non-organics	1.0%	6.4%	N/A
OTHER	2.3%		N/A
Other Waste	2.3%		N/A
CONSTRUCTION & DEMOLITION	4.3%		
Roofing	4.3%		
TOTAL PERCENT	**100%**	**100%**	**100%**

[1] Sort conducted at the Union County Landfill in 1996.
[2] Two season sort (October 1994 and June 1995) conducted for the Carroll County Solid Waste Management Commission.
[3] Sort conducted in 1996 for the Metro Waste Authority.

As is evident above, many of the material categories for the various studies were not necessarily compatible. Moreover, the methodology varied from one study to another. These differences in methodologies may account for the large range between the three studies for the percent of food waste. As a result, because R. W. Beck was only intimately familiar with the Bluestem waste composition study, we selected the results of the Bluestem study methodology to be aggregated with the waste characterization field sorts to develop a statewide waste

characterization. However, the results of the other studies are provided for reference.

AGGREGATE DATA

The results of the waste characterization field sorts for each of the individual sites provide the baseline for aggregating the data to develop a statewide waste characterization. The mean percentages for each of the categories at each of the sites were weighted based upon the quantities of materials actually disposed at each site. The average weekly tonnages for each site were calculated per reported facility data. This information is depicted below.

WEEKLY MSW TONNAGE DATA	
SERVICE AREAS	QUANTITIES (TONS)
Des Moines	855
Floyd-Mitchell	405
Iowa City	1356
Monona County	88
South Central	995
Bluestem	2,480

The mean percentages for each of the material categories were weighted by the quantities of materials received at each site. For example, the non-weighted mean percentage for ONP was 7.7% in Monona and represents the largest percent for the six sites. However, because Monona represents the facility receiving the least quantity of materials for disposal, the statewide ONP percent is lower than 7.7%.

The table below illustrates the results of the waste characterization field sorts, the statewide MSW and solid waste characterizations, and site characterizations for individual sites. The MSW and Solid Waste Iowa Statewide characterizations were formulated by weighting the statewide sorting results as described above to reflect the proportion of materials projected for disposal at each of the representative sites.

TABLE 2
IOWA STATE-WIDE WASTE COMPOSITION
(PERCENTAGES FOR SAMPLED SITES)

	Iowa Statewide			South Central	Floyd-Mitchell	Iowa City	Des Moines	Monona	Bluestem
	IDNR Sort Results [1]	MSW [2]	Solid Waste [3,7]	MSW [2]					
PAPER	32.2%	35.1%	25.8%	29.3%	34.0%	32.2%	28.9%	43.1%	42.7%
Newspaper	3.3%	4.1%	3.0%	4.0%	1.9%	3.3%	2.1%	7.7%	5.7%
Magazines	2.5%	2.6%	1.9%	2.4%	1.5%	3.0%	1.8%	5.5%	2.9%
High Grade/ Office [5]	2.3%	2.2%	1.8%	2.3%	1.5%	2.6%	1.9%	4.2%	
OCC and Kraft Bags	8.5%	9.4%	7.1%	6.7%	12.2%	6.2%	8.0%	10.7%	12.7%
Mixed Recyc Paper [6]	5.4%	5.2%	2.2%	4.6%	5.4%	5.7%	4.9%	8.0%	
Other Non- Recyclable Paper	10.3%	10.5%	7.6%	9.4%	11.5%	11.3%	10.2%	6.9%	11.0%
PLASTIC	14.4%	11.1%	11.1%	19.0%	12.4%	15.1%	12.9%	9.6%	15.6%
#1 PET Containers	0.2%	0.3%	0.2%	0.2%	0.2%	0.3%	0.2%	0.3%	0.4%
#1 PET Deposit [5]	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.3%	
#2 HDPE Containers	1.0%	1.0%	0.7%	0.8%	1.3%	1.0%	0.9%	1.2%	1.2%
All Other Numbered Containers [5]	0.8%	0.7%	0.6%	0.5%	1.4%	0.8%	0.7%	0.5%	
Other Plastic Not Numbered	7.5%	7.7%	5.6%	11.5%	4.9%	7.8%	7.5%	3.4%	7.1%
Film/Wrap/Bags	4.8%	5.7%	4.2%	6.0%	4.5%	5.2%	3.5%	4.0%	7.1%
METAL	6.0%	5.1%	4.1%	5.9%	7.5%	5.0%	5.8%	5.7%	4.4%
Alum Non-Deposit Beverage Containers	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%	0.1%	0.2%
Alum Deposit Beverage Containers [5]	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.3%	
Ferrous Food	1.7%	0.8%	0.8%	1.0%	3.6%	0.9%	1.1%	2.0%	0.9%
Other Ferrous Scrap	3.4%	2.8%	2.8%	4.1%	2.6%	3.5%	3.7%	2.8%	2.8%
Other Non-Ferrous Scrap	0.7%	0.4%	0.4%	0.7%	1.2%	0.4%	0.7%	0.5%	0.5%

TABLE 2
IOWA STATE-WIDE WASTE COMPOSITION
(PERCENTAGES FOR SAMPLED SITES)

	Iowa Statewide			South Central	Floyd-Mitchell	Iowa City	Des Moines	Monona	Bluestem
	IDNR Sort Results [1]	MSW [2]	Solid Waste [3,7]	MSW [2]					
GLASS	2.6%	2.4%	1.7%	3.9%	1.8%	2.6%	2.4%	1.8%	2.0%
Clear	1.0%	0.8%	0.8%	0.9%	1.0%	1.1%	1.0%	1.0%	1.4%
Green	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
Blue [5]	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Brown	0.2%	0.1%	0.1%	0.0%	0.3%	0.1%	0.2%	0.2%	0.1%
Deposit Glass Containers [5]	0.3%	0.3%	0.3%	0.1%	0.0%	0.9%	0.1%	0.3%	
Other/ Mixed Cullet	1.1%	0.5%	0.5%	2.9%	0.4%	0.5%	1.1%	0.2%	0.3%
HHM	0.8%	0.7%	0.5%	0.5%	1.1%	0.6%	0.7%	1.4%	0.9%
Automotive Products	0.3%	0.3%	0.2%	0.2%	0.4%	0.1%	0.3%	0.6%	0.5%
Paints and Solvents	0.2%	0.1%	0.1%	0.2%	0.3%	0.0%	0.2%	0.4%	0.1%
Pesticides, Herbicides & Fungicides	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Household Cleaners	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%
Batteries (lead -acid)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Batteries (other)	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
Other (HHM containers w/product inside)	0.1%	0.2%	0.1%	0.1%	0.1%	0.3%	0.0%	0.1%	0.2%
YARD WASTE	1.7%	1.8%	1.3%	0.7%	1.5%	2.3%	1.4%	3.7%	2.2%
Yard Waste	1.3%	1.6%	1.2%	0.6%	1.5%	1.7%	1.3%	1.1%	2.2%
Pumpkins [5]	0.4%	0.3%	0.3%	0.0%	0.0%	0.7%	0.1%	2.6%	
FOOD WASTE	10.7%	10.3%	7.4%	6.2%	14.6%	13.0%	8.1%	10.6%	10.9%
Food Waste	10.7%	10.3%	7.4%	6.2%	14.6%	13.0%	8.1%	10.6%	10.9%
WOOD	6.4%	7.1%	9.4%	8.1%	3.1%	5.9%	10.5%	2.6%	7.3%
Non-Treated Wood [5]	2.8%	3.1%	2.4%	4.5%	1.2%	2.2%	4.0%	1.4%	
Treated Wood [5]	3.6%	4.0%	3.1%	3.7%	1.9%	3.7%	6.5%	1.2%	
DURABLES	3.8%	2.8%	2.1%	4.4%	2.8%	2.9%	6.2%	4.0%	0.9%
All Electrical and Household Appl.	1.6%	1.3%	1.0%	1.5%	1.6%	1.4%	2.0%	1.4%	0.9%
Other Durables [5]	2.2%	2.5%	2.0%	2.9%	1.2%	1.5%	4.1%	2.6%	

TABLE 2
IOWA STATE-WIDE WASTE COMPOSITION
(PERCENTAGES FOR SAMPLED SITES)

	Iowa Statewide			South Central	Floyd-Mitchell	Iowa City	Des Moines	Monona	Bluestem
	IDNR Sort Results [1]	MSW [2]	Solid Waste [3,7]	MSW [2]					
TEXTILES	4.2%	3.3%	2.4%	4.2%	3.7%	4.1%	4.9%	4.1%	2.1%
Textiles and Leather	4.2%	3.3%	2.4%	4.2%	3.7%	4.1%	4.9%	4.1%	2.1%
DIAPERS	2.3%	2.1%	1.5%	1.8%	2.6%	2.4%	2.3%	2.8%	1.9%
Diapers	2.3%	2.1%	1.5%	1.8%	2.6%	2.4%	2.3%	2.8%	1.9%
RUBBER	0.8%	0.7%	0.5%	0.5%	0.8%	0.5%	1.4%	1.0%	0.6%
Rubber	0.8%	0.7%	0.5%	0.5%	0.8%	0.5%	1.4%	1.0%	0.6%
OTHER ORGANIC	1.7%	2.4%	1.7%	0.9%	2.3%	1.9%	1.9%	1.3%	3.6%
Other Organic	1.7%	2.4%	1.7%	0.9%	2.3%	1.9%	1.9%	1.3%	3.6%
OTHER INORGANIC	1.7%	1.8%	1.3%	2.0%	0.7%	2.1%	2.7%	0.6%	1.6%
Other Inorganic	1.7%	1.8%	1.3%	2.0%	0.7%	2.1%	2.7%	0.6%	1.6%
FINES/SUPERMIX [5]	5.2%	4.6%	3.6%	4.4%	7.0%	4.5%	3.9%	6.9%	
Fines/ Supermix	5.2%	4.6%	3.6%	4.4%	7.0%	4.5%	3.9%	6.9%	
INFECTIOUS WASTE [5]	0.7%	0.2%	0.6%	2.1%	0.4%	0.2%	0.2%	0.2%	
Infectious Waste	0.7%	0.2%	0.6%	2.1%	0.4%	0.2%	0.2%	0.2%	
CONSTRUCTION & DEMOLITION	4.8%	4.4%	16.0%	6.1%	3.5%	4.8%	6.7%	0.7%	3.3%
C&D	4.8%	4.4%	16.0%	6.1%	3.5%	4.8%	6.7%	0.7%	3.3%
SPECIAL WASTE			10.7%						
Special Waste			10.7%						

1. Represents average results from sorts at the five sites included in the IDNR Waste Characterization Study.
2. MSW includes only the residential, ICI, and mixed generator type results. Represents average percentages for all six sites weighted by the tonnage received at each of the six sites during the week of each sort.
3. Solid waste includes C&D and special wastes as well as the MSW. Represents average numbers for all six sites weighted by the tonnage received at each of the six sites during the week of each sort.
4. Sort at Bluestem Solid Waste Agency conducted in 1996 as a separate project.
5. Sort at the Bluestem Solid Waste Agency did not include these categories. Therefore the Iowa Statewide MSW and Solid Waste numbers were calculated based on a weighted average of only five sites for these two categories.
6. The numbers for mixed paper were not included for the Bluestem Solid Waste Agency because in that sort, the category was defined differently from the IDNR sort. In the Bluestem sort, mixed paper included high grade/office paper.
7. The sum of the subcategories may not equal the category total because several of the subcategories are based on the weighted average of the five sites, rather than six sites.

SOLID WASTE CHARACTERIZATION

Because of the IDNR goal to target recoverable materials, a characterization of all solid waste landfilled, including materials not subject to the state landfill surcharge, was formulated. To develop this characterization, individual site solid waste characterizations were aggregated and weighted by the tonnages received at each of the individual sites. The total solid waste tonnages received at each site were calculated using facility data quantifying materials landfilled, including construction and demolition materials and special wastes. If necessary, volumetric data was converted to tonnage data. The table below depicts the results of this approach.

TABLE 3
1998 IOWA STATEWIDE SOLID WASTE CHARACTERIZATION [1]

	PERCENTAGES
PAPER	25.8%
Newspaper	3.0%
Magazines	1.9%
High Grade/ Office	1.8%
OCC and Kraft Bags	7.1%
Mixed Recyc Paper	2.2%
Other Non- Recyclable Paper	7.6%
PLASTIC	11.1%
#1 PET Containers	0.2%
#1 PET Deposit	0.1%
#2 HDPE Containers	0.7%
All Other Numbered Containers	0.6%
Other Plastic Not Numbered	5.6%
Film/Wrap/Bags	4.2%
METAL	4.1%
Alum Non-Deposit Beverage Containers	0.1%
Alum Deposit Beverage Containers	0.1%
Ferrous Food	0.8%
Other Ferrous Scrap	2.8%
Other Non-Ferrous Scrap	0.4%
GLASS	1.7%
Clear	0.8%
Green	0.1%
Blue	0.0%
Brown	0.1%
Deposit Glass Containers	0.3%
Other/ Mixed Cullet	0.5%

TABLE 3
1998 IOWA STATEWIDE SOLID WASTE CHARACTERIZATION [1]

	PERCENTAGES
HHM	0.5%
Automotive Products	0.2%
Paints and Solvents	0.1%
Pesticides, Herbicides & Fungicides	0.0%
Household Cleaners	0.0%
Batteries (lead -acid)	0.0%
Batteries (other)	0.0%
Other (HHM containers w/product inside)	0.1%
YARD WASTE	1.3%
Yard Waste	1.2%
Pumpkins	0.3%
FOOD WASTE	7.4%
Food Waste	7.4%
WOOD	9.4%
Non-Treated Wood	2.4%
Treated Wood	3.1%
DURABLES	2.1%
All Electrical and Household Appl.	1.0%
Other Durables	2.0%
TEXTILES	2.4%
Textiles and Leather	2.4%
DIAPERS	1.5%
Diapers	1.5%
RUBBER	0.5%
Rubber	0.5%
OTHER ORGANIC	1.7%
Other Organic	1.7%
OTHER INORGANIC	1.3%
Other Inorganic	1.3%
FINES/SUPERMIX	3.6%
Fines/ Supermix	3.6%
INFECTIOUS WASTE	0.6%
Infectious Waste	0.6%
CONSTRUCTION & DEMOLITION	16.0%
C&D	16.0%
SPECIAL WASTE	10.7%
Special Waste	10.7%
TOTAL	100.0%

(1) Calculated using weighted percentages from selected solid waste composition studies.
(2) Numbers may not sum due to rounding.

APPLICATION OF DISPOSAL TONNAGES

The IDNR gathers landfill tonnage disposal information quarterly from solid waste disposal facilities on a statewide basis as a result of the statutory landfill tonnage fee. Based upon information reported by the IDNR for Fiscal Year 1998 (i.e., July 1997 -- June 1998), the estimated quantities of MSW disposed was approximately 2,204,000 tons. This estimate was calculated using actual reported quantities for the first three quarters of FY 1998 (1,653,000) and assuming an average of the first three quarters for the final quarter (551,000) of FY 1998. This estimate excludes materials not subject to the state landfill surcharge including fly ash, petroleum contaminated soils, salvaged materials, and C&D landfilled separately from MSW. For purposes of this study, we have assumed that the FY 1998 solid waste landfill disposal estimate of 2,204,000 tons is equivalent to the MSW definition used in the Study

The FY 1998 tonnage information was applied to the statewide waste characterization percentages from Table 2 for the individual materials to estimate the total quantities of individual materials disposed. The table below depicts these results.

TABLE 4
1998 IOWA STATEWIDE MSW CHARACTERIZATION [1]

	PERCENTAGES[2]	TONNAGES
PAPER	35.1%	774,593
Newspaper	4.1%	90,642
Magazines	2.6%	57,394
High Grade/ Office	2.2%	48,965
OCC and Kraft Bags	9.4%	207,789
Mixed Recyc Paper	5.2%	115,591
Other Non- Recyclable Paper	10.5%	231,006
PLASTIC	15.1%	333,168
#1 PET Containers	0.3%	6,438
#1 PET Deposit	0.1%	3,039
#2 HDPE Containers	1.0%	22,590
All Other Numbered Containers	0.7%	15,619
Other Plastic Not Numbered	7.7%	169,513
Film/Wrap/Bags	5.7%	125,196
METAL	5.1%	112,414
Alum Non-Deposit Beverage Containers	0.1%	2,252
Alum Deposit Beverage Containers	0.1%	2,860
Ferrous Food	1.1%	24,888
Other Ferrous Scrap	3.2%	70,682
Other Non-Ferrous Scrap	0.6%	12,879
GLASS	2.4%	53,652
Clear	1.1%	24,827
Green	0.1%	1,355
Blue	0.0%	108

TABLE 4
1998 IOWA STATEWIDE MSW CHARACTERIZATION [1]

	PERCENTAGES[2]	TONNAGES
Brown	0.1%	2,575
Deposit Glass Containers	0.4%	8,808
Other/ Mixed Cullet	0.8%	18,688
HHM	0.7%	16,472
Automotive Products	0.3%	7,132
Paints and Solvents	0.1%	2,797
Pesticides, Herbicides & Fungicides	0.0%	258
Household Cleaners	0.0%	600
Batteries (lead -acid)	0.0%	885
Batteries (other)	0.0%	952
Other (HHM containers w/product inside)	0.2%	3,489
YARD WASTE	1.8%	40,029
Yard Waste	1.6%	35,621
Pumpkins	0.3%	7,364
FOOD WASTE	10.3%	226,597
Food Waste	10.3%	226,597
WOOD	7.1%	156,494
Non-Treated Wood	3.1%	67,231
Treated Wood	4.0%	88,155
DURABLES	2.8%	60,468
All Electrical and Household Appl.	1.3%	28,433
Other Durables	2.5%	53,513
TEXTILES	3.3%	73,669
Textiles and Leather	3.3%	73,669
DIAPERS	2.1%	45,739
Diapers	2.1%	45,739
RUBBER	0.7%	15,002
Rubber	0.7%	15,002
OTHER ORGANIC	2.4%	52,867
Other Organic	2.4%	52,867
OTHER INORGANIC	1.8%	39,928
Other Inorganic	1.8%	39,928
FINES/SUPERMIX	4.6%	100,873
Fines/ Supermix	4.6%	101,493
INFECTIOUS WASTE	0.2%	3,391
Infectious Waste	0.2%	3,391
CONSTRUCTION & DEMOLITION	4.4%	98,058
C&D	4.4%	98,058
TOTAL	**100.0%**	**2,203,848**

(1) Calculated using weighted percentages from selected waste composition studies and FY 1998 reported disposal tonnages.

(2) Numbers may not sum due to rounding.

COMPARISON OF WASTE CHARACTERIZATIONS

To measure the changes in the Iowa solid waste stream over time, the 1998 Iowa statewide characterization can be compared to available previous characterization information. In 1990, the IDNR completed a statewide characterization using existing primary data. The results of the 1990 characterization are depicted below along with the 1998 statewide characterization.

TABLE 5
COMPARISON OF IOWA STATEWIDE MSW CHARACTERIZATION

	1990 [1]		1998 [2]	
	PERCENTAGES [2]	TONNAGES	PERCENTAGES [2]	TONNAGES
PAPER	37.2%	824,235	35.1%	774,593
Newspaper			4.1%	90,642
Magazines			2.6%	57,394
High Grade/ Office			2.2%	48,965
OCC and Kraft Bags			9.4%	207,789
Mixed Recyc Paper			5.2%	115,591
Other Non- Recyclable Paper			10.5%	231,006
PLASTIC	6.9%	151,833	15.1%	333,168
#1 PET Containers			0.3%	6,438
#1 PET Deposit			0.1%	3,039
#2 HDPE Containers			1.0%	22,590
All Other Numbered Containers			0.7%	15,619
Other Plastic Not Numbered			7.7%	169,513
Film/Wrap/Bags			5.7%	125,196
METAL	6.4%	140,988	5.1%	112,414
Alum Non-Deposit Beverage Containers			0.1%	2,252
Alum Deposit Beverage Containers			0.1%	2,860
Ferrous Food			1.1%	24,888
Other Ferrous Scrap			3.2%	70,682
Other Non-Ferrous Scrap			0.6%	12,879
GLASS	4.9%	108,452	2.4%	53,652
Clear			1.1%	24,827
Green			0.1%	1,355
Blue			0.0%	108
Brown			0.1%	2,575
Deposit Glass Containers			0.4%	8,808
Other/ Mixed Cullet			0.8%	18,688
HHM			0.7%	16,472
Automotive Products			0.3%	7,132
Paints and Solvents			0.1%	2,797
Pesticides, Herbicides & Fungicides			0.0%	258
Household Cleaners			0.0%	600
Batteries (lead -acid)			0.0%	885
Batteries (other)			0.0%	952
Other (HHM containers w/product inside)			0.2%	3,489
YARD WASTE	19.2%	425,132	1.8%	40,029
Yard Waste			1.6%	35,621
Pumpkins			0.3%	7,364

TABLE 5
COMPARISON OF IOWA STATEWIDE MSW CHARACTERIZATION

	1990 [1]		1998 [3]	
	PERCENTAGES [2]	TONNAGES	PERCENTAGES [2]	TONNAGES
FOOD WASTE	7.8%	173,523	10.3%	226,597
Food Waste			10.3%	226,597
WOOD	3.9%	86,762	7.1%	156,494
Non-Treated Wood			3.1%	67,231
Treated Wood			4.0%	88,155
DURABLES			2.8%	60,468
All Electrical and Household Appl.	NA	NA	1.3%	28,433
Other Durables			2.5%	53,513
RUBBER, TEXTILES AND LEATHER	5.9%	130,142	4.0%	88,671
Textiles and Leather			3.3%	73,669
Rubber			0.7%	15,002
DIAPERS			2.1%	45,739
Diapers	NA	NA	2.1%	45,739
OTHER	7.8%	173,526	4.2%	92,795
Other Organic			2.4%	52,867
Other Inorganic			1.8%	39,928
FINES/SUPERMIX			4.6%	101,493
Fines/ Supermix	NA	NA	4.6%	101,493
INFECTIOUS WASTE			0.2%	3,391
Infectious Waste	NA	NA	0.2%	3,391
CONSTRUCTION & DEMOLITION			4.4%	98,058
C&D	NA	NA	4.4%	98,058
TOTAL	**100.0%**	**2,215,567**	**100%**	**2,203,848**

(1) Percentages and tonnages from Iowa's Solid Waste Stream Characterization and Management Strategy, IDNR 1990.

(2) Numbers may not add due to rounding.

(3) Calculated per field sorts, existing studies, and IDNR reported disposal tonnage.

IDENTIFICATION OF MATERIALS FOR ADDITIONAL RECOVERY

Upon review of the Iowa Statewide Characterization, several materials continue to be disposed which are recyclable and/or compostable. The opportunities for diversion include the following:

- Paper - OCC and mixed recyclable paper compose more than 14% of the MSW stream. Some of the OCC may be contaminated and not recyclable.
- Plastic - "Other plastic" and "film/wrap/bags" categories compose more than 13% of the MSW stream. Further research on the subcategories composing

these material categories should be conducted to assess the recyclability of these plastic materials.

- Food Waste - Food waste composes more than 10% of the MSW. If this material can be source separated to minimize contamination, the potential exists for food waste to be composted and diverted from disposal.
- Wood and Textiles - These two materials each present moderate opportunities for recovery. Non-treated wood composes 3.1% and textiles composes 3.3% of the MSW stream.
- Construction and Demolition - C&D composes 4.4% of the MSW stream and 16.0% of the overall solid waste stream. Further evaluation of these materials should be conducted to identify the materials recovery opportunities.

SECTION 3

METHODOLOGY FOR CHARACTERIZING THE WASTE STREAMS FOR NON-PARTICIPATING SOLID WASTE FACILITIES

Pursuant to the agreement between the Iowa Department of Natural Resources ("IDNR") and R. W. Beck Inc. (R. W. Beck), R. W. Beck is to prepare a methodology for characterizing the solid waste streams for facilities located within Iowa that did not participate in the Iowa Waste Characterization Study (the "Study"). As part of the Study, sorts were conducted at five solid waste facilities within the state. The service areas were selected for sampling because they represented communities with a wide range of characteristics such as population, employment sectors and availability of curbside recycling.

Our discussion of the methodology is divided into the following sections:

- Objective
- Variables Impacting the Solid Waste Stream
- Description of Methodology
- Application of Methodology
- Results
- Conclusions

OBJECTIVE

The objective of this task is to develop a methodology that can be used following the completion of the Study to characterize the waste streams for non-participating facilities in Iowa. The methodology provides the following:

- Formulates a flexible tool with which to characterize the waste streams of non-participating facilities in the State of Iowa;
- Reflects the results of the *Iowa Waste Characterization Study, 1998* (the "Study") prepared by R. W. Beck, 1998;
- Allows for an adjustment of the waste characterization based upon key demographic and program characteristics;
- Provides results for a sample non-participating Iowa facility.

VARIABLES IMPACTING THE SOLID WASTE STREAM

The proposed methodology used to project solid waste disposal trends is a planning tool only and is not likely to be as accurate as an actual field sort. Several variables may impact waste composition. For example, recycling and other waste reduction measures will impact the quantities of recyclables being disposed of in the solid waste stream.

Overall, some variables and trends which are likely to impact the composition of the waste stream include:

- Local and regional economic trends;
- Local tipping fees;
- Urban versus rural population distribution;
- Waste diversion program effectiveness;
- Total and type of industrial employment; and
- Population demographics.

In spite of the fact that there are many variables which may impact the composition of the waste stream at different facilities, it is plausible to characterize the waste streams for non-participating service areas. Such projections, at a minimum, will allow the individual service areas to estimate the total amount of materials by material type disposed and to assist in developing programs for increasing diversion.

DESCRIPTION OF METHODOLOGY

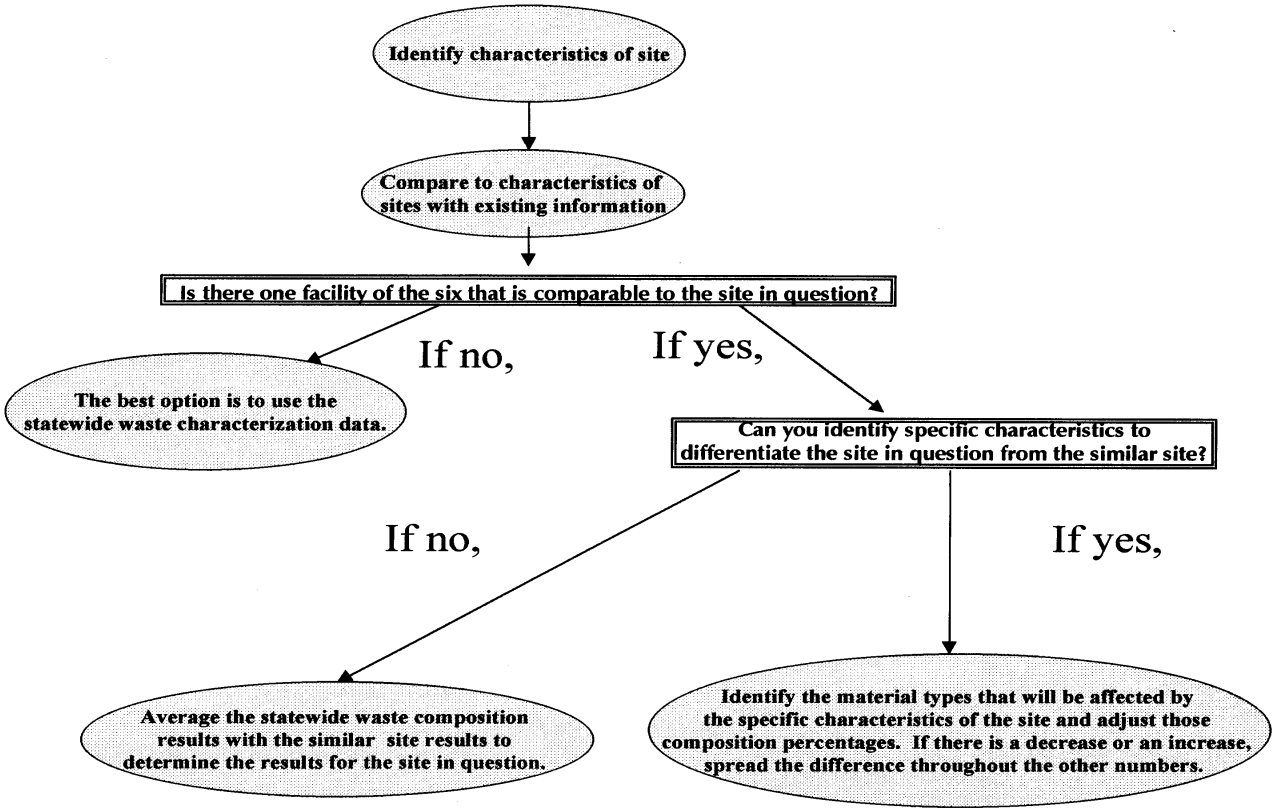
GENERAL METHODOLOGY

The proposed methodology is based on three potential approaches. The selection of a specific approach will depend on the specific characteristics of the selected service area and available information. The three approaches include the following:

- The first approach is to utilize the waste composition percentages developed in the statewide characterization and apply those percentages to the tonnages for the particular service area.
- The second approach is to select a service area from the waste composition study that is similar to the service area in question and average the waste composition percentages of the similar service area with the statewide results.

- The third approach is to select the service area that is most similar to the service area in question and to identify the specific characteristics of the service area in question that will make it dissimilar from the selected service area. Using the specific characteristics of the service area in question, the waste composition percentages would then be adjusted to reflect the specific waste characterization for the selected service area.

This methodology is illustrated in the following flow diagram.



BACKGROUND INFORMATION FOR THE METHODOLOGY

The solid waste disposal and transfer facilities in the State were categorized by the IDNR into groups based on the following categories:

- Single county versus multi-county service area;
- Urban versus rural population distribution;
- Per capita landfill tonnage; and
- Curbside recycling availability.

For the Study, at least one service area was selected from each group. In addition to the five service areas in the Study, we have also included the results for the Bluestem Solid Waste Agency. R. W. Beck recently conducted a waste characterization study for Bluestem as a separate project and the results are compatible with the Study results.

Several key variables were selected to illustrate the differences between the given service areas. These key variables are the following:

- **Curbside Recycling Availability** – This variable represents the percentage of the population that has curbside recyclable materials collection available to them.
- **Extent of Urbanization** – This factor represents the percentage of the total population that resides in urban areas. In this instance, urban is defined as persons in towns or cities of 2,500 or larger or persons within urbanized areas, as defined by the Census Bureau for standard statistical purposes.
- **Employment to Population Ratio** – This ratio is calculated by dividing the total employment by the total population in the representative county(ies). The total employment is reported on a place-of-work basis. This means that it includes the number of employees that work in the particular county(ies), regardless of where they live.[1] This factor is important because it represents an alternative measure of urbanization for a particular community. A higher ratio indicates a concentration of ICI generators which is likely to result in greater waste generation.
- **Percent of Total Employment by Sector** – This factor provides information related to the types of jobs that exist in the particular county(ies). This information is provided in several categories per the U.S. Department of Commerce. For the purpose of this project, several of these categories have been combined to simplify the comparisons between service areas.

The characteristics of each of the service areas based on the key variables are illustrated in the table below.

TABLE 1
CHARACTERISTICS OF PARTICIPATING SERVICE AREAS

Key Variables	Group 1: South Central Iowa[1]	Group 2: Floyd-Mitchell[2]	Group 3: Des Moines	Group 3: Iowa City[3]	Group 4: Monona	Group 5: Bluestem Agency[4]
Curbside Recycling Availability Percent (%)[5]	46	41	75	80	0	17
Extent of Urbanization (%)[6]	51	39	71	77	29	83
Employment to Population Ratio[7]	58	51	62	68	49	67
Percent of Employment by Sector (%)[8]						
Farm Employment	13.7	17.7	3.3	2.5	22.3	1.7
Natural Resources(Agricultural Service, forestry, fishing, mining)	1.3	1.9	0.6	0.9	2.7	0.9
Construction	5.1	3.9	4.9	3.6	2.9	5.2
Manufacturing	15.8	15.2	25.1	7.2	4.0	19.8
Transportation and Public utilities	4.2	3.2	6.5	2.6	3.6	5.8
Trade (wholesale and retail)	21.7	19.2	22.5	18.3	20.1	22.3
Finance, insurance and real estate	4.9	4.1	4.3	4.5	4.5	6.7
Services	21.2	21.8	22.5	22.2	25.1	27.4
Government	12.3	13.2	10.3	38.1	14.8	10.3

[1] South Central Iowa Solid Waste Agency consists of the following counties: Lucas, Marion, Monroe and Poweshiek. To calculate the key variables for this group, the data for each county were averaged together.

[2] Floyd-Mitchell consists of two counties: Floyd and Mitchell. To calculate the key variables for this group, the data for each county were average together.

[3] Data for Johnson County was representative of Iowa City.

[4] Data for Linn County was representative of the Bluestem Solid Waste Agency. The "Curbside Recycling Availability" factor for the Bluestem Solid Waste Agency was calculated by R. W. Beck.

[5] Source: Iowa Department of Natural Resources.

[6] Source: 1990 U.S. Census.

[7] Calculated by R. W. Beck by dividing the total employment (Source: U.S. Department of Commerce Bureau of Economic Analysis' Regional Economic Information System) by the total population in the representative county(ies) (Source: U.S. Department of Commerce: Economic and Statistics Administration, Bureau of the Census).

[8] Calculated by R. W. Beck. Numbers may not add up to 100 percent due to rounding. Source: U.S. Department of Commerce Bureau of Economic Analysis' Regional Economic Information System.

The following tables illustrate the waste composition results for each of the six service areas.

TABLE 2
MSW AND SOLID WASTE COMPOSITION PERCENTAGES FOR SAMPLED SITES

	South Central		Floyd-Mitchell		Iowa City		Des Moines		Monona		Bluestem[1]	
PAPER	**29.3%**		**34.0%**		**32.2%**		**28.9%**		**43.1%**		**42.7%**	
Newspaper		4.0%		1.9%		3.3%		2.1%		7.7%		5.7%
Magazines		2.4%		1.5%		3.0%		1.8%		5.5%		2.9%
High Grade/ Office		2.3%		1.5%		2.6%		1.9%		4.2%		
OCC and Kraft Bags		6.7%		12.2%		6.2%		8.0%		10.7%		12.7%
Mixed Recyc Paper		4.6%		5.4%		5.7%		4.9%		8.0%		
Other Non- Recyclable Paper		9.4%		11.5%		11.3%		10.2%		6.9%		11.0%
PLASTIC	**19.0%**		**12.4%**		**15.1%**		**12.9%**		**9.6%**		**15.6%**	
#1 PET Containers		0.2%		0.2%		0.3%		0.2%		0.3%		0.4%
#1 PET Deposit [5]		0.1%		0.1%		0.2%		0.2%		0.3%		
#2 HDPE Containers		0.8%		1.3%		1.0%		0.9%		1.2%		1.2%
All Other Numbered Containers		0.5%		1.4%		0.8%		0.7%		0.5%		
Other Plastic Not Numbered		11.5%		4.9%		7.8%		7.5%		3.4%		7.1%
Film/Wrap/Bags		6.0%		4.5%		5.2%		3.5%		4.0%		7.1%
METAL	**5.9%**		**7.5%**		**5.0%**		**5.8%**		**5.7%**		**4.4%**	
Alum Non-Deposit Beverage Containers		0.0%		0.1%		0.0%		0.1%		0.1%		0.2%
Alum Deposit Beverage Containers		0.1%		0.1%		0.1%		0.2%		0.3%		
Ferrous Food		1.0%		3.6%		0.9%		1.1%		2.0%		0.9%
Other Ferrous Scrap		4.1%		2.6%		3.5%		3.7%		2.8%		2.8%
Other Non-Ferrous Scrap		0.7%		1.2%		0.4%		0.7%		0.5%		0.5%
GLASS	**3.9%**		**1.8%**		**2.6%**		**2.4%**		**1.8%**		**2.0%**	
Clear		0.9%		1.0%		1.1%		1.0%		1.0%		1.4%
Green		0.0%		0.1%		0.0%		0.0%		0.1%		0.1%
Blue		0.0%		0.0%		0.0%		0.0%		0.0%		
Brown		0.0%		0.3%		0.1%		0.2%		0.2%		0.1%
Deposit Glass Containers		0.1%		0.0%		0.9%		0.1%		0.3%		
Other/ Mixed Cullet		2.9%		0.4%		0.5%		1.1%		0.2%		0.3%
HM	**0.5%**		**1.1%**		**0.6%**		**0.7%**		**1.4%**		**0.9%**	
Automotive Products		0.2%		0.4%		0.1%		0.3%		0.6%		0.5%
Paints and Solvents		0.2%		0.3%		0.0%		0.2%		0.4%		0.1%
Pesticides, Herbicides & Fungicides		0.0%		0.0%		0.0%		0.0%		0.1%		0.0%
Household Cleaners		0.0%		0.1%		0.1%		0.0%		0.1%		0.0%
Batteries (lead -acid)		0.0%		0.0%		0.0%		0.0%		0.0%		0.1%
Batteries (other)		0.1%		0.1%		0.1%		0.1%		0.1%		0.0%
Other (HHM containers w/product inside)		0.1%		0.1%		0.3%		0.0%		0.1%		0.2%

TABLE 2
MSW AND SOLID WASTE COMPOSITION PERCENTAGES FOR SAMPLED SITES

	South Central	Floyd-Mitchell	Iowa City	Des Moines	Monona	Bluestem[1]
YARD WASTE	**0.7%**	**1.5%**	**2.3%**	**1.4%**	**3.7%**	**2.2%**
Yard Waste	0.6%	1.5%	1.7%	1.3%	1.1%	2.2%
Pumpkins	0.0%	0.0%	0.7%	0.1%	2.6%	
FOOD WASTE	**6.2%**	**14.6%**	**13.0%**	**8.1%**	**10.6%**	**10.9%**
Food Waste	6.2%	14.6%	13.0%	8.1%	10.6%	10.9%
WOOD	**8.1%**	**3.1%**	**5.9%**	**10.5%**	**2.6%**	**7.3%**
Non-Treated Wood	4.5%	1.2%	2.2%	4.0%	1.4%	
Treated Wood	3.7%	1.9%	3.7%	6.5%	1.2%	
DURABLES	**4.4%**	**2.8%**	**2.9%**	**6.2%**	**4.0%**	**0.9%**
All Electrical and Household Appl.	1.5%	1.6%	1.4%	2.0%	1.4%	0.9%
Other Durables	2.9%	1.2%	1.5%	4.1%	2.6%	
TEXTILES	**4.2%**	**3.7%**	**4.1%**	**4.9%**	**4.1%**	**2.1%**
Textiles and Leather	4.2%	3.7%	4.1%	4.9%	4.1%	2.1%
DIAPERS	**1.8%**	**2.6%**	**2.4%**	**2.3%**	**2.8%**	**1.9%**
Diapers	1.8%	2.6%	2.4%	2.3%	2.8%	1.9%
RUBBER	**0.5%**	**0.8%**	**0.5%**	**1.4%**	**1.0%**	**0.6%**
Rubber	0.5%	0.8%	0.5%	1.4%	1.0%	0.6%
OTHER ORGANIC	**0.9%**	**2.3%**	**1.9%**	**1.9%**	**1.3%**	**3.6%**
Other Organic	0.9%	2.3%	1.9%	1.9%	1.3%	3.6%
OTHER INORGANIC	**2.0%**	**0.7%**	**2.1%**	**2.7%**	**0.6%**	**1.6%**
Other Inorganic	2.0%	0.7%	2.1%	2.7%	0.6%	1.6%
FINES/SUPERMIX	**4.4%**	**7.0%**	**4.5%**	**3.9%**	**6.9%**	
Fines/ Supermix	4.4%	7.0%	4.5%	3.9%	6.9%	
INFECTIOUS WASTE	**2.1%**	**0.4%**	**0.2%**	**0.2%**	**0.2%**	
Infectious Waste	2.1%	0.4%	0.2%	0.2%	0.2%	
CONSTRUCTION & DEMOLITION	**6.1%**	**3.5%**	**4.8%**	**6.7%**	**0.7%**	**3.3%**
C&D	6.1%	3.5%	4.8%	6.7%	0.7%	3.3%

(1) Sort at Bluestem Solid Waste Agency conducted in 1996 as a separate project.

APPLICATION OF METHODOLOGY

To illustrate the use of this methodology, we projected the waste stream characterization for a sample community that we will call "Community X." The application of this methodology will clarify both the approach and anticipated results.

The characteristics of Community X are the following:

- 79 percent curbside recycling availability;
- 82 percent urban;
- Community X disposes of 40,000 tons of sold waste per year;
- Headquarters for a large pet food manufacturing facility that disposes of 650 tons of organic byproducts per year; and
- Largest city in county and county seat.

To apply the methodology we completed the following:

1. Identified the characteristics of Community X as listed above.

2. Compared the characteristics of Community X with the six service areas in Table 1. We identified Iowa City as the service area most similar to Community X. The table below depicts their similar characteristics.

TABLE 3
COMMUNITY X COMPARISON

SERVICE AREA CHARACTERISTICS	IOWA CITY	COMMUNITY X
Curbside Recycling Availability (%)	80	79
Extent of Urbanization (%)	77	82
Percent of Employment by Sector	38.1% employed in government.	Large proportion of residents employed in government.

Community X has a dog food manufacturing plant that has a large amount of industrial byproducts from their processing activities. These byproducts are mainly grain meals. The facility has been discussing a use for these byproducts, but has not yet developed a program.

The byproducts that are currently discarded will result in an increase in the organic category in the waste composition percentages. We are aware that the dog food manufacturing plant disposes of 650 tons of organics by products per

year and the total waste disposal in the community is 40,000 tons per year. This represents 1.6 percent of the waste stream.

As a result, 1.6 percent was added to the organics category in the waste characterization data for Iowa City. Since this percentage was added to one material category, the other categories must be adjusted to equal 100%. To disperse the 1.6 percent proportionally among the 16 categories, first, 1.6 is multiplied by the percentage for each category. For example, in the Iowa City results (see Table 2), paper constitutes 32.2 percent of the waste stream. Therefore 1.6 multiplied by 32.2 percent yields 0.515. This value is subtracted from the 32.2 percent to yield 31.7 percent to represent the adjusted paper percent for Community X. Each category is adjusted similarly based upon the individual proportion of the overall waste stream. The complete results are illustrated in the following section.

RESULTS

The resulting waste composition percentages for Community X are shown in the following table.

TABLE 4
SAMPLE COMMUNITY RESULTS

CATEGORY	COMMUNITY X MSW COMPOSITION	IOWA CITY MSW COMPOSITION
Paper	31.7%	32.2%
Plastic	14.9%	15.1%
Metal	4.9%	5.0%
Glass	2.6%	2.6%
HHW	0.6%	0.6%
Yard Waste	2.3%	2.3%
Food Waste	12.8%	13.0%
Wood	5.8%	5.9%
Durables	2.9%	2.9%
Textiles	4.0%	4.1%
Diapers	2.4%	2.4%
Rubber	0.5%	0.5%
Other Organic	3.5%	1.9%
Other Inorganic	2.1%	2.1%
Fines/Supermix	4.4%	4.5%
Infectious Waste	0.2%	0.2%
Construction and Demolition	4.7%	4.8%

CONCLUSIONS

The proposed methodology for characterizing the waste streams for non-participating solid waste facilities is information driven. The more specific demographic and program information available for a specific service area, the more the state-wide characterization can be tailored to local circumstances. Yet, the various approaches provide flexibility in developing individual waste characterizations when specific information is limited.

Overall, the proposed methodology should be considered a planning tool. An actual field sort is likely to provide more representative information. The percentages of materials by category should be applied to per capita disposal and/or total disposal tonnages to further measure waste reduction and recycling program effectiveness.

Appendix

Waste Sort Categories

Waste Sort Categories used in Iowa's state-wide sort project, 1997 - 1998.

PAPER	
Newsprint	Black and white newspaper news print including other paper normally distributed inside a newspaper such as colored advertisements, comics, fliers, tabloids.
Magazines	All magazines plus promotional materials printed on slick paper.
High Grade Office	High grade continuos form computer paper, white paper including bond, photocopy or notebook paper and colored ledger paper primarily from offices.
OCC and Kraft Bags	Uncoated cardboard boxes with a wavy core and not contaminated with other materials such as a wax or plastic coating wood. Includes brown paper bags.
Mixed Recyclable Paper	Box board - Uncoated; primarily used for boxes (such as cereal boxes and egg cartons), envelopes with and without windows, toilet paper cores and other mixed recyclable paper. Includes books
Non-Recyclable Paper	Paper products including waxed, plastic, or metal coated paper, napkins, paper towels, frozen food packaging, tissues, paper plates and cups, and pizza boxes
PLASTICS	
#1 PET Containers	Clear, plastic containers coded #1.
#1 PET Containers (Deposit)	Clear, plastic containers coded #1 with an Iowa deposit label.
#2 HDPE Containers	Plastic containers such as milk jugs, shampoo bottles, and laundry detergent bottles coded #2.
Other Plastic Containers	**Plastic Containers coded #3, #4, #5, #6, #7.**
Other Plastic Products	End-user products including molded toys, extruded pipes and hoses, clothes hangers, cleaning tools and razors.
Film/Wrap/Bags	Trash bags, grocery bags, storage bags, sheet film plastic.
METALS	
Aluminum Non-Deposit Beverage Containers	All beverage containers made from aluminum without an Iowa deposit label.
Aluminum Deposit Beverage Containers	All beverage containers made from aluminum with an Iowa deposit label.
Ferrous Food and Beverage	Food and beverage containers composed primarily of containers iron.

Other Ferrous Metals	Ferrous metal besides containers, including clothes hangers, sheet metal products, pipes, miscellaneous metal scraps, and other magnetic metal items.
Other Non-Ferrous Scrap	Other aluminum scrap besides beverage containers. Also includes other non-ferrous metal scrap such as brass, copper, or other non-magnetic metal.
GLASS	Note: All wine, liquor, and beer containers are subject to the Iowa bottle deposit. Out-of-state imports may comprise the non-deposit glass category.
Clear Glass	All clear glass food, beverage, wine, liquor and beer containers.
Green Glass	All green glass food, beverage, wine, liquor and beer containers.
Blue Glass	All blue glass food, beverage, wine, liquor and beer containers.
Brown Glass	All brown glass food, beverage, wine, liquor and beer containers.
Glass Deposit Containers	All clear, green, blue and brown glass food, beverage, wine, liquor and beer containers with an Iowa Deposit label.
Other Mixed Cullet	Glass items other than food and beverage containers Includes ceramics, drinking glasses, glass plates, cooking utensils, ash trays, mirrors, or perfume bottles.
Yard Waste	Debris such as grass clippings, leaves, garden waste, brush, and trees. Yard waste does include tree stumps.
Food Waste	Food preparation wastes, food scraps, spoiled food.
Pumpkins	Seasonal item during fall sorts.
WOOD	
Non-Treated	Pallets, crates, and wood not defined below as treated.
Treated	Wood that is painted, stained, treated for exterior use, or glued such as plywood.
Demolition/Renovation/ Construction Debris	Waste building materials including, metals, and rubble which result from construction or demolition of structures. Such waste shall also include carpets, rugs, bricks, mortar, shingles, and drywall. Wood should be sorted into the wood categories.
DURABLES	
Electrical and Household Appliances	TV's, toaster, stereos, other small appliances and electronic equipment.
Other Durables	Household furniture and matresses.
Textiles and Leathers	Clothing and apparel, shop rags, blankets, shoes, leather products such as wallets, purses, belts and scrap leather.
Diapers	Adult or infant disposalbe diapers, clean or soiled.
Rubber	Rubber tubing, mats, hose, tires and some shoes.

HHM'S	Substances categorized by the U.S. Environmental Protection Agency (EPA) as: Corrosive , destroy human tissue or corrode metal; flammable, easily ignitable; toxic, poisonous; reactive, react violently when exposed to heat, sudden shock, pressure or other chemicals.
Automotive Products	
Paints and Solvent	
Pesticides, Herbicides, Fungicides	
Household Cleaners	
Lead Acid Batteries	
Other Batteries	
Other HHM	
Light Bulbs	Fluorescent, incandescent, and HID
Sharps	Hypodermic needles.
Other Organic	Organic materials not classified as part of the other organic material categories.
Other Inorganic	Inorganic materials not classified as part of the other inorganic material categories.
Other	Please specify.

APPENDIX B

TWO-SEASONED COMBINED RESULTS

IOWA - ALL LOCATIONS
MSW Composition
Residential - Spring and Fall

Sample Size =	113	loads
Total Wt Sorted =	25,208	pounds
Avg Wt per Sample =	223	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**28.9%**		**26.2%**	**31.7%**
Newspaper		4.2%	3.5%	4.9%
Magazines		3.2%	2.7%	3.7%
High Grade/ Office		1.8%	1.4%	2.1%
OCC and Kraft Bags		4.1%	3.5%	4.8%
Mixed Recyc Paper		6.1%	5.4%	6.9%
Other Non- Recyc Paper		9.6%	8.4%	10.8%
PLASTIC	**10.4%**		**9.3%**	**11.4%**
#1 PET Containers		0.3%	0.2%	0.4%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		0.9%	0.8%	1.0%
All Other Numbered Containers		0.7%	0.6%	0.9%
Other Plastic Not Numbered		4.4%	3.8%	5.0%
Film/Wrap/Bags		3.9%	3.4%	4.5%
METAL	**7.2%**		**6.1%**	**8.3%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.1%
Alum Deposit Beverage Containers		0.2%	0.1%	0.2%
Ferrous Food		1.3%	1.1%	1.6%
Other Ferrous Scrap		4.6%	3.6%	5.7%
Other Non-Ferrous Scrap		1.0%	0.8%	1.3%
GLASS	**2.5%**		**2.2%**	**2.9%**
Clear		1.4%	1.2%	1.7%
Green		0.1%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.2%	0.3%
Deposit Glass Containers		0.4%	0.3%	0.5%
Other/ Mixed Cullet		0.4%	0.3%	0.5%
HHM	**0.8%**		**0.7%**	**1.0%**
Automotive Products		0.3%	0.2%	0.4%
Paints and Solvents		0.2%	0.1%	0.2%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.2%
YARD WASTE	**2.9%**		**2.1%**	**3.7%**
Yard Waste		1.9%	1.4%	2.5%
Pumpkins		0.9%	0.6%	1.3%
FOOD WASTE	**10.8%**		**9.2%**	**12.4%**
Food Waste		10.8%	9.2%	12.4%
WOOD	**6.4%**		**4.8%**	**8.1%**
Non-Treated Wood		1.4%	1.0%	1.8%
Treated Wood		5.0%	3.7%	6.5%
DURABLES	**6.4%**		**4.7%**	**8.4%**
All Electrical and Household Appl.		2.3%	1.7%	3.0%
Other Durables		4.1%	2.8%	5.7%
TEXTILES	**5.5%**		**4.6%**	**6.4%**
Textiles and Leather		5.5%	4.6%	6.4%
DIAPERS	**3.7%**		**3.0%**	**4.5%**
Diapers		3.7%	3.0%	4.5%
RUBBER	**0.7%**		**0.5%**	**0.9%**
Rubber		0.7%	0.5%	0.9%
OTHER ORGANIC	**1.8%**		**1.4%**	**2.3%**
Other Organic		1.8%	1.4%	2.3%
OTHER INORGANIC	**1.9%**		**1.4%**	**2.4%**
Other Inorganic		1.9%	1.4%	2.4%
FINES/SUPERMIX	**5.8%**		**5.0%**	**6.6%**
Fines/ Supermix		5.8%	5.0%	6.6%
INFECTIOUS WASTE	**0.4%**		**0.3%**	**0.6%**
Infectious Waste		0.4%	0.3%	0.6%
CONSTRUCTION & DEMOLITION	**4.0%**		**2.9%**	**5.3%**
C&D		4.0%	2.9%	5.3%
TOTAL PERCENT	**100.0%**			

IOWA - ALL LOCATIONS
MSW Composition
Commercial - Spring and Fall

Sample Size =	161	loads
Total Wt Sorted =	37,569	pounds
Avg Wt per Sample =	233	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**32.4%**		**28.8%**	**36.1%**
Newspaper		1.5%	1.1%	1.8%
Magazines		1.2%	0.9%	1.5%
High Grade/ Office		1.9%	1.5%	2.3%
OCC and Kraft Bags		13.2%	11.0%	15.5%
Mixed Recyc Paper		4.0%	3.2%	4.8%
Other Non- Recyc Paper		10.7%	8.7%	12.8%
PLASTIC	**18.5%**		**15.5%**	**21.7%**
#1 PET Containers		0.2%	0.1%	0.2%
#1 PET Deposit		0.1%	0.1%	0.1%
#2 HDPE Containers		1.1%	0.8%	1.3%
All Other Numbered Containers		1.1%	0.8%	1.4%
Other Plastic Not Numbered		11.5%	9.0%	14.2%
Film/Wrap/Bags		4.6%	3.8%	5.5%
METAL	**5.4%**		**4.3%**	**6.5%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		2.0%	1.5%	2.6%
Other Ferrous Scrap		2.4%	1.8%	3.1%
Other Non-Ferrous Scrap		0.7%	0.5%	0.9%
GLASS	**3.2%**		**2.3%**	**4.3%**
Clear		0.6%	0.4%	0.7%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.1%	0.2%
Deposit Glass Containers		0.3%	0.2%	0.4%
Other/ Mixed Cullet		2.3%	1.5%	3.1%
HHM	**0.8%**		**0.6%**	**1.0%**
Automotive Products		0.3%	0.2%	0.3%
Paints and Solvents		0.3%	0.2%	0.3%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.0%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.2%
YARD WASTE	**0.8%**		**0.6%**	**1.1%**
Yard Waste		0.8%	0.5%	1.0%
Pumpkins		0.1%	0.0%	0.1%
FOOD WASTE	**10.2%**		**8.2%**	**12.5%**
Food Waste		10.2%	8.2%	12.5%
WOOD	**8.5%**		**6.5%**	**10.7%**
Non-Treated Wood		4.7%	3.5%	6.1%
Treated Wood		3.8%	2.7%	5.0%
DURABLES	**2.6%**		**1.8%**	**3.6%**
All Electrical and Household Appl.		1.3%	0.9%	1.7%
Other Durables		1.4%	0.9%	1.9%
TEXTILES	**2.5%**		**1.9%**	**3.2%**
Textiles and Leather		2.5%	1.9%	3.2%
DIAPERS	**0.8%**		**0.6%**	**1.0%**
Diapers		0.8%	0.6%	1.0%
RUBBER	**1.0%**		**0.8%**	**1.4%**
Rubber		1.0%	0.8%	1.4%
OTHER ORGANIC	**1.7%**		**1.2%**	**2.2%**
Other Organic		1.7%	1.2%	2.2%
OTHER INORGANIC	**1.9%**		**1.2%**	**2.6%**
Other Inorganic		1.9%	1.2%	2.6%
FINES/SUPERMIX	**2.9%**		**2.2%**	**3.5%**
Fines/ Supermix		2.9%	2.3%	3.6%
INFECTIOUS WASTE	**0.8%**		**0.6%**	**1.1%**
Infectious Waste		0.8%	0.6%	1.1%
CONSTRUCTION & DEMOLITION	**6.1%**		**4.4%**	**8.2%**
C&D		6.1%	4.4%	8.2%
TOTAL PERCENT	**100.0%**			

IOWA - ALL LOCATIONS
MSW Composition
Mixed - Spring and Fall

Sample Size =	150	loads
Total Wt Sorted =	33,819	pounds
Avg Wt per Sample =	225	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**34.7%**		**32.4%**	**36.9%**
Newspaper		4.5%	3.9%	5.2%
Magazines		3.4%	2.9%	3.9%
High Grade/ Office		3.0%	2.5%	3.6%
OCC and Kraft Bags		6.9%	6.1%	7.7%
Mixed Recyc Paper		6.4%	5.8%	7.1%
Other Non- Recyc Paper		10.4%	9.4%	11.4%
PLASTIC	**13.1%**		**12.2%**	**14.0%**
#1 PET Containers		0.3%	0.2%	0.3%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		1.0%	0.9%	1.2%
All Other Numbered Containers		0.6%	0.5%	0.7%
Other Plastic Not Numbered		5.5%	5.0%	6.1%
Film/Wrap/Bags		5.6%	5.0%	6.1%
METAL	**5.9%**		**5.2%**	**6.6%**
Alum Non-Deposit Beverage Containers		0.1%	0.1%	0.1%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		1.7%	1.4%	1.9%
Other Ferrous Scrap		3.5%	2.9%	4.1%
Other Non-Ferrous Scrap		0.6%	0.4%	0.7%
GLASS	**2.0%**		**1.7%**	**2.2%**
Clear		1.1%	0.9%	1.2%
Green		0.1%	0.1%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.1%	0.2%
Deposit Glass Containers		0.3%	0.2%	0.4%
Other/ Mixed Cullet		0.3%	0.3%	0.4%
HHM	**0.8%**		**0.7%**	**1.0%**
Automotive Products		0.3%	0.2%	0.4%
Paints and Solvents		0.2%	0.1%	0.2%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.2%
YARD WASTE	**1.8%**		**1.3%**	**2.2%**
Yard Waste		1.4%	1.0%	1.7%
Pumpkins		0.4%	0.3%	0.6%
FOOD WASTE	**11.1%**		**9.7%**	**12.5%**
Food Waste		11.1%	9.7%	12.5%
WOOD	**4.0%**		**3.2%**	**4.9%**
Non-Treated Wood		1.7%	1.3%	2.2%
Treated Wood		2.3%	1.8%	2.9%
DURABLES	**3.1%**		**2.4%**	**4.0%**
All Electrical and Household Appl.		1.5%	1.1%	1.9%
Other Durables		1.7%	1.2%	2.3%
TEXTILES	**5.2%**		**4.4%**	**6.0%**
Textiles and Leather		5.2%	4.4%	6.1%
DIAPERS	**3.0%**		**2.4%**	**3.6%**
Diapers		3.0%	2.4%	3.6%
RUBBER	**0.6%**		**0.5%**	**0.8%**
Rubber		0.6%	0.5%	0.8%
OTHER ORGANIC	**1.7%**		**1.3%**	**2.0%**
Other Organic		1.7%	1.3%	2.0%
OTHER INORGANIC	**1.5%**		**1.1%**	**1.9%**
Other Inorganic		1.5%	1.1%	1.9%
FINES/SUPERMIX	**7.1%**		**6.1%**	**8.0%**
Fines/ Supermix		7.1%	6.2%	8.1%
INFECTIOUS WASTE	**0.7%**		**0.5%**	**1.0%**
Infectious Waste		0.7%	0.5%	1.0%
CONSTRUCTION & DEMOLITION	**4.0%**		**3.0%**	**5.1%**
C&D		4.0%	3.0%	5.1%
TOTAL PERCENT	**100.0%**			

IOWA - ALL LOCATIONS
MSW Composition
Combined - Spring and Fall

Sample Size =	424	loads
Total Wt Sorted =	96,597	pounds
Avg Wt per Sample =	228	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**32.2%**		**30.5%**	**34.0%**
Newspaper		3.3%	2.9%	3.6%
Magazines		2.5%	2.2%	2.8%
High Grade/ Office		2.3%	2.0%	2.5%
OCC and Kraft Bags		8.5%	7.7%	9.4%
Mixed Recyc Paper		5.4%	5.0%	5.9%
Other Non- Recyc Paper		10.3%	9.4%	11.2%
PLASTIC	**14.4%**		**13.3%**	**15.6%**
#1 PET Containers		0.2%	0.2%	0.3%
#1 PET Deposit		0.1%	0.1%	0.2%
#2 HDPE Containers		1.0%	0.9%	1.1%
All Other Numbered Containers		0.8%	0.7%	0.9%
Other Plastic Not Numbered		7.5%	6.7%	8.4%
Film/Wrap/Bags		4.8%	4.3%	5.2%
METAL	**6.0%**		**5.5%**	**6.6%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		1.7%	1.5%	1.9%
Other Ferrous Scrap		3.4%	3.0%	3.8%
Other Non-Ferrous Scrap		0.7%	0.6%	0.8%
GLASS	**2.6%**		**2.2%**	**2.9%**
Clear		1.0%	0.9%	1.1%
Green		0.1%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.2%
Deposit Glass Containers		0.3%	0.3%	0.4%
Other/ Mixed Cullet		1.1%	0.9%	1.3%
HHM	**0.8%**		**0.7%**	**0.9%**
Automotive Products		0.3%	0.2%	0.3%
Paints and Solvents		0.2%	0.2%	0.2%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.1%
YARD WASTE	**1.7%**		**1.4%**	**2.0%**
Yard Waste		1.3%	1.1%	1.5%
Pumpkins		0.4%	0.3%	0.5%
FOOD WASTE	**10.7%**		**9.6%**	**11.8%**
Food Waste		10.7%	9.6%	11.8%
WOOD	**6.4%**		**5.5%**	**7.3%**
Non-Treated Wood		2.8%	2.3%	3.2%
Treated Wood		3.6%	3.0%	4.2%
DURABLES	**3.8%**		**3.2%**	**4.5%**
All Electrical and Household Appl.		1.6%	1.3%	1.9%
Other Durables		2.2%	1.8%	2.7%
TEXTILES	**4.2%**		**3.7%**	**4.7%**
Textiles and Leather		4.2%	3.7%	4.7%
DIAPERS	**2.3%**		**2.0%**	**2.7%**
Diapers		2.3%	2.0%	2.7%
RUBBER	**0.8%**		**0.7%**	**0.9%**
Rubber		0.8%	0.7%	0.9%
OTHER ORGANIC	**1.7%**		**1.5%**	**2.0%**
Other Organic		1.7%	1.5%	2.0%
OTHER INORGANIC	**1.7%**		**1.4%**	**2.1%**
Other Inorganic		1.7%	1.4%	2.1%
FINES/SUPERMIX	**5.2%**		**4.6%**	**5.6%**
Fines/ Supermix		5.2%	4.7%	5.7%
INFECTIOUS WASTE	**0.7%**		**0.5%**	**0.8%**
Infectious Waste		0.7%	0.5%	0.8%
CONSTRUCTION & DEMOLITION	**4.8%**		**4.0%**	**5.7%**
C&D		4.8%	4.0%	5.7%
TOTAL PERCENT	**100.0%**			

IOWA - ALL LOCATIONS
Solid Waste Composition
Spring and Fall

Sample Size =	423	loads
Total Wt Sorted =	96,370	pounds
Avg Wt per Sample	228	pounds

WASTE CATEGORIES Material	Mean Percentage
PAPER	**24.3%**
Newspaper	2.4%
Magazines	1.9%
High Grade/ Office	1.8%
OCC and Kraft Bags	5.9%
Mixed Recyc Paper	4.1%
Other Non- Recyc Paper	8.2%
PLASTIC	**14.0%**
#1 PET Containers	0.2%
#1 PET Deposit	0.1%
#2 HDPE Containers	0.8%
All Other Numbered Containers	0.6%
Other Plastic Not Numbered	8.5%
Film/Wrap/Bags	3.9%
METAL	**4.4%**
Alum Non-Deposit Beverage Containers	0.0%
Alum Deposit Beverage Containers	0.1%
Ferrous Food	1.0%
Other Ferrous Scrap	2.8%
Other Non-Ferrous Scrap	0.4%
GLASS	**2.2%**
Clear	0.8%
Green	0.0%
Blue	0.0%
Brown	0.1%
Deposit Glass Containers	0.3%
Other/ Mixed Cullet	1.0%
HHM	**0.5%**
Automotive Products	0.2%
Paints and Solvents	0.1%
Pesticides, Herbicides & Fungicides	0.0%
Household Cleaners	0.0%
Batteries (lead -acid)	0.0%
Batteries (other)	0.1%
Other (HHM containers w/prod inside)	0.0%
YARD WASTE	**1.3%**
Yard Waste	1.0%
Pumpkins	0.3%
FOOD WASTE	**5.9%**
Food Waste	5.9%
WOOD	**5.3%**
Non-Treated Wood	2.1%
Treated Wood	3.2%
DURABLES	**3.3%**
All Electrical and Household Appl.	1.3%
Other Durables	2.0%
TEXTILES	**3.4%**
Textiles and Leather	3.4%
DIAPERS	**2.1%**
Diapers	2.1%
RUBBER	**0.6%**
Rubber	0.6%
OTHER ORGANIC	**1.3%**
Other Organic	1.3%
OTHER INORGANIC	**1.6%**
Other Inorganic	1.6%
FINES/SUPERMIX	**3.6%**
Fines/ Supermix	3.6%
INFECTIOUS WASTE	**0.1%**
Infectious Waste	0.1%
CONSTRUCTION & DEMOLITION	**23.9%**
C&D	23.9%
SPECIAL WASTES	**2.3%**
Special Wastes	2.3%
TOTAL PERCENT	**100.0%**

ALL LOCATIONS
Solid Waste Composition
Fall 1997

Sample Size =	212	loads
Total Wt Sorted =	49,319	pounds
Avg Wt per Sample =	233	pounds
Est Tons Disposed/Week =	4,675	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**25.5%**		**1,191**	
Newspaper		2.9%		137
Magazines		2.2%		101
High Grade/ Office		1.5%		71
OCC and Kraft Bags		6.2%		290
Mixed Recyc Paper		4.0%		187
Other Non- Recyc Paper		8.7%		405
PLASTIC	**9.3%**		**436**	
#1 PET Containers		0.1%		7
#1 PET Deposit		0.1%		4
#2 HDPE Containers		0.6%		27
All Other Numbered Containers		0.3%		14
Other Plastic Not Numbered		5.3%		248
Film/Wrap/Bags		2.9%		137
METAL	**4.6%**		**214**	
Alum Non-Deposit Beverage Containers		0.0%		2
Alum Deposit Beverage Containers		0.1%		4
Ferrous Food		1.8%		84
Other Ferrous Scrap		2.1%		96
Other Non-Ferrous Scrap		0.6%		28
GLASS	**1.9%**		**91**	
Clear		0.7%		35
Green		0.0%		1
Blue		0.0%		0
Brown		0.1%		7
Deposit Glass Containers		0.2%		8
Other/ Mixed Cullet		0.8%		40
HHM	**0.6%**		**28**	
Automotive Products		0.2%		8
Paints and Solvents		0.2%		8
Pesticides, Herbicides & Fungicides		0.0%		1
Household Cleaners		0.0%		2
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.1%		2
Other (HHM containers w/prod inside)		0.1%		4
YARD WASTE	**1.4%**		**67**	
Yard Waste		0.8%		39
Pumpkins		0.6%		28
FOOD WASTE	**8.6%**		**402**	
Food Waste		8.6%		402
WOOD	**4.7%**		**218**	
Non-Treated Wood		1.6%		77
Treated Wood		3.0%		141
DURABLES	**1.9%**		**88**	
All Electrical and Household Appl.		0.9%		41
Other Durables		1.0%		47
TEXTILES	**2.4%**		**111**	
Textiles and Leather		2.4%		111
DIAPERS	**2.1%**		**98**	
Diapers		2.1%		98
RUBBER	**0.4%**		**18**	
Rubber		0.4%		18
OTHER ORGANIC	**1.4%**		**64**	
Other Organic		1.4%		64
OTHER INORGANIC	**1.5%**		**70**	
Other Inorganic		1.5%		70
FINES/SUPERMIX	**4.5%**		**209**	
Fines/ Supermix		4.5%		209
INFECTIOUS WASTE	**0.6%**		**26**	
Infectious Waste		0.6%		26
CONSTRUCTION & DEMOLITION	**26.0%**		**1,216**	
C&D		26.0%		1,216
SPECIAL WASTES	**2.2%**		**102**	
Special Wastes		2.2%		102
TOTAL PERCENT	**100.0%**			

All Locations
Solid Waste Composition
Spring 1998

Sample Size =	212	loads
Total Wt Sorted =	47,278	pounds
Avg Wt per Sample =	223	pounds
Est Tons Disposed/Week =	4,868	tons/week

WASTE CATEGORIES Material	Mean Percentage	Estimated Tons per Material
PAPER	**23.5%**	**1,142**
Newspaper	1.9%	93
Magazines	1.7%	81
High Grade/ Office	1.9%	93
OCC and Kraft Bags	6.5%	314
Mixed Recyc Paper	4.2%	205
Other Non- Recyc Paper	7.3%	356
PLASTIC	**13.6%**	**660**
#1 PET Containers	0.2%	9
#1 PET Deposit	0.1%	6
#2 HDPE Containers	0.9%	43
All Other Numbered Containers	0.8%	41
Other Plastic Not Numbered	6.9%	336
Film/Wrap/Bags	4.6%	225
METAL	**4.7%**	**230**
Alum Non-Deposit Beverage Containers	0.0%	1
Alum Deposit Beverage Containers	0.1%	6
Ferrous Food	0.8%	39
Other Ferrous Scrap	3.3%	161
Other Non-Ferrous Scrap	0.5%	23
GLASS	**2.2%**	**106**
Clear	0.7%	36
Green	0.0%	1
Blue	0.0%	0
Brown	0.1%	4
Deposit Glass Containers	0.4%	19
Other/ Mixed Cullet	0.9%	46
HHM	**0.5%**	**25**
Automotive Products	0.2%	10
Paints and Solvents	0.1%	5
Pesticides, Herbicides & Fungicides	0.0%	0
Household Cleaners	0.0%	1
Batteries (lead -acid)	0.0%	0
Batteries (other)	0.0%	2
Other (HHM containers w/prod inside)	0.1%	6
Light Bulbs	0.0%	1
YARD WASTE	**1.2%**	**60**
Yard Waste	1.2%	57
Pumpkins	0.1%	3
FOOD WASTE	**7.3%**	**353**
Food Waste	7.3%	353
WOOD	**5.8%**	**280**
Non-Treated Wood	3.1%	152
Treated Wood	2.6%	128
DURABLES	**4.5%**	**221**
All Electrical and Household Appl.	1.5%	73
Other Durables	3.0%	148
TEXTILES	**4.5%**	**217**
Textiles and Leather	4.5%	217
DIAPERS	**1.5%**	**72**
Diapers	1.5%	72
RUBBER	**0.8%**	**41**
Rubber	0.8%	41
OTHER ORGANIC	**1.3%**	**63**
Other Organic	1.3%	63
OTHER INORGANIC	**1.4%**	**68**
Other Inorganic	1.4%	68
FINES/SUPERMIX	**3.1%**	**151**
Fines/ Supermix	3.1%	151
OTHER	**0.5%**	**26**
Other	0.5%	26
CONSTRUCTION & DEMOLITION	**21.3%**	**1,037**
C&D	21.3%	1,037
SPECIAL WASTES	**2.4%**	**116**
Special Wastes	2.4%	116
TOTAL PERCENT	**100.0%**	

DES MOINES COUNTY
MSW Composition
Residential - Spring and Fall

Sample Size =	34	loads
Total Wt Sorted =	7,764	pounds
Avg Wt per Sample =	228	pounds

WASTE CATEGORIES Material	Mean Percentage	90% Confidence Interval (%) Lower	 Upper
PAPER	**30.2%**	**25.5%**	**35.1%**
Newspaper	3.7%	2.6%	4.9%
Magazines	2.9%	2.1%	3.8%
High Grade/ Office	1.3%	0.8%	2.0%
OCC and Kraft Bags	4.4%	3.1%	5.8%
Mixed Recyc Paper	6.6%	5.1%	8.4%
Other Non- Recyc Paper	11.3%	9.0%	13.9%
PLASTIC	**11.5%**	**9.7%**	**13.4%**
#1 PET Containers	0.4%	0.2%	0.5%
#1 PET Deposit	0.2%	0.2%	0.3%
#2 HDPE Containers	1.1%	0.8%	1.4%
All Other Numbered Containers	0.9%	0.6%	1.3%
Other Plastic Not Numbered	4.7%	3.7%	5.8%
Film/Wrap/Bags	4.2%	3.1%	5.5%
METAL	**6.2%**	**4.9%**	**7.7%**
Alum Non-Deposit Beverage Containers	0.1%	0.1%	0.2%
Alum Deposit Beverage Containers	0.2%	0.1%	0.2%
Ferrous Food	1.5%	1.1%	2.0%
Other Ferrous Scrap	3.7%	2.3%	5.4%
Other Non-Ferrous Scrap	0.8%	0.5%	1.1%
GLASS	**2.3%**	**1.7%**	**3.0%**
Clear	1.7%	1.2%	2.2%
Green	0.1%	0.0%	0.1%
Blue	0.0%	0.0%	0.0%
Brown	0.3%	0.2%	0.4%
Deposit Glass Containers	0.3%	0.1%	0.5%
Other/ Mixed Cullet	0.1%	0.0%	0.2%
HHM	**0.7%**	**0.5%**	**1.0%**
Automotive Products	0.3%	0.1%	0.5%
Paints and Solvents	0.1%	0.0%	0.1%
Pesticides, Herbicides & Fungicides	0.0%	0.0%	0.0%
Household Cleaners	0.1%	0.0%	0.1%
Batteries (lead -acid)	0.0%	0.0%	0.0%
Batteries (other)	0.2%	0.1%	0.2%
Other (HHM containers w/prod inside)	0.1%	0.0%	0.1%
YARD WASTE	**1.6%**	**0.9%**	**2.4%**
Yard Waste	1.6%	0.9%	2.4%
Pumpkins	0.0%	0.0%	0.0%
FOOD WASTE	**10.7%**	**7.9%**	**13.7%**
Food Waste	10.7%	7.9%	13.7%
WOOD	**5.6%**	**3.2%**	**8.6%**
Non-Treated Wood	1.1%	0.6%	1.8%
Treated Wood	4.5%	2.4%	7.2%
DURABLES	**6.9%**	**3.6%**	**11.2%**
All Electrical and Household Appl.	2.1%	1.2%	3.3%
Other Durables	4.8%	2.0%	8.7%
TEXTILES	**9.2%**	**6.7%**	**11.9%**
Textiles and Leather	9.2%	6.7%	11.9%
DIAPERS	**4.3%**	**3.0%**	**5.9%**
Diapers	4.3%	3.0%	5.9%
RUBBER	**0.2%**	**0.1%**	**0.4%**
Rubber	0.2%	0.1%	0.4%
OTHER ORGANIC	**1.5%**	**0.8%**	**2.4%**
Other Organic	1.5%	0.8%	2.4%
OTHER INORGANIC	**0.7%**	**0.3%**	**1.1%**
Other Inorganic	0.7%	0.3%	1.1%
FINES/SUPERMIX	**6.6%**	**4.8%**	**8.5%**
Fines/ Supermix	6.6%	4.8%	8.5%
OTHER	**0.2%**	**0.1%**	**0.4%**
Other	0.2%	0.1%	0.4%
CONSTRUCTION & DEMOLITION	**3.0%**	**1.4%**	**5.1%**
C&D	3.0%	1.4%	5.1%
TOTAL PERCENT	**100.0%**		

DES MOINES COUNTY
MSW Composition
Commercial - Spring and Fall

Sample Size =	39	loads
Total Wt Sorted =	8,839	pounds
Avg Wt per Sample =	227	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**27.0%**		**20.0%**	**34.6%**
Newspaper		0.8%	0.5%	1.3%
Magazines		0.9%	0.4%	1.4%
High Grade/ Office		2.1%	1.2%	3.1%
OCC and Kraft Bags		11.1%	7.4%	15.3%
Mixed Recyc Paper		3.4%	2.2%	4.7%
Other Non- Recyc Paper		8.9%	5.6%	12.8%
PLASTIC	**15.0%**		**10.2%**	**20.5%**
#1 PET Containers		0.1%	0.1%	0.2%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		0.7%	0.4%	1.1%
All Other Numbered Containers		0.5%	0.3%	0.8%
Other Plastic Not Numbered		10.7%	6.5%	15.8%
Film/Wrap/Bags		2.8%	1.8%	4.0%
METAL	**4.5%**		**3.1%**	**6.1%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.1%
Alum Deposit Beverage Containers		0.3%	0.1%	0.4%
Ferrous Food		0.7%	0.4%	1.0%
Other Ferrous Scrap		3.0%	1.7%	4.5%
Other Non-Ferrous Scrap		0.6%	0.3%	0.9%
GLASS	**2.9%**		**1.4%**	**4.9%**
Clear		0.4%	0.2%	0.6%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.1%	0.2%
Deposit Glass Containers		0.1%	0.0%	0.1%
Other/ Mixed Cullet		2.3%	0.9%	4.3%
HHM	**0.7%**		**0.4%**	**1.1%**
Automotive Products		0.3%	0.1%	0.5%
Paints and Solvents		0.3%	0.1%	0.5%
Pesticides, Herbicides & Fungicides		0.1%	0.0%	0.1%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.0%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**1.3%**		**0.6%**	**2.3%**
Yard Waste		1.3%	0.6%	2.3%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**7.0%**		**3.9%**	**10.8%**
Food Waste		7.0%	3.9%	10.8%
WOOD	**15.1%**		**9.4%**	**21.9%**
Non-Treated Wood		7.1%	4.0%	11.0%
Treated Wood		8.1%	4.3%	12.8%
DURABLES	**2.1%**		**0.9%**	**3.6%**
All Electrical and Household Appl.		1.1%	0.5%	2.0%
Other Durables		0.9%	0.4%	1.7%
TEXTILES	**1.7%**		**1.0%**	**2.6%**
Textiles and Leather		1.7%	1.0%	2.6%
DIAPERS	**0.6%**		**0.3%**	**0.9%**
Diapers		0.6%	0.3%	0.9%
RUBBER	**2.2%**		**1.0%**	**3.8%**
Rubber		2.2%	1.0%	3.8%
OTHER ORGANIC	**2.0%**		**0.9%**	**3.5%**
Other Organic		2.0%	0.9%	3.5%
OTHER INORGANIC	**5.3%**		**2.0%**	**10.0%**
Other Inorganic		5.3%	2.0%	10.0%
FINES/SUPERMIX	**1.8%**		**1.0%**	**2.7%**
Fines/ Supermix		1.8%	1.1%	2.8%
OTHER	**0.2%**		**0.1%**	**0.3%**
Other		0.2%	0.1%	0.3%
CONSTRUCTION & DEMOLITION	**10.8%**		**5.1%**	**18.3%**
C&D		10.8%	5.1%	18.3%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
MSW Composition
Mixed - Spring and Fall

Sample Size =	12	loads
Total Wt Sorted =	2,761	pounds
Avg Wt per Sample =	230	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**31.1%**		**16.2%**	**48.4%**
Newspaper		2.0%	0.8%	3.7%
Magazines		1.8%	0.7%	3.4%
High Grade/ Office		3.1%	0.9%	6.6%
OCC and Kraft Bags		8.1%	4.2%	13.2%
Mixed Recyc Paper		4.9%	2.1%	8.8%
Other Non- Recyc Paper		11.3%	4.6%	20.3%
PLASTIC	**9.9%**		**6.4%**	**14.1%**
#1 PET Containers		0.2%	0.0%	0.3%
#1 PET Deposit		0.1%	0.0%	0.2%
#2 HDPE Containers		0.9%	0.4%	1.8%
All Other Numbered Containers		0.4%	0.1%	0.8%
Other Plastic Not Numbered		4.9%	2.9%	7.5%
Film/Wrap/Bags		3.5%	1.4%	6.3%
METAL	**8.7%**		**4.6%**	**14.1%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.2%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		1.5%	0.6%	2.8%
Other Ferrous Scrap		6.1%	2.3%	11.4%
Other Non-Ferrous Scrap		1.0%	0.3%	2.3%
GLASS	**1.2%**		**0.4%**	**2.3%**
Clear		0.8%	0.3%	1.7%
Green		0.1%	0.0%	0.2%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.5%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.0%	0.0%	0.0%
HHM	**0.6%**		**0.2%**	**1.1%**
Automotive Products		0.2%	0.0%	0.3%
Paints and Solvents		0.3%	0.0%	0.7%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.1%
YARD WASTE	**1.2%**		**0.2%**	**2.9%**
Yard Waste		0.6%	0.1%	1.5%
Pumpkins		0.6%	0.1%	1.6%
FOOD WASTE	**4.6%**		**1.9%**	**8.5%**
Food Waste		4.6%	1.9%	8.5%
WOOD	**9.5%**		**4.5%**	**16.1%**
Non-Treated Wood		2.4%	0.7%	5.0%
Treated Wood		7.1%	2.6%	13.6%
DURABLES	**13.9%**		**3.4%**	**29.9%**
All Electrical and Household Appl.		4.2%	0.7%	10.5%
Other Durables		9.7%	1.7%	23.1%
TEXTILES	**5.5%**		**2.2%**	**10.3%**
Textiles and Leather		5.5%	2.2%	10.3%
DIAPERS	**2.2%**		**0.5%**	**5.1%**
Diapers		2.2%	0.5%	5.1%
RUBBER	**1.9%**		**0.5%**	**4.1%**
Rubber		1.9%	0.5%	4.1%
OTHER ORGANIC	**2.6%**		**0.5%**	**6.4%**
Other Organic		2.6%	0.5%	6.4%
OTHER INORGANIC	**0.0%**		**0.0%**	**0.1%**
Other Inorganic		0.0%	0.0%	0.1%
FINES/SUPERMIX	**3.3%**		**1.2%**	**6.4%**
Fines/ Supermix		3.3%	1.2%	6.4%
OTHER	**0.1%**		**0.0%**	**0.2%**
Other		0.1%	0.0%	0.2%
CONSTRUCTION & DEMOLITION	**3.7%**		**0.9%**	**8.3%**
C&D		3.7%	0.9%	8.3%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
MSW Composition
Combined - Spring and Fall

Sample Size =	85	loads
Total Wt Sorted =	19,365	pounds
Avg Wt per Sample =	228	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**28.9%**		**24.6%**	**33.3%**
Newspaper		2.1%	1.6%	2.7%
Magazines		1.8%	1.3%	2.3%
High Grade/ Office		1.9%	1.4%	2.5%
OCC and Kraft Bags		8.0%	6.2%	9.9%
Mixed Recyc Paper		4.9%	3.9%	6.0%
Other Non- Recyc Paper		10.2%	8.1%	12.5%
PLASTIC	**12.9%**		**10.6%**	**15.3%**
#1 PET Containers		0.2%	0.2%	0.3%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		0.9%	0.7%	1.1%
All Other Numbered Containers		0.7%	0.5%	0.9%
Other Plastic Not Numbered		7.5%	5.7%	9.5%
Film/Wrap/Bags		3.5%	2.7%	4.3%
METAL	**5.8%**		**4.7%**	**6.9%**
Alum Non-Deposit Beverage Containers		0.1%	0.1%	0.1%
Alum Deposit Beverage Containers		0.2%	0.1%	0.3%
Ferrous Food		1.1%	0.9%	1.4%
Other Ferrous Scrap		3.7%	2.7%	4.8%
Other Non-Ferrous Scrap		0.7%	0.5%	0.9%
GLASS	**2.4%**		**1.7%**	**3.3%**
Clear		1.0%	0.7%	1.2%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.3%
Deposit Glass Containers		0.1%	0.1%	0.2%
Other/ Mixed Cullet		1.1%	0.6%	1.7%
HHM	**0.7%**		**0.5%**	**0.9%**
Automotive Products		0.3%	0.2%	0.4%
Paints and Solvents		0.2%	0.1%	0.3%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.1%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.1%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.1%
YARD WASTE	**1.4%**		**0.9%**	**2.0%**
Yard Waste		1.3%	0.9%	1.8%
Pumpkins		0.1%	0.0%	0.1%
FOOD WASTE	**8.1%**		**6.1%**	**10.3%**
Food Waste		8.1%	6.1%	10.3%
WOOD	**10.5%**		**7.7%**	**13.7%**
Non-Treated Wood		4.0%	2.7%	5.6%
Treated Wood		6.5%	4.5%	8.8%
DURABLES	**6.2%**		**4.0%**	**8.7%**
All Electrical and Household Appl.		2.0%	1.3%	2.9%
Other Durables		4.1%	2.5%	6.2%
TEXTILES	**4.9%**		**3.7%**	**6.2%**
Textiles and Leather		4.9%	3.7%	6.2%
DIAPERS	**2.3%**		**1.6%**	**3.1%**
Diapers		2.3%	1.6%	3.1%
RUBBER	**1.4%**		**0.9%**	**2.0%**
Rubber		1.4%	0.9%	2.0%
OTHER ORGANIC	**1.9%**		**1.2%**	**2.7%**
Other Organic		1.9%	1.2%	2.7%
OTHER INORGANIC	**2.7%**		**1.5%**	**4.2%**
Other Inorganic		2.7%	1.5%	4.2%
FINES/SUPERMIX	**3.9%**		**2.9%**	**5.0%**
Fines/ Supermix		3.9%	3.0%	5.0%
OTHER	**0.2%**		**0.1%**	**0.2%**
Other		0.2%	0.1%	0.2%
CONSTRUCTION & DEMOLITION	**6.7%**		**4.2%**	**9.7%**
C&D		6.7%	4.2%	9.7%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
Solid Waste Composition
Spring and Fall

Sample Size =	85	loads
Total Wt Sorted =	19,365	pounds
Avg Wt per Sample	228	pounds

WASTE CATEGORIES Material	Mean Percentage	
PAPER	**21.8%**	
Newspaper		1.6%
Magazines		1.3%
High Grade/ Office		1.4%
OCC and Kraft Bags		6.2%
Mixed Recyc Paper		3.7%
Other Non- Recyc Paper		7.6%
PLASTIC	**10.0%**	
#1 PET Containers		0.2%
#1 PET Deposit		0.1%
#2 HDPE Containers		0.7%
All Other Numbered Containers		0.5%
Other Plastic Not Numbered		5.8%
Film/Wrap/Bags		2.7%
METAL	**4.4%**	
Alum Non-Deposit Beverage Containers		0.1%
Alum Deposit Beverage Containers		0.1%
Ferrous Food		0.9%
Other Ferrous Scrap		2.8%
Other Non-Ferrous Scrap		0.5%
GLASS	**1.7%**	
Clear		0.7%
Green		0.0%
Blue		0.0%
Brown		0.2%
Deposit Glass Containers		0.1%
Other/ Mixed Cullet		0.8%
HHM	**0.5%**	
Automotive Products		0.2%
Paints and Solvents		0.2%
Pesticides, Herbicides & Fungicides		0.0%
Household Cleaners		0.0%
Batteries (lead -acid)		0.0%
Batteries (other)		0.0%
Other (HHM containers w/prod inside)		0.0%
YARD WASTE	**1.1%**	
Yard Waste		1.0%
Pumpkins		0.1%
FOOD WASTE	**6.0%**	
Food Waste		6.0%
WOOD	**8.0%**	
Non-Treated Wood		3.0%
Treated Wood		5.0%
DURABLES	**5.0%**	
All Electrical and Household Appl.		1.7%
Other Durables		3.3%
TEXTILES	**3.8%**	
Textiles and Leather		3.8%
DIAPERS	**1.7%**	
Diapers		1.7%
RUBBER	**1.1%**	
Rubber		1.1%
OTHER ORGANIC	**1.4%**	
Other Organic		1.4%
OTHER INORGANIC	**1.9%**	
Other Inorganic		1.9%
FINES/SUPERMIX	**3.0%**	
Fines/ Supermix		3.0%
INFECTIOUS WASTE	**0.1%**	
Infectious Waste		0.1%
CONSTRUCTION & DEMOLITION	**26.5%**	
C&D		26.5%
SPECIAL WASTES	**2.7%**	
Special Wastes		2.7%
TOTAL PERCENT	**100.0%**	

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Residential - Spring and Fall

Sample Size =	13	loads
Total Wt Sorted =	2,608	pounds
Avg Wt per Sample =	201	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**18.7%**		**10.4%**	**28.8%**
Newspaper		2.2%	0.9%	4.0%
Magazines		1.0%	0.3%	2.0%
High Grade/ Office		1.0%	0.3%	2.1%
OCC and Kraft Bags		5.5%	2.7%	9.3%
Mixed Recyc Paper		3.9%	1.7%	7.1%
Other Non- Recyc Paper		5.1%	2.6%	8.3%
PLASTIC	**9.0%**		**5.1%**	**13.8%**
#1 PET Containers		0.2%	0.1%	0.4%
#1 PET Deposit		0.0%	0.0%	0.1%
#2 HDPE Containers		1.3%	0.6%	2.4%
All Other Numbered Containers		0.6%	0.2%	1.2%
Other Plastic Not Numbered		4.9%	2.6%	7.9%
Film/Wrap/Bags		2.0%	0.9%	3.5%
METAL	**12.5%**		**6.5%**	**20.2%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		1.3%	0.4%	2.5%
Other Ferrous Scrap		8.9%	3.4%	16.7%
Other Non-Ferrous Scrap		2.3%	0.7%	4.8%
GLASS	**2.1%**		**1.0%**	**3.8%**
Clear		1.5%	0.5%	2.8%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.5%
Deposit Glass Containers		0.1%	0.0%	0.3%
Other/ Mixed Cullet		0.3%	0.1%	0.7%
HHM	**1.1%**		**0.4%**	**2.1%**
Automotive Products		0.3%	0.1%	0.7%
Paints and Solvents		0.1%	0.0%	0.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.1%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.3%	0.1%	0.6%
Other (HHM containers w/prod inside)		0.4%	0.1%	0.7%
YARD WASTE	**3.1%**		**0.5%**	**8.1%**
Yard Waste		3.1%	0.5%	8.1%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**7.0%**		**2.6%**	**13.3%**
Food Waste		7.0%	2.6%	13.3%
WOOD	**9.7%**		**3.3%**	**18.9%**
Non-Treated Wood		1.8%	0.6%	3.6%
Treated Wood		7.9%	2.5%	16.0%
DURABLES	**8.5%**		**3.4%**	**15.8%**
All Electrical and Household Appl.		4.7%	1.5%	9.5%
Other Durables		3.9%	0.7%	9.5%
TEXTILES	**5.4%**		**2.8%**	**8.7%**
Textiles and Leather		5.4%	2.8%	8.7%
DIAPERS	**2.3%**		**0.7%**	**4.9%**
Diapers		2.3%	0.7%	4.9%
RUBBER	**2.3%**		**0.8%**	**4.7%**
Rubber		2.3%	0.8%	4.7%
OTHER ORGANIC	**2.7%**		**0.9%**	**5.3%**
Other Organic		2.7%	0.9%	5.3%
OTHER INORGANIC	**1.6%**		**0.5%**	**3.2%**
Other Inorganic		1.6%	0.5%	3.2%
FINES/SUPERMIX	**5.9%**		**3.2%**	**9.3%**
Fines/ Supermix		5.9%	3.2%	9.3%
OTHER	**0.0%**		**0.0%**	**0.0%**
Other		0.0%	0.0%	0.0%
CONSTRUCTION & DEMOLITION	**8.8%**		**3.3%**	**16.6%**
C&D		8.8%	3.3%	16.6%
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Commercial - Spring and Fall

Sample Size =	52	loads
Total Wt Sorted =	12,261	pounds
Avg Wt per Sample =	236	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**40.5%**		**34.6%**	**46.4%**
Newspaper		1.4%	0.9%	2.1%
Magazines		0.9%	0.5%	1.2%
High Grade/ Office		1.5%	0.9%	2.2%
OCC and Kraft Bags		18.6%	14.0%	23.6%
Mixed Recyc Paper		4.6%	3.3%	6.1%
Other Non- Recyc Paper		13.6%	9.6%	18.1%
PLASTIC	**13.7%**		**10.2%**	**17.6%**
#1 PET Containers		0.2%	0.1%	0.4%
#1 PET Deposit		0.1%	0.0%	0.1%
#2 HDPE Containers		1.5%	1.0%	2.1%
All Other Numbered Containers		2.1%	1.2%	3.3%
Other Plastic Not Numbered		4.1%	2.9%	5.5%
Film/Wrap/Bags		5.7%	4.2%	7.4%
METAL	**7.7%**		**5.3%**	**10.5%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		5.1%	3.1%	7.5%
Other Ferrous Scrap		1.2%	0.8%	1.8%
Other Non-Ferrous Scrap		1.2%	0.7%	1.9%
GLASS	**1.3%**		**0.8%**	**1.9%**
Clear		0.7%	0.4%	1.0%
Green		0.1%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.3%	0.2%	0.5%
Deposit Glass Containers		0.0%	0.0%	0.1%
Other/ Mixed Cullet		0.2%	0.1%	0.4%
HHM	**1.1%**		**0.7%**	**1.6%**
Automotive Products		0.5%	0.3%	0.7%
Paints and Solvents		0.4%	0.2%	0.6%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.1%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.1%
YARD WASTE	**0.5%**		**0.3%**	**0.8%**
Yard Waste		0.5%	0.3%	0.8%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**15.9%**		**11.8%**	**20.3%**
Food Waste		15.9%	11.8%	20.3%
WOOD	**2.0%**		**1.2%**	**3.0%**
Non-Treated Wood		1.1%	0.6%	1.6%
Treated Wood		0.9%	0.5%	1.4%
DURABLES	**2.3%**		**1.0%**	**4.2%**
All Electrical and Household Appl.		1.3%	0.7%	2.2%
Other Durables		1.0%	0.5%	1.8%
TEXTILES	**2.6%**		**1.6%**	**3.8%**
Textiles and Leather		2.6%	1.6%	3.8%
DIAPERS	**1.4%**		**0.8%**	**2.0%**
Diapers		1.4%	0.8%	2.0%
RUBBER	**0.5%**		**0.3%**	**0.7%**
Rubber		0.5%	0.3%	0.7%
OTHER ORGANIC	**1.8%**		**1.0%**	**2.7%**
Other Organic		1.8%	1.0%	2.7%
OTHER INORGANIC	**0.5%**		**0.3%**	**0.7%**
Other Inorganic		0.5%	0.3%	0.7%
FINES/SUPERMIX	**5.2%**		**3.3%**	**6.9%**
Fines/ Supermix		5.2%	3.5%	7.3%
OTHER	**0.2%**		**0.1%**	**0.3%**
Other		0.2%	0.1%	0.3%
CONSTRUCTION & DEMOLITION	**3.2%**		**1.8%**	**5.0%**
C&D		3.2%	1.8%	5.0%
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELLSOLID WASTE AGENCY
MSW Composition
Mixed - Spring and Fall

Sample Size =	38	loads
Total Wt Sorted =	8,804	pounds
Avg Wt per Sample =	232	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**30.5%**		**27.8%**	**33.3%**
Newspaper		2.6%	2.1%	3.2%
Magazines		2.6%	1.9%	3.4%
High Grade/ Office		1.6%	1.1%	2.1%
OCC and Kraft Bags		6.0%	4.6%	7.5%
Mixed Recyc Paper		7.0%	5.8%	8.2%
Other Non- Recyc Paper		10.8%	8.9%	12.8%
PLASTIC	**11.8%**		**10.9%**	**12.8%**
#1 PET Containers		0.2%	0.2%	0.3%
#1 PET Deposit		0.1%	0.1%	0.2%
#2 HDPE Containers		1.0%	0.8%	1.2%
All Other Numbered Containers		0.7%	0.4%	0.9%
Other Plastic Not Numbered		6.0%	5.3%	6.7%
Film/Wrap/Bags		3.8%	3.4%	4.2%
METAL	**5.5%**		**4.4%**	**6.7%**
Alum Non-Deposit Beverage Containers		0.1%	0.1%	0.1%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		2.3%	1.7%	2.8%
Other Ferrous Scrap		2.3%	1.6%	3.1%
Other Non-Ferrous Scrap		0.7%	0.4%	1.1%
GLASS	**2.4%**		**1.9%**	**3.1%**
Clear		1.4%	1.0%	1.8%
Green		0.2%	0.1%	0.3%
Blue		0.0%	0.0%	0.0%
Brown		0.3%	0.2%	0.5%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.5%	0.3%	0.8%
HHM	**1.3%**		**0.9%**	**1.8%**
Automotive Products		0.4%	0.2%	0.6%
Paints and Solvents		0.3%	0.2%	0.5%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.2%	0.1%	0.2%
Other (HHM containers w/prod inside)		0.2%	0.1%	0.2%
YARD WASTE	**2.3%**		**1.2%**	**3.8%**
Yard Waste		2.3%	1.2%	3.8%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**15.6%**		**12.7%**	**18.8%**
Food Waste		15.6%	12.7%	18.8%
WOOD	**2.3%**		**1.5%**	**3.2%**
Non-Treated Wood		1.2%	0.7%	1.9%
Treated Wood		1.1%	0.7%	1.5%
DURABLES	**1.5%**		**0.8%**	**2.3%**
All Electrical and Household Appl.		1.0%	0.6%	1.6%
Other Durables		0.5%	0.2%	0.8%
TEXTILES	**4.4%**		**3.2%**	**5.8%**
Textiles and Leather		4.4%	3.2%	5.8%
DIAPERS	**4.4%**		**2.8%**	**6.3%**
Diapers		4.4%	2.8%	6.3%
RUBBER	**0.8%**		**0.5%**	**1.1%**
Rubber		0.8%	0.5%	1.1%
OTHER ORGANIC	**2.9%**		**1.9%**	**4.1%**
Other Organic		2.9%	1.9%	4.1%
OTHER INORGANIC	**1.1%**		**0.6%**	**1.6%**
Other Inorganic		1.1%	0.6%	1.6%
FINES/SUPERMIX	**9.8%**		**8.2%**	**10.9%**
Fines/ Supermix		9.8%	8.7%	10.9%
OTHER	**0.8%**		**0.4%**	**1.4%**
Other		0.8%	0.4%	1.4%
CONSTRUCTION & DEMOLITION	**2.0%**		**1.3%**	**2.8%**
C&D		2.0%	1.3%	2.8%
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Combined - Spring and Fall

Sample Size =	102	loads
Total Wt Sorted =	23,661	pounds
Avg Wt per Sample =	232	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**34.0%**		**30.5%**	**37.6%**
Newspaper		1.9%	1.5%	2.4%
Magazines		1.5%	1.2%	1.9%
High Grade/ Office		1.5%	1.1%	1.9%
OCC and Kraft Bags		12.2%	9.9%	14.8%
Mixed Recyc Paper		5.4%	4.5%	6.4%
Other Non- Recyc Paper		11.5%	9.3%	13.8%
PLASTIC	**12.4%**		**10.6%**	**14.3%**
#1 PET Containers		0.2%	0.2%	0.3%
#1 PET Deposit		0.1%	0.1%	0.1%
#2 HDPE Containers		1.3%	1.0%	1.6%
All Other Numbered Containers		1.4%	0.9%	1.9%
Other Plastic Not Numbered		4.9%	4.1%	5.8%
Film/Wrap/Bags		4.5%	3.8%	5.3%
METAL	**7.5%**		**6.1%**	**9.1%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		3.6%	2.7%	4.6%
Other Ferrous Scrap		2.6%	1.9%	3.3%
Other Non-Ferrous Scrap		1.2%	0.8%	1.6%
GLASS	**1.8%**		**1.3%**	**2.2%**
Clear		1.0%	0.7%	1.2%
Green		0.1%	0.1%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.3%	0.2%	0.4%
Deposit Glass Containers		0.0%	0.0%	0.1%
Other/ Mixed Cullet		0.4%	0.3%	0.5%
HHM	**1.1%**		**0.9%**	**1.5%**
Automotive Products		0.4%	0.3%	0.6%
Paints and Solvents		0.3%	0.2%	0.4%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.2%
YARD WASTE	**1.5%**		**1.0%**	**2.1%**
Yard Waste		1.5%	1.0%	2.1%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**14.6%**		**12.1%**	**17.3%**
Food Waste		14.6%	12.1%	17.3%
WOOD	**3.1%**		**2.2%**	**4.1%**
Non-Treated Wood		1.2%	0.9%	1.6%
Treated Wood		1.9%	1.3%	2.5%
DURABLES	**2.8%**		**1.8%**	**4.0%**
All Electrical and Household Appl.		1.6%	1.1%	2.3%
Other Durables		1.2%	0.7%	1.7%
TEXTILES	**3.7%**		**2.8%**	**4.6%**
Textiles and Leather		3.7%	2.8%	4.6%
DIAPERS	**2.6%**		**1.9%**	**3.4%**
Diapers		2.6%	1.9%	3.4%
RUBBER	**0.8%**		**0.6%**	**1.1%**
Rubber		0.8%	0.6%	1.1%
OTHER ORGANIC	**2.3%**		**1.7%**	**3.0%**
Other Organic		2.3%	1.7%	3.0%
OTHER INORGANIC	**0.7%**		**0.5%**	**1.0%**
Other Inorganic		0.7%	0.5%	1.0%
FINES/SUPERMIX	**7.0%**		**5.5%**	**8.1%**
Fines/ Supermix		7.0%	5.8%	8.4%
OTHER	**0.4%**		**0.3%**	**0.6%**
Other		0.4%	0.3%	0.6%
CONSTRUCTION & DEMOLITION	**3.5%**		**2.5%**	**4.7%**
C&D		3.5%	2.5%	4.7%
TOTAL PERCENT	**100.0%**			

FLOYD MITCHELL SOLID WASTE AGENCY
Solid Waste Composition
Spring and Fall

Sample Size =	102	loads
Total Wt Sorted =	23,661	pounds
Avg Wt per Sample	232	pounds

WASTE CATEGORIES Material	Mean Percentage	
PAPER	**29.9%**	
Newspaper		1.7%
Magazines		1.4%
High Grade/ Office		1.3%
OCC and Kraft Bags		10.7%
Mixed Recyc Paper		4.8%
Other Non- Recyc Paper		10.0%
PLASTIC	**10.9%**	
#1 PET Containers		0.2%
#1 PET Deposit		0.0%
#2 HDPE Containers		1.1%
All Other Numbered Containers		1.3%
Other Plastic Not Numbered		4.3%
Film/Wrap/Bags		4.0%
METAL	**6.1%**	
Alum Non-Deposit Beverage Containers		0.0%
Alum Deposit Beverage Containers		0.2%
Ferrous Food		3.1%
Other Ferrous Scrap		2.3%
Other Non-Ferrous Scrap		0.5%
GLASS	**1.6%**	
Clear		0.8%
Green		0.1%
Blue		0.0%
Brown		0.3%
Deposit Glass Containers		0.0%
Other/ Mixed Cullet		0.4%
HHM	**1.0%**	
Automotive Products		0.4%
Paints and Solvents		0.3%
Pesticides, Herbicides & Fungicides		0.0%
Household Cleaners		0.0%
Batteries (lead -acid)		0.0%
Batteries (other)		0.0%
Other (HHM containers w/prod inside)		0.1%
YARD WASTE	**1.3%**	
Yard Waste		1.3%
Pumpkins		0.0%
FOOD WASTE	**12.9%**	
Food Waste		12.9%
WOOD	**2.7%**	
Non-Treated Wood		1.1%
Treated Wood		1.6%
DURABLES	**2.6%**	
All Electrical and Household Appl.		1.5%
Other Durables		1.1%
TEXTILES	**3.1%**	
Textiles and Leather		3.1%
DIAPERS	**2.3%**	
Diapers		2.3%
RUBBER	**0.7%**	
Rubber		0.7%
OTHER ORGANIC	**2.1%**	
Other Organic		2.1%
OTHER INORGANIC	**0.6%**	
Other Inorganic		0.6%
FINES/SUPERMIX	**6.2%**	
Fines/ Supermix		6.2%
INFECTIOUS WASTE	**0.4%**	
Infectious Waste		0.4%
CONSTRUCTION & DEMOLITION	**10.5%**	
C&D		10.5%
SPECIAL WASTES	**4.5%**	
Special Wastes		4.5%
TOTAL PERCENT	**100.0%**	

IOWA CITY LANDFILL
MSW Composition
Residential - Spring and Fall

Sample Size =	38	loads
Total Wt Sorted =	8,280	pounds
Avg Wt per Sample =	218	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**33.6%**		**31.0%**	**36.2%**
Newspaper		4.4%	3.4%	5.4%
Magazines		4.5%	3.5%	5.5%
High Grade/ Office		2.8%	2.1%	3.5%
OCC and Kraft Bags		3.3%	2.6%	4.1%
Mixed Recyc Paper		6.7%	5.9%	7.6%
Other Non- Recyc Paper		11.9%	10.4%	13.5%
PLASTIC	**10.4%**		**9.3%**	**11.5%**
#1 PET Containers		0.4%	0.3%	0.5%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		0.8%	0.6%	0.9%
All Other Numbered Containers		0.8%	0.6%	1.0%
Other Plastic Not Numbered		4.4%	3.5%	5.3%
Film/Wrap/Bags		3.9%	3.5%	4.4%
METAL	**6.0%**		**4.4%**	**7.8%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.2%	0.1%	0.2%
Ferrous Food		1.1%	0.9%	1.3%
Other Ferrous Scrap		3.9%	2.5%	5.5%
Other Non-Ferrous Scrap		0.9%	0.5%	1.3%
GLASS	**2.9%**		**2.4%**	**3.4%**
Clear		1.4%	1.1%	1.8%
Green		0.1%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.4%
Deposit Glass Containers		0.7%	0.4%	1.0%
Other/ Mixed Cullet		0.5%	0.3%	0.8%
HHM	**0.7%**		**0.5%**	**0.9%**
Automotive Products		0.2%	0.1%	0.3%
Paints and Solvents		0.1%	0.0%	0.2%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.2%
YARD WASTE	**3.4%**		**2.2%**	**5.0%**
Yard Waste		2.1%	1.3%	3.0%
Pumpkins		1.4%	0.6%	2.3%
FOOD WASTE	**14.3%**		**12.8%**	**15.9%**
Food Waste		14.3%	12.8%	15.9%
WOOD	**3.7%**		**2.2%**	**5.6%**
Non-Treated Wood		0.3%	0.2%	0.5%
Treated Wood		3.4%	1.9%	5.3%
DURABLES	**2.8%**		**1.4%**	**4.5%**
All Electrical and Household Appl.		1.0%	0.5%	1.5%
Other Durables		1.8%	0.7%	3.3%
TEXTILES	**2.8%**		**2.1%**	**3.6%**
Textiles and Leather		2.8%	2.1%	3.6%
DIAPERS	**4.7%**		**3.4%**	**6.1%**
Diapers		4.7%	3.4%	6.1%
RUBBER	**0.5%**		**0.3%**	**0.7%**
Rubber		0.5%	0.3%	0.7%
OTHER ORGANIC	**1.8%**		**1.3%**	**2.4%**
Other Organic		1.8%	1.3%	2.4%
OTHER INORGANIC	**3.6%**		**2.3%**	**5.1%**
Other Inorganic		3.6%	2.3%	5.1%
FINES/SUPERMIX	**5.0%**		**4.2%**	**5.6%**
Fines/ Supermix		5.0%	4.4%	5.5%
OTHER	**0.1%**		**0.0%**	**0.1%**
Other		0.1%	0.0%	0.1%
CONSTRUCTION & DEMOLITION	**3.9%**		**2.1%**	**6.3%**
C&D		3.9%	2.1%	6.3%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Commercial - Spring and Fall

Sample Size =	43	loads
Total Wt Sorted =	10,145	pounds
Avg Wt per Sample =	236	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**30.7%**		**24.3%**	**37.5%**
Newspaper		2.5%	1.6%	3.6%
Magazines		1.9%	1.1%	2.8%
High Grade/ Office		2.2%	1.4%	3.3%
OCC and Kraft Bags		8.2%	5.6%	11.3%
Mixed Recyc Paper		5.0%	3.1%	7.2%
Other Non- Recyc Paper		10.9%	7.3%	15.1%
PLASTIC	**20.8%**		**14.4%**	**28.0%**
#1 PET Containers		0.2%	0.1%	0.3%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		1.3%	0.8%	1.9%
All Other Numbered Containers		0.7%	0.4%	1.0%
Other Plastic Not Numbered		12.1%	7.2%	18.1%
Film/Wrap/Bags		6.4%	4.0%	9.3%
METAL	**4.2%**		**2.5%**	**6.2%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		0.7%	0.4%	1.0%
Other Ferrous Scrap		3.2%	1.7%	5.2%
Other Non-Ferrous Scrap		0.1%	0.1%	0.2%
GLASS	**2.2%**		**1.3%**	**3.3%**
Clear		0.8%	0.5%	1.2%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.9%	0.5%	1.5%
Other/ Mixed Cullet		0.5%	0.2%	0.8%
HHM	**0.5%**		**0.3%**	**0.8%**
Automotive Products		0.1%	0.0%	0.1%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.4%	0.2%	0.7%
YARD WASTE	**1.2%**		**0.6%**	**2.0%**
Yard Waste		1.0%	0.5%	1.7%
Pumpkins		0.2%	0.1%	0.4%
FOOD WASTE	**10.3%**		**6.4%**	**15.0%**
Food Waste		10.3%	6.4%	15.0%
WOOD	**9.2%**		**4.9%**	**14.8%**
Non-Treated Wood		4.8%	2.4%	7.9%
Treated Wood		4.5%	2.0%	7.9%
DURABLES	**3.9%**		**1.9%**	**6.5%**
All Electrical and Household Appl.		2.0%	0.9%	3.4%
Other Durables		1.9%	0.8%	3.4%
TEXTILES	**4.5%**		**2.3%**	**7.2%**
Textiles and Leather		4.5%	2.3%	7.2%
DIAPERS	**0.4%**		**0.2%**	**0.7%**
Diapers		0.4%	0.2%	0.7%
RUBBER	**0.6%**		**0.3%**	**0.9%**
Rubber		0.6%	0.3%	0.9%
OTHER ORGANIC	**2.3%**		**1.1%**	**3.7%**
Other Organic		2.3%	1.1%	3.7%
OTHER INORGANIC	**0.8%**		**0.4%**	**1.2%**
Other Inorganic		0.8%	0.4%	1.2%
FINES/SUPERMIX	**1.9%**		**1.3%**	**2.7%**
Fines/ Supermix		1.9%	1.3%	2.7%
OTHER	**0.3%**		**0.1%**	**0.4%**
Other		0.3%	0.1%	0.4%
CONSTRUCTION & DEMOLITION	**6.4%**		**2.9%**	**11.3%**
C&D		6.4%	2.9%	11.3%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Mixed - Spring and Fall

Sample Size =	23	loads
Total Wt Sorted =	5,217	pounds
Avg Wt per Sample =	227	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**32.5%**		**26.8%**	**38.5%**
Newspaper		3.0%	2.1%	4.2%
Magazines		2.8%	2.0%	3.8%
High Grade/ Office		2.9%	1.9%	4.0%
OCC and Kraft Bags		7.1%	4.6%	10.1%
Mixed Recyc Paper		5.5%	4.0%	7.3%
Other Non- Recyc Paper		11.2%	8.6%	14.0%
PLASTIC	**12.3%**		**10.3%**	**14.6%**
#1 PET Containers		0.3%	0.2%	0.4%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		0.7%	0.5%	1.1%
All Other Numbered Containers		0.8%	0.4%	1.4%
Other Plastic Not Numbered		5.5%	3.9%	7.2%
Film/Wrap/Bags		4.9%	3.9%	6.0%
METAL	**5.0%**		**3.2%**	**7.0%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.2%	0.1%	0.3%
Ferrous Food		1.2%	0.7%	1.7%
Other Ferrous Scrap		3.3%	1.7%	5.4%
Other Non-Ferrous Scrap		0.3%	0.2%	0.4%
GLASS	**2.9%**		**1.9%**	**3.9%**
Clear		1.1%	0.7%	1.6%
Green		0.0%	0.0%	0.1%
Blue		0.0%	0.0%	0.1%
Brown		0.1%	0.0%	0.1%
Deposit Glass Containers		1.3%	0.7%	2.2%
Other/ Mixed Cullet		0.3%	0.1%	0.6%
HHM	**0.6%**		**0.3%**	**0.9%**
Automotive Products		0.1%	0.0%	0.2%
Paints and Solvents		0.0%	0.0%	0.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.3%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.2%	0.1%	0.5%
YARD WASTE	**2.7%**		**1.2%**	**4.6%**
Yard Waste		2.2%	1.0%	4.0%
Pumpkins		0.4%	0.1%	0.9%
FOOD WASTE	**15.9%**		**10.9%**	**21.8%**
Food Waste		15.9%	10.9%	21.8%
WOOD	**3.1%**		**1.6%**	**5.0%**
Non-Treated Wood		0.5%	0.2%	0.8%
Treated Wood		2.6%	1.1%	4.6%
DURABLES	**1.2%**		**0.5%**	**2.1%**
All Electrical and Household Appl.		1.1%	0.5%	2.0%
Other Durables		0.1%	0.0%	0.2%
TEXTILES	**5.7%**		**2.9%**	**9.2%**
Textiles and Leather		5.7%	2.9%	9.2%
DIAPERS	**2.5%**		**1.3%**	**4.1%**
Diapers		2.5%	1.3%	4.1%
RUBBER	**0.5%**		**0.2%**	**0.8%**
Rubber		0.5%	0.2%	0.8%
OTHER ORGANIC	**1.5%**		**0.9%**	**2.2%**
Other Organic		1.5%	0.9%	2.2%
OTHER INORGANIC	**2.1%**		**0.9%**	**3.7%**
Other Inorganic		2.1%	0.9%	3.7%
FINES/SUPERMIX	**8.4%**		**4.2%**	**13.5%**
Fines/ Supermix		8.4%	4.4%	13.5%
OTHER	**0.3%**		**0.1%**	**0.6%**
Other		0.3%	0.1%	0.6%
CONSTRUCTION & DEMOLITION	**3.2%**		**1.3%**	**5.9%**
C&D		3.2%	1.3%	5.9%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Combined - Spring and Fall

Sample Size =	104	loads
Total Wt Sorted =	23,642	pounds
Avg Wt per Sample =	227	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**32.2%**		**29.0%**	**35.3%**
Newspaper		3.3%	2.7%	4.0%
Magazines		3.0%	2.5%	3.7%
High Grade/ Office		2.6%	2.1%	3.1%
OCC and Kraft Bags		6.2%	5.0%	7.5%
Mixed Recyc Paper		5.7%	4.8%	6.8%
Other Non- Recyc Paper		11.3%	9.6%	13.2%
PLASTIC	**15.1%**		**12.6%**	**17.8%**
#1 PET Containers		0.3%	0.2%	0.3%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		1.0%	0.8%	1.2%
All Other Numbered Containers		0.8%	0.6%	1.0%
Other Plastic Not Numbered		7.8%	6.0%	9.8%
Film/Wrap/Bags		5.2%	4.2%	6.2%
METAL	**5.0%**		**4.0%**	**6.2%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		0.9%	0.8%	1.2%
Other Ferrous Scrap		3.5%	2.6%	4.5%
Other Non-Ferrous Scrap		0.4%	0.3%	0.6%
GLASS	**2.6%**		**2.1%**	**3.1%**
Clear		1.1%	0.9%	1.3%
Green		0.0%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.1%	0.1%
Deposit Glass Containers		0.9%	0.7%	1.2%
Other/ Mixed Cullet		0.5%	0.3%	0.6%
HHM	**0.6%**		**0.4%**	**0.7%**
Automotive Products		0.1%	0.1%	0.1%
Paints and Solvents		0.0%	0.0%	0.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.1%
Other (HHM containers w/prod inside)		0.3%	0.2%	0.4%
YARD WASTE	**2.3%**		**1.7%**	**3.1%**
Yard Waste		1.7%	1.2%	2.2%
Pumpkins		0.7%	0.4%	1.0%
FOOD WASTE	**13.0%**		**10.7%**	**15.5%**
Food Waste		13.0%	10.7%	15.5%
WOOD	**5.9%**		**4.1%**	**7.9%**
Non-Treated Wood		2.2%	1.4%	3.1%
Treated Wood		3.7%	2.5%	5.1%
DURABLES	**2.9%**		**1.9%**	**4.0%**
All Electrical and Household Appl.		1.4%	0.9%	2.0%
Other Durables		1.5%	0.9%	2.2%
TEXTILES	**4.1%**		**3.0%**	**5.4%**
Textiles and Leather		4.1%	3.0%	5.4%
DIAPERS	**2.4%**		**1.8%**	**3.1%**
Diapers		2.4%	1.8%	3.1%
RUBBER	**0.5%**		**0.4%**	**0.7%**
Rubber		0.5%	0.4%	0.7%
OTHER ORGANIC	**1.9%**		**1.4%**	**2.5%**
Other Organic		1.9%	1.4%	2.5%
OTHER INORGANIC	**2.1%**		**1.5%**	**2.7%**
Other Inorganic		2.1%	1.5%	2.7%
FINES/SUPERMIX	**4.5%**		**3.5%**	**5.4%**
Fines/ Supermix		4.5%	3.5%	5.5%
OTHER	**0.2%**		**0.1%**	**0.3%**
Other		0.2%	0.1%	0.3%
CONSTRUCTION & DEMOLITION	**4.8%**		**3.1%**	**6.8%**
C&D		4.8%	3.1%	6.8%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
Solid Waste Composition
Spring and Fall

Sample Size =	103	loads
Total Wt Sorted =	23,415	pounds
Avg Wt per Sample	227	pounds

WASTE CATEGORIES Material	Mean Percentage	
PAPER	**24.4%**	
Newspaper		2.5%
Magazines		2.3%
High Grade/ Office		2.0%
OCC and Kraft Bags		4.7%
Mixed Recyc Paper		4.3%
Other Non- Recyc Paper		8.6%
PLASTIC	**11.6%**	
#1 PET Containers		0.2%
#1 PET Deposit		0.1%
#2 HDPE Containers		0.8%
All Other Numbered Containers		0.6%
Other Plastic Not Numbered		6.0%
Film/Wrap/Bags		3.9%
METAL	**3.8%**	
Alum Non-Deposit Beverage Containers		0.0%
Alum Deposit Beverage Containers		0.1%
Ferrous Food		0.7%
Other Ferrous Scrap		2.7%
Other Non-Ferrous Scrap		0.3%
GLASS	**2.0%**	
Clear		0.8%
Green		0.0%
Blue		0.0%
Brown		0.1%
Deposit Glass Containers		0.7%
Other/ Mixed Cullet		0.3%
HHM	**0.4%**	
Automotive Products		0.1%
Paints and Solvents		0.0%
Pesticides, Herbicides & Fungicides		0.0%
Household Cleaners		0.1%
Batteries (lead -acid)		0.0%
Batteries (other)		0.1%
Other (HHM containers w/prod inside)		0.2%
Light Bulbs		0.0%
YARD WASTE	**1.8%**	
Yard Waste		1.2%
Pumpkins		0.5%
FOOD WASTE	**9.9%**	
Food Waste		9.9%
WOOD	**4.4%**	
Non-Treated Wood		1.6%
Treated Wood		2.7%
DURABLES	**2.2%**	
All Electrical and Household Appl.		1.0%
Other Durables		1.1%
TEXTILES	**3.2%**	
Textiles and Leather		3.2%
DIAPERS	**1.8%**	
Diapers		1.8%
RUBBER	**0.4%**	
Rubber		0.4%
OTHER ORGANIC	**1.5%**	
Other Organic		1.5%
OTHER INORGANIC	**1.6%**	
Other Inorganic		1.6%
FINES/SUPERMIX	**3.4%**	
Fines/ Supermix		3.4%
INFECTIOUS WASTE	**0.2%**	
Infectious Waste		0.2%
CONSTRUCTION & DEMOLITION	**26.3%**	
C&D		26.3%
SPECIAL WASTES	**1.2%**	
Special Wastes		1.2%
TOTAL PERCENT	**100.0%**	

MONONA COUNTY
MSW Composition
Residential - Spring and Fall

Sample Size =	11	loads
Total Wt Sorted =	2,524	pounds
Avg Wt per Sample =	229	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**33.0%**		**24.7%**	**41.9%**
Newspaper		9.0%	5.1%	13.9%
Magazines		3.9%	2.6%	5.3%
High Grade/ Office		2.3%	1.1%	4.1%
OCC and Kraft Bags		4.3%	2.6%	6.3%
Mixed Recyc Paper		7.7%	5.0%	10.9%
Other Non- Recyc Paper		5.9%	3.5%	8.8%
PLASTIC	**7.7%**		**4.5%**	**11.7%**
#1 PET Containers		0.3%	0.1%	0.4%
#1 PET Deposit		0.1%	0.1%	0.2%
#2 HDPE Containers		1.0%	0.5%	1.6%
All Other Numbered Containers		0.5%	0.2%	0.9%
Other Plastic Not Numbered		3.1%	1.6%	5.0%
Film/Wrap/Bags		2.8%	1.6%	4.3%
METAL	**5.0%**		**3.0%**	**7.4%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.1%
Alum Deposit Beverage Containers		0.3%	0.1%	0.5%
Ferrous Food		1.7%	0.9%	2.8%
Other Ferrous Scrap		2.5%	1.0%	4.6%
Other Non-Ferrous Scrap		0.4%	0.2%	0.7%
GLASS	**2.3%**		**1.2%**	**3.6%**
Clear		1.1%	0.5%	2.0%
Green		0.1%	0.0%	0.3%
Blue		0.0%	0.0%	0.0%
Brown		0.5%	0.1%	0.9%
Deposit Glass Containers		0.4%	0.1%	1.0%
Other/ Mixed Cullet		0.1%	0.0%	0.3%
HHM	**2.0%**		**0.7%**	**3.9%**
Automotive Products		0.7%	0.2%	1.5%
Paints and Solvents		0.8%	0.1%	2.1%
Pesticides, Herbicides & Fungicides		0.2%	0.0%	0.5%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.2%
YARD WASTE	**6.4%**		**2.3%**	**12.2%**
Yard Waste		1.7%	0.7%	3.3%
Pumpkins		4.6%	1.0%	10.7%
FOOD WASTE	**10.6%**		**5.7%**	**16.7%**
Food Waste		10.6%	5.7%	16.7%
WOOD	**3.2%**		**1.2%**	**6.3%**
Non-Treated Wood		1.2%	0.2%	2.9%
Treated Wood		2.1%	0.5%	4.5%
DURABLES	**9.3%**		**2.4%**	**20.0%**
All Electrical and Household Appl.		2.1%	0.8%	3.8%
Other Durables		7.3%	1.2%	18.0%
TEXTILES	**4.8%**		**2.0%**	**8.7%**
Textiles and Leather		4.8%	2.0%	8.7%
DIAPERS	**3.1%**		**1.4%**	**5.5%**
Diapers		3.1%	1.4%	5.5%
RUBBER	**0.7%**		**0.3%**	**1.2%**
Rubber		0.7%	0.3%	1.2%
OTHER ORGANIC	**1.6%**		**0.5%**	**3.2%**
Other Organic		1.6%	0.5%	3.2%
OTHER INORGANIC	**1.1%**		**0.3%**	**2.4%**
Other Inorganic		1.1%	0.3%	2.4%
FINES/SUPERMIX	**8.2%**		**4.6%**	**12.8%**
Fines/ Supermix		8.2%	4.6%	12.8%
OTHER	**0.6%**		**0.1%**	**1.5%**
Other		0.6%	0.1%	1.5%
CONSTRUCTION & DEMOLITION	**0.4%**		**0.1%**	**1.0%**
C&D		0.4%	0.1%	1.0%
TOTAL PERCENT	**100.0%**			

MONONA COUNTY
MSW Composition
Commercial - Spring and Fall

Sample Size =	5	loads
Total Wt Sorted =	1,237	pounds
Avg Wt per Sample =	247	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**61.7%**		**47.7%**	**74.9%**
Newspaper		1.9%	0.4%	4.4%
Magazines		3.4%	0.6%	8.3%
High Grade/ Office		5.3%	0.4%	15.3%
OCC and Kraft Bags		41.7%	19.8%	65.5%
Mixed Recyc Paper		5.4%	0.9%	13.2%
Other Non- Recyc Paper		4.0%	0.7%	9.8%
PLASTIC	**7.9%**		**3.0%**	**14.8%**
#1 PET Containers		0.2%	0.0%	0.6%
#1 PET Deposit		0.5%	0.0%	1.9%
#2 HDPE Containers		0.3%	0.1%	0.9%
All Other Numbered Containers		0.5%	0.0%	1.7%
Other Plastic Not Numbered		0.9%	0.1%	2.6%
Film/Wrap/Bags		5.4%	2.4%	9.5%
METAL	**6.1%**		**2.9%**	**10.2%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		1.1%	0.1%	3.2%
Other Ferrous Scrap		3.7%	0.3%	10.6%
Other Non-Ferrous Scrap		1.2%	0.1%	3.3%
GLASS	**0.6%**		**0.0%**	**1.7%**
Clear		0.5%	0.0%	1.5%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.1%	0.0%	0.2%
HHM	**1.4%**		**0.0%**	**4.7%**
Automotive Products		0.4%	0.0%	1.7%
Paints and Solvents		0.6%	0.0%	2.7%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.3%	0.0%	1.3%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.0%**		**0.0%**	**0.0%**
Yard Waste		0.0%	0.0%	0.0%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**5.3%**		**0.6%**	**14.1%**
Food Waste		5.3%	0.6%	14.1%
WOOD	**6.1%**		**0.5%**	**17.1%**
Non-Treated Wood		5.6%	0.0%	19.6%
Treated Wood		0.5%	0.0%	1.8%
DURABLES	**0.7%**		**0.0%**	**3.1%**
All Electrical and Household Appl.		0.7%	0.0%	3.1%
Other Durables		0.0%	0.0%	0.0%
TEXTILES	**0.8%**		**0.0%**	**3.1%**
Textiles and Leather		0.8%	0.0%	3.1%
DIAPERS	**2.2%**		**0.0%**	**8.1%**
Diapers		2.2%	0.0%	8.1%
RUBBER	**2.7%**		**0.2%**	**8.1%**
Rubber		2.7%	0.2%	8.1%
OTHER ORGANIC	**0.3%**		**0.0%**	**1.2%**
Other Organic		0.3%	0.0%	1.2%
OTHER INORGANIC	**0.0%**		**0.0%**	**0.1%**
Other Inorganic		0.0%	0.0%	0.1%
FINES/SUPERMIX	**2.5%**		**0.3%**	**6.6%**
Fines/ Supermix		2.5%	0.3%	6.6%
OTHER	**0.0%**		**0.0%**	**0.0%**
Other		0.0%	0.0%	0.0%
CONSTRUCTION & DEMOLITION	**1.8%**		**0.0%**	**6.4%**
C&D		1.8%	0.0%	6.4%
TOTAL PERCENT	**100.0%**			

MONONA COUNTY
MSW Composition
Mixed - Spring and Fall

Sample Size =	21	loads
Total Wt Sorted =	4,508	pounds
Avg Wt per Sample =	215	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**43.9%**		**40.7%**	**47.0%**
Newspaper		8.4%	6.0%	11.2%
Magazines		6.9%	5.5%	8.4%
High Grade/ Office		5.0%	3.1%	7.2%
OCC and Kraft Bags		6.7%	5.2%	8.5%
Mixed Recyc Paper		8.8%	7.6%	10.1%
Other Non- Recyc Paper		8.1%	6.5%	9.8%
PLASTIC	**11.1%**		**9.6%**	**12.5%**
#1 PET Containers		0.4%	0.3%	0.5%
#1 PET Deposit		0.2%	0.2%	0.3%
#2 HDPE Containers		1.6%	1.2%	2.0%
All Other Numbered Containers		0.5%	0.3%	0.6%
Other Plastic Not Numbered		4.2%	3.3%	5.1%
Film/Wrap/Bags		4.2%	3.7%	4.8%
METAL	**6.0%**		**4.5%**	**7.6%**
Alum Non-Deposit Beverage Containers		0.2%	0.1%	0.3%
Alum Deposit Beverage Containers		0.3%	0.2%	0.5%
Ferrous Food		2.4%	2.0%	2.9%
Other Ferrous Scrap		2.7%	1.5%	4.3%
Other Non-Ferrous Scrap		0.4%	0.3%	0.5%
GLASS	**1.8%**		**1.4%**	**2.4%**
Clear		1.1%	0.7%	1.5%
Green		0.2%	0.1%	0.4%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.2%
Deposit Glass Containers		0.3%	0.1%	0.5%
Other/ Mixed Cullet		0.2%	0.1%	0.4%
HHM	**1.1%**		**0.7%**	**1.6%**
Automotive Products		0.5%	0.2%	1.0%
Paints and Solvents		0.2%	0.0%	0.3%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.2%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.2%	0.1%	0.3%
YARD WASTE	**3.2%**		**1.7%**	**5.2%**
Yard Waste		1.1%	0.5%	2.0%
Pumpkins		2.1%	0.9%	3.8%
FOOD WASTE	**12.0%**		**10.4%**	**13.6%**
Food Waste		12.0%	10.4%	13.6%
WOOD	**1.5%**		**0.8%**	**2.5%**
Non-Treated Wood		0.5%	0.2%	0.9%
Treated Wood		1.0%	0.4%	1.8%
DURABLES	**1.8%**		**0.9%**	**2.9%**
All Electrical and Household Appl.		1.1%	0.5%	1.8%
Other Durables		0.7%	0.2%	1.5%
TEXTILES	**5.2%**		**3.6%**	**7.1%**
Textiles and Leather		5.2%	3.6%	7.1%
DIAPERS	**2.9%**		**1.8%**	**4.1%**
Diapers		2.9%	1.8%	4.1%
RUBBER	**0.8%**		**0.4%**	**1.3%**
Rubber		0.8%	0.4%	1.3%
OTHER ORGANIC	**1.4%**		**1.0%**	**1.8%**
Other Organic		1.4%	1.0%	1.8%
OTHER INORGANIC	**0.5%**		**0.3%**	**0.8%**
Other Inorganic		0.5%	0.3%	0.8%
FINES/SUPERMIX	**7.3%**		**5.4%**	**9.1%**
Fines/ Supermix		7.3%	5.8%	8.9%
OTHER	**0.1%**		**0.0%**	**0.1%**
Other		0.1%	0.0%	0.1%
CONSTRUCTION & DEMOLITION	**0.6%**		**0.2%**	**1.1%**
C&D		0.6%	0.2%	1.1%
TOTAL PERCENT	**100.0%**			

MONONA COUNTY
MSW Composition
Combined - Spring and Fall

Sample Size =	37	loads
Total Wt Sorted =	8,269	pounds
Avg Wt per Sample =	223	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**43.1%**		**38.8%**	**47.3%**
Newspaper		7.7%	5.9%	9.8%
Magazines		5.5%	4.5%	6.7%
High Grade/ Office		4.2%	2.9%	5.8%
OCC and Kraft Bags		10.7%	7.5%	14.5%
Mixed Recyc Paper		8.0%	6.7%	9.4%
Other Non- Recyc Paper		6.9%	5.5%	8.3%
PLASTIC	**9.6%**		**8.1%**	**11.2%**
#1 PET Containers		0.3%	0.2%	0.4%
#1 PET Deposit		0.3%	0.2%	0.3%
#2 HDPE Containers		1.2%	0.9%	1.6%
All Other Numbered Containers		0.5%	0.3%	0.6%
Other Plastic Not Numbered		3.4%	2.6%	4.3%
Film/Wrap/Bags		4.0%	3.3%	4.7%
METAL	**5.7%**		**4.6%**	**6.8%**
Alum Non-Deposit Beverage Containers		0.1%	0.1%	0.2%
Alum Deposit Beverage Containers		0.3%	0.2%	0.4%
Ferrous Food		2.0%	1.6%	2.5%
Other Ferrous Scrap		2.8%	1.8%	3.9%
Other Non-Ferrous Scrap		0.5%	0.4%	0.7%
GLASS	**1.8%**		**1.4%**	**2.3%**
Clear		1.0%	0.7%	1.3%
Green		0.1%	0.1%	0.2%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.3%
Deposit Glass Containers		0.3%	0.1%	0.5%
Other/ Mixed Cullet		0.2%	0.1%	0.3%
HHM	**1.4%**		**0.9%**	**2.0%**
Automotive Products		0.6%	0.3%	0.9%
Paints and Solvents		0.4%	0.2%	0.7%
Pesticides, Herbicides & Fungicides		0.1%	0.0%	0.1%
Household Cleaners		0.1%	0.0%	0.2%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.2%
YARD WASTE	**3.7%**		**2.3%**	**5.5%**
Yard Waste		1.1%	0.6%	1.8%
Pumpkins		2.6%	1.4%	4.2%
FOOD WASTE	**10.6%**		**8.6%**	**12.9%**
Food Waste		10.6%	8.6%	12.9%
WOOD	**2.6%**		**1.6%**	**3.9%**
Non-Treated Wood		1.4%	0.7%	2.3%
Treated Wood		1.2%	0.7%	1.9%
DURABLES	**4.0%**		**2.2%**	**6.3%**
All Electrical and Household Appl.		1.4%	0.9%	2.1%
Other Durables		2.6%	1.1%	4.6%
TEXTILES	**4.1%**		**2.9%**	**5.5%**
Textiles and Leather		4.1%	2.9%	5.5%
DIAPERS	**2.8%**		**2.0%**	**3.9%**
Diapers		2.8%	2.0%	3.9%
RUBBER	**1.0%**		**0.7%**	**1.5%**
Rubber		1.0%	0.7%	1.5%
OTHER ORGANIC	**1.3%**		**0.9%**	**1.8%**
Other Organic		1.3%	0.9%	1.8%
OTHER INORGANIC	**0.6%**		**0.4%**	**0.9%**
Other Inorganic		0.6%	0.4%	0.9%
FINES/SUPERMIX	**6.9%**		**5.3%**	**8.6%**
Fines/ Supermix		6.9%	5.4%	8.5%
OTHER	**0.2%**		**0.1%**	**0.4%**
Other		0.2%	0.1%	0.4%
CONSTRUCTION & DEMOLITION	**0.7%**		**0.4%**	**1.1%**
C&D		0.7%	0.4%	1.1%
TOTAL PERCENT	**100.0%**			

MONONA COUNTY
Solid Waste Composition
Spring and Fall

Sample Size =	37	loads
Total Wt Sorted =	8,269	pounds
Avg Wt per Sample	223	pounds

WASTE CATEGORIES Material	Mean Percentage	
PAPER	**33.4%**	
Newspaper		6.0%
Magazines		4.1%
High Grade/ Office		3.4%
OCC and Kraft Bags		8.2%
Mixed Recyc Paper		6.3%
Other Non- Recyc Paper		5.4%
PLASTIC	**7.5%**	
#1 PET Containers		0.1%
#1 PET Deposit		0.1%
#2 HDPE Containers		1.2%
All Other Numbered Containers		0.2%
Other Plastic Not Numbered		2.9%
Film/Wrap/Bags		3.0%
METAL	**4.4%**	
Alum Non-Deposit Beverage Containers		0.0%
Alum Deposit Beverage Containers		0.1%
Ferrous Food		1.6%
Other Ferrous Scrap		2.5%
Other Non-Ferrous Scrap		0.2%
GLASS	**0.9%**	
Clear		0.7%
Green		0.1%
Blue		0.0%
Brown		0.0%
Deposit Glass Containers		0.1%
Other/ Mixed Cullet		0.0%
HHM	**0.7%**	
Automotive Products		0.3%
Paints and Solvents		0.3%
Pesticides, Herbicides & Fungicides		0.0%
Household Cleaners		0.0%
Batteries (lead -acid)		0.0%
Batteries (other)		0.0%
Other (HHM containers w/prod inside)		0.1%
YARD WASTE	**2.8%**	
Yard Waste		1.0%
Pumpkins		1.8%
FOOD WASTE	**8.3%**	
Food Waste		8.3%
WOOD	**2.3%**	
Non-Treated Wood		1.2%
Treated Wood		1.1%
DURABLES	**2.6%**	
All Electrical and Household Appl.		0.9%
Other Durables		1.7%
TEXTILES	**3.3%**	
Textiles and Leather		3.3%
DIAPERS	**2.5%**	
Diapers		2.5%
RUBBER	**0.7%**	
Rubber		0.7%
OTHER ORGANIC	**1.0%**	
Other Organic		1.0%
OTHER INORGANIC	**0.6%**	
Other Inorganic		0.6%
FINES/SUPERMIX	**5.2%**	
Fines/ Supermix		5.2%
INFECTIOUS WASTE	**0.0%**	
Infectious Waste		0.0%
CONSTRUCTION & DEMOLITION	**20.6%**	
C&D		20.6%
SPECIAL WASTES	**0.4%**	
Special Wastes		0.4%
TOTAL PERCENT	**100.0%**	

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Residential - Spring and Fall

Sample Size =	18	loads
Total Wt Sorted =	4,044	pounds
Avg Wt per Sample =	225	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**22.2%**		**14.1%**	**31.4%**
Newspaper		3.4%	1.8%	5.5%
Magazines		1.9%	1.0%	3.2%
High Grade/ Office		0.5%	0.2%	0.8%
OCC and Kraft Bags		4.9%	2.8%	7.5%
Mixed Recyc Paper		4.3%	2.6%	6.5%
Other Non- Recyc Paper		7.2%	4.4%	10.7%
PLASTIC	**11.1%**		**7.6%**	**15.1%**
#1 PET Containers		0.2%	0.1%	0.3%
#1 PET Deposit		0.0%	0.0%	0.1%
#2 HDPE Containers		0.6%	0.3%	0.9%
All Other Numbered Containers		0.7%	0.2%	1.3%
Other Plastic Not Numbered		4.4%	3.1%	5.9%
Film/Wrap/Bags		5.2%	3.0%	8.0%
METAL	**8.8%**		**5.7%**	**12.5%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.0%	0.1%
Ferrous Food		1.3%	0.7%	2.2%
Other Ferrous Scrap		6.1%	3.5%	9.4%
Other Non-Ferrous Scrap		1.3%	0.6%	2.2%
GLASS	**2.8%**		**1.9%**	**3.9%**
Clear		1.6%	0.9%	2.5%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.3%
Deposit Glass Containers		0.1%	0.0%	0.2%
Other/ Mixed Cullet		1.0%	0.4%	1.8%
HHM	**0.8%**		**0.4%**	**1.3%**
Automotive Products		0.3%	0.1%	0.6%
Paints and Solvents		0.2%	0.1%	0.3%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.3%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.2%
YARD WASTE	**1.7%**		**0.6%**	**3.4%**
Yard Waste		1.5%	0.5%	2.9%
Pumpkins		0.2%	0.0%	0.5%
FOOD WASTE	**6.7%**		**3.4%**	**10.9%**
Food Waste		6.7%	3.4%	10.9%
WOOD	**12.5%**		**5.9%**	**21.3%**
Non-Treated Wood		3.8%	1.6%	6.9%
Treated Wood		8.8%	3.8%	15.5%
DURABLES	**10.9%**		**5.3%**	**18.1%**
All Electrical and Household Appl.		3.7%	1.6%	6.6%
Other Durables		7.2%	2.7%	13.6%
TEXTILES	**5.7%**		**3.3%**	**8.6%**
Textiles and Leather		5.7%	3.3%	8.6%
DIAPERS	**1.8%**		**0.7%**	**3.4%**
Diapers		1.8%	0.7%	3.4%
RUBBER	**0.8%**		**0.4%**	**1.4%**
Rubber		0.8%	0.4%	1.4%
OTHER ORGANIC	**1.8%**		**0.7%**	**3.4%**
Other Organic		1.8%	0.7%	3.4%
OTHER INORGANIC	**1.7%**		**0.6%**	**3.4%**
Other Inorganic		1.7%	0.6%	3.4%
FINES/SUPERMIX	**4.3%**		**2.5%**	**6.7%**
Fines/ Supermix		4.3%	2.5%	6.7%
OTHER	**1.8%**		**0.4%**	**4.1%**
Other		1.8%	0.4%	4.1%
CONSTRUCTION & DEMOLITION	**4.7%**		**2.2%**	**8.1%**
C&D		4.7%	2.2%	8.1%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Commercial - Spring and Fall

Sample Size =	22	loads
Total Wt Sorted =	5,087	pounds
Avg Wt per Sample =	231	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**19.2%**		**11.8%**	**27.9%**
Newspaper		0.5%	0.2%	1.1%
Magazines		0.9%	0.3%	1.8%
High Grade/ Office		1.1%	0.4%	2.0%
OCC and Kraft Bags		7.1%	3.9%	11.2%
Mixed Recyc Paper		1.4%	0.6%	2.4%
Other Non- Recyc Paper		8.2%	4.0%	13.7%
PLASTIC	**34.1%**		**21.4%**	**48.2%**
#1 PET Containers		0.0%	0.0%	0.0%
#1 PET Deposit		0.0%	0.0%	0.0%
#2 HDPE Containers		0.4%	0.1%	0.8%
All Other Numbered Containers		0.4%	0.1%	0.8%
Other Plastic Not Numbered		31.7%	18.0%	47.2%
Film/Wrap/Bags		1.6%	0.8%	2.6%
METAL	**3.4%**		**1.5%**	**6.1%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.0%	0.0%	0.0%
Ferrous Food		0.1%	0.0%	0.1%
Other Ferrous Scrap		2.5%	0.9%	4.7%
Other Non-Ferrous Scrap		0.9%	0.3%	1.7%
GLASS	**11.1%**		**3.3%**	**22.5%**
Clear		0.1%	0.0%	0.2%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		11.0%	3.2%	22.6%
HHM	**0.4%**		**0.1%**	**0.8%**
Automotive Products		0.0%	0.0%	0.0%
Paints and Solvents		0.4%	0.1%	0.8%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.0%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.0%**		**0.0%**	**0.0%**
Yard Waste		0.0%	0.0%	0.0%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**3.8%**		**1.2%**	**7.8%**
Food Waste		3.8%	1.2%	7.8%
WOOD	**11.4%**		**6.3%**	**17.8%**
Non-Treated Wood		9.0%	4.1%	15.4%
Treated Wood		2.4%	1.0%	4.5%
DURABLES	**2.3%**		**0.8%**	**4.6%**
All Electrical and Household Appl.		0.1%	0.0%	0.2%
Other Durables		2.2%	0.7%	4.5%
TEXTILES	**0.4%**		**0.1%**	**0.7%**
Textiles and Leather		0.4%	0.1%	0.7%
DIAPERS	**0.0%**		**0.0%**	**0.0%**
Diapers		0.0%	0.0%	0.0%
RUBBER	**0.9%**		**0.3%**	**1.9%**
Rubber		0.9%	0.3%	1.9%
OTHER ORGANIC	**0.3%**		**0.1%**	**0.5%**
Other Organic		0.3%	0.1%	0.5%
OTHER INORGANIC	**1.6%**		**0.5%**	**3.4%**
Other Inorganic		1.6%	0.5%	3.4%
FINES/SUPERMIX	**1.5%**		**0.6%**	**3.0%**
Fines/ Supermix		1.5%	0.6%	3.0%
OTHER	**4.5%**		**1.7%**	**8.6%**
Other		4.5%	1.7%	8.6%
CONSTRUCTION & DEMOLITION	**5.1%**		**1.7%**	**10.2%**
C&D		5.1%	1.7%	10.2%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Mixed - Spring and Fall

Sample Size =	56	loads
Total Wt Sorted =	12,529	pounds
Avg Wt per Sample =	224	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**35.6%**		**32.0%**	**39.4%**
Newspaper		5.5%	4.2%	7.0%
Magazines		3.2%	2.5%	4.0%
High Grade/ Office		3.4%	2.3%	4.6%
OCC and Kraft Bags		7.1%	5.9%	8.5%
Mixed Recyc Paper		5.9%	4.9%	7.0%
Other Non- Recyc Paper		10.5%	9.1%	12.1%
PLASTIC	**15.7%**		**13.8%**	**17.7%**
#1 PET Containers		0.2%	0.2%	0.3%
#1 PET Deposit		0.1%	0.1%	0.2%
#2 HDPE Containers		1.0%	0.8%	1.2%
All Other Numbered Containers		0.5%	0.3%	0.7%
Other Plastic Not Numbered		5.9%	4.7%	7.2%
Film/Wrap/Bags		8.0%	6.7%	9.4%
METAL	**5.9%**		**4.8%**	**7.2%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.1%	0.1%
Ferrous Food		1.3%	1.0%	1.6%
Other Ferrous Scrap		4.1%	3.0%	5.3%
Other Non-Ferrous Scrap		0.5%	0.3%	0.7%
GLASS	**1.4%**		**1.1%**	**1.8%**
Clear		0.9%	0.7%	1.2%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.2%	0.1%	0.3%
Other/ Mixed Cullet		0.3%	0.2%	0.5%
HHM	**0.5%**		**0.3%**	**0.6%**
Automotive Products		0.2%	0.1%	0.3%
Paints and Solvents		0.1%	0.0%	0.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.1%
YARD WASTE	**0.6%**		**0.4%**	**0.9%**
Yard Waste		0.6%	0.4%	0.9%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**7.0%**		**5.5%**	**8.7%**
Food Waste		7.0%	5.5%	8.7%
WOOD	**5.5%**		**3.8%**	**7.4%**
Non-Treated Wood		2.9%	1.9%	4.2%
Treated Wood		2.5%	1.7%	3.6%
DURABLES	**3.1%**		**2.0%**	**4.5%**
All Electrical and Household Appl.		1.3%	0.8%	1.9%
Other Durables		1.8%	1.0%	2.8%
TEXTILES	**5.3%**		**4.0%**	**6.7%**
Textiles and Leather		5.3%	4.0%	6.8%
DIAPERS	**2.5%**		**1.7%**	**3.3%**
Diapers		2.5%	1.7%	3.3%
RUBBER	**0.3%**		**0.2%**	**0.4%**
Rubber		0.3%	0.2%	0.4%
OTHER ORGANIC	**0.8%**		**0.5%**	**1.1%**
Other Organic		0.8%	0.5%	1.1%
OTHER INORGANIC	**2.2%**		**1.3%**	**3.2%**
Other Inorganic		2.2%	1.3%	3.2%
FINES/SUPERMIX	**5.6%**		**4.4%**	**6.8%**
Fines/ Supermix		5.6%	4.5%	6.8%
OTHER	**1.2%**		**0.6%**	**2.0%**
Other		1.2%	0.6%	2.0%
CONSTRUCTION & DEMOLITION	**7.0%**		**4.5%**	**10.0%**
C&D		7.0%	4.5%	10.0%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Combined - Spring and Fall

Sample Size =	96	loads
Total Wt Sorted =	21,660	pounds
Avg Wt per Sample =	226	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**29.3%**		**25.7%**	**33.1%**
Newspaper		4.0%	3.1%	5.0%
Magazines		2.4%	1.9%	3.0%
High Grade/ Office		2.3%	1.7%	3.0%
OCC and Kraft Bags		6.7%	5.6%	8.0%
Mixed Recyc Paper		4.6%	3.7%	5.5%
Other Non- Recyc Paper		9.4%	7.8%	11.0%
PLASTIC	**19.0%**		**16.0%**	**22.3%**
#1 PET Containers		0.2%	0.1%	0.2%
#1 PET Deposit		0.1%	0.1%	0.1%
#2 HDPE Containers		0.8%	0.6%	0.9%
All Other Numbered Containers		0.5%	0.3%	0.7%
Other Plastic Not Numbered		11.5%	8.8%	14.6%
Film/Wrap/Bags		6.0%	5.0%	7.2%
METAL	**5.9%**		**4.8%**	**7.1%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.0%	0.1%
Ferrous Food		1.0%	0.8%	1.3%
Other Ferrous Scrap		4.1%	3.2%	5.1%
Other Non-Ferrous Scrap		0.7%	0.5%	1.0%
GLASS	**3.9%**		**2.7%**	**5.4%**
Clear		0.9%	0.7%	1.1%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.1%
Deposit Glass Containers		0.1%	0.1%	0.2%
Other/ Mixed Cullet		2.9%	1.7%	4.3%
HHM	**0.5%**		**0.4%**	**0.7%**
Automotive Products		0.2%	0.1%	0.3%
Paints and Solvents		0.2%	0.1%	0.2%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.1%
YARD WASTE	**0.7%**		**0.4%**	**0.9%**
Yard Waste		0.6%	0.4%	0.9%
Pumpkins		0.0%	0.0%	0.1%
FOOD WASTE	**6.2%**		**4.8%**	**7.8%**
Food Waste		6.2%	4.8%	7.8%
WOOD	**8.1%**		**6.2%**	**10.3%**
Non-Treated Wood		4.5%	3.2%	5.9%
Treated Wood		3.7%	2.6%	4.9%
DURABLES	**4.4%**		**3.1%**	**5.9%**
All Electrical and Household Appl.		1.5%	1.0%	2.0%
Other Durables		2.9%	1.9%	4.1%
TEXTILES	**4.2%**		**3.3%**	**5.3%**
Textiles and Leather		4.2%	3.3%	5.3%
DIAPERS	**1.8%**		**1.3%**	**2.3%**
Diapers		1.8%	1.3%	2.3%
RUBBER	**0.5%**		**0.4%**	**0.7%**
Rubber		0.5%	0.4%	0.7%
OTHER ORGANIC	**0.9%**		**0.6%**	**1.2%**
Other Organic		0.9%	0.6%	1.2%
OTHER INORGANIC	**2.0%**		**1.3%**	**2.7%**
Other Inorganic		2.0%	1.3%	2.7%
FINES/SUPERMIX	**4.4%**		**3.5%**	**5.4%**
Fines/ Supermix		4.4%	3.5%	5.4%
OTHER	**2.1%**		**1.3%**	**3.0%**
Other		2.1%	1.3%	3.0%
CONSTRUCTION & DEMOLITION	**6.1%**		**4.3%**	**8.2%**
C&D		6.1%	4.3%	8.2%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
Solid Waste Composition
Spring and Fall

Sample Size =	96	loads
Total Wt Sorted =	21,660	pounds
Avg Wt per Sample	226	pounds

WASTE CATEGORIES Material	Mean Percentage	
PAPER	**23.2%**	
Newspaper		3.1%
Magazines		1.9%
High Grade/ Office		1.8%
OCC and Kraft Bags		5.3%
Mixed Recyc Paper		3.6%
Other Non- Recyc Paper		7.4%
PLASTIC	**15.1%**	
#1 PET Containers		0.1%
#1 PET Deposit		0.1%
#2 HDPE Containers		0.6%
All Other Numbered Containers		0.4%
Other Plastic Not Numbered		9.1%
Film/Wrap/Bags		4.8%
METAL	**4.7%**	
Alum Non-Deposit Beverage Containers		0.0%
Alum Deposit Beverage Containers		0.1%
Ferrous Food		0.8%
Other Ferrous Scrap		3.3%
Other Non-Ferrous Scrap		0.6%
GLASS	**3.1%**	
Clear		0.7%
Green		0.0%
Blue		0.0%
Brown		0.0%
Deposit Glass Containers		0.1%
Other/ Mixed Cullet		2.3%
HHM	**0.4%**	
Automotive Products		0.2%
Paints and Solvents		0.1%
Pesticides, Herbicides & Fungicides		0.0%
Household Cleaners		0.0%
Batteries (lead -acid)		0.0%
Batteries (other)		0.0%
Other (HHM containers w/prod inside)		0.0%
Light Bulbs		0.0%
YARD WASTE	**0.5%**	
Yard Waste		0.5%
Pumpkins		0.0%
FOOD WASTE	**4.9%**	
Food Waste		4.9%
WOOD	**6.4%**	
Non-Treated Wood		3.6%
Treated Wood		2.8%
DURABLES	**3.5%**	
All Electrical and Household Appl.		1.2%
Other Durables		2.3%
TEXTILES	**3.4%**	
Textiles and Leather		3.4%
DIAPERS	**1.4%**	
Diapers		1.4%
RUBBER	**0.4%**	
Rubber		0.4%
OTHER ORGANIC	**0.7%**	
Other Organic		0.7%
OTHER INORGANIC	**1.6%**	
Other Inorganic		1.6%
FINES/SUPERMIX	**3.4%**	
Fines/ Supermix		3.4%
OTHER	**1.6%**	
Other		1.6%
CONSTRUCTION & DEMOLITION	**22.8%**	
C&D		22.8%
SPECIAL WASTES	**2.8%**	
Special Wastes		2.8%
TOTAL PERCENT	**100.0%**	

APPENDIX C
1997 FALL RESULTS

DES MOINES COUNTY
MSW Composition
Residential - Fall 1997

Sample Size =	17	loads
Total Wt Sorted =	3,898	pounds
Avg Wt per Sample =	229	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**28.7%**		**22.0%**	**35.8%**
Newspaper		4.5%	2.6%	6.9%
Magazines		2.8%	1.6%	4.3%
High Grade/ Office		1.2%	0.6%	2.1%
OCC and Kraft Bags		3.1%	1.6%	4.9%
Mixed Recyc Paper		7.0%	4.7%	9.7%
Other Non- Recyc Paper		10.1%	8.0%	12.4%
PLASTIC	**9.7%**		**7.1%**	**12.6%**
#1 PET Containers		0.3%	0.1%	0.5%
#1 PET Deposit		0.2%	0.1%	0.4%
#2 HDPE Containers		1.0%	0.5%	1.5%
All Other Numbered Containers		0.6%	0.2%	1.1%
Other Plastic Not Numbered		4.1%	2.7%	5.8%
Film/Wrap/Bags		3.5%	2.3%	5.0%
METAL	**7.6%**		**5.2%**	**10.5%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.2%
Alum Deposit Beverage Containers		0.2%	0.1%	0.3%
Ferrous Food		1.4%	0.9%	2.1%
Other Ferrous Scrap		5.0%	2.2%	8.7%
Other Non-Ferrous Scrap		1.0%	0.5%	1.7%
GLASS	**2.3%**		**1.4%**	**3.5%**
Clear		1.7%	1.0%	2.5%
Green		0.0%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.4%
Deposit Glass Containers		0.4%	0.1%	0.8%
Other/ Mixed Cullet		0.1%	0.0%	0.2%
HHM	**0.8%**		**0.5%**	**1.2%**
Automotive Products		0.4%	0.1%	0.7%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.1%
Household Cleaners		0.1%	0.1%	0.2%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.2%
YARD WASTE	**1.7%**		**0.6%**	**3.3%**
Yard Waste		1.7%	0.6%	3.3%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**11.1%**		**7.5%**	**15.3%**
Food Waste		11.1%	7.5%	15.3%
WOOD	**7.9%**		**3.5%**	**13.8%**
Non-Treated Wood		1.7%	0.6%	3.2%
Treated Wood		6.2%	2.4%	11.7%
DURABLES	**3.0%**		**1.1%**	**5.5%**
All Electrical and Household Appl.		1.6%	0.6%	2.9%
Other Durables		1.4%	0.3%	3.3%
TEXTILES	**7.6%**		**5.0%**	**10.7%**
Textiles and Leather		7.6%	5.0%	10.7%
DIAPERS	**4.5%**		**2.7%**	**6.7%**
Diapers		4.5%	2.7%	6.7%
RUBBER	**0.1%**		**0.0%**	**0.2%**
Rubber		0.1%	0.0%	0.2%
OTHER ORGANIC	**2.1%**		**0.9%**	**3.8%**
Other Organic		2.1%	0.9%	3.8%
OTHER INORGANIC	**0.8%**		**0.2%**	**1.6%**
Other Inorganic		0.8%	0.2%	1.6%
FINES/SUPERMIX	**7.1%**		**4.5%**	**10.1%**
Fines/ Supermix		7.1%	4.5%	10.1%
OTHER	**0.2%**		**0.0%**	**0.5%**
Other		0.2%	0.0%	0.5%
CONSTRUCTION & DEMOLITION	**4.9%**		**1.6%**	**9.9%**
C&D		4.9%	1.6%	9.9%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
MSW Composition
Commercial - Fall 1997

Sample Size =	23	loads
Total Wt Sorted =	5,337	pounds
Avg Wt per Sample =	232	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**26.8%**		**17.3%**	**37.5%**
Newspaper		0.9%	0.4%	1.5%
Magazines		1.2%	0.5%	2.2%
High Grade/ Office		2.4%	1.1%	4.2%
OCC and Kraft Bags		8.3%	4.9%	12.4%
Mixed Recyc Paper		2.8%	1.5%	4.6%
Other Non- Recyc Paper		11.3%	5.8%	18.3%
PLASTIC	**12.0%**		**6.7%**	**18.7%**
#1 PET Containers		0.2%	0.1%	0.4%
#1 PET Deposit		0.1%	0.0%	0.1%
#2 HDPE Containers		0.6%	0.3%	1.0%
All Other Numbered Containers		0.2%	0.1%	0.4%
Other Plastic Not Numbered		8.4%	4.1%	13.9%
Film/Wrap/Bags		2.6%	1.4%	4.3%
METAL	**3.6%**		**2.2%**	**5.4%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.2%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		0.6%	0.3%	1.0%
Other Ferrous Scrap		2.5%	1.2%	4.3%
Other Non-Ferrous Scrap		0.3%	0.1%	0.6%
GLASS	**4.4%**		**1.5%**	**8.7%**
Clear		0.4%	0.2%	0.8%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.4%
Deposit Glass Containers		0.1%	0.0%	0.1%
Other/ Mixed Cullet		3.7%	1.0%	7.9%
HHM	**0.7%**		**0.2%**	**1.3%**
Automotive Products		0.0%	0.0%	0.1%
Paints and Solvents		0.5%	0.1%	1.0%
Pesticides, Herbicides & Fungicides		0.1%	0.0%	0.2%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.0%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.8%**		**0.2%**	**1.5%**
Yard Waste		0.8%	0.2%	1.5%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**8.7%**		**3.9%**	**15.1%**
Food Waste		8.7%	3.9%	15.1%
WOOD	**14.7%**		**7.7%**	**23.6%**
Non-Treated Wood		7.4%	3.2%	13.1%
Treated Wood		7.3%	2.8%	13.7%
DURABLES	**1.6%**		**0.5%**	**3.4%**
All Electrical and Household Appl.		0.0%	0.0%	0.1%
Other Durables		1.6%	0.4%	3.4%
TEXTILES	**1.6%**		**0.7%**	**2.8%**
Textiles and Leather		1.6%	0.7%	2.8%
DIAPERS	**0.4%**		**0.1%**	**0.9%**
Diapers		0.4%	0.1%	0.9%
RUBBER	**1.4%**		**0.6%**	**2.6%**
Rubber		1.4%	0.6%	2.6%
OTHER ORGANIC	**3.2%**		**1.0%**	**6.6%**
Other Organic		3.2%	1.0%	6.6%
OTHER INORGANIC	**6.5%**		**1.4%**	**15.0%**
Other Inorganic		6.5%	1.4%	15.0%
FINES/SUPERMIX	**2.1%**		**1.0%**	**3.5%**
Fines/ Supermix		2.1%	1.0%	3.5%
OTHER	**0.3%**		**0.1%**	**0.6%**
Other		0.3%	0.1%	0.6%
CONSTRUCTION & DEMOLITION	**11.4%**		**3.5%**	**23.0%**
C&D		11.4%	3.5%	23.0%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
MSW Composition
Mixed - Fall 1997

Sample Size =	4	loads
Total Wt Sorted =	953	pounds
Avg Wt per Sample	238	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**50.9%**		**28.1%**	**73.5%**
Newspaper		2.2%	1.6%	3.0%
Magazines		2.5%	0.3%	6.7%
High Grade/ Office		7.1%	0.4%	20.7%
OCC and Kraft Bags		8.9%	2.5%	18.9%
Mixed Recyc Paper		7.5%	2.0%	16.2%
Other Non- Recyc Paper		22.6%	8.3%	41.4%
PLASTIC	**10.7%**		**6.9%**	**15.1%**
#1 PET Containers		0.2%	0.0%	0.6%
#1 PET Deposit		0.1%	0.0%	0.1%
#2 HDPE Containers		0.7%	0.1%	1.7%
All Other Numbered Containers		0.4%	0.0%	1.1%
Other Plastic Not Numbered		6.6%	3.3%	10.9%
Film/Wrap/Bags		2.8%	2.0%	3.8%
METAL	**8.7%**		**0.6%**	**24.6%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.5%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		1.4%	0.2%	3.9%
Other Ferrous Scrap		6.3%	0.0%	24.2%
Other Non-Ferrous Scrap		0.8%	0.0%	3.4%
GLASS	**1.1%**		**0.0%**	**3.5%**
Clear		0.6%	0.0%	1.7%
Green		0.3%	0.0%	1.4%
Blue		0.0%	0.0%	0.0%
Brown		0.3%	0.0%	1.0%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.0%	0.0%	0.2%
HHM	**1.2%**		**0.0%**	**4.5%**
Automotive Products		0.3%	0.0%	1.0%
Paints and Solvents		0.8%	0.0%	4.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.1%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.2%	0.0%	0.9%
YARD WASTE	**0.1%**		**0.0%**	**0.4%**
Yard Waste		0.1%	0.0%	0.4%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**4.8%**		**2.3%**	**8.1%**
Food Waste		4.8%	2.3%	8.1%
WOOD	**0.7%**		**0.0%**	**2.4%**
Non-Treated Wood		0.4%	0.0%	1.6%
Treated Wood		0.4%	0.0%	2.0%
DURABLES	**3.4%**		**0.0%**	**18.3%**
All Electrical and Household Appl.		0.0%	0.0%	0.0%
Other Durables		3.4%	0.0%	18.3%
TEXTILES	**0.9%**		**0.2%**	**1.9%**
Textiles and Leather		0.9%	0.2%	1.9%
DIAPERS	**5.1%**		**0.0%**	**20.5%**
Diapers		5.1%	0.0%	20.5%
RUBBER	**0.0%**		**0.0%**	**0.2%**
Rubber		0.0%	0.0%	0.2%
OTHER ORGANIC	**0.1%**		**0.0%**	**0.8%**
Other Organic		0.1%	0.0%	0.8%
OTHER INORGANIC	**0.1%**		**0.0%**	**0.5%**
Other Inorganic		0.1%	0.0%	0.5%
FINES/SUPERMIX	**5.2%**		**0.2%**	**15.7%**
Fines/ Supermix		5.2%	0.2%	15.7%
INFECTIOUS WASTE	**0.2%**		**0.0%**	**1.3%**
Infectious Waste		0.2%	0.0%	1.3%
CONSTRUCTION & DEMOLITION	**6.9%**		**0.0%**	**32.8%**
C&D		6.9%	0.0%	32.8%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
MSW Composition
Combined - Fall 1997

Sample Size =	44	loads
Total Wt Sorted =	10,189	pounds
Avg Wt per Sample =	232	pounds
Est Tons Disposed/Week =	791	tons/week

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material	
PAPER	**29.7%**		**23.6%**	**36.3%**	**235**	
Newspaper		2.4%	1.6%	3.4%		19
Magazines		1.9%	1.3%	2.8%		15
High Grade/ Office		2.4%	1.5%	3.5%		19
OCC and Kraft Bags		6.3%	4.4%	8.5%		50
Mixed Recyc Paper		4.9%	3.5%	6.5%		39
Other Non- Recyc Paper		11.8%	8.5%	15.6%		94
PLASTIC	**11.0%**		**8.1%**	**14.3%**	**87**	
#1 PET Containers		0.2%	0.1%	0.3%		2
#1 PET Deposit		0.1%	0.1%	0.2%		1
#2 HDPE Containers		0.7%	0.5%	1.1%		6
All Other Numbered Containers		0.4%	0.2%	0.6%		3
Other Plastic Not Numbered		6.6%	4.4%	9.1%		52
Film/Wrap/Bags		3.0%	2.1%	4.0%		24
METAL	**5.6%**		**4.2%**	**7.3%**	**44**	
Alum Non-Deposit Beverage Containers		0.1%	0.1%	0.1%		1
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%		1
Ferrous Food		1.0%	0.7%	1.4%		8
Other Ferrous Scrap		3.8%	2.4%	5.5%		30
Other Non-Ferrous Scrap		0.6%	0.4%	0.9%		5
GLASS	**3.3%**		**1.9%**	**5.1%**	**26**	
Clear		0.9%	0.6%	1.3%		7
Green		0.0%	0.0%	0.1%		0
Blue		0.0%	0.0%	0.0%		0
Brown		0.2%	0.1%	0.3%		2
Deposit Glass Containers		0.2%	0.1%	0.3%		1
Other/ Mixed Cullet		2.0%	0.9%	3.5%		16
HHM	**0.8%**		**0.5%**	**1.2%**	**6**	
Automotive Products		0.2%	0.1%	0.3%		1
Paints and Solvents		0.3%	0.1%	0.6%		3
Pesticides, Herbicides & Fungicides		0.1%	0.0%	0.1%		1
Household Cleaners		0.1%	0.0%	0.1%		1
Batteries (lead -acid)		0.0%	0.0%	0.0%		0
Batteries (other)		0.1%	0.0%	0.1%		0
Other (HHM containers w/prod inside)		0.1%	0.0%	0.1%		0
YARD WASTE	**1.0%**		**0.5%**	**1.7%**	**8**	
Yard Waste		1.0%	0.5%	1.7%		8
Pumpkins		0.0%	0.0%	0.0%		0
FOOD WASTE	**9.2%**		**6.2%**	**12.8%**	**73**	
Food Waste		9.2%	6.2%	12.8%		73
WOOD	**10.8%**		**6.8%**	**15.6%**	**86**	
Non-Treated Wood		4.5%	2.5%	7.1%		36
Treated Wood		6.3%	3.5%	9.8%		50
DURABLES	**2.3%**		**1.2%**	**3.7%**	**18**	
All Electrical and Household Appl.		0.6%	0.3%	1.0%		5
Other Durables		1.7%	0.8%	2.9%		13
TEXTILES	**3.8%**		**2.5%**	**5.4%**	**30**	
Textiles and Leather		3.8%	2.5%	5.4%		30
DIAPERS	**2.4%**		**1.5%**	**3.6%**	**19**	
Diapers		2.4%	1.5%	3.6%		19
RUBBER	**0.8%**		**0.4%**	**1.3%**	**6**	
Rubber		0.8%	0.4%	1.3%		6
OTHER ORGANIC	**2.5%**		**1.3%**	**4.1%**	**20**	
Other Organic		2.5%	1.3%	4.1%		20
OTHER INORGANIC	**3.7%**		**1.4%**	**7.0%**	**29**	
Other Inorganic		3.7%	1.4%	7.0%		29
FINES/SUPERMIX	**4.3%**		**2.9%**	**5.9%**	**34**	
Fines/ Supermix		4.3%	2.9%	5.9%		34
INFECTIOUS WASTE	**0.2%**		**0.1%**	**0.4%**	**2**	
Infectious Waste		0.2%	0.1%	0.4%		2
CONSTRUCTION & DEMOLITION	**8.5%**		**4.2%**	**14.1%**	**67**	
C&D		8.5%	4.2%	14.1%		67
TOTAL PERCENT	**100.0%**					

DES MOINES COUNTY
Solid Waste Composition
Fall 1997

Sample Size =	44	loads
Total Wt Sorted =	10,189	pounds
Avg Wt per Sample =	232	pounds
Est Tons Disposed/Week =	1,080	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**21.9%**		**235**	
Newspaper		1.8%		19
Magazines		1.4%		15
High Grade/ Office		1.8%		19
OCC and Kraft Bags		4.6%		50
Mixed Recyc Paper		3.6%		39
Other Non- Recyc Paper		8.7%		94
PLASTIC	**8.1%**		**87**	
#1 PET Containers		0.2%		2
#1 PET Deposit		0.1%		1
#2 HDPE Containers		0.6%		6
All Other Numbered Containers		0.3%		3
Other Plastic Not Numbered		4.8%		52
Film/Wrap/Bags		2.2%		24
METAL	**4.2%**		**44**	
Alum Non-Deposit Beverage Containers		0.1%		1
Alum Deposit Beverage Containers		0.1%		1
Ferrous Food		0.7%		8
Other Ferrous Scrap		2.8%		30
Other Non-Ferrous Scrap		0.5%		5
GLASS	**2.4%**		**26**	
Clear		0.6%		7
Green		0.0%		0
Blue		0.0%		0
Brown		0.2%		2
Deposit Glass Containers		0.1%		1
Other/ Mixed Cullet		1.5%		16
HHM	**0.6%**		**6**	
Automotive Products		0.1%		1
Paints and Solvents		0.3%		3
Pesticides, Herbicides & Fungicides		0.1%		1
Household Cleaners		0.1%		1
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.0%		0
Other (HHM containers w/prod inside)		0.0%		0
YARD WASTE	**0.7%**		**8**	
Yard Waste		0.7%		8
Pumpkins		0.0%		0
FOOD WASTE	**6.8%**		**73**	
Food Waste		6.8%		73
WOOD	**8.0%**		**86**	
Non-Treated Wood		3.3%		36
Treated Wood		4.6%		50
DURABLES	**1.7%**		**18**	
All Electrical and Household Appl.		0.5%		5
Other Durables		1.2%		13
TEXTILES	**2.8%**		**30**	
Textiles and Leather		2.8%		30
DIAPERS	**1.8%**		**19**	
Diapers		1.8%		19
RUBBER	**0.6%**		**6**	
Rubber		0.6%		6
OTHER ORGANIC	**1.9%**		**20**	
Other Organic		1.9%		20
OTHER INORGANIC	**2.7%**		**29**	
Other Inorganic		2.7%		29
FINES/SUPERMIX	**3.1%**		**34**	
Fines/ Supermix		3.1%		34
INFECTIOUS WASTE	**0.2%**		**2**	
Infectious Waste		0.2%		2
CONSTRUCTION & DEMOLITION	**30.6%**		**331**	
C&D		30.6%		331
SPECIAL WASTES	**2.3%**		**25**	
Special Wastes		2.3%		25
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Residential - Fall 1997

Sample Size =	4	loads
Total Wt Sorted =	971	pounds
Avg Wt per Sample =	243	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**23.6%**		**13.8%**	**34.9%**
Newspaper		3.8%	0.8%	8.9%
Magazines		1.9%	0.1%	5.5%
High Grade/ Office		0.8%	0.2%	1.8%
OCC and Kraft Bags		2.6%	1.7%	3.7%
Mixed Recyc Paper		5.8%	2.7%	10.0%
Other Non- Recyc Paper		8.6%	5.4%	12.5%
PLASTIC	**12.2%**		**8.7%**	**16.2%**
#1 PET Containers		0.4%	0.1%	0.9%
#1 PET Deposit		0.0%	0.0%	0.2%
#2 HDPE Containers		1.9%	0.6%	3.8%
All Other Numbered Containers		0.3%	0.1%	0.6%
Other Plastic Not Numbered		5.7%	3.0%	9.2%
Film/Wrap/Bags		3.9%	2.0%	6.3%
METAL	**7.7%**		**2.3%**	**16.0%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.0%	0.4%
Ferrous Food		3.0%	0.8%	6.7%
Other Ferrous Scrap		2.7%	0.4%	7.3%
Other Non-Ferrous Scrap		1.8%	0.2%	4.9%
GLASS	**2.7%**		**1.7%**	**3.8%**
Clear		1.5%	0.7%	2.7%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.6%	0.0%	1.9%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.6%	0.1%	1.4%
HHM	**1.2%**		**0.6%**	**2.1%**
Automotive Products		0.2%	0.0%	0.9%
Paints and Solvents		0.2%	0.0%	0.6%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.2%
Other (HHM containers w/prod inside)		0.8%	0.1%	2.3%
YARD WASTE	**0.1%**		**0.0%**	**0.4%**
Yard Waste		0.1%	0.0%	0.4%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**15.6%**		**10.2%**	**22.0%**
Food Waste		15.6%	10.2%	22.0%
WOOD	**0.7%**		**0.0%**	**2.3%**
Non-Treated Wood		0.6%	0.0%	2.5%
Treated Wood		0.1%	0.0%	0.4%
DURABLES	**0.9%**		**0.0%**	**4.1%**
All Electrical and Household Appl.		0.9%	0.0%	4.1%
Other Durables		0.0%	0.0%	0.0%
TEXTILES	**5.1%**		**2.3%**	**9.0%**
Textiles and Leather		5.1%	2.3%	9.0%
DIAPERS	**6.3%**		**2.1%**	**12.4%**
Diapers		6.3%	2.1%	12.4%
RUBBER	**0.6%**		**0.0%**	**1.9%**
Rubber		0.6%	0.0%	1.9%
OTHER ORGANIC	**6.0%**		**1.3%**	**13.7%**
Other Organic		6.0%	1.3%	13.7%
OTHER INORGANIC	**0.8%**		**0.0%**	**3.3%**
Other Inorganic		0.8%	0.0%	3.3%
FINES/SUPERMIX	**10.8%**		**6.2%**	**16.4%**
Fines/ Supermix		10.8%	6.2%	16.4%
INFECTIOUS WASTE	**0.0%**		**0.0%**	**0.1%**
Infectious Waste		0.0%	0.0%	0.1%
CONSTRUCTION & DEMOLITION	**5.7%**		**0.1%**	**18.7%**
C&D		5.7%	0.1%	18.7%
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Commercial - Fall 1997

Sample Size =	27	loads
Total Wt Sorted =	6,653	pounds
Avg Wt per Sample =	246	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**42.8%**		**34.7%**	**51.2%**
Newspaper		1.4%	0.7%	2.2%
Magazines		0.9%	0.5%	1.5%
High Grade/ Office		1.0%	0.5%	1.8%
OCC and Kraft Bags		18.9%	12.9%	25.7%
Mixed Recyc Paper		3.7%	2.1%	5.8%
Other Non- Recyc Paper		16.9%	10.5%	24.4%
PLASTIC	**8.4%**		**5.1%**	**12.4%**
#1 PET Containers		0.1%	0.0%	0.1%
#1 PET Deposit		0.1%	0.0%	0.1%
#2 HDPE Containers		0.3%	0.2%	0.5%
All Other Numbered Containers		0.5%	0.2%	0.9%
Other Plastic Not Numbered		3.2%	1.8%	4.9%
Film/Wrap/Bags		4.3%	2.5%	6.5%
METAL	**12.1%**		**7.7%**	**17.4%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.0%	0.1%
Ferrous Food		9.2%	5.0%	14.5%
Other Ferrous Scrap		1.3%	0.6%	2.1%
Other Non-Ferrous Scrap		1.6%	0.7%	2.9%
GLASS	**1.5%**		**0.7%**	**2.6%**
Clear		0.7%	0.3%	1.3%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.5%	0.2%	0.9%
Deposit Glass Containers		0.1%	0.0%	0.1%
Other/ Mixed Cullet		0.3%	0.1%	0.5%
HHM	**1.0%**		**0.4%**	**1.6%**
Automotive Products		0.2%	0.1%	0.4%
Paints and Solvents		0.4%	0.1%	0.7%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.2%
YARD WASTE	**0.4%**		**0.1%**	**0.7%**
Yard Waste		0.4%	0.1%	0.7%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**16.2%**		**11.0%**	**22.1%**
Food Waste		16.2%	11.0%	22.1%
WOOD	**2.1%**		**0.9%**	**3.8%**
Non-Treated Wood		1.0%	0.4%	1.8%
Treated Wood		1.1%	0.5%	2.0%
DURABLES	**0.5%**		**0.2%**	**0.9%**
All Electrical and Household Appl.		0.5%	0.2%	0.8%
Other Durables		0.1%	0.0%	0.1%
TEXTILES	**2.2%**		**1.0%**	**3.9%**
Textiles and Leather		2.2%	1.0%	3.9%
DIAPERS	**1.8%**		**0.8%**	**3.1%**
Diapers		1.8%	0.8%	3.1%
RUBBER	**0.4%**		**0.2%**	**0.8%**
Rubber		0.4%	0.2%	0.8%
OTHER ORGANIC	**1.5%**		**0.7%**	**2.6%**
Other Organic		1.5%	0.7%	2.6%
OTHER INORGANIC	**0.7%**		**0.3%**	**1.2%**
Other Inorganic		0.7%	0.3%	1.2%
FINES/SUPERMIX	**5.0%**		**2.8%**	**7.8%**
Fines/ Supermix		5.0%	2.8%	7.8%
INFECTIOUS WASTE	**0.1%**		**0.0%**	**0.2%**
Infectious Waste		0.1%	0.0%	0.2%
CONSTRUCTION & DEMOLITION	**3.4%**		**1.3%**	**6.3%**
C&D		3.4%	1.3%	6.3%
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Mixed - Fall 1997

Sample Size =	16	loads
Total Wt Sorted =	3,886	pounds
Avg Wt per Sample =	243	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**29.6%**		**25.5%**	**33.8%**
Newspaper		2.5%	1.6%	3.6%
Magazines		3.2%	2.1%	4.4%
High Grade/ Office		2.0%	1.1%	3.2%
OCC and Kraft Bags		5.0%	3.4%	6.8%
Mixed Recyc Paper		6.4%	4.6%	8.3%
Other Non- Recyc Paper		10.5%	8.8%	12.3%
PLASTIC	**10.9%**		**9.9%**	**12.1%**
#1 PET Containers		0.2%	0.1%	0.3%
#1 PET Deposit		0.2%	0.1%	0.3%
#2 HDPE Containers		0.8%	0.6%	1.1%
All Other Numbered Containers		0.4%	0.2%	0.6%
Other Plastic Not Numbered		5.7%	4.9%	6.6%
Film/Wrap/Bags		3.7%	3.2%	4.1%
METAL	**4.9%**		**3.6%**	**6.3%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.1%
Alum Deposit Beverage Containers		0.2%	0.1%	0.3%
Ferrous Food		2.9%	2.0%	4.0%
Other Ferrous Scrap		1.3%	0.7%	2.0%
Other Non-Ferrous Scrap		0.5%	0.3%	0.7%
GLASS	**1.9%**		**1.4%**	**2.4%**
Clear		1.2%	0.7%	1.7%
Green		0.0%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.1%	0.3%
Deposit Glass Containers		0.1%	0.0%	0.1%
Other/ Mixed Cullet		0.5%	0.2%	0.8%
HHM	**1.1%**		**0.6%**	**1.7%**
Automotive Products		0.3%	0.1%	0.5%
Paints and Solvents		0.1%	0.0%	0.2%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.2%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.2%	0.1%	0.4%
Other (HHM containers w/prod inside)		0.2%	0.1%	0.3%
YARD WASTE	**3.4%**		**1.1%**	**7.0%**
Yard Waste		3.4%	1.1%	7.0%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**14.4%**		**9.1%**	**20.6%**
Food Waste		14.4%	9.1%	20.6%
WOOD	**1.0%**		**0.5%**	**1.7%**
Non-Treated Wood		0.4%	0.2%	0.8%
Treated Wood		0.6%	0.3%	1.1%
DURABLES	**0.4%**		**0.1%**	**0.9%**
All Electrical and Household Appl.		0.4%	0.1%	0.9%
Other Durables		0.0%	0.0%	0.0%
TEXTILES	**5.6%**		**3.4%**	**8.2%**
Textiles and Leather		5.6%	3.4%	8.2%
DIAPERS	**7.0%**		**3.3%**	**11.8%**
Diapers		7.0%	3.3%	11.8%
RUBBER	**1.2%**		**0.6%**	**1.9%**
Rubber		1.2%	0.6%	1.9%
OTHER ORGANIC	**3.3%**		**1.6%**	**5.6%**
Other Organic		3.3%	1.6%	5.6%
OTHER INORGANIC	**1.6%**		**0.8%**	**2.7%**
Other Inorganic		1.6%	0.8%	2.7%
FINES/SUPERMIX	**10.4%**		**8.4%**	**12.5%**
Fines/ Supermix		10.4%	8.4%	12.5%
INFECTIOUS WASTE	**1.7%**		**0.4%**	**3.8%**
Infectious Waste		1.7%	0.4%	3.8%
CONSTRUCTION & DEMOLITION	**1.7%**		**0.6%**	**3.1%**
C&D		1.7%	0.6%	3.1%
TOTAL PERCENT	**100.0%**			

FLOYD MITCHELL SOLID WASTE AGENCY
MSW Composition
Combined - Fall 1997

Sample Size =	47	loads
Total Wt Sorted =	11,510	pounds
Avg Wt per Sample =	245	pounds
Est Tons Disposed/Week =	363	tons/week

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material	
PAPER	**36.7%**		**31.6%**	**41.9%**	**133**	
Newspaper		2.0%	1.4%	2.7%		7
Magazines		1.8%	1.2%	2.4%		6
High Grade/ Office		1.3%	0.9%	1.9%		5
OCC and Kraft Bags		12.8%	9.4%	16.7%		46
Mixed Recyc Paper		4.8%	3.5%	6.3%		17
Other Non- Recyc Paper		14.0%	10.5%	17.9%		51
PLASTIC	**9.6%**		**7.4%**	**12.0%**	**35**	
#1 PET Containers		0.2%	0.1%	0.2%		1
#1 PET Deposit		0.1%	0.0%	0.1%		0
#2 HDPE Containers		0.6%	0.4%	0.8%		2
All Other Numbered Containers		0.4%	0.2%	0.6%		1
Other Plastic Not Numbered		4.3%	3.2%	5.5%		16
Film/Wrap/Bags		4.1%	3.0%	5.2%		15
METAL	**9.3%**		**6.8%**	**12.0%**	**34**	
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%		0
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%		0
Ferrous Food		6.5%	4.3%	9.1%		24
Other Ferrous Scrap		1.4%	0.9%	2.0%		5
Other Non-Ferrous Scrap		1.2%	0.7%	1.9%		4
GLASS	**1.7%**		**1.1%**	**2.4%**	**6**	
Clear		0.9%	0.6%	1.3%		3
Green		0.0%	0.0%	0.0%		0
Blue		0.0%	0.0%	0.0%		0
Brown		0.4%	0.2%	0.6%		1
Deposit Glass Containers		0.1%	0.0%	0.1%		0
Other/ Mixed Cullet		0.4%	0.2%	0.5%		1
HHM	**1.0%**		**0.7%**	**1.5%**	**4**	
Automotive Products		0.2%	0.1%	0.3%		1
Paints and Solvents		0.3%	0.1%	0.4%		1
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%		0
Household Cleaners		0.1%	0.0%	0.1%		0
Batteries (lead -acid)		0.0%	0.0%	0.0%		0
Batteries (other)		0.1%	0.1%	0.2%		0
Other (HHM containers w/prod inside)		0.2%	0.1%	0.3%		1
YARD WASTE	**1.4%**		**0.7%**	**2.2%**	**5**	
Yard Waste		1.4%	0.7%	2.2%		5
Pumpkins		0.0%	0.0%	0.0%		0
FOOD WASTE	**15.5%**		**12.1%**	**19.3%**	**56**	
Food Waste		15.5%	12.1%	19.3%		56
WOOD	**1.6%**		**1.0%**	**2.5%**	**6**	
Non-Treated Wood		0.8%	0.5%	1.2%		3
Treated Wood		0.9%	0.5%	1.3%		3
DURABLES	**0.4%**		**0.2%**	**0.7%**	**2**	
All Electrical and Household Appl.		0.4%	0.2%	0.7%		1
Other Durables		0.0%	0.0%	0.1%		0
TEXTILES	**3.3%**		**2.2%**	**4.6%**	**12**	
Textiles and Leather		3.3%	2.2%	4.6%		12
DIAPERS	**3.9%**		**2.5%**	**5.7%**	**14**	
Diapers		3.9%	2.5%	5.7%		14
RUBBER	**0.7%**		**0.5%**	**1.0%**	**3**	
Rubber		0.7%	0.5%	1.0%		3
OTHER ORGANIC	**2.5%**		**1.6%**	**3.6%**	**9**	
Other Organic		2.5%	1.6%	3.6%		9
OTHER INORGANIC	**1.0%**		**0.6%**	**1.5%**	**4**	
Other Inorganic		1.0%	0.6%	1.5%		4
FINES/SUPERMIX	**7.3%**		**5.4%**	**9.5%**	**27**	
Fines/ Supermix		7.3%	5.4%	9.5%		27
INFECTIOUS WASTE	**0.6%**		**0.3%**	**1.1%**	**2**	
Infectious Waste		0.6%	0.3%	1.1%		2
CONSTRUCTION & DEMOLITION	**3.0%**		**1.7%**	**4.7%**	**11**	
C&D		3.0%	1.7%	4.7%		11
TOTAL PERCENT	**100.0%**					

FLOYD MITCHELL SOLID WASTE AGENCY
Solid Waste Composition
Fall 1997

Sample Size =	47	loads
Total Wt Sorted =	11,510	pounds
Avg Wt per Sample =	245	pounds
Est Tons Disposed/Week =	409	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**32.6%**		**133**	
Newspaper		1.8%		7
Magazines		1.6%		6
High Grade/ Office		1.2%		5
OCC and Kraft Bags		11.4%		47
Mixed Recyc Paper		4.3%		17
Other Non- Recyc Paper		12.5%		51
PLASTIC	**8.5%**		**35**	
#1 PET Containers		0.1%		1
#1 PET Deposit		0.1%		0
#2 HDPE Containers		0.6%		2
All Other Numbered Containers		0.4%		1
Other Plastic Not Numbered		3.8%		16
Film/Wrap/Bags		3.6%		15
METAL	**8.2%**		**34**	
Alum Non-Deposit Beverage Containers		0.0%		0
Alum Deposit Beverage Containers		0.1%		0
Ferrous Food		5.8%		24
Other Ferrous Scrap		1.2%		5
Other Non-Ferrous Scrap		1.1%		4
GLASS	**1.5%**		**6**	
Clear		0.8%		3
Green		0.0%		0
Blue		0.0%		0
Brown		0.3%		1
Deposit Glass Containers		0.0%		0
Other/ Mixed Cullet		0.3%		1
HHM	**0.9%**		**4**	
Automotive Products		0.2%		1
Paints and Solvents		0.2%		1
Pesticides, Herbicides & Fungicides		0.0%		0
Household Cleaners		0.1%		0
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.1%		0
Other (HHM containers w/prod inside)		0.2%		1
YARD WASTE	**1.2%**		**5**	
Yard Waste		1.2%		5
Pumpkins		0.0%		0
FOOD WASTE	**13.8%**		**56**	
Food Waste		13.8%		56
WOOD	**1.5%**		**6**	
Non-Treated Wood		0.7%		3
Treated Wood		0.8%		3
DURABLES	**0.4%**		**2**	
All Electrical and Household Appl.		0.4%		1
Other Durables		0.0%		0
TEXTILES	**2.9%**		**12**	
Textiles and Leather		2.9%		12
DIAPERS	**3.5%**		**14**	
Diapers		3.5%		14
RUBBER	**0.6%**		**3**	
Rubber		0.6%		3
OTHER ORGANIC	**2.2%**		**9**	
Other Organic		2.2%		9
OTHER INORGANIC	**0.9%**		**4**	
Other Inorganic		0.9%		4
FINES/SUPERMIX	**6.5%**		**27**	
Fines/ Supermix		6.5%		27
INFECTIOUS WASTE	**0.6%**		**2**	
Infectious Waste		0.6%		2
CONSTRUCTION & DEMOLITION	**10.5%**		**43**	
C&D		10.5%		43
SPECIAL WASTES	**3.4%**		**14**	
Special Wastes		3.4%		14
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Residential - Fall 1997

Sample Size =	19	loads
Total Wt Sorted =	4,181	pounds
Avg Wt per Sample =	220	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**35.8%**		**32.5%**	**39.2%**
Newspaper		4.6%	3.5%	5.8%
Magazines		5.8%	4.4%	7.3%
High Grade/ Office		3.5%	2.5%	4.6%
OCC and Kraft Bags		3.2%	2.2%	4.3%
Mixed Recyc Paper		7.1%	6.1%	8.1%
Other Non- Recyc Paper		11.8%	10.2%	13.5%
PLASTIC	**8.2%**		**7.5%**	**8.9%**
#1 PET Containers		0.3%	0.2%	0.4%
#1 PET Deposit		0.2%	0.1%	0.3%
#2 HDPE Containers		0.6%	0.5%	0.8%
All Other Numbered Containers		0.6%	0.3%	0.8%
Other Plastic Not Numbered		2.9%	2.0%	4.0%
Film/Wrap/Bags		3.6%	3.2%	3.9%
METAL	**3.2%**		**2.6%**	**3.9%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.2%	0.1%	0.3%
Ferrous Food		1.3%	1.1%	1.6%
Other Ferrous Scrap		1.4%	0.8%	2.1%
Other Non-Ferrous Scrap		0.3%	0.2%	0.4%
GLASS	**3.0%**		**2.5%**	**3.5%**
Clear		1.6%	1.2%	2.0%
Green		0.1%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.4%	0.2%	0.8%
Deposit Glass Containers		0.6%	0.3%	1.0%
Other/ Mixed Cullet		0.3%	0.1%	0.5%
HHM	**0.6%**		**0.4%**	**0.9%**
Automotive Products		0.0%	0.0%	0.1%
Paints and Solvents		0.2%	0.0%	0.4%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.2%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.3%
YARD WASTE	**5.2%**		**2.7%**	**8.3%**
Yard Waste		2.5%	1.3%	3.9%
Pumpkins		2.7%	1.0%	5.3%
FOOD WASTE	**14.1%**		**11.9%**	**16.4%**
Food Waste		14.1%	11.9%	16.4%
WOOD	**3.9%**		**2.0%**	**6.5%**
Non-Treated Wood		0.3%	0.1%	0.5%
Treated Wood		3.7%	1.7%	6.3%
DURABLES	**1.2%**		**0.5%**	**2.1%**
All Electrical and Household Appl.		0.9%	0.4%	1.6%
Other Durables		0.3%	0.1%	0.7%
TEXTILES	**2.4%**		**1.6%**	**3.2%**
Textiles and Leather		2.4%	1.6%	3.2%
DIAPERS	**5.3%**		**3.2%**	**7.9%**
Diapers		5.3%	3.2%	7.9%
RUBBER	**0.3%**		**0.1%**	**0.4%**
Rubber		0.3%	0.1%	0.4%
OTHER ORGANIC	**2.4%**		**1.6%**	**3.4%**
Other Organic		2.4%	1.6%	3.4%
OTHER INORGANIC	**2.7%**		**1.3%**	**4.6%**
Other Inorganic		2.7%	1.3%	4.6%
FINES/SUPERMIX	**4.9%**		**4.2%**	**5.6%**
Fines/ Supermix		4.9%	4.2%	5.6%
INFECTIOUS WASTE	**0.1%**		**0.0%**	**0.1%**
Infectious Waste		0.1%	0.0%	0.1%
CONSTRUCTION & DEMOLITION	**7.0%**		**2.9%**	**12.7%**
C&D		7.0%	2.9%	12.7%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Commercial - Fall 1997

Sample Size =	23	loads
Total Wt Sorted =	5,213	pounds
Avg Wt per Sample =	227	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**33.1%**		**23.2%**	**43.7%**
Newspaper		2.8%	1.4%	4.7%
Magazines		2.4%	1.1%	4.2%
High Grade/ Office		2.5%	1.2%	4.2%
OCC and Kraft Bags		7.9%	4.9%	11.6%
Mixed Recyc Paper		5.0%	2.2%	8.8%
Other Non- Recyc Paper		12.5%	6.4%	20.3%
PLASTIC	**19.4%**		**11.1%**	**29.5%**
#1 PET Containers		0.1%	0.0%	0.1%
#1 PET Deposit		0.1%	0.0%	0.2%
#2 HDPE Containers		0.9%	0.4%	1.5%
All Other Numbered Containers		0.5%	0.2%	0.9%
Other Plastic Not Numbered		12.3%	5.3%	21.5%
Film/Wrap/Bags		5.7%	2.9%	9.2%
METAL	**5.0%**		**2.2%**	**8.8%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		0.3%	0.1%	0.5%
Other Ferrous Scrap		4.4%	1.7%	8.3%
Other Non-Ferrous Scrap		0.2%	0.1%	0.3%
GLASS	**1.9%**		**0.9%**	**3.2%**
Clear		0.7%	0.3%	1.2%
Green		0.0%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.4%	0.2%	0.8%
Other/ Mixed Cullet		0.7%	0.2%	1.5%
HHM	**0.1%**		**0.0%**	**0.2%**
Automotive Products		0.0%	0.0%	0.0%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.8%**		**0.3%**	**1.5%**
Yard Waste		0.4%	0.1%	0.8%
Pumpkins		0.4%	0.1%	0.8%
FOOD WASTE	**12.0%**		**5.6%**	**20.3%**
Food Waste		12.0%	5.6%	20.3%
WOOD	**8.5%**		**2.9%**	**16.6%**
Non-Treated Wood		1.0%	0.4%	1.7%
Treated Wood		7.5%	2.3%	15.6%
DURABLES	**3.2%**		**1.0%**	**6.6%**
All Electrical and Household Appl.		3.1%	0.9%	6.5%
Other Durables		0.1%	0.0%	0.2%
TEXTILES	**0.7%**		**0.3%**	**1.1%**
Textiles and Leather		0.7%	0.3%	1.1%
DIAPERS	**0.5%**		**0.2%**	**1.0%**
Diapers		0.5%	0.2%	1.0%
RUBBER	**0.3%**		**0.1%**	**0.5%**
Rubber		0.3%	0.1%	0.5%
OTHER ORGANIC	**0.4%**		**0.2%**	**0.8%**
Other Organic		0.4%	0.2%	0.8%
OTHER INORGANIC	**1.0%**		**0.4%**	**1.8%**
Other Inorganic		1.0%	0.4%	1.8%
FINES/SUPERMIX	**2.0%**		**1.1%**	**3.2%**
Fines/ Supermix		2.0%	1.1%	3.2%
INFECTIOUS WASTE	**0.0%**		**0.0%**	**0.1%**
Infectious Waste		0.0%	0.0%	0.1%
CONSTRUCTION & DEMOLITION	**11.3%**		**3.6%**	**22.4%**
C&D		11.3%	3.6%	22.4%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Mixed - Fall 1997

Sample Size =	10	loads
Total Wt Sorted =	2,306	pounds
Avg Wt per Sample =	231	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**34.1%**		**24.5%**	**44.5%**
Newspaper		3.2%	1.5%	5.6%
Magazines		3.1%	1.4%	5.3%
High Grade/ Office		2.4%	1.1%	4.2%
OCC and Kraft Bags		7.3%	4.3%	10.9%
Mixed Recyc Paper		4.1%	2.1%	6.9%
Other Non- Recyc Paper		14.1%	8.4%	20.9%
PLASTIC	**10.4%**		**8.5%**	**12.4%**
#1 PET Containers		0.3%	0.2%	0.5%
#1 PET Deposit		0.1%	0.0%	0.2%
#2 HDPE Containers		0.6%	0.3%	1.1%
All Other Numbered Containers		0.1%	0.0%	0.3%
Other Plastic Not Numbered		4.5%	3.4%	5.8%
Film/Wrap/Bags		4.7%	3.3%	6.3%
METAL	**3.7%**		**2.2%**	**5.5%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.2%	0.1%	0.3%
Ferrous Food		1.4%	0.8%	2.2%
Other Ferrous Scrap		1.6%	0.5%	3.4%
Other Non-Ferrous Scrap		0.5%	0.2%	0.7%
GLASS	**2.6%**		**1.5%**	**4.0%**
Clear		1.0%	0.4%	1.8%
Green		0.1%	0.0%	0.2%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.2%
Deposit Glass Containers		1.2%	0.3%	2.6%
Other/ Mixed Cullet		0.3%	0.1%	0.6%
HHM	**0.3%**		**0.1%**	**0.6%**
Automotive Products		0.1%	0.0%	0.1%
Paints and Solvents		0.0%	0.0%	0.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.2%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.3%
YARD WASTE	**1.7%**		**0.3%**	**3.9%**
Yard Waste		0.7%	0.1%	1.6%
Pumpkins		1.0%	0.1%	2.9%
FOOD WASTE	**23.1%**		**12.4%**	**36.0%**
Food Waste		23.1%	12.4%	36.0%
WOOD	**1.4%**		**0.5%**	**2.7%**
Non-Treated Wood		0.4%	0.1%	0.9%
Treated Wood		1.0%	0.2%	2.3%
DURABLES	**0.5%**		**0.1%**	**1.2%**
All Electrical and Household Appl.		0.3%	0.0%	0.7%
Other Durables		0.2%	0.0%	0.7%
TEXTILES	**2.0%**		**1.0%**	**3.4%**
Textiles and Leather		2.0%	1.0%	3.4%
DIAPERS	**3.6%**		**1.1%**	**7.6%**
Diapers		3.6%	1.1%	7.6%
RUBBER	**0.2%**		**0.0%**	**0.5%**
Rubber		0.2%	0.0%	0.5%
OTHER ORGANIC	**0.9%**		**0.3%**	**1.8%**
Other Organic		0.9%	0.3%	1.8%
OTHER INORGANIC	**1.6%**		**0.3%**	**4.0%**
Other Inorganic		1.6%	0.3%	4.0%
FINES/SUPERMIX	**12.3%**		**2.8%**	**27.3%**
Fines/ Supermix		12.3%	2.8%	27.3%
INFECTIOUS WASTE	**0.0%**		**0.0%**	**0.0%**
Infectious Waste		0.0%	0.0%	0.0%
CONSTRUCTION & DEMOLITION	**1.6%**		**0.2%**	**4.2%**
C&D		1.6%	0.2%	4.2%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Combined - Fall 1997

Sample Size =	52	loads
Total Wt Sorted =	11,700	pounds
Avg Wt per Sample =	225	pounds
Est Tons Disposed/Week =	1,356	tons/week

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material	
PAPER	**34.3%**		**29.4%**	**39.3%**	**465**	
Newspaper		3.5%	2.6%	4.6%		48
Magazines		3.8%	2.7%	5.0%		51
High Grade/ Office		2.8%	2.0%	3.7%		38
OCC and Kraft Bags		6.0%	4.6%	7.7%		82
Mixed Recyc Paper		5.6%	4.0%	7.3%		76
Other Non- Recyc Paper		12.5%	9.5%	15.9%		170
PLASTIC	**13.6%**		**10.2%**	**17.3%**	**184**	
#1 PET Containers		0.2%	0.1%	0.3%		3
#1 PET Deposit		0.1%	0.1%	0.2%		2
#2 HDPE Containers		0.7%	0.5%	1.0%		10
All Other Numbered Containers		0.5%	0.3%	0.6%		6
Other Plastic Not Numbered		7.4%	4.8%	10.5%		100
Film/Wrap/Bags		4.7%	3.5%	6.0%		64
METAL	**4.1%**		**2.9%**	**5.5%**	**55**	
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%		0
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%		2
Ferrous Food		0.9%	0.6%	1.2%		12
Other Ferrous Scrap		2.8%	1.7%	4.1%		37
Other Non-Ferrous Scrap		0.3%	0.2%	0.4%		4
GLASS	**2.4%**		**1.8%**	**3.1%**	**33**	
Clear		1.1%	0.8%	1.4%		15
Green		0.1%	0.0%	0.1%		1
Blue		0.0%	0.0%	0.0%		0
Brown		0.2%	0.1%	0.3%		2
Deposit Glass Containers		0.6%	0.4%	0.9%		9
Other/ Mixed Cullet		0.5%	0.3%	0.7%		6
HHM	**0.3%**		**0.2%**	**0.4%**	**4**	
Automotive Products		0.0%	0.0%	0.0%		0
Paints and Solvents		0.1%	0.0%	0.1%		1
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%		0
Household Cleaners		0.1%	0.0%	0.1%		1
Batteries (lead -acid)		0.0%	0.0%	0.0%		0
Batteries (other)		0.1%	0.0%	0.1%		1
Other (HHM containers w/prod inside)		0.1%	0.0%	0.1%		1
Light Bulbs		0.0%	0.0%	0.0%		0
YARD WASTE	**2.6%**		**1.6%**	**3.7%**	**35**	
Yard Waste		1.2%	0.7%	1.8%		16
Pumpkins		1.4%	0.7%	2.2%		18
FOOD WASTE	**14.9%**		**11.0%**	**19.3%**	**202**	
Food Waste		14.9%	11.0%	19.3%		202
WOOD	**5.5%**		**3.1%**	**8.4%**	**74**	
Non-Treated Wood		0.6%	0.4%	0.9%		8
Treated Wood		4.9%	2.6%	7.7%		66
DURABLES	**1.9%**		**1.0%**	**3.1%**	**26**	
All Electrical and Household Appl.		1.7%	0.9%	2.8%		23
Other Durables		0.2%	0.1%	0.3%		3
TEXTILES	**1.5%**		**1.1%**	**2.0%**	**21**	
Textiles and Leather		1.5%	1.1%	2.0%		21
DIAPERS	**2.9%**		**1.8%**	**4.1%**	**39**	
Diapers		2.9%	1.8%	4.1%		39
RUBBER	**0.3%**		**0.2%**	**0.4%**	**3**	
Rubber		0.3%	0.2%	0.4%		3
OTHER ORGANIC	**1.2%**		**0.8%**	**1.7%**	**17**	
Other Organic		1.2%	0.8%	1.7%		17
OTHER INORGANIC	**1.7%**		**1.1%**	**2.5%**	**23**	
Other Inorganic		1.7%	1.1%	2.5%		23
FINES/SUPERMIX	**5.1%**		**3.4%**	**7.0%**	**68**	
Fines/ Supermix		5.1%	3.4%	7.0%		68
INFECTIOUS WASTE	**0.0%**		**0.0%**	**0.1%**	**1**	
Infectious Waste		0.0%	0.0%	0.1%		1
CONSTRUCTION & DEMOLITION	**7.8%**		**4.3%**	**12.4%**	**106**	
C&D		7.8%	4.3%	12.4%		106
TOTAL PERCENT	**100.0%**					

IOWA CITY LANDFILL
Solid Waste Composition
Fall 1997

Sample Size =	52	loads
Total Wt Sorted =	11,700	pounds
Avg Wt per Sample =	225	pounds
Est Tons Disposed/Week =	1,785	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**26.0%**		**465**	
Newspaper		2.7%		48
Magazines		2.9%		51
High Grade/ Office		2.1%		38
OCC and Kraft Bags		4.6%		82
Mixed Recyc Paper		4.2%		76
Other Non- Recyc Paper		9.5%		170
PLASTIC	**10.3%**		**184**	
#1 PET Containers		0.2%		3
#1 PET Deposit		0.1%		2
#2 HDPE Containers		0.6%		10
All Other Numbered Containers		0.3%		6
Other Plastic Not Numbered		5.6%		100
Film/Wrap/Bags		3.6%		64
METAL	**3.1%**		**55**	
Alum Non-Deposit Beverage Containers		0.0%		0
Alum Deposit Beverage Containers		0.1%		2
Ferrous Food		0.7%		12
Other Ferrous Scrap		2.1%		37
Other Non-Ferrous Scrap		0.2%		4
GLASS	**1.8%**		**33**	
Clear		0.8%		15
Green		0.0%		1
Blue		0.0%		0
Brown		0.1%		2
Deposit Glass Containers		0.5%		9
Other/ Mixed Cullet		0.4%		6
HHM	**0.2%**		**4**	
Automotive Products		0.0%		0
Paints and Solvents		0.1%		1
Pesticides, Herbicides & Fungicides		0.0%		0
Household Cleaners		0.1%		1
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.0%		1
Other (HHM containers w/prod inside)		0.0%		1
Light Bulbs		0.0%		0
YARD WASTE	**1.9%**		**35**	
Yard Waste		0.9%		16
Pumpkins		1.0%		18
FOOD WASTE	**11.3%**		**202**	
Food Waste		11.3%		202
WOOD	**4.1%**		**74**	
Non-Treated Wood		0.4%		8
Treated Wood		3.7%		66
DURABLES	**1.5%**		**26**	
All Electrical and Household Appl.		1.3%		23
Other Durables		0.2%		3
TEXTILES	**1.2%**		**21**	
Textiles and Leather		1.2%		21
DIAPERS	**2.2%**		**39**	
Diapers		2.2%		39
RUBBER	**0.2%**		**3**	
Rubber		0.2%		3
OTHER ORGANIC	**0.9%**		**17**	
Other Organic		0.9%		17
OTHER INORGANIC	**1.3%**		**23**	
Other Inorganic		1.3%		23
FINES/SUPERMIX	**3.8%**		**68**	
Fines/ Supermix		3.8%		68
INFECTIOUS WASTE	**0.0%**		**1**	
Infectious Waste		0.0%		1
CONSTRUCTION & DEMOLITION	**28.7%**		**513**	
C&D		28.7%		513
SPECIAL WASTES	**1.2%**		**22**	
Special Wastes		1.2%		22
TOTAL PERCENT	**100.0%**			

MONONA COUNTY
MSW Composition
Residential - Fall 1997

Sample Size =	6	loads
Total Wt Sorted =	1,429	pounds
Avg Wt per Sample =	238	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**29.8%**		**14.6%**	**47.6%**
Newspaper		8.1%	1.8%	18.2%
Magazines		4.2%	2.3%	6.7%
High Grade/ Office		1.5%	0.3%	3.7%
OCC and Kraft Bags		3.5%	1.0%	7.3%
Mixed Recyc Paper		7.7%	2.6%	15.0%
Other Non- Recyc Paper		4.8%	1.2%	10.3%
PLASTIC	**4.1%**		**1.2%**	**8.6%**
#1 PET Containers		0.2%	0.0%	0.6%
#1 PET Deposit		0.1%	0.0%	0.2%
#2 HDPE Containers		0.4%	0.1%	1.0%
All Other Numbered Containers		0.7%	0.1%	1.7%
Other Plastic Not Numbered		1.3%	0.3%	3.1%
Film/Wrap/Bags		1.5%	0.4%	3.3%
METAL	**3.9%**		**1.2%**	**8.0%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.2%
Alum Deposit Beverage Containers		0.3%	0.0%	0.8%
Ferrous Food		1.4%	0.3%	3.4%
Other Ferrous Scrap		1.9%	0.2%	5.5%
Other Non-Ferrous Scrap		0.2%	0.0%	0.5%
GLASS	**1.7%**		**0.3%**	**4.2%**
Clear		1.1%	0.2%	2.9%
Green		0.2%	0.0%	0.8%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.0%	0.7%
Deposit Glass Containers		0.2%	0.0%	0.7%
Other/ Mixed Cullet		0.0%	0.0%	0.1%
HHM	**3.2%**		**0.4%**	**8.4%**
Automotive Products		1.0%	0.0%	3.6%
Paints and Solvents		1.5%	0.0%	5.0%
Pesticides, Herbicides & Fungicides		0.4%	0.0%	1.4%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.2%
YARD WASTE	**9.7%**		**1.5%**	**23.9%**
Yard Waste		1.2%	0.1%	3.6%
Pumpkins		8.5%	1.3%	21.0%
FOOD WASTE	**7.4%**		**1.5%**	**17.4%**
Food Waste		7.4%	1.5%	17.4%
WOOD	**3.3%**		**0.4%**	**8.5%**
Non-Treated Wood		2.0%	0.0%	7.0%
Treated Wood		1.3%	0.1%	4.0%
DURABLES	**15.5%**		**1.4%**	**40.7%**
All Electrical and Household Appl.		3.3%	0.8%	7.3%
Other Durables		12.3%	0.2%	38.5%
TEXTILES	**6.2%**		**1.9%**	**12.8%**
Textiles and Leather		6.2%	1.9%	12.8%
DIAPERS	**1.4%**		**0.2%**	**3.5%**
Diapers		1.4%	0.2%	3.5%
RUBBER	**0.8%**		**0.1%**	**2.0%**
Rubber		0.8%	0.1%	2.0%
OTHER ORGANIC	**2.4%**		**0.2%**	**6.6%**
Other Organic		2.4%	0.2%	6.6%
OTHER INORGANIC	**0.5%**		**0.0%**	**1.9%**
Other Inorganic		0.5%	0.0%	1.9%
FINES/SUPERMIX	**10.2%**		**3.0%**	**21.1%**
Fines/ Supermix		10.2%	3.0%	21.1%
INFECTIOUS WASTE	**0.0%**		**0.0%**	**0.0%**
Infectious Waste		0.0%	0.0%	0.0%
CONSTRUCTION & DEMOLITION	**0.0%**		**0.0%**	**0.0%**
C&D		0.0%	0.0%	0.0%
TOTAL PERCENT	**100.0%**			

MONONA COUNTY
MSW Composition
Commercial - Fall 1997

Sample Size =	4	loads
Total Wt Sorted =	1,046	pounds
Avg Wt per Sample =	261	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**66.9%**		**55.0%**	**77.8%**
Newspaper		1.9%	0.1%	5.7%
Magazines		3.9%	0.3%	11.5%
High Grade/ Office		5.9%	0.0%	21.9%
OCC and Kraft Bags		46.3%	18.1%	75.9%
Mixed Recyc Paper		5.0%	0.1%	16.4%
Other Non- Recyc Paper		3.9%	0.1%	12.7%
PLASTIC	**5.4%**		**2.1%**	**10.0%**
#1 PET Containers		0.0%	0.0%	0.1%
#1 PET Deposit		0.2%	0.0%	0.8%
#2 HDPE Containers		0.3%	0.0%	1.2%
All Other Numbered Containers		0.6%	0.0%	2.6%
Other Plastic Not Numbered		0.5%	0.0%	1.5%
Film/Wrap/Bags		3.8%	1.9%	6.3%
METAL	**6.3%**		**2.0%**	**12.5%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		0.9%	0.0%	3.9%
Other Ferrous Scrap		3.8%	0.0%	14.6%
Other Non-Ferrous Scrap		1.4%	0.1%	4.6%
GLASS	**0.5%**		**0.0%**	**2.2%**
Clear		0.5%	0.0%	2.0%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.1%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.0%	0.0%	0.1%
HHM	**1.7%**		**0.0%**	**7.1%**
Automotive Products		0.5%	0.0%	2.7%
Paints and Solvents		0.7%	0.0%	4.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.4%	0.0%	2.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.0%**		**0.0%**	**0.1%**
Yard Waste		0.0%	0.0%	0.1%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**4.6%**		**0.0%**	**16.8%**
Food Waste		4.6%	0.0%	16.8%
WOOD	**7.2%**		**0.1%**	**24.5%**
Non-Treated Wood		7.0%	0.0%	27.1%
Treated Wood		0.2%	0.0%	1.2%
DURABLES	**0.0%**		**0.0%**	**0.0%**
All Electrical and Household Appl.		0.0%	0.0%	0.0%
Other Durables		0.0%	0.0%	0.0%
TEXTILES	**0.6%**		**0.0%**	**3.3%**
Textiles and Leather		0.6%	0.0%	3.3%
DIAPERS	**0.7%**		**0.0%**	**3.6%**
Diapers		0.7%	0.0%	3.6%
RUBBER	**1.1%**		**0.0%**	**3.8%**
Rubber		1.1%	0.0%	3.8%
OTHER ORGANIC	**0.3%**		**0.0%**	**1.9%**
Other Organic		0.3%	0.0%	1.9%
OTHER INORGANIC	**0.0%**		**0.0%**	**0.2%**
Other Inorganic		0.0%	0.0%	0.2%
FINES/SUPERMIX	**2.6%**		**0.0%**	**9.2%**
Fines/ Supermix		2.6%	0.0%	9.2%
INFECTIOUS WASTE	**0.0%**		**0.0%**	**0.1%**
Infectious Waste		0.0%	0.0%	0.1%
CONSTRUCTION & DEMOLITION	**2.2%**		**0.0%**	**9.0%**
C&D		2.2%	0.0%	9.0%
TOTAL PERCENT	**100.0%**			

MONONA COUNTY
MSW Composition
Mixed - Fall 1997

Sample Size =	10	loads
Total Wt Sorted =	2,162	pounds
Avg Wt per Sample =	216	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**42.4%**		**38.8%**	**45.9%**
Newspaper		9.0%	4.4%	15.2%
Magazines		8.0%	5.9%	10.5%
High Grade/ Office		2.6%	1.2%	4.5%
OCC and Kraft Bags		5.6%	3.9%	7.5%
Mixed Recyc Paper		9.6%	7.2%	12.2%
Other Non- Recyc Paper		7.5%	4.6%	11.1%
PLASTIC	**8.9%**		**7.7%**	**10.1%**
#1 PET Containers		0.3%	0.1%	0.4%
#1 PET Deposit		0.2%	0.1%	0.3%
#2 HDPE Containers		1.2%	1.0%	1.5%
All Other Numbered Containers		0.5%	0.3%	0.8%
Other Plastic Not Numbered		2.6%	2.1%	3.2%
Film/Wrap/Bags		4.1%	3.2%	4.9%
METAL	**4.2%**		**2.9%**	**5.8%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.3%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		2.6%	1.9%	3.4%
Other Ferrous Scrap		1.0%	0.4%	2.0%
Other Non-Ferrous Scrap		0.3%	0.2%	0.5%
GLASS	**1.3%**		**0.8%**	**1.9%**
Clear		0.7%	0.4%	1.1%
Green		0.2%	0.0%	0.6%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.1%
Deposit Glass Containers		0.2%	0.0%	0.5%
Other/ Mixed Cullet		0.2%	0.0%	0.4%
HHM	**1.2%**		**0.6%**	**2.1%**
Automotive Products		0.5%	0.1%	1.2%
Paints and Solvents		0.3%	0.0%	0.8%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.3%	0.1%	0.6%
YARD WASTE	**6.4%**		**3.6%**	**9.8%**
Yard Waste		1.9%	0.4%	4.7%
Pumpkins		4.4%	2.0%	7.8%
FOOD WASTE	**13.7%**		**10.9%**	**16.8%**
Food Waste		13.7%	10.9%	16.8%
WOOD	**0.2%**		**0.1%**	**0.4%**
Non-Treated Wood		0.1%	0.0%	0.2%
Treated Wood		0.1%	0.0%	0.3%
DURABLES	**2.0%**		**0.5%**	**4.6%**
All Electrical and Household Appl.		0.6%	0.2%	1.3%
Other Durables		1.4%	0.1%	4.1%
TEXTILES	**3.8%**		**2.0%**	**6.3%**
Textiles and Leather		3.8%	2.0%	6.3%
DIAPERS	**2.5%**		**1.3%**	**4.2%**
Diapers		2.5%	1.3%	4.2%
RUBBER	**0.2%**		**0.1%**	**0.4%**
Rubber		0.2%	0.1%	0.4%
OTHER ORGANIC	**1.2%**		**0.7%**	**1.8%**
Other Organic		1.2%	0.7%	1.8%
OTHER INORGANIC	**0.6%**		**0.2%**	**1.2%**
Other Inorganic		0.6%	0.2%	1.2%
FINES/SUPERMIX	**10.4%**		**8.2%**	**12.8%**
Fines/ Supermix		10.4%	8.2%	12.8%
INFECTIOUS WASTE	**0.0%**		**0.0%**	**0.0%**
Infectious Waste		0.0%	0.0%	0.0%
CONSTRUCTION & DEMOLITION	**1.1%**		**0.2%**	**2.8%**
C&D		1.1%	0.2%	2.8%
TOTAL PERCENT	**100.0%**			

MONONA COUNTY
MSW Composition
Combined - Fall 1997

Sample Size =	20	loads
Total Wt Sorted =	4,636	pounds
Avg Wt per Sample =	232	pounds
Est Tons Disposed/Week =	86	tons/week

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material	
PAPER	**43.5%**		**36.1%**	**51.0%**	**37**	
Newspaper		7.3%	4.4%	11.0%		6
Magazines		6.1%	4.5%	7.9%		5
High Grade/ Office		2.9%	1.6%	4.6%		3
OCC and Kraft Bags		13.1%	7.0%	20.7%		11
Mixed Recyc Paper		8.1%	5.7%	10.8%		7
Other Non- Recyc Paper		6.0%	3.9%	8.4%		5
PLASTIC	**6.8%**		**5.1%**	**8.6%**	**6**	
#1 PET Containers		0.2%	0.1%	0.3%		0
#1 PET Deposit		0.1%	0.1%	0.2%		0
#2 HDPE Containers		0.8%	0.5%	1.2%		1
All Other Numbered Containers		0.6%	0.3%	0.9%		1
Other Plastic Not Numbered		1.8%	1.2%	2.5%		2
Film/Wrap/Bags		3.2%	2.4%	4.2%		3
METAL	**4.5%**		**3.3%**	**5.9%**	**4**	
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.2%		0
Alum Deposit Beverage Containers		0.2%	0.1%	0.3%		0
Ferrous Food		1.9%	1.2%	2.8%		2
Other Ferrous Scrap		1.8%	0.9%	3.1%		2
Other Non-Ferrous Scrap		0.5%	0.3%	0.8%		0
GLASS	**1.3%**		**0.8%**	**1.9%**	**1**	
Clear		0.8%	0.4%	1.2%		1
Green		0.2%	0.1%	0.4%		0
Blue		0.0%	0.0%	0.0%		0
Brown		0.1%	0.0%	0.2%		0
Deposit Glass Containers		0.1%	0.0%	0.3%		0
Other/ Mixed Cullet		0.1%	0.0%	0.2%		0
HHM	**1.9%**		**1.0%**	**3.1%**	**2**	
Automotive Products		0.7%	0.3%	1.2%		1
Paints and Solvents		0.7%	0.2%	1.5%		1
Pesticides, Herbicides & Fungicides		0.1%	0.0%	0.2%		0
Household Cleaners		0.1%	0.0%	0.2%		0
Batteries (lead -acid)		0.0%	0.0%	0.0%		0
Batteries (other)		0.0%	0.0%	0.1%		0
Other (HHM containers w/prod inside)		0.2%	0.1%	0.3%		0
YARD WASTE	**6.1%**		**3.2%**	**9.8%**	**5**	
Yard Waste		1.3%	0.5%	2.5%		1
Pumpkins		4.8%	2.4%	8.0%		4
FOOD WASTE	**10.0%**		**6.7%**	**14.0%**	**9**	
Food Waste		10.0%	6.7%	14.0%		9
WOOD	**2.5%**		**1.1%**	**4.5%**	**2**	
Non-Treated Wood		2.0%	0.7%	4.0%		2
Treated Wood		0.5%	0.2%	0.9%		0
DURABLES	**5.7%**		**2.1%**	**10.8%**	**5**	
All Electrical and Household Appl.		1.3%	0.6%	2.3%		1
Other Durables		4.4%	1.3%	9.2%		4
TEXTILES	**3.9%**		**2.2%**	**6.0%**	**3**	
Textiles and Leather		3.9%	2.2%	6.0%		3
DIAPERS	**1.8%**		**1.0%**	**2.9%**	**2**	
Diapers		1.8%	1.0%	2.9%		2
RUBBER	**0.6%**		**0.3%**	**0.9%**	**0**	
Rubber		0.6%	0.3%	0.9%		0
OTHER ORGANIC	**1.4%**		**0.7%**	**2.2%**	**1**	
Other Organic		1.4%	0.7%	2.2%		1
OTHER INORGANIC	**0.4%**		**0.2%**	**0.8%**	**0**	
Other Inorganic		0.4%	0.2%	0.8%		0
FINES/SUPERMIX	**8.8%**		**6.0%**	**12.1%**	**8**	
Fines/ Supermix		8.8%	6.0%	12.1%		8
INFECTIOUS WASTE	**0.0%**		**0.0%**	**0.0%**	**0**	
Infectious Waste		0.0%	0.0%	0.0%		0
CONSTRUCTION & DEMOLITION	**1.0%**		**0.4%**	**1.9%**	**1**	
C&D		1.0%	0.4%	1.9%		1
TOTAL PERCENT	**100.0%**					

MONONA COUNTY
Solid Waste Composition
Fall 1997

Sample Size =	20	loads
Total Wt Sorted =	4,636	pounds
Avg Wt per Sample =	232	pounds
Est Tons Disposed/Week =	104	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**35.9%**		**37**	
Newspaper		6.1%		6
Magazines		5.0%		5
High Grade/ Office		2.4%		3
OCC and Kraft Bags		10.8%		11
Mixed Recyc Paper		6.7%		7
Other Non- Recyc Paper		4.9%		5
PLASTIC	**5.6%**		**6**	
#1 PET Containers		0.2%		0
#1 PET Deposit		0.1%		0
#2 HDPE Containers		0.7%		1
All Other Numbered Containers		0.5%		1
Other Plastic Not Numbered		1.5%		2
Film/Wrap/Bags		2.7%		3
METAL	**3.7%**		**4**	
Alum Non-Deposit Beverage Containers		0.1%		0
Alum Deposit Beverage Containers		0.1%		0
Ferrous Food		1.6%		2
Other Ferrous Scrap		1.5%		2
Other Non-Ferrous Scrap		0.4%		0
GLASS	**1.1%**		**1**	
Clear		0.6%		1
Green		0.1%		0
Blue		0.0%		0
Brown		0.1%		0
Deposit Glass Containers		0.1%		0
Other/ Mixed Cullet		0.1%		0
HHM	**1.6%**		**2**	
Automotive Products		0.5%		1
Paints and Solvents		0.6%		1
Pesticides, Herbicides & Fungicides		0.1%		0
Household Cleaners		0.1%		0
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.0%		0
Other (HHM containers w/prod inside)		0.1%		0
YARD WASTE	**5.0%**		**5**	
Yard Waste		1.1%		1
Pumpkins		3.9%		4
FOOD WASTE	**8.3%**		**9**	
Food Waste		8.3%		9
WOOD	**2.1%**		**2**	
Non-Treated Wood		1.7%		2
Treated Wood		0.4%		0
DURABLES	**4.7%**		**5**	
All Electrical and Household Appl.		1.1%		1
Other Durables		3.6%		4
TEXTILES	**3.2%**		**3**	
Textiles and Leather		3.2%		3
DIAPERS	**1.5%**		**2**	
Diapers		1.5%		2
RUBBER	**0.5%**		**0**	
Rubber		0.5%		0
OTHER ORGANIC	**1.1%**		**1**	
Other Organic		1.1%		1
OTHER INORGANIC	**0.4%**		**0**	
Other Inorganic		0.4%		0
FINES/SUPERMIX	**7.3%**		**8**	
Fines/ Supermix		7.3%		8
INFECTIOUS WASTE	**0.0%**		**0**	
Infectious Waste		0.0%		0
CONSTRUCTION & DEMOLITION	**17.3%**		**18**	
C&D		17.3%		18
SPECIAL WASTES	**0.0%**		**0**	
Special Wastes		0.0%		0
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Residential - Fall 1997

Sample Size =	12	loads
Total Wt Sorted =	2,742	pounds
Avg Wt per Sample =	228	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**19.9%**		**10.0%**	**32.1%**
Newspaper		3.4%	1.2%	6.5%
Magazines		2.1%	0.7%	4.0%
High Grade/ Office		0.3%	0.1%	0.6%
OCC and Kraft Bags		2.9%	1.5%	4.7%
Mixed Recyc Paper		4.1%	1.9%	7.1%
Other Non- Recyc Paper		7.2%	3.3%	12.3%
PLASTIC	**8.5%**		**4.9%**	**12.9%**
#1 PET Containers		0.1%	0.0%	0.3%
#1 PET Deposit		0.0%	0.0%	0.1%
#2 HDPE Containers		0.5%	0.2%	0.9%
All Other Numbered Containers		0.1%	0.0%	0.2%
Other Plastic Not Numbered		4.5%	2.8%	6.7%
Film/Wrap/Bags		3.1%	1.3%	5.6%
METAL	**8.7%**		**4.6%**	**13.9%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.0%	0.1%
Ferrous Food		1.6%	0.6%	3.1%
Other Ferrous Scrap		5.5%	2.4%	9.8%
Other Non-Ferrous Scrap		1.5%	0.6%	2.8%
GLASS	**3.3%**		**1.8%**	**5.2%**
Clear		1.9%	0.8%	3.4%
Green		0.0%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.0%	0.4%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		1.2%	0.4%	2.6%
HHM	**0.8%**		**0.3%**	**1.5%**
Automotive Products		0.4%	0.1%	0.8%
Paints and Solvents		0.1%	0.0%	0.3%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.3%
YARD WASTE	**0.6%**		**0.1%**	**1.5%**
Yard Waste		0.6%	0.1%	1.5%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**5.7%**		**1.9%**	**11.3%**
Food Waste		5.7%	1.9%	11.3%
WOOD	**16.4%**		**6.4%**	**29.9%**
Non-Treated Wood		5.4%	1.9%	10.5%
Treated Wood		11.1%	3.9%	21.4%
DURABLES	**12.7%**		**4.6%**	**24.0%**
All Electrical and Household Appl.		4.7%	1.3%	9.9%
Other Durables		8.0%	1.9%	17.6%
TEXTILES	**5.1%**		**2.5%**	**8.5%**
Textiles and Leather		5.1%	2.5%	8.5%
DIAPERS	**0.8%**		**0.2%**	**1.9%**
Diapers		0.8%	0.2%	1.9%
RUBBER	**0.6%**		**0.2%**	**1.3%**
Rubber		0.6%	0.2%	1.3%
OTHER ORGANIC	**2.2%**		**0.5%**	**5.1%**
Other Organic		2.2%	0.5%	5.1%
OTHER INORGANIC	**2.5%**		**0.6%**	**5.5%**
Other Inorganic		2.5%	0.6%	5.5%
FINES/SUPERMIX	**5.0%**		**2.3%**	**8.8%**
Fines/ Supermix		5.0%	2.3%	8.8%
INFECTIOUS WASTE	**2.7%**		**0.3%**	**7.1%**
Infectious Waste		2.7%	0.3%	7.1%
CONSTRUCTION & DEMOLITION	**4.6%**		**1.5%**	**9.2%**
C&D		4.6%	1.5%	9.2%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Commercial - Fall 1997

Sample Size =	8	loads
Total Wt Sorted =	1,997	pounds
Avg Wt per Sample =	250	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**27.5%**		**12.7%**	**45.4%**
Newspaper		1.1%	0.1%	3.4%
Magazines		0.9%	0.1%	2.8%
High Grade/ Office		1.9%	0.2%	5.6%
OCC and Kraft Bags		7.6%	2.7%	14.6%
Mixed Recyc Paper		2.4%	0.6%	5.4%
Other Non- Recyc Paper		13.6%	3.9%	27.7%
PLASTIC	**44.8%**		**21.6%**	**69.2%**
#1 PET Containers		0.0%	0.0%	0.1%
#1 PET Deposit		0.0%	0.0%	0.0%
#2 HDPE Containers		0.1%	0.0%	0.2%
All Other Numbered Containers		0.0%	0.0%	0.0%
Other Plastic Not Numbered		43.7%	20.5%	68.3%
Film/Wrap/Bags		1.0%	0.2%	2.5%
METAL	**2.4%**		**0.3%**	**6.6%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.0%	0.0%	0.1%
Ferrous Food		0.1%	0.0%	0.2%
Other Ferrous Scrap		0.0%	0.0%	0.1%
Other Non-Ferrous Scrap		2.3%	0.2%	6.5%
GLASS	**9.9%**		**0.2%**	**31.5%**
Clear		0.1%	0.0%	0.4%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		9.7%	0.1%	32.3%
HHM	**0.0%**		**0.0%**	**0.1%**
Automotive Products		0.0%	0.0%	0.1%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.0%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.0%**		**0.0%**	**0.0%**
Yard Waste		0.0%	0.0%	0.0%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**0.4%**		**0.0%**	**1.0%**
Food Waste		0.4%	0.0%	1.0%
WOOD	**3.6%**		**0.9%**	**7.9%**
Non-Treated Wood		1.9%	0.2%	5.0%
Treated Wood		1.7%	0.1%	4.8%
DURABLES	**0.1%**		**0.0%**	**0.2%**
All Electrical and Household Appl.		0.1%	0.0%	0.2%
Other Durables		0.0%	0.0%	0.0%
TEXTILES	**0.1%**		**0.0%**	**0.2%**
Textiles and Leather		0.1%	0.0%	0.2%
DIAPERS	**0.0%**		**0.0%**	**0.0%**
Diapers		0.0%	0.0%	0.0%
RUBBER	**0.0%**		**0.0%**	**0.1%**
Rubber		0.0%	0.0%	0.1%
OTHER ORGANIC	**0.2%**		**0.0%**	**0.5%**
Other Organic		0.2%	0.0%	0.5%
OTHER INORGANIC	**3.8%**		**0.1%**	**12.3%**
Other Inorganic		3.8%	0.1%	12.3%
FINES/SUPERMIX	**1.7%**		**0.1%**	**5.0%**
Fines/ Supermix		1.7%	0.1%	5.0%
INFECTIOUS WASTE	**5.6%**		**0.5%**	**15.8%**
Infectious Waste		5.6%	0.5%	15.8%
CONSTRUCTION & DEMOLITION	**0.2%**		**0.0%**	**0.5%**
C&D		0.2%	0.0%	0.5%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Mixed - Fall 1997

Sample Size =	28	loads
Total Wt Sorted =	6,317	pounds
Avg Wt per Sample =	226	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**34.4%**		**30.3%**	**38.7%**
Newspaper		8.4%	5.8%	11.4%
Magazines		2.9%	2.1%	3.9%
High Grade/ Office		1.2%	0.8%	1.7%
OCC and Kraft Bags		6.7%	5.3%	8.2%
Mixed Recyc Paper		5.5%	4.3%	6.8%
Other Non- Recyc Paper		9.8%	8.2%	11.4%
PLASTIC	**13.4%**		**11.4%**	**15.5%**
#1 PET Containers		0.3%	0.2%	0.4%
#1 PET Deposit		0.2%	0.1%	0.3%
#2 HDPE Containers		1.3%	1.0%	1.7%
All Other Numbered Containers		0.4%	0.2%	0.6%
Other Plastic Not Numbered		6.2%	4.6%	8.0%
Film/Wrap/Bags		5.0%	4.0%	6.2%
METAL	**6.0%**		**4.6%**	**7.6%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.1%	0.1%
Ferrous Food		1.7%	1.2%	2.3%
Other Ferrous Scrap		3.5%	2.5%	4.7%
Other Non-Ferrous Scrap		0.7%	0.4%	1.0%
GLASS	**1.7%**		**1.2%**	**2.3%**
Clear		1.0%	0.7%	1.5%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.1%
Deposit Glass Containers		0.1%	0.0%	0.1%
Other/ Mixed Cullet		0.5%	0.3%	0.9%
HHM	**0.9%**		**0.6%**	**1.1%**
Automotive Products		0.4%	0.2%	0.6%
Paints and Solvents		0.1%	0.1%	0.2%
Pesticides, Herbicides & Fungicides		0.1%	0.0%	0.1%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.2%
YARD WASTE	**0.9%**		**0.4%**	**1.4%**
Yard Waste		0.9%	0.4%	1.4%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**7.8%**		**5.6%**	**10.3%**
Food Waste		7.8%	5.6%	10.3%
WOOD	**6.3%**		**3.6%**	**9.8%**
Non-Treated Wood		2.3%	1.2%	3.7%
Treated Wood		4.1%	2.2%	6.4%
DURABLES	**1.3%**		**0.7%**	**2.1%**
All Electrical and Household Appl.		0.9%	0.5%	1.6%
Other Durables		0.4%	0.1%	0.7%
TEXTILES	**4.3%**		**3.1%**	**5.8%**
Textiles and Leather		4.3%	3.1%	5.8%
DIAPERS	**3.5%**		**2.2%**	**5.0%**
Diapers		3.5%	2.2%	5.0%
RUBBER	**0.3%**		**0.1%**	**0.5%**
Rubber		0.3%	0.1%	0.5%
OTHER ORGANIC	**1.2%**		**0.6%**	**1.9%**
Other Organic		1.2%	0.6%	1.9%
OTHER INORGANIC	**1.9%**		**1.0%**	**3.0%**
Other Inorganic		1.9%	1.0%	3.0%
FINES/SUPERMIX	**7.4%**		**5.9%**	**9.0%**
Fines/ Supermix		7.4%	5.9%	9.0%
INFECTIOUS WASTE	**1.2%**		**0.5%**	**2.4%**
Infectious Waste		1.2%	0.5%	2.4%
CONSTRUCTION & DEMOLITION	**7.6%**		**3.9%**	**12.2%**
C&D		7.6%	3.9%	12.2%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Combined - Fall 1997

Sample Size =	48	loads
Total Wt Sorted =	11,056	pounds
Avg Wt per Sample =	230	pounds
Est Tons Disposed/Week =	941	tons/week

WASTE CATEGORIES Material	Mean Percentage	90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material
PAPER	**29.6%**	**24.9%**	**34.6%**	**279**
Newspaper	5.9%	4.1%	8.0%	56
Magazines	2.4%	1.7%	3.2%	22
High Grade/ Office	1.1%	0.7%	1.5%	10
OCC and Kraft Bags	5.9%	4.6%	7.2%	55
Mixed Recyc Paper	4.6%	3.6%	5.8%	44
Other Non- Recyc Paper	9.7%	7.7%	12.0%	92
PLASTIC	**17.4%**	**13.4%**	**21.8%**	**164**
#1 PET Containers	0.2%	0.1%	0.3%	2
#1 PET Deposit	0.1%	0.1%	0.2%	1
#2 HDPE Containers	0.9%	0.7%	1.2%	9
All Other Numbered Containers	0.3%	0.1%	0.4%	2
Other Plastic Not Numbered	12.1%	8.4%	16.3%	113
Film/Wrap/Bags	3.9%	2.9%	4.9%	36
METAL	**6.1%**	**4.6%**	**7.7%**	**57**
Alum Non-Deposit Beverage Containers	0.0%	0.0%	0.1%	0
Alum Deposit Beverage Containers	0.1%	0.1%	0.1%	1
Ferrous Food	1.4%	1.0%	1.9%	13
Other Ferrous Scrap	3.4%	2.4%	4.6%	32
Other Non-Ferrous Scrap	1.2%	0.8%	1.7%	11
GLASS	**3.5%**	**2.1%**	**5.1%**	**32**
Clear	1.1%	0.7%	1.5%	10
Green	0.0%	0.0%	0.0%	0
Blue	0.0%	0.0%	0.0%	0
Brown	0.1%	0.0%	0.1%	1
Deposit Glass Containers	0.0%	0.0%	0.1%	0
Other/ Mixed Cullet	2.2%	1.1%	3.8%	21
HHM	**0.7%**	**0.5%**	**0.9%**	**6**
Automotive Products	0.3%	0.2%	0.5%	3
Paints and Solvents	0.1%	0.1%	0.1%	1
Pesticides, Herbicides & Fungicides	0.0%	0.0%	0.0%	0
Household Cleaners	0.0%	0.0%	0.0%	0
Batteries (lead -acid)	0.0%	0.0%	0.0%	0
Batteries (other)	0.1%	0.1%	0.1%	1
Other (HHM containers w/prod inside)	0.1%	0.1%	0.1%	1
YARD WASTE	**0.7%**	**0.4%**	**1.0%**	**6**
Yard Waste	0.7%	0.4%	1.0%	6
Pumpkins	0.0%	0.0%	0.0%	0
FOOD WASTE	**6.0%**	**4.2%**	**8.1%**	**57**
Food Waste	6.0%	4.2%	8.1%	57
WOOD	**8.4%**	**5.5%**	**11.8%**	**79**
Non-Treated Wood	3.0%	1.9%	4.3%	28
Treated Wood	5.4%	3.4%	7.9%	51
DURABLES	**3.9%**	**2.3%**	**6.0%**	**37**
All Electrical and Household Appl.	1.7%	1.0%	2.6%	16
Other Durables	2.2%	1.1%	3.7%	21
TEXTILES	**3.9%**	**2.8%**	**5.1%**	**36**
Textiles and Leather	3.9%	2.8%	5.1%	36
DIAPERS	**2.2%**	**1.4%**	**3.2%**	**21**
Diapers	2.2%	1.4%	3.2%	21
RUBBER	**0.3%**	**0.2%**	**0.5%**	**3**
Rubber	0.3%	0.2%	0.5%	3
OTHER ORGANIC	**1.3%**	**0.7%**	**1.9%**	**12**
Other Organic	1.3%	0.7%	1.9%	12
OTHER INORGANIC	**2.4%**	**1.4%**	**3.5%**	**22**
Other Inorganic	2.4%	1.4%	3.5%	22
FINES/SUPERMIX	**5.9%**	**4.4%**	**7.5%**	**55**
Fines/ Supermix	5.9%	4.4%	7.5%	55
OTHER	**2.3%**	**1.2%**	**3.8%**	**22**
Other	2.3%	1.2%	3.8%	22
CONSTRUCTION & DEMOLITION	**5.6%**	**3.4%**	**8.3%**	**53**
C&D	5.6%	3.4%	8.3%	53
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
Solid Waste Composition
Fall 1997

Sample Size =	48	loads
Total Wt Sorted =	11,056	pounds
Avg Wt per Sample =	230	pounds
Est Tons Disposed/Week =	1,240	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**22.5%**		**279**	
Newspaper		4.5%		56
Magazines		1.8%		22
High Grade/ Office		0.8%		10
OCC and Kraft Bags		4.4%		55
Mixed Recyc Paper		3.5%		44
Other Non- Recyc Paper		7.4%		92
PLASTIC	**13.2%**		**164**	
#1 PET Containers		0.1%		2
#1 PET Deposit		0.1%		1
#2 HDPE Containers		0.7%		9
All Other Numbered Containers		0.2%		2
Other Plastic Not Numbered		9.1%		113
Film/Wrap/Bags		2.9%		36
METAL	**4.6%**		**57**	
Alum Non-Deposit Beverage Containers		0.0%		0
Alum Deposit Beverage Containers		0.1%		1
Ferrous Food		1.0%		13
Other Ferrous Scrap		2.6%		32
Other Non-Ferrous Scrap		0.9%		11
GLASS	**2.6%**		**32**	
Clear		0.8%		10
Green		0.0%		0
Blue		0.0%		0
Brown		0.1%		1
Deposit Glass Containers		0.0%		0
Other/ Mixed Cullet		1.7%		21
HHM	**0.5%**		**6**	
Automotive Products		0.3%		3
Paints and Solvents		0.1%		1
Pesticides, Herbicides & Fungicides		0.0%		0
Household Cleaners		0.0%		0
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.1%		1
Other (HHM containers w/prod inside)		0.1%		1
Light Bulbs		0.0%		0
YARD WASTE	**0.5%**		**6**	
Yard Waste		0.5%		6
Pumpkins		0.0%		0
FOOD WASTE	**4.6%**		**57**	
Food Waste		4.6%		57
WOOD	**6.4%**		**79**	
Non-Treated Wood		2.3%		28
Treated Wood		4.1%		51
DURABLES	**3.0%**		**37**	
All Electrical and Household Appl.		1.3%		16
Other Durables		1.7%		21
TEXTILES	**2.9%**		**36**	
Textiles and Leather		2.9%		36
DIAPERS	**1.7%**		**21**	
Diapers		1.7%		21
RUBBER	**0.3%**		**3**	
Rubber		0.3%		3
OTHER ORGANIC	**0.9%**		**12**	
Other Organic		0.9%		12
OTHER INORGANIC	**1.8%**		**22**	
Other Inorganic		1.8%		22
FINES/SUPERMIX	**4.4%**		**55**	
Fines/ Supermix		4.4%		55
OTHER	**1.8%**		**22**	
Other		1.8%		22
CONSTRUCTION & DEMOLITION	**25.1%**		**311**	
C&D		25.1%		311
SPECIAL WASTES	**3.3%**		**41**	
Special Wastes		3.3%		41
TOTAL PERCENT	**100.0%**			

APPENDIX D
1998 SPRING RESULTS

DES MOINES COUNTY
MSW Composition
Residential - Spring 1998

Sample Size =	17	loads
Total Wt Sorted =	3,866	pounds
Avg Wt per Sample =	227	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**31.7%**		**24.7%**	**39.2%**
Newspaper		2.8%	1.8%	4.0%
Magazines		3.0%	2.0%	4.2%
High Grade/ Office		1.4%	0.6%	2.6%
OCC and Kraft Bags		5.7%	3.8%	7.9%
Mixed Recyc Paper		6.3%	4.1%	8.8%
Other Non- Recyc Paper		12.6%	8.2%	17.6%
PLASTIC	**13.3%**		**11.2%**	**15.5%**
#1 PET Containers		0.4%	0.2%	0.7%
#1 PET Deposit		0.2%	0.1%	0.4%
#2 HDPE Containers		1.1%	0.9%	1.5%
All Other Numbered Containers		1.3%	0.8%	1.9%
Other Plastic Not Numbered		5.2%	3.8%	6.9%
Film/Wrap/Bags		5.0%	3.1%	7.2%
METAL	**4.9%**		**3.5%**	**6.3%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.2%
Alum Deposit Beverage Containers		0.2%	0.1%	0.3%
Ferrous Food		1.6%	1.0%	2.4%
Other Ferrous Scrap		2.4%	1.3%	3.8%
Other Non-Ferrous Scrap		0.6%	0.2%	1.0%
GLASS	**2.3%**		**1.5%**	**3.3%**
Clear		1.6%	0.9%	2.5%
Green		0.1%	0.0%	0.2%
Blue		0.0%	0.0%	0.0%
Brown		0.3%	0.1%	0.6%
Deposit Glass Containers		0.2%	0.0%	0.4%
Other/ Mixed Cullet		0.1%	0.0%	0.2%
HHM	**0.7%**		**0.3%**	**1.1%**
Automotive Products		0.2%	0.1%	0.4%
Paints and Solvents		0.2%	0.0%	0.3%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.2%	0.1%	0.3%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.2%
YARD WASTE	**1.5%**		**0.7%**	**2.5%**
Yard Waste		1.5%	0.7%	2.5%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**10.2%**		**6.1%**	**15.3%**
Food Waste		10.2%	6.1%	15.3%
WOOD	**3.4%**		**1.3%**	**6.3%**
Non-Treated Wood		0.6%	0.2%	1.1%
Treated Wood		2.8%	1.0%	5.4%
DURABLES	**9.8%**		**3.3%**	**19.0%**
All Electrical and Household Appl.		3.1%	1.3%	5.5%
Other Durables		6.7%	1.6%	15.0%
TEXTILES	**9.0%**		**5.5%**	**13.3%**
Textiles and Leather		9.0%	5.5%	13.3%
DIAPERS	**4.2%**		**2.3%**	**6.6%**
Diapers		4.2%	2.3%	6.6%
RUBBER	**0.3%**		**0.1%**	**0.7%**
Rubber		0.3%	0.1%	0.7%
OTHER ORGANIC	**0.9%**		**0.3%**	**1.9%**
Other Organic		0.9%	0.3%	1.9%
OTHER INORGANIC	**0.6%**		**0.3%**	**1.0%**
Other Inorganic		0.6%	0.3%	1.0%
FINES/SUPERMIX	**6.1%**		**3.6%**	**9.0%**
Fines/ Supermix		6.1%	3.6%	9.0%
OTHER	**0.2%**		**0.0%**	**0.5%**
Other		0.2%	0.0%	0.5%
CONSTRUCTION & DEMOLITION	**1.1%**		**0.3%**	**2.4%**
C&D		1.1%	0.3%	2.4%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
MSW Composition
Commercial - Spring 1998

Sample Size =	16	loads
Total Wt Sorted =	3,502	pounds
Avg Wt per Sample =	219	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**27.3%**		**16.8%**	**39.2%**
Newspaper		0.8%	0.3%	1.5%
Magazines		0.4%	0.1%	0.9%
High Grade/ Office		1.6%	0.6%	2.9%
OCC and Kraft Bags		15.1%	7.5%	24.8%
Mixed Recyc Paper		4.1%	2.2%	6.6%
Other Non- Recyc Paper		5.4%	2.7%	8.9%
PLASTIC	**19.3%**		**10.9%**	**29.4%**
#1 PET Containers		0.1%	0.0%	0.1%
#1 PET Deposit		0.3%	0.1%	0.5%
#2 HDPE Containers		0.9%	0.4%	1.7%
All Other Numbered Containers		0.9%	0.4%	1.8%
Other Plastic Not Numbered		14.1%	6.2%	24.6%
Film/Wrap/Bags		3.0%	1.4%	5.2%
METAL	**5.7%**		**3.0%**	**9.4%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.4%	0.1%	0.9%
Ferrous Food		0.8%	0.3%	1.5%
Other Ferrous Scrap		3.6%	1.3%	7.0%
Other Non-Ferrous Scrap		0.9%	0.3%	1.7%
GLASS	**0.7%**		**0.3%**	**1.3%**
Clear		0.3%	0.1%	0.5%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.1%
Deposit Glass Containers		0.1%	0.0%	0.2%
Other/ Mixed Cullet		0.3%	0.1%	0.7%
HHM	**0.7%**		**0.2%**	**1.5%**
Automotive Products		0.7%	0.2%	1.5%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.0%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**2.1%**		**0.5%**	**4.8%**
Yard Waste		2.1%	0.5%	4.8%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**4.5%**		**1.7%**	**8.7%**
Food Waste		4.5%	1.7%	8.7%
WOOD	**15.7%**		**6.5%**	**27.9%**
Non-Treated Wood		6.7%	2.4%	12.9%
Treated Wood		9.1%	3.1%	17.7%
DURABLES	**2.7%**		**0.7%**	**5.9%**
All Electrical and Household Appl.		2.7%	0.7%	5.9%
Other Durables		0.0%	0.0%	0.0%
TEXTILES	**2.1%**		**0.9%**	**3.8%**
Textiles and Leather		2.1%	0.9%	3.8%
DIAPERS	**0.7%**		**0.2%**	**1.6%**
Diapers		0.7%	0.2%	1.6%
RUBBER	**3.4%**		**0.7%**	**8.0%**
Rubber		3.4%	0.7%	8.0%
OTHER ORGANIC	**0.3%**		**0.1%**	**0.5%**
Other Organic		0.3%	0.1%	0.5%
OTHER INORGANIC	**3.5%**		**0.7%**	**8.4%**
Other Inorganic		3.5%	0.7%	8.4%
FINES/SUPERMIX	**1.5%**		**0.4%**	**2.7%**
Fines/ Supermix		1.5%	0.5%	2.9%
OTHER	**0.0%**		**0.0%**	**0.0%**
Other		0.0%	0.0%	0.0%
CONSTRUCTION & DEMOLITION	**9.9%**		**2.9%**	**20.4%**
C&D		9.9%	2.9%	20.4%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
MSW Composition
Mixed - Spring 1998

Sample Size =	8	loads
Total Wt Sorted =	1,808	pounds
Avg Wt per Sample =	226	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**21.2%**		**6.6%**	**41.4%**
Newspaper		1.9%	0.3%	4.8%
Magazines		1.4%	0.2%	3.5%
High Grade/ Office		1.1%	0.1%	3.1%
OCC and Kraft Bags		7.7%	2.6%	15.3%
Mixed Recyc Paper		3.6%	0.7%	8.4%
Other Non- Recyc Paper		5.6%	1.1%	13.3%
PLASTIC	**9.6%**		**4.5%**	**16.2%**
#1 PET Containers		0.2%	0.0%	0.4%
#1 PET Deposit		0.1%	0.0%	0.3%
#2 HDPE Containers		1.1%	0.2%	2.5%
All Other Numbered Containers		0.4%	0.1%	1.0%
Other Plastic Not Numbered		4.1%	1.7%	7.6%
Film/Wrap/Bags		3.8%	0.7%	9.1%
METAL	**8.8%**		**3.6%**	**15.9%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.0%	0.3%
Ferrous Food		1.5%	0.3%	3.7%
Other Ferrous Scrap		6.0%	1.6%	12.9%
Other Non-Ferrous Scrap		1.2%	0.1%	3.2%
GLASS	**1.2%**		**0.2%**	**3.0%**
Clear		1.0%	0.2%	2.5%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.2%	0.0%	0.6%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.0%	0.0%	0.0%
HHM	**0.2%**		**0.0%**	**0.5%**
Automotive Products		0.1%	0.0%	0.3%
Paints and Solvents		0.0%	0.0%	0.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**1.7%**		**0.1%**	**5.1%**
Yard Waste		0.9%	0.1%	2.7%
Pumpkins		0.9%	0.0%	2.8%
FOOD WASTE	**4.5%**		**0.8%**	**11.1%**
Food Waste		4.5%	0.8%	11.1%
WOOD	**13.8%**		**7.8%**	**21.2%**
Non-Treated Wood		3.4%	0.6%	8.1%
Treated Wood		10.5%	4.0%	19.4%
DURABLES	**19.1%**		**2.8%**	**45.1%**
All Electrical and Household Appl.		6.3%	0.5%	18.0%
Other Durables		12.9%	0.8%	36.1%
TEXTILES	**7.8%**		**2.4%**	**16.0%**
Textiles and Leather		7.8%	2.4%	16.0%
DIAPERS	**0.8%**		**0.1%**	**2.4%**
Diapers		0.8%	0.1%	2.4%
RUBBER	**2.8%**		**0.6%**	**6.6%**
Rubber		2.8%	0.6%	6.6%
OTHER ORGANIC	**3.9%**		**0.3%**	**11.0%**
Other Organic		3.9%	0.3%	11.0%
OTHER INORGANIC	**0.0%**		**0.0%**	**0.0%**
Other Inorganic		0.0%	0.0%	0.0%
FINES/SUPERMIX	**2.4%**		**0.4%**	**5.9%**
Fines/ Supermix		2.4%	0.4%	5.9%
OTHER	**0.0%**		**0.0%**	**0.0%**
Other		0.0%	0.0%	0.0%
CONSTRUCTION & DEMOLITION	**2.1%**		**0.3%**	**5.4%**
C&D		2.1%	0.3%	5.4%
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
MSW Composition
Combined - Spring 1998

Sample Size =	41	loads
Total Wt Sorted =	9,176	pounds
Avg Wt per Sample =	224	pounds
Est Tons Disposed/Week =	918	tons/week

WASTE CATEGORIES Material	Mean Percentage	90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material
PAPER	**27.9%**	**22.0%**	**34.3%**	**256**
Newspaper	1.8%	1.2%	2.6%	17
Magazines	1.7%	1.0%	2.4%	15
High Grade/ Office	1.4%	0.9%	2.1%	13
OCC and Kraft Bags	9.7%	6.8%	13.2%	89
Mixed Recyc Paper	4.9%	3.5%	6.5%	45
Other Non- Recyc Paper	8.4%	5.9%	11.3%	77
PLASTIC	**14.9%**	**11.6%**	**18.6%**	**137**
#1 PET Containers	0.2%	0.1%	0.3%	2
#1 PET Deposit	0.2%	0.1%	0.3%	2
#2 HDPE Containers	1.0%	0.7%	1.4%	10
All Other Numbered Containers	1.0%	0.6%	1.4%	9
Other Plastic Not Numbered	8.5%	5.7%	11.7%	78
Film/Wrap/Bags	4.0%	2.8%	5.4%	37
METAL	**6.0%**	**4.4%**	**7.7%**	**55**
Alum Non-Deposit Beverage Containers	0.1%	0.0%	0.1%	1
Alum Deposit Beverage Containers	0.3%	0.1%	0.4%	2
Ferrous Food	1.3%	0.8%	1.8%	12
Other Ferrous Scrap	3.6%	2.3%	5.1%	33
Other Non-Ferrous Scrap	0.8%	0.5%	1.2%	7
GLASS	**1.5%**	**1.0%**	**2.0%**	**13**
Clear	1.0%	0.6%	1.4%	9
Green	0.0%	0.0%	0.1%	0
Blue	0.0%	0.0%	0.0%	0
Brown	0.2%	0.1%	0.3%	2
Deposit Glass Containers	0.1%	0.0%	0.2%	1
Other/ Mixed Cullet	0.2%	0.1%	0.3%	1
HHM	**0.6%**	**0.4%**	**0.9%**	**5**
Automotive Products	0.4%	0.2%	0.6%	3
Paints and Solvents	0.1%	0.0%	0.1%	1
Pesticides, Herbicides & Fungicides	0.0%	0.0%	0.0%	0
Household Cleaners	0.0%	0.0%	0.0%	0
Batteries (lead -acid)	0.0%	0.0%	0.0%	0
Batteries (other)	0.1%	0.1%	0.1%	1
Other (HHM containers w/prod inside)	0.0%	0.0%	0.1%	0
YARD WASTE	**1.8%**	**1.0%**	**2.8%**	**16**
Yard Waste	1.6%	0.9%	2.5%	15
Pumpkins	0.2%	0.1%	0.3%	2
FOOD WASTE	**6.9%**	**4.5%**	**9.7%**	**63**
Food Waste	6.9%	4.5%	9.7%	63
WOOD	**10.2%**	**6.4%**	**14.9%**	**94**
Non-Treated Wood	3.5%	1.9%	5.5%	32
Treated Wood	6.8%	4.0%	10.1%	62
DURABLES	**10.3%**	**5.7%**	**16.2%**	**95**
All Electrical and Household Appl.	3.6%	2.0%	5.6%	33
Other Durables	6.8%	3.2%	11.6%	62
TEXTILES	**6.0%**	**4.0%**	**8.3%**	**55**
Textiles and Leather	6.0%	4.0%	8.3%	55
DIAPERS	**2.2%**	**1.3%**	**3.3%**	**20**
Diapers	2.2%	1.3%	3.3%	20
RUBBER	**2.0%**	**1.0%**	**3.4%**	**18**
Rubber	2.0%	1.0%	3.4%	18
OTHER ORGANIC	**1.3%**	**0.7%**	**2.0%**	**11**
Other Organic	1.3%	0.7%	2.0%	11
OTHER INORGANIC	**1.6%**	**0.7%**	**2.8%**	**15**
Other Inorganic	1.6%	0.7%	2.8%	15
FINES/SUPERMIX	**3.6%**	**2.2%**	**5.0%**	**33**
Fines/ Supermix	3.6%	2.3%	5.1%	33
OTHER	**0.1%**	**0.0%**	**0.2%**	**1**
Other	0.1%	0.0%	0.2%	1
CONSTRUCTION & DEMOLITION	**4.7%**	**2.4%**	**7.8%**	**43**
C&D	4.7%	2.4%	7.8%	43
TOTAL PERCENT	**100.0%**			

DES MOINES COUNTY
Solid Waste Composition
Spring 1998

Sample Size =	41	loads
Total Wt Sorted =	9,176	pounds
Avg Wt per Sample =	224	pounds
Est Tons Disposed/Week =	1,179	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**21.8%**		**256**	
Newspaper		1.4%		17
Magazines		1.3%		15
High Grade/ Office		1.1%		13
OCC and Kraft Bags		7.6%		89
Mixed Recyc Paper		3.8%		45
Other Non- Recyc Paper		6.5%		77
PLASTIC	**11.6%**		**137**	
#1 PET Containers		0.2%		2
#1 PET Deposit		0.2%		2
#2 HDPE Containers		0.8%		10
All Other Numbered Containers		0.7%		9
Other Plastic Not Numbered		6.6%		78
Film/Wrap/Bags		3.1%		37
METAL	**4.6%**		**55**	
Alum Non-Deposit Beverage Containers		0.0%		1
Alum Deposit Beverage Containers		0.2%		2
Ferrous Food		1.0%		12
Other Ferrous Scrap		2.8%		33
Other Non-Ferrous Scrap		0.6%		7
GLASS	**1.1%**		**13**	
Clear		0.8%		9
Green		0.0%		0
Blue		0.0%		0
Brown		0.1%		2
Deposit Glass Containers		0.1%		1
Other/ Mixed Cullet		0.1%		1
HHM	**0.5%**		**5**	
Automotive Products		0.3%		3
Paints and Solvents		0.1%		1
Pesticides, Herbicides & Fungicides		0.0%		0
Household Cleaners		0.0%		0
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.1%		1
Other (HHM containers w/prod inside)		0.0%		0
YARD WASTE	**1.4%**		**16**	
Yard Waste		1.2%		15
Pumpkins		0.1%		2
FOOD WASTE	**5.4%**		**63**	
Food Waste		5.4%		63
WOOD	**8.0%**		**94**	
Non-Treated Wood		2.7%		32
Treated Wood		5.3%		62
DURABLES	**8.0%**		**95**	
All Electrical and Household Appl.		2.8%		33
Other Durables		5.3%		62
TEXTILES	**4.7%**		**55**	
Textiles and Leather		4.7%		55
DIAPERS	**1.7%**		**20**	
Diapers		1.7%		20
RUBBER	**1.6%**		**18**	
Rubber		1.6%		18
OTHER ORGANIC	**1.0%**		**11**	
Other Organic		1.0%		11
OTHER INORGANIC	**1.3%**		**15**	
Other Inorganic		1.3%		15
FINES/SUPERMIX	**2.8%**		**33**	
Fines/ Supermix		2.8%		33
OTHER	**0.1%**		**1**	
Other		0.1%		1
CONSTRUCTION & DEMOLITION	**22.7%**		**267**	
C&D		22.7%		267
SPECIAL WASTES	**3.1%**		**37**	
Special Wastes		3.1%		37
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Residential - Spring 1998

Sample Size =	9	loads
Total Wt Sorted =	1,637	pounds
Avg Wt per Sample =	182	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**16.6%**		**6.0%**	**31.1%**
Newspaper		1.5%	0.4%	3.4%
Magazines		0.6%	0.1%	1.6%
High Grade/ Office		1.0%	0.1%	2.9%
OCC and Kraft Bags		6.9%	2.4%	13.3%
Mixed Recyc Paper		3.1%	0.7%	7.2%
Other Non- Recyc Paper		3.5%	1.1%	7.2%
PLASTIC	**7.6%**		**2.9%**	**14.2%**
#1 PET Containers		0.1%	0.0%	0.2%
#1 PET Deposit		0.0%	0.0%	0.1%
#2 HDPE Containers		1.1%	0.3%	2.4%
All Other Numbered Containers		0.7%	0.2%	1.8%
Other Plastic Not Numbered		4.5%	1.5%	9.1%
Film/Wrap/Bags		1.1%	0.3%	2.6%
METAL	**14.7%**		**5.7%**	**26.9%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		0.5%	0.1%	1.3%
Other Ferrous Scrap		11.6%	3.1%	24.5%
Other Non-Ferrous Scrap		2.5%	0.3%	6.8%
GLASS	**1.9%**		**0.5%**	**4.3%**
Clear		1.4%	0.2%	3.6%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.2%
Deposit Glass Containers		0.2%	0.0%	0.5%
Other/ Mixed Cullet		0.2%	0.0%	0.6%
HHM	**1.0%**		**0.2%**	**2.6%**
Automotive Products		0.3%	0.0%	1.1%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.1%	0.0%	0.2%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.4%	0.1%	0.9%
Other (HHM containers w/prod inside)		0.2%	0.0%	0.5%
YARD WASTE	**4.5%**		**0.2%**	**13.6%**
Yard Waste		4.5%	0.2%	13.6%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**3.2%**		**0.4%**	**8.2%**
Food Waste		3.2%	0.4%	8.2%
WOOD	**13.7%**		**3.8%**	**28.3%**
Non-Treated Wood		2.3%	0.5%	5.3%
Treated Wood		11.4%	3.1%	23.9%
DURABLES	**11.9%**		**4.5%**	**22.3%**
All Electrical and Household Appl.		6.4%	1.5%	14.3%
Other Durables		5.6%	0.5%	15.4%
TEXTILES	**5.5%**		**1.9%**	**10.8%**
Textiles and Leather		5.5%	1.9%	10.8%
DIAPERS	**0.6%**		**0.0%**	**1.7%**
Diapers		0.6%	0.0%	1.7%
RUBBER	**3.1%**		**0.7%**	**7.2%**
Rubber		3.1%	0.7%	7.2%
OTHER ORGANIC	**1.2%**		**0.2%**	**3.2%**
Other Organic		1.2%	0.2%	3.2%
OTHER INORGANIC	**1.9%**		**0.3%**	**4.7%**
Other Inorganic		1.9%	0.3%	4.7%
FINES/SUPERMIX	**3.7%**		**1.5%**	**7.0%**
Fines/ Supermix		3.7%	1.5%	7.0%
OTHER	**0.0%**		**0.0%**	**0.1%**
Other		0.0%	0.0%	0.1%
CONSTRUCTION & DEMOLITION	**10.2%**		**2.5%**	**22.5%**
C&D		10.2%	2.5%	22.5%
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Commercial - Spring 1998

Sample Size =	25	loads
Total Wt Sorted =	5,608	pounds
Avg Wt per Sample =	224	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**38.1%**		**29.9%**	**46.5%**
Newspaper		1.5%	0.8%	2.5%
Magazines		0.8%	0.4%	1.3%
High Grade/ Office		2.0%	1.0%	3.4%
OCC and Kraft Bags		18.2%	11.3%	26.4%
Mixed Recyc Paper		5.5%	3.6%	7.9%
Other Non- Recyc Paper		10.0%	5.7%	15.4%
PLASTIC	**19.4%**		**13.9%**	**25.5%**
#1 PET Containers		0.4%	0.2%	0.8%
#1 PET Deposit		0.1%	0.0%	0.1%
#2 HDPE Containers		2.8%	1.7%	4.1%
All Other Numbered Containers		3.9%	1.6%	7.2%
Other Plastic Not Numbered		5.1%	3.2%	7.4%
Film/Wrap/Bags		7.2%	5.0%	9.6%
METAL	**2.9%**		**1.6%**	**4.6%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.2%	0.1%	0.4%
Ferrous Food		0.8%	0.4%	1.3%
Other Ferrous Scrap		1.1%	0.6%	1.9%
Other Non-Ferrous Scrap		0.8%	0.3%	1.4%
GLASS	**1.1%**		**0.5%**	**1.9%**
Clear		0.7%	0.3%	1.2%
Green		0.1%	0.0%	0.2%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.2%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.2%	0.1%	0.4%
HHM	**1.3%**		**0.6%**	**2.2%**
Automotive Products		0.7%	0.3%	1.3%
Paints and Solvents		0.4%	0.1%	0.7%
Pesticides, Herbicides & Fungicides		0.1%	0.0%	0.1%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.6%**		**0.2%**	**1.2%**
Yard Waste		0.6%	0.2%	1.2%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**15.5%**		**9.3%**	**22.9%**
Food Waste		15.5%	9.3%	22.9%
WOOD	**1.8%**		**0.8%**	**3.2%**
Non-Treated Wood		1.1%	0.5%	2.0%
Treated Wood		0.7%	0.3%	1.3%
DURABLES	**4.3%**		**1.0%**	**9.8%**
All Electrical and Household Appl.		2.3%	0.8%	4.5%
Other Durables		2.1%	0.6%	4.4%
TEXTILES	**3.0%**		**1.4%**	**5.2%**
Textiles and Leather		3.0%	1.4%	5.2%
DIAPERS	**0.9%**		**0.4%**	**1.6%**
Diapers		0.9%	0.4%	1.6%
RUBBER	**0.5%**		**0.2%**	**0.8%**
Rubber		0.5%	0.2%	0.8%
OTHER ORGANIC	**2.1%**		**0.9%**	**3.7%**
Other Organic		2.1%	0.9%	3.7%
OTHER INORGANIC	**0.3%**		**0.1%**	**0.5%**
Other Inorganic		0.3%	0.1%	0.5%
FINES/SUPERMIX	**5.5%**		**2.5%**	**7.9%**
Fines/ Supermix		5.5%	2.9%	8.7%
OTHER	**0.4%**		**0.1%**	**0.7%**
Other		0.4%	0.1%	0.7%
CONSTRUCTION & DEMOLITION	**3.1%**		**1.4%**	**5.4%**
C&D		3.1%	1.4%	5.4%
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Mixed - Spring 1998

Sample Size =	22	loads
Total Wt Sorted =	4,917	pounds
Avg Wt per Sample =	224	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**31.2%**		**27.4%**	**35.1%**
Newspaper		2.7%	2.0%	3.5%
Magazines		2.2%	1.3%	3.2%
High Grade/ Office		1.3%	0.9%	1.8%
OCC and Kraft Bags		6.7%	4.5%	9.3%
Mixed Recyc Paper		7.4%	5.9%	9.1%
Other Non- Recyc Paper		11.0%	8.0%	14.4%
PLASTIC	**12.5%**		**11.2%**	**13.9%**
#1 PET Containers		0.3%	0.2%	0.4%
#1 PET Deposit		0.1%	0.1%	0.2%
#2 HDPE Containers		1.1%	0.8%	1.5%
All Other Numbered Containers		0.9%	0.5%	1.3%
Other Plastic Not Numbered		6.2%	5.1%	7.3%
Film/Wrap/Bags		3.9%	3.3%	4.5%
METAL	**6.0%**		**4.3%**	**8.0%**
Alum Non-Deposit Beverage Containers		0.1%	0.1%	0.2%
Alum Deposit Beverage Containers		0.1%	0.0%	0.1%
Ferrous Food		1.8%	1.2%	2.4%
Other Ferrous Scrap		3.1%	1.9%	4.5%
Other Non-Ferrous Scrap		0.9%	0.4%	1.7%
GLASS	**2.9%**		**1.9%**	**4.0%**
Clear		1.5%	1.0%	2.1%
Green		0.3%	0.1%	0.6%
Blue		0.0%	0.0%	0.1%
Brown		0.5%	0.2%	0.8%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		0.6%	0.3%	0.9%
HHM	**1.4%**		**0.8%**	**2.2%**
Automotive Products		0.5%	0.2%	0.9%
Paints and Solvents		0.5%	0.2%	0.9%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.1%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.1%	0.3%
YARD WASTE	**1.5%**		**0.6%**	**2.9%**
Yard Waste		1.5%	0.6%	2.9%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**16.6%**		**13.5%**	**19.9%**
Food Waste		16.6%	13.5%	19.9%
WOOD	**3.2%**		**1.8%**	**4.9%**
Non-Treated Wood		1.8%	0.8%	3.2%
Treated Wood		1.4%	0.7%	2.2%
DURABLES	**2.3%**		**1.1%**	**3.6%**
All Electrical and Household Appl.		1.5%	0.7%	2.6%
Other Durables		0.8%	0.3%	1.6%
TEXTILES	**3.6%**		**2.2%**	**5.2%**
Textiles and Leather		3.6%	2.2%	5.2%
DIAPERS	**2.5%**		**1.4%**	**4.0%**
Diapers		2.5%	1.4%	4.0%
RUBBER	**0.5%**		**0.3%**	**0.8%**
Rubber		0.5%	0.3%	0.8%
OTHER ORGANIC	**2.6%**		**1.4%**	**4.1%**
Other Organic		2.6%	1.4%	4.1%
OTHER INORGANIC	**0.7%**		**0.3%**	**1.2%**
Other Inorganic		0.7%	0.3%	1.2%
FINES/SUPERMIX	**9.3%**		**7.1%**	**10.9%**
Fines/ Supermix		9.3%	8.0%	10.7%
OTHER	**0.1%**		**0.0%**	**0.3%**
Other		0.1%	0.0%	0.3%
CONSTRUCTION & DEMOLITION	**2.2%**		**1.4%**	**3.3%**
C&D		2.2%	1.4%	3.3%
TOTAL PERCENT	**100.0%**			

FLOYD-MITCHELL SOLID WASTE AGENCY
MSW Composition
Combined - Spring 1998

Sample Size =	55	loads
Total Wt Sorted =	12,150	pounds
Avg Wt per Sample =	221	pounds
Est. Tons Disposed/Week =	447	tons/week

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material	
PAPER	**31.7%**		**26.9%**	**36.8%**	**142**	
Newspaper		1.9%	1.3%	2.5%		8
Magazines		1.3%	0.9%	1.8%		6
High Grade/ Office		1.6%	1.1%	2.2%		7
OCC and Kraft Bags		11.7%	8.5%	15.3%		52
Mixed Recyc Paper		6.0%	4.7%	7.4%		27
Other Non- Recyc Paper		9.3%	6.8%	12.0%		41
PLASTIC	**14.8%**		**12.1%**	**17.7%**	**66**	
#1 PET Containers		0.3%	0.2%	0.4%		1
#1 PET Deposit		0.1%	0.1%	0.1%		0
#2 HDPE Containers		1.9%	1.4%	2.4%		8
All Other Numbered Containers		2.2%	1.3%	3.3%		10
Other Plastic Not Numbered		5.4%	4.3%	6.7%		24
Film/Wrap/Bags		4.9%	3.8%	6.1%		22
METAL	**6.0%**		**4.4%**	**7.9%**	**27**	
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.1%		0
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%		1
Ferrous Food		1.1%	0.8%	1.5%		5
Other Ferrous Scrap		3.6%	2.3%	5.1%		16
Other Non-Ferrous Scrap		1.1%	0.7%	1.7%		5
GLASS	**1.8%**		**1.2%**	**2.4%**	**8**	
Clear		1.0%	0.7%	1.4%		4
Green		0.2%	0.1%	0.3%		1
Blue		0.0%	0.0%	0.0%		0
Brown		0.2%	0.1%	0.4%		1
Deposit Glass Containers		0.0%	0.0%	0.0%		0
Other/ Mixed Cullet		0.4%	0.2%	0.5%		2
HHM	**1.2%**		**0.8%**	**1.7%**	**6**	
Automotive Products		0.6%	0.3%	0.9%		3
Paints and Solvents		0.4%	0.2%	0.6%		2
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.1%		0
Household Cleaners		0.0%	0.0%	0.1%		0
Batteries (lead -acid)		0.0%	0.0%	0.0%		0
Batteries (other)		0.1%	0.0%	0.1%		0
Other (HHM containers w/prod inside)		0.1%	0.0%	0.1%		0
YARD WASTE	**1.6%**		**0.9%**	**2.6%**	**7**	
Yard Waste		1.6%	0.9%	2.6%		7
Pumpkins		0.0%	0.0%	0.0%		0
FOOD WASTE	**13.9%**		**10.4%**	**17.8%**	**62**	
Food Waste		13.9%	10.4%	17.8%		62
WOOD	**4.3%**		**2.8%**	**6.1%**	**19**	
Non-Treated Wood		1.6%	1.0%	2.3%		7
Treated Wood		2.7%	1.7%	4.1%		12
DURABLES	**4.8%**		**2.6%**	**7.5%**	**21**	
All Electrical and Household Appl.		2.6%	1.6%	4.0%		12
Other Durables		2.2%	1.1%	3.5%		10
TEXTILES	**3.7%**		**2.6%**	**5.0%**	**16**	
Textiles and Leather		3.7%	2.6%	5.0%		16
DIAPERS	**1.5%**		**1.0%**	**2.1%**	**7**	
Diapers		1.5%	1.0%	2.1%		7
RUBBER	**0.9%**		**0.6%**	**1.3%**	**4**	
Rubber		0.9%	0.6%	1.3%		4
OTHER ORGANIC	**2.2%**		**1.4%**	**3.1%**	**10**	
Other Organic		2.2%	1.4%	3.1%		10
OTHER INORGANIC	**0.5%**		**0.3%**	**0.8%**	**2**	
Other Inorganic		0.5%	0.3%	0.8%		2
FINES/SUPERMIX	**6.7%**		**4.7%**	**8.1%**	**30**	
Fines/ Supermix		6.7%	5.1%	8.6%		30
OTHER	**0.2%**		**0.1%**	**0.3%**	**1**	
Other		0.2%	0.1%	0.3%		1
CONSTRUCTION & DEMOLITION	**4.0%**		**2.6%**	**5.6%**	**18**	
C&D		4.0%	2.6%	5.6%		18
TOTAL PERCENT	**100.0%**					

FLOYD-MITCHELL SOLID WASTE AGENCY
Solid Waste Composition
Spring 1998

Sample Size =	55	loads
Total Wt Sorted =	12,150	pounds
Avg Wt per Sample =	221	pounds
Est. Tons Disposed/Week=	509	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**27.9%**		**142**	
Newspaper		1.7%		8
Magazines		1.2%		6
High Grade/ Office		1.4%		7
OCC and Kraft Bags		10.3%		52
Mixed Recyc Paper		5.2%		27
Other Non- Recyc Paper		8.1%		41
PLASTIC	**13.0%**		**66**	
#1 PET Containers		0.3%		1
#1 PET Deposit		0.1%		0
#2 HDPE Containers		1.6%		8
All Other Numbered Containers		1.9%		10
Other Plastic Not Numbered		4.8%		24
Film/Wrap/Bags		4.3%		22
METAL	**5.3%**		**27**	
Alum Non-Deposit Beverage Containers		0.1%		0
Alum Deposit Beverage Containers		0.1%		1
Ferrous Food		1.0%		5
Other Ferrous Scrap		3.2%		16
Other Non-Ferrous Scrap		1.0%		5
GLASS	**1.6%**		**8**	
Clear		0.9%		4
Green		0.1%		1
Blue		0.0%		0
Brown		0.2%		1
Deposit Glass Containers		0.0%		0
Other/ Mixed Cullet		0.3%		2
HHM	**1.1%**		**6**	
Automotive Products		0.5%		3
Paints and Solvents		0.3%		2
Pesticides, Herbicides & Fungicides		0.0%		0
Household Cleaners		0.0%		0
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.1%		0
Other (HHM containers w/prod inside)		0.1%		0
YARD WASTE	**1.4%**		**7**	
Yard Waste		1.4%		7
Pumpkins		0.0%		0
FOOD WASTE	**12.2%**		**62**	
Food Waste		12.2%		62
WOOD	**3.8%**		**19**	
Non-Treated Wood		1.4%		7
Treated Wood		2.4%		12
DURABLES	**4.2%**		**21**	
All Electrical and Household Appl.		2.3%		12
Other Durables		1.9%		10
TEXTILES	**3.2%**		**16**	
Textiles and Leather		3.2%		16
DIAPERS	**1.3%**		**7**	
Diapers		1.3%		7
RUBBER	**0.8%**		**4**	
Rubber		0.8%		4
OTHER ORGANIC	**1.9%**		**10**	
Other Organic		1.9%		10
OTHER INORGANIC	**0.5%**		**2**	
Other Inorganic		0.5%		2
FINES/SUPERMIX	**5.9%**		**30**	
Fines/ Supermix		5.9%		30
OTHER	**0.2%**		**1**	
Other		0.2%		1
CONSTRUCTION & DEMOLITION	**10.4%**		**53**	
C&D		10.4%		53
SPECIAL WASTES	**5.3%**		**27**	
Special Wastes		5.3%		27
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Residential - Spring 1998

Sample Size =	19	loads
Total Wt Sorted =	4,099	pounds
Avg Wt per Sample =	216	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**31.3%**		**27.4%**	**35.4%**
Newspaper		4.2%	2.7%	6.0%
Magazines		3.2%	2.2%	4.4%
High Grade/ Office		2.1%	1.3%	3.1%
OCC and Kraft Bags		3.5%	2.3%	4.8%
Mixed Recyc Paper		6.4%	5.0%	7.9%
Other Non- Recyc Paper		12.0%	9.5%	14.9%
PLASTIC	**12.6%**		**10.7%**	**14.6%**
#1 PET Containers		0.4%	0.3%	0.6%
#1 PET Deposit		0.2%	0.1%	0.2%
#2 HDPE Containers		0.9%	0.6%	1.2%
All Other Numbered Containers		1.0%	0.7%	1.4%
Other Plastic Not Numbered		5.8%	4.6%	7.2%
Film/Wrap/Bags		4.3%	3.6%	5.1%
METAL	**8.8%**		**5.4%**	**13.0%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%
Ferrous Food		0.9%	0.6%	1.1%
Other Ferrous Scrap		6.4%	3.5%	10.1%
Other Non-Ferrous Scrap		1.4%	0.6%	2.6%
GLASS	**2.8%**		**2.1%**	**3.7%**
Clear		1.3%	0.9%	1.8%
Green		0.0%	0.0%	0.1%
Blue		0.0%	0.0%	0.0%
Brown		0.1%	0.0%	0.1%
Deposit Glass Containers		0.7%	0.3%	1.2%
Other/ Mixed Cullet		0.7%	0.3%	1.4%
HHM	**0.7%**		**0.4%**	**1.1%**
Automotive Products		0.3%	0.1%	0.5%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.1%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.1%	0.2%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.2%
YARD WASTE	**1.7%**		**0.8%**	**2.9%**
Yard Waste		1.7%	0.8%	2.9%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**14.6%**		**12.3%**	**17.0%**
Food Waste		14.6%	12.3%	17.0%
WOOD	**3.5%**		**1.3%**	**6.7%**
Non-Treated Wood		0.4%	0.1%	0.7%
Treated Wood		3.2%	1.1%	6.3%
DURABLES	**4.3%**		**1.4%**	**8.7%**
All Electrical and Household Appl.		1.0%	0.4%	2.1%
Other Durables		3.3%	0.8%	7.4%
TEXTILES	**3.5%**		**2.2%**	**5.0%**
Textiles and Leather		3.5%	2.2%	5.0%
DIAPERS	**4.0%**		**2.5%**	**5.9%**
Diapers		4.0%	2.5%	5.9%
RUBBER	**0.6%**		**0.3%**	**1.2%**
Rubber		0.6%	0.3%	1.2%
OTHER ORGANIC	**1.3%**		**0.7%**	**2.0%**
Other Organic		1.3%	0.7%	2.0%
OTHER INORGANIC	**4.4%**		**2.3%**	**7.2%**
Other Inorganic		4.4%	2.3%	7.2%
FINES/SUPERMIX	**5.1%**		**3.7%**	**6.2%**
Fines/ Supermix		5.1%	4.2%	6.0%
OTHER	**0.1%**		**0.0%**	**0.2%**
Other		0.1%	0.0%	0.2%
CONSTRUCTION & DEMOLITION	**0.8%**		**0.3%**	**1.6%**
C&D		0.8%	0.3%	1.6%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Commercial - Spring 1998

Sample Size =	19	loads
Total Wt Sorted =	4,705	pounds
Avg Wt per Sample =	248	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**27.5%**		**19.1%**	**35.9%**
Newspaper		1.8%	0.9%	3.2%
Magazines		1.0%	0.5%	1.8%
High Grade/ Office		1.9%	0.8%	3.5%
OCC and Kraft Bags		8.9%	4.1%	15.3%
Mixed Recyc Paper		4.8%	2.7%	7.5%
Other Non- Recyc Paper		9.1%	5.5%	13.5%
PLASTIC	**23.3%**		**13.0%**	**35.5%**
#1 PET Containers		0.3%	0.1%	0.6%
#1 PET Deposit		0.2%	0.1%	0.4%
#2 HDPE Containers		1.9%	0.9%	3.3%
All Other Numbered Containers		0.8%	0.3%	1.5%
Other Plastic Not Numbered		12.6%	5.5%	22.0%
Film/Wrap/Bags		7.5%	3.2%	13.5%
METAL	**3.3%**		**1.6%**	**5.7%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		1.1%	0.4%	2.0%
Other Ferrous Scrap		2.0%	0.7%	3.9%
Other Non-Ferrous Scrap		0.1%	0.1%	0.2%
GLASS	**2.6%**		**1.0%**	**4.8%**
Clear		0.8%	0.3%	1.6%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.1%
Deposit Glass Containers		1.5%	0.4%	3.2%
Other/ Mixed Cullet		0.2%	0.1%	0.4%
HHM	**1.1%**		**0.4%**	**2.0%**
Automotive Products		0.1%	0.0%	0.2%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.9%	0.3%	1.8%
YARD WASTE	**1.6%**		**0.4%**	**3.6%**
Yard Waste		1.6%	0.4%	3.6%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**8.3%**		**3.9%**	**14.1%**
Food Waste		8.3%	3.9%	14.1%
WOOD	**9.8%**		**3.3%**	**19.2%**
Non-Treated Wood		9.2%	2.8%	18.7%
Treated Wood		0.6%	0.2%	1.3%
DURABLES	**4.7%**		**1.4%**	**9.7%**
All Electrical and Household Appl.		0.5%	0.2%	1.1%
Other Durables		4.2%	1.0%	9.3%
TEXTILES	**9.3%**		**3.4%**	**17.7%**
Textiles and Leather		9.3%	3.4%	17.7%
DIAPERS	**0.2%**		**0.1%**	**0.4%**
Diapers		0.2%	0.1%	0.4%
RUBBER	**1.0%**		**0.4%**	**1.8%**
Rubber		1.0%	0.4%	1.8%
OTHER ORGANIC	**4.6%**		**1.5%**	**9.3%**
Other Organic		4.6%	1.5%	9.3%
OTHER INORGANIC	**0.5%**		**0.2%**	**1.0%**
Other Inorganic		0.5%	0.2%	1.0%
FINES/SUPERMIX	**1.8%**		**0.8%**	**3.1%**
Fines/ Supermix		1.8%	0.8%	3.1%
OTHER	**0.5%**		**0.1%**	**1.2%**
Other		0.5%	0.1%	1.2%
CONSTRUCTION & DEMOLITION	**0.1%**		**0.0%**	**0.2%**
C&D		0.1%	0.0%	0.2%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Mixed - Spring 1998

Sample Size =	13	loads
Total Wt Sorted =	2,911	pounds
Avg Wt per Sample =	224	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**31.3%**		**23.7%**	**39.5%**
Newspaper		2.9%	1.8%	4.3%
Magazines		2.6%	1.8%	3.7%
High Grade/ Office		3.2%	1.8%	5.0%
OCC and Kraft Bags		7.0%	3.2%	12.2%
Mixed Recyc Paper		6.6%	4.5%	9.1%
Other Non- Recyc Paper		8.9%	6.7%	11.4%
PLASTIC	**13.8%**		**10.3%**	**17.8%**
#1 PET Containers		0.2%	0.1%	0.5%
#1 PET Deposit		0.2%	0.1%	0.4%
#2 HDPE Containers		0.8%	0.4%	1.4%
All Other Numbered Containers		1.4%	0.6%	2.6%
Other Plastic Not Numbered		6.2%	3.4%	9.6%
Film/Wrap/Bags		5.0%	3.5%	6.8%
METAL	**6.0%**		**3.0%**	**10.0%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.1%
Alum Deposit Beverage Containers		0.2%	0.1%	0.4%
Ferrous Food		1.0%	0.4%	1.8%
Other Ferrous Scrap		4.5%	1.7%	8.6%
Other Non-Ferrous Scrap		0.2%	0.1%	0.3%
GLASS	**3.1%**		**1.6%**	**4.9%**
Clear		1.1%	0.5%	1.9%
Green		0.0%	0.0%	0.0%
Blue		0.1%	0.0%	0.1%
Brown		0.1%	0.0%	0.1%
Deposit Glass Containers		1.5%	0.6%	2.7%
Other/ Mixed Cullet		0.4%	0.1%	0.8%
HHM	**0.8%**		**0.4%**	**1.4%**
Automotive Products		0.2%	0.0%	0.3%
Paints and Solvents		0.0%	0.0%	0.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.2%	0.0%	0.5%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.1%
Other (HHM containers w/prod inside)		0.3%	0.1%	0.8%
YARD WASTE	**3.4%**		**1.0%**	**7.1%**
Yard Waste		3.4%	1.0%	7.1%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**10.4%**		**6.4%**	**15.2%**
Food Waste		10.4%	6.4%	15.2%
WOOD	**4.3%**		**1.6%**	**8.3%**
Non-Treated Wood		0.6%	0.2%	1.2%
Treated Wood		3.8%	1.0%	8.1%
DURABLES	**1.7%**		**0.4%**	**3.6%**
All Electrical and Household Appl.		1.7%	0.4%	3.6%
Other Durables		0.0%	0.0%	0.0%
TEXTILES	**8.4%**		**3.1%**	**16.1%**
Textiles and Leather		8.4%	3.1%	16.1%
DIAPERS	**1.6%**		**0.6%**	**3.2%**
Diapers		1.6%	0.6%	3.2%
RUBBER	**0.7%**		**0.3%**	**1.2%**
Rubber		0.7%	0.3%	1.2%
OTHER ORGANIC	**1.9%**		**0.9%**	**3.2%**
Other Organic		1.9%	0.9%	3.2%
OTHER INORGANIC	**2.4%**		**0.7%**	**5.3%**
Other Inorganic		2.4%	0.7%	5.3%
FINES/SUPERMIX	**5.3%**		**2.7%**	**8.4%**
Fines/ Supermix		5.3%	3.1%	8.2%
OTHER	**0.5%**		**0.1%**	**1.2%**
Other		0.5%	0.1%	1.2%
CONSTRUCTION & DEMOLITION	**4.5%**		**1.3%**	**9.5%**
C&D		4.5%	1.3%	9.5%
TOTAL PERCENT	**100.0%**			

IOWA CITY LANDFILL
MSW Composition
Combined - Spring 1998

Sample Size =	51	loads
Total Wt Sorted =	11,714	pounds
Avg Wt per Sample =	230	pounds
Est Tons Disposed/Week =	1,356	tons/week

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material	
PAPER	**29.9%**		**25.9%**	**34.0%**	**406**	
Newspaper		3.0%	2.2%	3.9%		40
Magazines		2.2%	1.7%	2.9%		30
High Grade/ Office		2.3%	1.7%	3.1%		32
OCC and Kraft Bags		6.4%	4.4%	8.6%		87
Mixed Recyc Paper		5.9%	4.7%	7.1%		79
Other Non- Recyc Paper		10.1%	8.3%	12.1%		137
PLASTIC	**16.9%**		**13.2%**	**20.9%**	**229**	
#1 PET Containers		0.3%	0.2%	0.5%		5
#1 PET Deposit		0.2%	0.1%	0.3%		3
#2 HDPE Containers		1.2%	0.9%	1.7%		17
All Other Numbered Containers		1.0%	0.7%	1.4%		14
Other Plastic Not Numbered		8.4%	6.0%	11.3%		114
Film/Wrap/Bags		5.7%	4.1%	7.5%		77
METAL	**6.0%**		**4.3%**	**8.0%**	**82**	
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%		0
Alum Deposit Beverage Containers		0.1%	0.1%	0.2%		2
Ferrous Food		1.0%	0.7%	1.3%		13
Other Ferrous Scrap		4.3%	2.8%	6.0%		58
Other Non-Ferrous Scrap		0.6%	0.4%	0.9%		8
GLASS	**2.8%**		**2.0%**	**3.7%**	**38**	
Clear		1.1%	0.8%	1.5%		15
Green		0.0%	0.0%	0.0%		0
Blue		0.0%	0.0%	0.0%		0
Brown		0.0%	0.0%	0.1%		1
Deposit Glass Containers		1.2%	0.7%	1.8%		16
Other/ Mixed Cullet		0.4%	0.3%	0.6%		6
HHM	**0.9%**		**0.6%**	**1.2%**	**12**	
Automotive Products		0.2%	0.1%	0.3%		3
Paints and Solvents		0.0%	0.0%	0.0%		0
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%		0
Household Cleaners		0.1%	0.0%	0.1%		1
Batteries (lead -acid)		0.0%	0.0%	0.0%		0
Batteries (other)		0.1%	0.1%	0.1%		1
Other (HHM containers w/prod inside)		0.5%	0.2%	0.7%		6
YARD WASTE	**2.1%**		**1.2%**	**3.2%**	**28**	
Yard Waste		2.1%	1.2%	3.2%		28
Pumpkins		0.0%	0.0%	0.0%		0
FOOD WASTE	**11.2%**		**8.6%**	**14.0%**	**151**	
Food Waste		11.2%	8.6%	14.0%		151
WOOD	**6.1%**		**3.5%**	**9.2%**	**82**	
Non-Treated Wood		3.7%	1.9%	6.1%		50
Treated Wood		2.4%	1.3%	3.7%		32
DURABLES	**3.8%**		**2.1%**	**5.9%**	**51**	
All Electrical and Household Appl.		1.0%	0.6%	1.5%		14
Other Durables		2.8%	1.3%	4.7%		38
TEXTILES	**6.9%**		**4.4%**	**9.8%**	**93**	
Textiles and Leather		6.9%	4.4%	9.8%		93
DIAPERS	**2.0%**		**1.3%**	**2.8%**	**27**	
Diapers		2.0%	1.3%	2.8%		27
RUBBER	**0.8%**		**0.5%**	**1.1%**	**10**	
Rubber		0.8%	0.5%	1.1%		10
OTHER ORGANIC	**2.7%**		**1.6%**	**3.9%**	**36**	
Other Organic		2.7%	1.6%	3.9%		36
OTHER INORGANIC	**2.5%**		**1.5%**	**3.6%**	**33**	
Other Inorganic		2.5%	1.5%	3.6%		33
FINES/SUPERMIX	**3.9%**		**2.8%**	**4.9%**	**53**	
Fines/ Supermix		3.9%	3.0%	5.0%		53
OTHER	**0.4%**		**0.2%**	**0.6%**	**5**	
Other		0.4%	0.2%	0.6%		5
CONSTRUCTION & DEMOLITION	**1.5%**		**0.8%**	**2.3%**	**20**	
C&D		1.5%	0.8%	2.3%		20
TOTAL PERCENT	**100.0%**					

IOWA CITY LANDFILL
Solid Waste Composition
Spring 1998

Sample Size =	51	loads
Total Wt Sorted =	11,714	pounds
Avg Wt per Sample =	230	pounds
Est Tons Disposed/Week =	1,785	tons/week

WASTE CATEGORIES Material	Mean Percentage	Estimated Tons per Material
PAPER	**22.7%**	**406**
Newspaper	2.3%	40
Magazines	1.7%	30
High Grade/ Office	1.8%	32
OCC and Kraft Bags	4.8%	87
Mixed Recyc Paper	4.4%	79
Other Non- Recyc Paper	7.7%	137
PLASTIC	**12.8%**	**229**
#1 PET Containers	0.3%	5
#1 PET Deposit	0.1%	3
#2 HDPE Containers	0.9%	17
All Other Numbered Containers	0.8%	14
Other Plastic Not Numbered	6.4%	114
Film/Wrap/Bags	4.3%	77
METAL	**4.6%**	**82**
Alum Non-Deposit Beverage Containers	0.0%	0
Alum Deposit Beverage Containers	0.1%	2
Ferrous Food	0.7%	13
Other Ferrous Scrap	3.2%	58
Other Non-Ferrous Scrap	0.5%	8
GLASS	**2.1%**	**38**
Clear	0.8%	15
Green	0.0%	0
Blue	0.0%	0
Brown	0.0%	1
Deposit Glass Containers	0.9%	16
Other/ Mixed Cullet	0.3%	6
HHM	**0.6%**	**12**
Automotive Products	0.1%	3
Paints and Solvents	0.0%	0
Pesticides, Herbicides & Fungicides	0.0%	0
Household Cleaners	0.1%	1
Batteries (lead -acid)	0.0%	0
Batteries (other)	0.1%	1
Other (HHM containers w/prod inside)	0.3%	6
YARD WASTE	**1.6%**	**28**
Yard Waste	1.6%	28
Pumpkins	0.0%	0
FOOD WASTE	**8.5%**	**151**
Food Waste	8.5%	151
WOOD	**4.6%**	**82**
Non-Treated Wood	2.8%	50
Treated Wood	1.8%	32
DURABLES	**2.9%**	**51**
All Electrical and Household Appl.	0.8%	14
Other Durables	2.1%	38
TEXTILES	**5.2%**	**93**
Textiles and Leather	5.2%	93
DIAPERS	**1.5%**	**27**
Diapers	1.5%	27
RUBBER	**0.6%**	**10**
Rubber	0.6%	10
OTHER ORGANIC	**2.0%**	**36**
Other Organic	2.0%	36
OTHER INORGANIC	**1.9%**	**33**
Other Inorganic	1.9%	33
FINES/SUPERMIX	**3.0%**	**53**
Fines/ Supermix	3.0%	53
OTHER	**0.3%**	**5**
Other	0.3%	5
CONSTRUCTION & DEMOLITION	**23.9%**	**427**
C&D	23.9%	427
SPECIAL WASTES	**1.2%**	**22**
Special Wastes	1.2%	22
TOTAL PERCENT	**100.0%**	

MONONA COUNTY TRANSFER STATION
MSW Composition
Residential - Spring 1998

Sample Size =	5	loads
Total Wt Sorted =	1,095	pounds
Avg Wt per Sample =	219	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**35.9%**		**33.4%**	**40.5%**
Newspaper		10.1%	6.8%	13.9%
Magazines		3.4%	1.5%	6.2%
High Grade/ Office		3.3%	0.7%	7.6%
OCC and Kraft Bags		5.2%	3.8%	6.7%
Mixed Recyc Paper		7.7%	6.5%	9.1%
Other Non- Recyc Paper		7.2%	5.2%	9.5%
PLASTIC	**12.0%**		**10.9%**	**13.2%**
#1 PET Containers		0.3%	0.2%	0.4%
#1 PET Deposit		0.2%	0.1%	0.3%
#2 HDPE Containers		1.6%	1.3%	2.0%
All Other Numbered Containers		0.3%	0.1%	0.7%
Other Plastic Not Numbered		5.2%	4.2%	6.3%
Film/Wrap/Bags		4.4%	3.7%	5.1%
METAL	**6.4%**		**4.0%**	**9.2%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.2%
Alum Deposit Beverage Containers		0.3%	0.1%	0.6%
Ferrous Food		2.1%	1.3%	3.1%
Other Ferrous Scrap		3.2%	1.2%	6.2%
Other Non-Ferrous Scrap		0.7%	0.3%	1.2%
GLASS	**2.9%**		**1.9%**	**4.1%**
Clear		1.2%	0.3%	2.7%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.1%
Brown		0.7%	0.1%	1.9%
Deposit Glass Containers		0.7%	0.1%	2.2%
Other/ Mixed Cullet		0.3%	0.0%	1.0%
HHM	**0.5%**		**0.3%**	**0.8%**
Automotive Products		0.2%	0.1%	0.4%
Paints and Solvents		0.0%	0.0%	0.1%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.1%	0.0%	0.3%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.1%	0.0%	0.3%
Other (HHM containers w/prod inside)		0.1%	0.0%	0.3%
YARD WASTE	**2.3%**		**0.6%**	**5.2%**
Yard Waste		2.3%	0.6%	5.2%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**14.3%**		**8.7%**	**21.0%**
Food Waste		14.3%	8.7%	21.0%
WOOD	**3.2%**		**0.2%**	**9.4%**
Non-Treated Wood		0.1%	0.0%	0.4%
Treated Wood		3.0%	0.1%	10.1%
DURABLES	**1.9%**		**0.2%**	**5.4%**
All Electrical and Household Appl.		0.6%	0.2%	1.2%
Other Durables		1.3%	0.0%	5.8%
TEXTILES	**3.2%**		**0.2%**	**9.8%**
Textiles and Leather		3.2%	0.2%	9.8%
DIAPERS	**5.2%**		**2.4%**	**9.1%**
Diapers		5.2%	2.4%	9.1%
RUBBER	**0.6%**		**0.2%**	**1.1%**
Rubber		0.6%	0.2%	1.1%
OTHER ORGANIC	**0.7%**		**0.1%**	**1.7%**
Other Organic		0.7%	0.1%	1.7%
OTHER INORGANIC	**1.8%**		**0.3%**	**4.6%**
Other Inorganic		1.8%	0.3%	4.6%
FINES/SUPERMIX	**5.9%**		**3.7%**	**8.6%**
Fines/ Supermix		5.9%	3.7%	8.6%
OTHER	**1.3%**		**0.0%**	**4.8%**
Other		1.3%	0.0%	4.8%
CONSTRUCTION & DEMOLITION	**0.9%**		**0.0%**	**3.0%**
C&D		0.9%	0.0%	3.0%
TOTAL PERCENT	**100.0%**			

MONONA COUNTY TRANSFER STATION
MSW Composition
Commercial - Spring 1998

Sample Size =	1	loads
Total Wt Sorted =	192	pounds
Avg Wt per Sample =	192	pounds

WASTE CATEGORIES Material	Mean Percentage	
PAPER	**41.1%**	
Newspaper		2.0%
Magazines		1.3%
High Grade/ Office		3.3%
OCC and Kraft Bags		23.3%
Mixed Recyc Paper		6.8%
Other Non- Recyc Paper		4.4%
PLASTIC	**17.8%**	
#1 PET Containers		0.7%
#1 PET Deposit		2.0%
#2 HDPE Containers		0.3%
All Other Numbered Containers		0.2%
Other Plastic Not Numbered		2.9%
Film/Wrap/Bags		11.8%
METAL	**5.4%**	
Alum Non-Deposit Beverage Containers		0.1%
Alum Deposit Beverage Containers		0.1%
Ferrous Food		1.7%
Other Ferrous Scrap		3.4%
Other Non-Ferrous Scrap		0.2%
GLASS	**0.8%**	
Clear		0.6%
Green		0.0%
Blue		0.0%
Brown		0.0%
Deposit Glass Containers		0.0%
Other/ Mixed Cullet		0.2%
HHM	**0.3%**	
Automotive Products		0.2%
Paints and Solvents		0.0%
Pesticides, Herbicides & Fungicides		0.0%
Household Cleaners		0.0%
Batteries (lead -acid)		0.0%
Batteries (other)		0.1%
Other (HHM containers w/prod inside)		0.0%
YARD WASTE	**0.0%**	
Yard Waste		0.0%
Pumpkins		0.0%
FOOD WASTE	**8.0%**	
Food Waste		8.0%
WOOD	**1.6%**	
Non-Treated Wood		0.0%
Treated Wood		1.6%
DURABLES	**3.5%**	
All Electrical and Household Appl.		3.5%
Other Durables		0.0%
TEXTILES	**1.8%**	
Textiles and Leather		1.8%
DIAPERS	**8.3%**	
Diapers		8.3%
RUBBER	**9.4%**	
Rubber		9.4%
OTHER ORGANIC	**0.1%**	
Other Organic		0.1%
OTHER INORGANIC	**0.0%**	
Other Inorganic		0.0%
FINES/SUPERMIX	**1.8%**	
Fines/ Supermix		1.8%
OTHER	**0.0%**	
Other		0.0%
CONSTRUCTION & DEMOLITION	**0.0%**	
C&D		0.0%
TOTAL PERCENT	**100.0%**	

MONONA COUNTY TRANSFER STATION
MSW Composition
Mixed - Spring 1998

Sample Size =	11	loads
Total Wt Sorted =	2,347	pounds
Avg Wt per Sample =	213	pounds

WASTE CATEGORIES Material	Mean Percentage	90% Confidence Interval (%) Lower	 Upper
PAPER	**45.3%**	**39.8%**	**50.8%**
Newspaper	7.9%	5.6%	10.4%
Magazines	5.8%	4.0%	8.0%
High Grade/ Office	7.1%	3.7%	11.5%
OCC and Kraft Bags	7.8%	5.2%	11.0%
Mixed Recyc Paper	8.1%	7.0%	9.3%
Other Non- Recyc Paper	8.5%	7.0%	10.2%
PLASTIC	**13.0%**	**10.8%**	**15.5%**
#1 PET Containers	0.6%	0.4%	0.8%
#1 PET Deposit	0.3%	0.2%	0.4%
#2 HDPE Containers	1.9%	1.2%	2.7%
All Other Numbered Containers	0.4%	0.2%	0.5%
Other Plastic Not Numbered	5.5%	3.9%	7.4%
Film/Wrap/Bags	4.4%	3.7%	5.1%
METAL	**7.6%**	**5.1%**	**10.4%**
Alum Non-Deposit Beverage Containers	0.2%	0.1%	0.4%
Alum Deposit Beverage Containers	0.5%	0.2%	0.8%
Ferrous Food	2.2%	1.6%	2.8%
Other Ferrous Scrap	4.3%	1.8%	7.7%
Other Non-Ferrous Scrap	0.4%	0.3%	0.6%
GLASS	**2.3%**	**1.5%**	**3.2%**
Clear	1.4%	0.8%	2.1%
Green	0.2%	0.0%	0.4%
Blue	0.0%	0.0%	0.0%
Brown	0.2%	0.0%	0.5%
Deposit Glass Containers	0.4%	0.1%	0.8%
Other/ Mixed Cullet	0.2%	0.1%	0.5%
HHM	**1.0%**	**0.5%**	**1.8%**
Automotive Products	0.6%	0.1%	1.3%
Paints and Solvents	0.0%	0.0%	0.1%
Pesticides, Herbicides & Fungicides	0.0%	0.0%	0.1%
Household Cleaners	0.1%	0.0%	0.3%
Batteries (lead -acid)	0.0%	0.0%	0.0%
Batteries (other)	0.1%	0.0%	0.2%
Other (HHM containers w/prod inside)	0.1%	0.0%	0.2%
YARD WASTE	**0.4%**	**0.1%**	**0.7%**
Yard Waste	0.4%	0.1%	0.7%
Pumpkins	0.0%	0.0%	0.0%
FOOD WASTE	**10.4%**	**8.8%**	**12.0%**
Food Waste	10.4%	8.8%	12.0%
WOOD	**2.7%**	**1.3%**	**4.6%**
Non-Treated Wood	0.9%	0.3%	1.9%
Treated Wood	1.8%	0.6%	3.4%
DURABLES	**1.5%**	**0.6%**	**3.0%**
All Electrical and Household Appl.	1.5%	0.6%	3.0%
Other Durables	0.0%	0.0%	0.0%
TEXTILES	**4.9%**	**3.2%**	**7.0%**
Textiles and Leather	4.9%	3.2%	7.0%
DIAPERS	**3.2%**	**1.5%**	**5.4%**
Diapers	3.2%	1.5%	5.4%
RUBBER	**1.4%**	**0.7%**	**2.2%**
Rubber	1.4%	0.7%	2.2%
OTHER ORGANIC	**1.6%**	**1.1%**	**2.2%**
Other Organic	1.6%	1.1%	2.2%
OTHER INORGANIC	**0.5%**	**0.2%**	**0.7%**
Other Inorganic	0.5%	0.2%	0.7%
FINES/SUPERMIX	**4.4%**	**2.7%**	**5.9%**
Fines/ Supermix	4.4%	3.6%	5.3%
OTHER	**0.1%**	**0.0%**	**0.2%**
Other	0.1%	0.0%	0.2%
CONSTRUCTION & DEMOLITION	**0.2%**	**0.0%**	**0.3%**
C&D	0.2%	0.0%	0.3%
TOTAL PERCENT	**100.0%**		

MONONA COUNTY TRANSFER STATION
MSW Composition
Combined - Spring 1998

Sample Size =	17	loads
Total Wt Sorted =	3,633	pounds
Avg Wt per Sample =	214	pounds
Est Tons Disposed/Week =	90	tons/week

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material	
PAPER	**42.6%**		**38.8%**	**46.4%**	**38**	
Newspaper		8.2%	6.3%	10.2%		7
Magazines		4.9%	3.5%	6.4%		4
High Grade/ Office		5.8%	3.5%	8.5%		5
OCC and Kraft Bags		7.9%	5.8%	10.5%		7
Mixed Recyc Paper		7.9%	7.1%	8.7%		7
Other Non- Recyc Paper		7.9%	6.8%	9.1%		7
PLASTIC	**13.0%**		**11.5%**	**14.6%**	**12**	
#1 PET Containers		0.5%	0.4%	0.6%		0
#1 PET Deposit		0.4%	0.3%	0.5%		0
#2 HDPE Containers		1.7%	1.3%	2.3%		2
All Other Numbered Containers		0.3%	0.2%	0.5%		0
Other Plastic Not Numbered		5.3%	4.2%	6.4%		5
Film/Wrap/Bags		4.8%	4.0%	5.6%		4
METAL	**7.1%**		**5.4%**	**8.9%**	**6**	
Alum Non-Deposit Beverage Containers		0.2%	0.1%	0.3%		0
Alum Deposit Beverage Containers		0.4%	0.2%	0.6%		0
Ferrous Food		2.1%	1.7%	2.5%		2
Other Ferrous Scrap		3.9%	2.3%	5.9%		4
Other Non-Ferrous Scrap		0.5%	0.3%	0.7%		0
GLASS	**2.4%**		**1.8%**	**3.0%**	**2**	
Clear		1.3%	0.8%	1.8%		1
Green		0.1%	0.0%	0.2%		0
Blue		0.0%	0.0%	0.0%		0
Brown		0.3%	0.1%	0.7%		0
Deposit Glass Containers		0.4%	0.2%	0.8%		0
Other/ Mixed Cullet		0.2%	0.1%	0.5%		0
HHM	**0.9%**		**0.5%**	**1.3%**	**1**	
Automotive Products		0.5%	0.2%	0.8%		0
Paints and Solvents		0.0%	0.0%	0.1%		0
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.1%		0
Household Cleaners		0.1%	0.0%	0.2%		0
Batteries (lead -acid)		0.0%	0.0%	0.0%		0
Batteries (other)		0.1%	0.1%	0.2%		0
Other (HHM containers w/prod inside)		0.1%	0.0%	0.2%		0
YARD WASTE	**0.9%**		**0.4%**	**1.6%**	**1**	
Yard Waste		0.9%	0.4%	1.6%		1
Pumpkins		0.0%	0.0%	0.0%		0
FOOD WASTE	**11.4%**		**9.6%**	**13.2%**	**10**	
Food Waste		11.4%	9.6%	13.2%		10
WOOD	**2.8%**		**1.5%**	**4.3%**	**2**	
Non-Treated Wood		0.6%	0.2%	1.2%		1
Treated Wood		2.1%	1.0%	3.7%		2
DURABLES	**1.8%**		**0.9%**	**2.9%**	**2**	
All Electrical and Household Appl.		1.4%	0.7%	2.3%		1
Other Durables		0.4%	0.1%	0.9%		0
TEXTILES	**4.2%**		**2.6%**	**6.2%**	**4**	
Textiles and Leather		4.2%	2.6%	6.2%		4
DIAPERS	**4.1%**		**2.6%**	**5.9%**	**4**	
Diapers		4.1%	2.6%	5.9%		4
RUBBER	**1.6%**		**0.9%**	**2.5%**	**1**	
Rubber		1.6%	0.9%	2.5%		1
OTHER ORGANIC	**1.3%**		**0.8%**	**1.8%**	**1**	
Other Organic		1.3%	0.8%	1.8%		1
OTHER INORGANIC	**0.8%**		**0.4%**	**1.4%**	**1**	
Other Inorganic		0.8%	0.4%	1.4%		1
FINES/SUPERMIX	**4.7%**		**3.4%**	**5.9%**	**4**	
Fines/ Supermix		4.7%	3.9%	5.6%		4
OTHER	**0.4%**		**0.1%**	**0.9%**	**0**	
Other		0.4%	0.1%	0.9%		0
CONSTRUCTION & DEMOLITION	**0.4%**		**0.1%**	**0.7%**	**0**	
C&D		0.4%	0.1%	0.7%		0
TOTAL PERCENT	**100.0%**					

MONONA COUNTY TRANSFER STATION
Solid Waste Composition
Spring 1998

Sample Size =	17	loads
Total Wt Sorted =	3,633	pounds
Avg Wt per Sample =	214	pounds
Est Tons Disposed/Week =	119	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**32.2%**		**38**	
Newspaper		6.2%		7
Magazines		3.7%		4
High Grade/ Office		4.4%		5
OCC and Kraft Bags		6.0%		7
Mixed Recyc Paper		6.0%		7
Other Non- Recyc Paper		6.0%		7
PLASTIC	**9.8%**		**12**	
#1 PET Containers		0.4%		0
#1 PET Deposit		0.3%		0
#2 HDPE Containers		1.3%		2
All Other Numbered Containers		0.3%		0
Other Plastic Not Numbered		4.0%		5
Film/Wrap/Bags		3.6%		4
METAL	**5.3%**		**6**	
Alum Non-Deposit Beverage Containers		0.1%		0
Alum Deposit Beverage Containers		0.3%		0
Ferrous Food		1.6%		2
Other Ferrous Scrap		3.0%		4
Other Non-Ferrous Scrap		0.4%		0
GLASS	**1.8%**		**2**	
Clear		1.0%		1
Green		0.1%		0
Blue		0.0%		0
Brown		0.3%		0
Deposit Glass Containers		0.3%		0
Other/ Mixed Cullet		0.2%		0
HHM	**0.6%**		**1**	
Automotive Products		0.3%		0
Paints and Solvents		0.0%		0
Pesticides, Herbicides & Fungicides		0.0%		0
Household Cleaners		0.1%		0
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.1%		0
Other (HHM containers w/prod inside)		0.1%		0
YARD WASTE	**0.7%**		**1**	
Yard Waste		0.7%		1
Pumpkins		0.0%		0
FOOD WASTE	**8.6%**		**10**	
Food Waste		8.6%		10
WOOD	**2.1%**		**2**	
Non-Treated Wood		0.5%		1
Treated Wood		1.6%		2
DURABLES	**1.3%**		**2**	
All Electrical and Household Appl.		1.0%		1
Other Durables		0.3%		0
TEXTILES	**3.2%**		**4**	
Textiles and Leather		3.2%		4
DIAPERS	**3.1%**		**4**	
Diapers		3.1%		4
RUBBER	**1.2%**		**1**	
Rubber		1.2%		1
OTHER ORGANIC	**0.9%**		**1**	
Other Organic		0.9%		1
OTHER INORGANIC	**0.6%**		**1**	
Other Inorganic		0.6%		1
FINES/SUPERMIX	**3.5%**		**4**	
Fines/ Supermix		3.5%		4
OTHER	**0.3%**		**0**	
Other		0.3%		0
CONSTRUCTION & DEMOLITION	**23.8%**		**28**	
C&D		23.8%		28
SPECIAL WASTES	**0.8%**		**1**	
Special Wastes		0.8%		1
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Residential - Spring 1998

Sample Size =	6	loads
Total Wt Sorted =	1,303	pounds
Avg Wt per Sample =	217	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**26.8%**		**12.2%**	**44.6%**
Newspaper		3.4%	1.1%	6.9%
Magazines		1.7%	0.4%	3.7%
High Grade/ Office		0.8%	0.1%	1.9%
OCC and Kraft Bags		9.0%	2.8%	18.3%
Mixed Recyc Paper		4.7%	1.8%	8.8%
Other Non- Recyc Paper		7.2%	3.3%	12.6%
PLASTIC	**16.3%**		**9.4%**	**24.6%**
#1 PET Containers		0.2%	0.1%	0.5%
#1 PET Deposit		0.0%	0.0%	0.1%
#2 HDPE Containers		0.7%	0.3%	1.2%
All Other Numbered Containers		1.8%	0.0%	5.9%
Other Plastic Not Numbered		4.1%	1.8%	7.3%
Film/Wrap/Bags		9.5%	5.1%	15.0%
METAL	**9.0%**		**3.8%**	**16.1%**
Alum Non-Deposit Beverage Containers		0.1%	0.0%	0.2%
Alum Deposit Beverage Containers		0.1%	0.0%	0.2%
Ferrous Food		0.8%	0.4%	1.5%
Other Ferrous Scrap		7.3%	2.3%	14.7%
Other Non-Ferrous Scrap		0.7%	0.0%	2.3%
GLASS	**1.8%**		**1.3%**	**2.5%**
Clear		1.2%	0.8%	1.6%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.2%	0.0%	0.8%
Other/ Mixed Cullet		0.5%	0.1%	1.3%
HHM	**0.8%**		**0.2%**	**1.8%**
Automotive Products		0.3%	0.0%	0.8%
Paints and Solvents		0.2%	0.0%	0.7%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.3%	0.0%	0.7%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**3.9%**		**0.3%**	**11.0%**
Yard Waste		3.2%	0.3%	8.9%
Pumpkins		0.6%	0.0%	2.5%
FOOD WASTE	**8.6%**		**2.8%**	**17.3%**
Food Waste		8.6%	2.8%	17.3%
WOOD	**4.8%**		**0.4%**	**13.3%**
Non-Treated Wood		0.6%	0.0%	2.0%
Treated Wood		4.2%	0.2%	13.1%
DURABLES	**7.3%**		**1.4%**	**17.2%**
All Electrical and Household Appl.		1.6%	0.5%	3.4%
Other Durables		5.7%	0.3%	16.9%
TEXTILES	**6.8%**		**1.6%**	**15.0%**
Textiles and Leather		6.8%	1.6%	15.0%
DIAPERS	**3.8%**		**0.5%**	**9.8%**
Diapers		3.8%	0.5%	9.8%
RUBBER	**1.2%**		**0.1%**	**3.2%**
Rubber		1.2%	0.1%	3.2%
OTHER ORGANIC	**0.9%**		**0.2%**	**2.2%**
Other Organic		0.9%	0.2%	2.2%
OTHER INORGANIC	**0.3%**		**0.0%**	**0.9%**
Other Inorganic		0.3%	0.0%	0.9%
FINES/SUPERMIX	**3.0%**		**1.0%**	**5.9%**
Fines/ Supermix		3.0%	1.0%	5.9%
OTHER	**0.0%**		**0.0%**	**0.0%**
Other		0.0%	0.0%	0.0%
CONSTRUCTION & DEMOLITION	**4.9%**		**0.7%**	**12.5%**
C&D		4.9%	0.7%	12.5%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Commercial - Spring 1998

Sample Size =	14	loads
Total Wt Sorted =	3,090	pounds
Avg Wt per Sample =	221	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**14.5%**		**6.9%**	**24.3%**
Newspaper		0.2%	0.1%	0.5%
Magazines		0.9%	0.2%	2.1%
High Grade/ Office		0.6%	0.2%	1.2%
OCC and Kraft Bags		6.9%	2.7%	12.7%
Mixed Recyc Paper		0.8%	0.2%	1.7%
Other Non- Recyc Paper		5.1%	1.7%	10.3%
PLASTIC	**28.0%**		**13.0%**	**46.2%**
#1 PET Containers		0.0%	0.0%	0.0%
#1 PET Deposit		0.0%	0.0%	0.0%
#2 HDPE Containers		0.6%	0.1%	1.4%
All Other Numbered Containers		0.6%	0.1%	1.5%
Other Plastic Not Numbered		24.9%	9.1%	45.3%
Film/Wrap/Bags		1.9%	0.8%	3.5%
METAL	**4.0%**		**1.2%**	**8.2%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.0%	0.0%	0.0%
Ferrous Food		0.1%	0.0%	0.2%
Other Ferrous Scrap		3.9%	1.2%	8.1%
Other Non-Ferrous Scrap		0.1%	0.0%	0.1%
GLASS	**11.7%**		**1.9%**	**28.1%**
Clear		0.1%	0.0%	0.2%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.0%	0.0%	0.0%
Other/ Mixed Cullet		11.6%	1.9%	28.2%
HHM	**0.6%**		**0.1%**	**1.5%**
Automotive Products		0.0%	0.0%	0.0%
Paints and Solvents		0.6%	0.1%	1.5%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.0%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.0%**		**0.0%**	**0.1%**
Yard Waste		0.0%	0.0%	0.1%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**5.7%**		**1.1%**	**13.8%**
Food Waste		5.7%	1.1%	13.8%
WOOD	**15.9%**		**7.9%**	**25.9%**
Non-Treated Wood		13.0%	5.1%	23.9%
Treated Wood		2.8%	0.8%	6.1%
DURABLES	**3.7%**		**1.0%**	**7.9%**
All Electrical and Household Appl.		0.2%	0.0%	0.4%
Other Durables		3.5%	0.8%	8.0%
TEXTILES	**0.5%**		**0.1%**	**1.2%**
Textiles and Leather		0.5%	0.1%	1.2%
DIAPERS	**0.0%**		**0.0%**	**0.0%**
Diapers		0.0%	0.0%	0.0%
RUBBER	**1.4%**		**0.3%**	**3.4%**
Rubber		1.4%	0.3%	3.4%
OTHER ORGANIC	**0.3%**		**0.1%**	**0.8%**
Other Organic		0.3%	0.1%	0.8%
OTHER INORGANIC	**0.4%**		**0.1%**	**1.0%**
Other Inorganic		0.4%	0.1%	1.0%
FINES/SUPERMIX	**1.4%**		**0.3%**	**3.3%**
Fines/ Supermix		1.4%	0.3%	3.3%
OTHER	**3.9%**		**0.9%**	**8.8%**
Other		3.9%	0.9%	8.8%
CONSTRUCTION & DEMOLITION	**7.9%**		**1.9%**	**17.5%**
C&D		7.9%	1.9%	17.5%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Mixed - Spring 1998

Sample Size =	28	loads
Total Wt Sorted =	6,212	pounds
Avg Wt per Sample =	222	pounds

WASTE CATEGORIES Material	Mean Percentage		90% Confidence Interval (%) Lower	 Upper
PAPER	**36.8%**		**30.7%**	**43.2%**
Newspaper		2.6%	1.9%	3.5%
Magazines		3.5%	2.3%	4.8%
High Grade/ Office		5.5%	3.2%	8.5%
OCC and Kraft Bags		7.6%	5.4%	10.2%
Mixed Recyc Paper		6.3%	4.6%	8.2%
Other Non- Recyc Paper		11.3%	8.8%	14.1%
PLASTIC	**18.0%**		**14.9%**	**21.4%**
#1 PET Containers		0.2%	0.1%	0.3%
#1 PET Deposit		0.1%	0.1%	0.2%
#2 HDPE Containers		0.6%	0.4%	0.8%
All Other Numbered Containers		0.6%	0.3%	0.9%
Other Plastic Not Numbered		5.6%	3.9%	7.5%
Film/Wrap/Bags		11.0%	8.9%	13.3%
METAL	**5.9%**		**4.1%**	**8.0%**
Alum Non-Deposit Beverage Containers		0.0%	0.0%	0.0%
Alum Deposit Beverage Containers		0.1%	0.0%	0.1%
Ferrous Food		0.9%	0.6%	1.2%
Other Ferrous Scrap		4.7%	2.8%	6.9%
Other Non-Ferrous Scrap		0.3%	0.2%	0.5%
GLASS	**1.2%**		**0.8%**	**1.7%**
Clear		0.8%	0.5%	1.2%
Green		0.0%	0.0%	0.0%
Blue		0.0%	0.0%	0.0%
Brown		0.0%	0.0%	0.0%
Deposit Glass Containers		0.3%	0.1%	0.5%
Other/ Mixed Cullet		0.1%	0.1%	0.2%
HHM	**0.1%**		**0.1%**	**0.2%**
Automotive Products		0.1%	0.0%	0.1%
Paints and Solvents		0.0%	0.0%	0.0%
Pesticides, Herbicides & Fungicides		0.0%	0.0%	0.0%
Household Cleaners		0.0%	0.0%	0.0%
Batteries (lead -acid)		0.0%	0.0%	0.0%
Batteries (other)		0.0%	0.0%	0.0%
Other (HHM containers w/prod inside)		0.0%	0.0%	0.0%
YARD WASTE	**0.3%**		**0.1%**	**0.6%**
Yard Waste		0.3%	0.1%	0.6%
Pumpkins		0.0%	0.0%	0.0%
FOOD WASTE	**6.3%**		**4.2%**	**8.7%**
Food Waste		6.3%	4.2%	8.7%
WOOD	**4.6%**		**2.7%**	**6.9%**
Non-Treated Wood		3.6%	1.8%	5.9%
Treated Wood		1.0%	0.6%	1.6%
DURABLES	**5.0%**		**2.5%**	**8.2%**
All Electrical and Household Appl.		1.7%	0.7%	2.9%
Other Durables		3.3%	1.5%	5.7%
TEXTILES	**6.3%**		**3.9%**	**9.0%**
Textiles and Leather		6.3%	4.0%	9.0%
DIAPERS	**1.4%**		**0.8%**	**2.3%**
Diapers		1.4%	0.8%	2.3%
RUBBER	**0.3%**		**0.1%**	**0.5%**
Rubber		0.3%	0.1%	0.5%
OTHER ORGANIC	**0.4%**		**0.2%**	**0.7%**
Other Organic		0.4%	0.2%	0.7%
OTHER INORGANIC	**2.5%**		**1.0%**	**4.5%**
Other Inorganic		2.5%	1.0%	4.5%
FINES/SUPERMIX	**3.8%**		**2.5%**	**5.1%**
Fines/ Supermix		3.8%	2.6%	5.1%
OTHER	**1.2%**		**0.4%**	**2.3%**
Other		1.2%	0.4%	2.3%
CONSTRUCTION & DEMOLITION	**6.4%**		**3.1%**	**10.8%**
C&D		6.4%	3.1%	10.8%
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
MSW Composition
Combined - Spring 1998

Sample Size =	48	loads
Total Wt Sorted =	10,604	pounds
Avg Wt per Sample =	221	pounds
Est Tons Disposed/Week =	1,048	tons/week

WASTE CATEGORIES Material	Mean Percentage	90% Confidence Interval (%) Lower	 Upper	Estimated Tons per Material
PAPER	**29.1%**	**23.5%**	**35.0%**	**304**
Newspaper	2.0%	1.4%	2.7%	21
Magazines	2.5%	1.7%	3.4%	26
High Grade/ Office	3.5%	2.2%	5.1%	36
OCC and Kraft Bags	7.6%	5.6%	9.8%	79
Mixed Recyc Paper	4.5%	3.2%	6.0%	47
Other Non- Recyc Paper	9.0%	6.8%	11.5%	94
PLASTIC	**20.7%**	**16.1%**	**25.7%**	**217**
#1 PET Containers	0.1%	0.1%	0.2%	1
#1 PET Deposit	0.1%	0.0%	0.1%	1
#2 HDPE Containers	0.6%	0.4%	0.8%	6
All Other Numbered Containers	0.7%	0.4%	1.1%	8
Other Plastic Not Numbered	11.0%	7.1%	15.7%	115
Film/Wrap/Bags	8.2%	6.3%	10.2%	85
METAL	**5.7%**	**4.1%**	**7.6%**	**60**
Alum Non-Deposit Beverage Containers	0.0%	0.0%	0.0%	0
Alum Deposit Beverage Containers	0.1%	0.0%	0.1%	1
Ferrous Food	0.6%	0.4%	0.9%	7
Other Ferrous Scrap	4.8%	3.2%	6.6%	50
Other Non-Ferrous Scrap	0.3%	0.2%	0.4%	3
GLASS	**4.3%**	**2.3%**	**7.0%**	**45**
Clear	0.6%	0.4%	0.9%	7
Green	0.0%	0.0%	0.0%	0
Blue	0.0%	0.0%	0.0%	0
Brown	0.0%	0.0%	0.0%	0
Deposit Glass Containers	0.2%	0.1%	0.3%	2
Other/ Mixed Cullet	3.5%	1.6%	6.2%	37
HHM	**0.3%**	**0.2%**	**0.5%**	**4**
Automotive Products	0.1%	0.0%	0.1%	1
Paints and Solvents	0.2%	0.1%	0.4%	2
Pesticides, Herbicides & Fungicides	0.0%	0.0%	0.0%	0
Household Cleaners	0.0%	0.0%	0.0%	0
Batteries (lead -acid)	0.0%	0.0%	0.0%	0
Batteries (other)	0.0%	0.0%	0.1%	0
Other (HHM containers w/prod inside)	0.0%	0.0%	0.0%	0
YARD WASTE	**0.7%**	**0.4%**	**1.1%**	**7**
Yard Waste	0.6%	0.3%	0.9%	6
Pumpkins	0.1%	0.0%	0.1%	1
FOOD WASTE	**6.4%**	**4.2%**	**9.0%**	**67**
Food Waste	6.4%	4.2%	9.0%	67
WOOD	**7.9%**	**5.3%**	**10.9%**	**83**
Non-Treated Wood	6.0%	3.6%	8.8%	62
Treated Wood	1.9%	1.2%	2.9%	20
DURABLES	**4.9%**	**3.0%**	**7.1%**	**51**
All Electrical and Household Appl.	1.2%	0.7%	1.9%	13
Other Durables	3.7%	2.1%	5.6%	38
TEXTILES	**4.7%**	**3.1%**	**6.5%**	**49**
Textiles and Leather	4.7%	3.1%	6.5%	49
DIAPERS	**1.3%**	**0.8%**	**2.0%**	**14**
Diapers	1.3%	0.8%	2.0%	14
RUBBER	**0.7%**	**0.4%**	**1.2%**	**8**
Rubber	0.7%	0.4%	1.2%	8
OTHER ORGANIC	**0.5%**	**0.3%**	**0.7%**	**5**
Other Organic	0.5%	0.3%	0.7%	5
OTHER INORGANIC	**1.6%**	**0.8%**	**2.6%**	**17**
Other Inorganic	1.6%	0.8%	2.6%	17
FINES/SUPERMIX	**3.0%**	**2.0%**	**4.0%**	**31**
Fines/ Supermix	3.0%	2.1%	4.1%	31
OTHER	**1.8%**	**0.9%**	**3.0%**	**19**
Other	1.8%	0.9%	3.0%	19
CONSTRUCTION & DEMOLITION	**6.7%**	**3.9%**	**10.0%**	**70**
C&D	6.7%	3.9%	10.0%	70
TOTAL PERCENT	**100.0%**			

SOUTH CENTRAL IOWA SOLID WASTE AGENCY
Solid Waste Composition
Spring 1998

Sample Size =	48	loads
Total Wt Sorted =	10,604	pounds
Avg Wt per Sample =	221	pounds
Est Tons Disposed/Week =	1,269	tons/week

WASTE CATEGORIES Material	Mean Percentage		Estimated Tons per Material	
PAPER	**24.0%**		**304**	
Newspaper		1.7%		21
Magazines		2.0%		26
High Grade/ Office		2.9%		36
OCC and Kraft Bags		6.3%		79
Mixed Recyc Paper		3.7%		47
Other Non- Recyc Paper		7.4%		94
PLASTIC	**17.1%**		**217**	
#1 PET Containers		0.1%		1
#1 PET Deposit		0.1%		1
#2 HDPE Containers		0.5%		6
All Other Numbered Containers		0.6%		8
Other Plastic Not Numbered		9.1%		115
Film/Wrap/Bags		6.7%		85
METAL	**4.7%**		**60**	
Alum Non-Deposit Beverage Containers		0.0%		0
Alum Deposit Beverage Containers		0.0%		1
Ferrous Food		0.5%		7
Other Ferrous Scrap		3.9%		50
Other Non-Ferrous Scrap		0.2%		3
GLASS	**3.6%**		**45**	
Clear		0.5%		7
Green		0.0%		0
Blue		0.0%		0
Brown		0.0%		0
Deposit Glass Containers		0.1%		2
Other/ Mixed Cullet		2.9%		37
HHM	**0.3%**		**4**	
Automotive Products		0.1%		1
Paints and Solvents		0.2%		2
Pesticides, Herbicides & Fungicides		0.0%		0
Household Cleaners		0.0%		0
Batteries (lead -acid)		0.0%		0
Batteries (other)		0.0%		0
Other (HHM containers w/prod inside)		0.0%		0
YARD WASTE	**0.6%**		**7**	
Yard Waste		0.5%		6
Pumpkins		0.1%		1
FOOD WASTE	**5.3%**		**67**	
Food Waste		5.3%		67
WOOD	**6.5%**		**83**	
Non-Treated Wood		4.9%		62
Treated Wood		1.6%		20
DURABLES	**4.0%**		**51**	
All Electrical and Household Appl.		1.0%		13
Other Durables		3.0%		38
TEXTILES	**3.8%**		**49**	
Textiles and Leather		3.8%		49
DIAPERS	**1.1%**		**14**	
Diapers		1.1%		14
RUBBER	**0.6%**		**8**	
Rubber		0.6%		8
OTHER ORGANIC	**0.4%**		**5**	
Other Organic		0.4%		5
OTHER INORGANIC	**1.3%**		**17**	
Other Inorganic		1.3%		17
FINES/SUPERMIX	**2.5%**		**31**	
Fines/ Supermix		2.5%		31
OTHER	**1.5%**		**19**	
Other		1.5%		19
CONSTRUCTION & DEMOLITION	**20.6%**		**262**	
C&D		20.6%		262
SPECIAL WASTES	**2.3%**		**29**	
Special Wastes		2.3%		29
TOTAL PERCENT	**100.0%**			