# **Factor Analysis**

### **Communalities**

	Initial	Extraction
Industrial land (acres)	1.000	.441
fabricated metals (acres)	1.000	.870
trucking and wholesale trade (acres)	1.000	.893
retail trade (acres)	1.000	.964
restaurants and hotels (acres)	1.000	.953

**Extraction Method: Principal Component Analysis.** 

## **Total Variance Explained**

	Initial Eigenvalues			Extraction	on Sums of Squar	ed Loadings
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.780	55.601	55.601	2.780	55.601	55.601
2	1.341	26.823	82.424	1.341	26.823	82.424
3	.729	14.578	97.002			
4	.087	1.736	98.739			
5	.063	1.261	100.000			

## **Total Variance Explained**

	Rotation Sums of Squared Loadings					
Component	Total	% of Variance	Cumulative %			
1	2.144	42.876	42.876			
2	1.977	39.548	82.424			
3						
4						
5						

**Extraction Method: Principal Component Analysis.** 

# Component Matrix <sup>a</sup>

### Component

-	1	2
Industrial land (acres)	.533	.395
fabricated metals (acres)	.761	.539
trucking and wholesale trade (acres)	.873	.363
retail trade (acres)	.775	603
restaurants and hotels (acres)	.744	632

**Extraction Method: Principal Component Analysis.** 

a. 2 components extracted.

## Rotated Component Matrix <sup>a</sup>

#### Component

	1	2
Industrial land (acres)	.661	.059
fabricated metals (acres)	.927	.104
trucking and wholesale trade (acres)	.893	.309
retail trade (acres)	.178	.966
restaurants and hotels (acres)	.135	.967

Extraction Method: Principal Component

Analysis. Rotation Method: Varimax with Kaiser

Normalization.

a. Rotation converged in 3 iterations.

# Component Transformation Matrix

Component	1	2
1	.747	.665
2	.665	747

**Extraction Method: Principal** 

**Component Analysis.** 

**Rotation Method: Varimax with** 

Kaiser Normalization.

## Regression

## Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1 <sup>b</sup>		Enter

- a. Dependent Variable: waste\_tons
- b. All requested variables entered.

### **Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.862 <sup>a</sup>	.743	.729	188224.561

a. Predictors: (Constant), REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

### $\mathbf{ANOVA}^{\mathbf{a}}$

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.784E+12	2	1.892E+12	53.409	.000 <sup>b</sup>
	Residual	1.311E+12	37	3.543E+10		
	Total	5.095E+12	39			

- a. Dependent Variable: waste\_tons
- b. Predictors: (Constant), REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

## **Coefficients**<sup>a</sup>

		Unstandardiz	ed Coefficients	Standardized Coefficients	
Model		В	Std. Error	Beta	t
1	(Constant)	380140.000	29760.916		12.773
	REGR factor score 1 for analysis 1	142578.685	30140.051	.394	4.731
	REGR factor score 2 for analysis 1	276962.021	30140.051	.766	9.189

## **Coefficients**<sup>a</sup>

			Collinearit	y Statistics
Model		Sig.	Tolerance	VIF
1	(Constant)	.000		
	REGR factor score 1 for analysis 1	.000	1.000	1.000
	REGR factor score 2 for analysis 1	.000	1.000	1.000

a. Dependent Variable: waste\_tons

# Collinearity Diagnostics a

				Variance Proportions			
Model	Dimension	Eigenvalue	Condition Index	(Constant)	REGR factor score 1 for analysis 1	REGR factor score 2 for analysis 1	
1	1	1.000	1.000	.00	1.00	.00	
	2	1.000	1.000	1.00	.00	.00	
	3	1.000	1.000	.00	.00	1.00	

a. Dependent Variable: waste\_tons