

Hackathon Testing

Jinru Wei

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```
data = read.csv("anova_nodup.csv")
```

```
library(mosaic)
```

```
## Warning: 程辑包'mosaic'是用R版本4.1.2 来建造的
```

```
## Registered S3 method overwritten by 'mosaic':  
##   method                                from  
##   fortify.SpatialPolygonsDataFrame ggplot2
```

```
##  
## The 'mosaic' package masks several functions from core packages in order to add  
## additional features. The original behavior of these functions should not be affected by thi  
s.
```

```
##  
## 载入程辑包: 'mosaic'
```

```
## The following objects are masked from 'package:dplyr':  
##  
##   count, do, tally
```

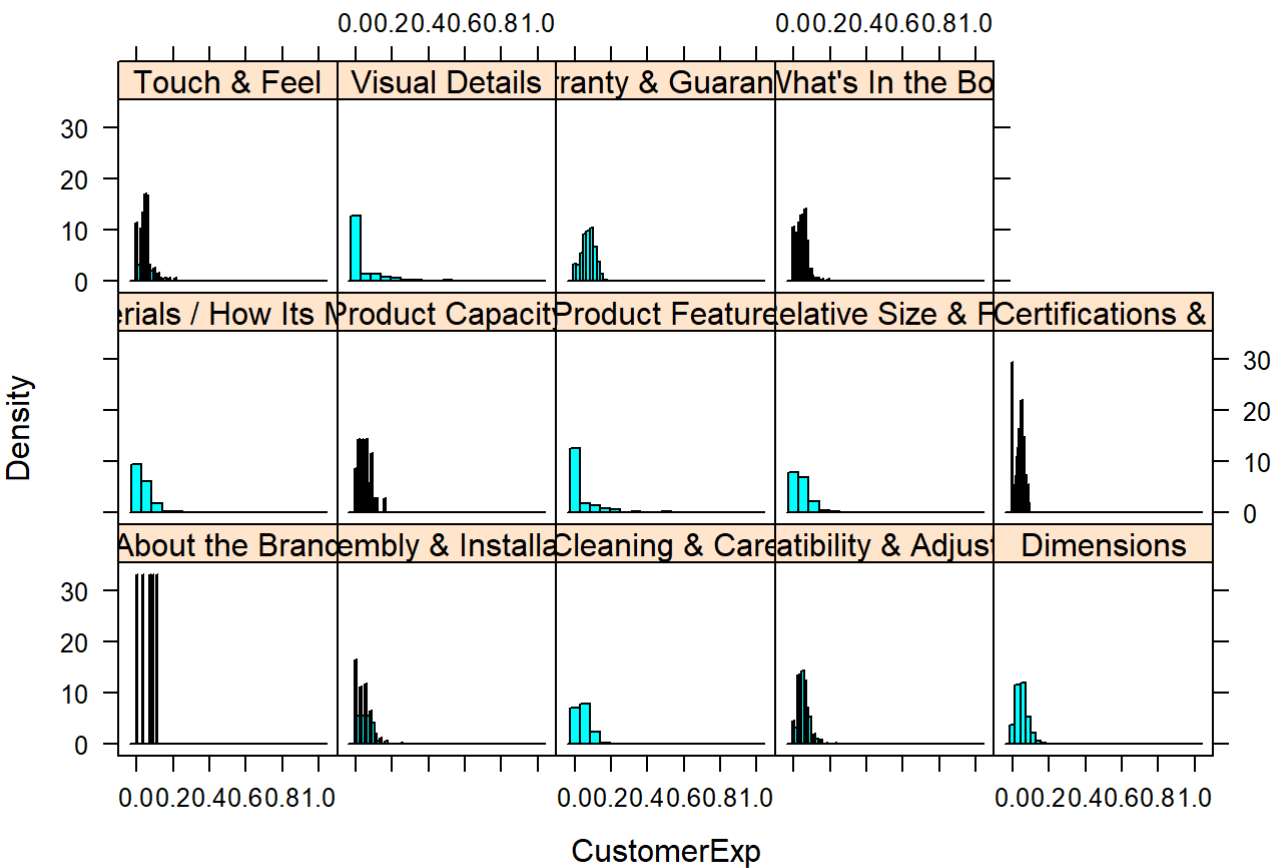
```
## The following object is masked from 'package:Matrix':  
##  
##   mean
```

```
## The following object is masked from 'package:ggplot2':  
##  
##   stat
```

```
## The following objects are masked from 'package:stats':  
##  
##   binom.test, cor, cor.test, cov, fivenum, IQR, median, prop.test,  
##   quantile, sd, t.test, var
```

```
## The following objects are masked from 'package:base':  
##  
##   max, mean, min, prod, range, sample, sum
```

```
attach(data)  
histogram(~CustomerExp | biccontenttypename, data=data)
```



```
table(biccontenttypename)
```

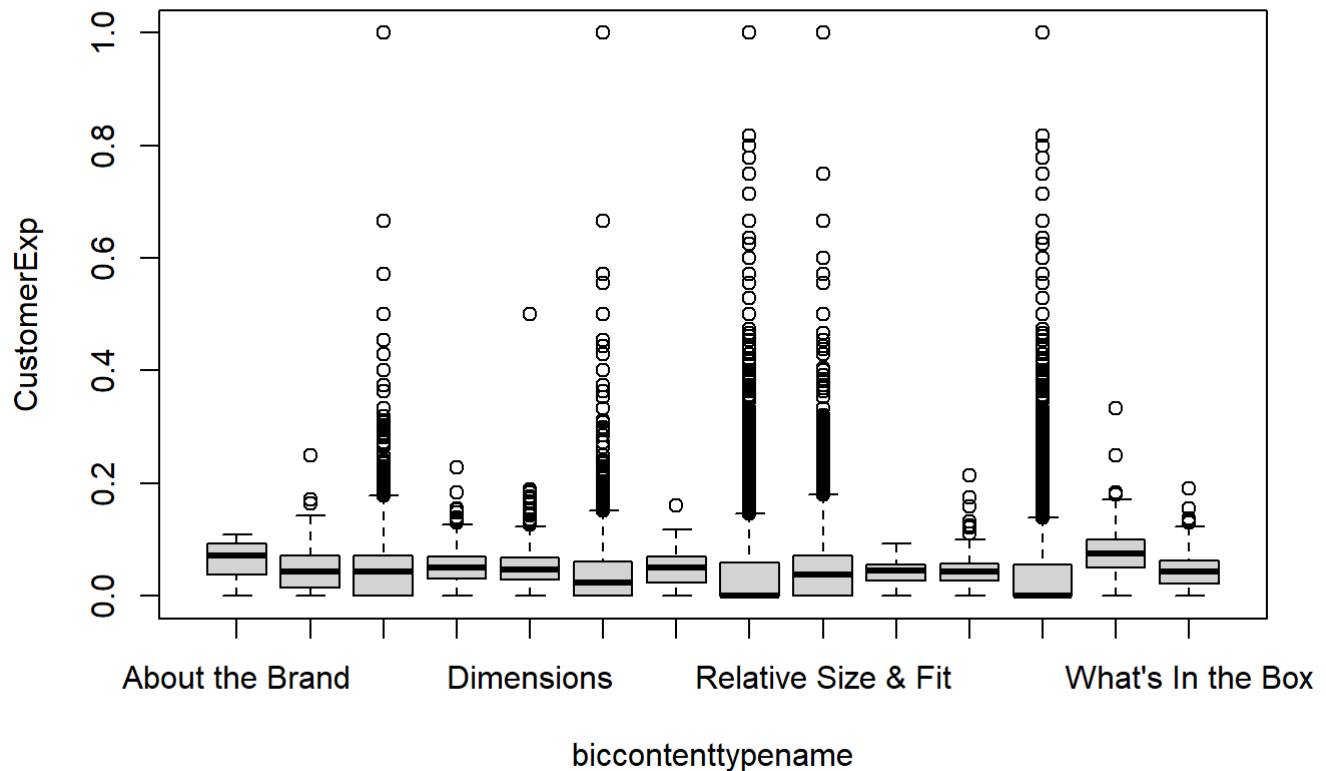
```
## biccontenttypename
##           About the Brand           Assembly & Installation
##                   5                   219
##           Cleaning & Care       Compatibility & Adjustability
##                   30009                   312
##           Dimensions           Materials / How Its Made
##                   1076                   24776
##           Product Capacity           Product Feature
##                   39                   81192
##           Relative Size & Fit Safety Certifications & Details
##                   38866                   105
##           Touch & Feel           Visual Details
##                   162                   65344
##           Warranty & Guarantees           What's In the Box
##                   1246                   276
```

```
table(clname)
```

```
## clname
##          Accent Chests / Cabinets
##                      262
##          Adirondack Chairs
##                      76
##          Adjustable Beds
##                      36
##          Air Fryers
##                      45
##          Area Rugs
##          79646
##          Bar Stools
##          3885
##          Bathroom Storage
##          145
##          Bedding Sets
##          210
##          Beds
##          944
## Cat Litter Boxes & Litter Box Enclosures
##          27
##          Ceiling Fans
##          131
##          Chandeliers
##          652
##          Charcoal Grills
##          22
##          Classroom Storage
##          443
##          Cribs
##          175
##          Desks
##          841
##          Dining Table Sets
##          449
##          Dressers & Chests
##          417
##          Electric Grills
##          2
##          End Tables
##          1327
##          Filing Cabinets
##          215
##          Garage Storage Cabinets
##          59
##          Gas Grills
##          59
##          Gliders
##          76
##          Headboards
##          255
##          Innerspring Mattresses
##          208
##          Interior Doors
##          105
##          Kids Beds
##          527
```

```
##          Kids Dressers & Chests
##                      30
##          Kitchen Islands
##                      200
##                      Mantels
##                      55
##      Mattress Toppers and Pads
##                      324
##      Outdoor Conversation Sets
##                      2132
##          Outdoor Fireplaces
##                      274
##          Pantry Cabinets
##                      8
##          Patio Sofas
##                      223
##          Pool Tables
##                      116
##          Ranges
##                      149
##      Reception Seating Chairs
##                      29
##          Smokers
##                      26
##          Sofas
##                      1157
##      Swing Sets & Playgrounds
##                      274
##          Tubs And Whirlpools
##                      670
##      TV Stands & Entertainment Centers
##                      552
##          Vanities
##                      290
##          Wall Art
##          145732
##          Wine Refrigerators
##                      118
##          Wood Pellet Grills
##                      29
```

```
library(ggpubr)
boxplot(CustomerExp ~ biccontenttypename, data=data)
```



Here we performed a Levene's Test to check the Homogeneity of the data.

A Bartlett Test depends a lot on the Normality of the data. Levene's Test: Null Hypothesis: All populations variances are equal. Alternative Hypothesis: At least two of them differ.

```
library(car)
```

```
## 载入需要的程辑包：carData
```

```
##
## 载入程辑包：'car'
```

```
## The following objects are masked from 'package:mosaic':
##
##   deltaMethod, logit
```

```
## The following object is masked from 'package:dplyr':
##
##   recode
```

```
res <- leveneTest(CustomerExp ~ biccontenttypename, data = data)
```

```
## Warning in leveneTest.default(y = y, group = group, ...): group coerced to
## factor.
```

```
res
```

```
## Levene's Test for Homogeneity of Variance (center = median)
##           Df F value    Pr(>F)
## group      13  70.417 < 2.2e-16 ***
##           243613
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

The ANOVA method is not reliable here since the data did not pass the Levene's Test, which violates the assumption of Homogeneity.

Kruskal-Wallis Test Assumptions: 1. Ordinal or Continuous Response Variable 2. Independence 3. Distributions have similar shapes

```
kruskal.test(CustomerExp ~ biccontenttypename, data = data)
```

```
##
##  Kruskal-Wallis rank sum test
##
## data:  CustomerExp by biccontenttypename
## Kruskal-Wallis chi-squared = 12833, df = 13, p-value < 2.2e-16
```

```
pairwise.wilcox.test(CustomerExp, biccontenttypename, p.adj='bonferroni')
```

```
## Warning in wilcox.test.default(xi, xj, paired = paired, ...): cannot compute
## exact p-value with ties
```

```
##
## Pairwise comparisons using Wilcoxon rank sum test with continuity correction
##
## data: CustomerExp and biccontenttypename
##
## About the Brand Assembly & Installation
## Assembly & Installation 1.0000 -
## Cleaning & Care 1.0000 1.0000
## Compatibility & Adjustability 1.0000 0.2711
## Dimensions 1.0000 0.6685
## Materials / How Its Made 1.0000 2.6e-05
## Product Capacity 1.0000 1.0000
## Product Feature 1.0000 < 2e-16
## Relative Size & Fit 1.0000 1.0000
## Safety Certifications & Details 1.0000 1.0000
## Touch & Feel 1.0000 1.0000
## Visual Details 1.0000 < 2e-16
## Warranty & Guarantees 1.0000 < 2e-16
## What's In the Box 1.0000 1.0000
## Cleaning & Care Compatibility & Adjustability
## Assembly & Installation - -
## Cleaning & Care - -
## Compatibility & Adjustability 6.5e-05 -
## Dimensions 3.4e-11 1.0000
## Materials / How Its Made < 2e-16 < 2e-16
## Product Capacity 1.0000 1.0000
## Product Feature < 2e-16 < 2e-16
## Relative Size & Fit 1.4e-06 2.9e-07
## Safety Certifications & Details 1.0000 0.1344
## Touch & Feel 1.0000 0.2837
## Visual Details < 2e-16 < 2e-16
## Warranty & Guarantees < 2e-16 < 2e-16
## What's In the Box 1.0000 0.0659
## Dimensions Materials / How Its Made
## Assembly & Installation - -
## Cleaning & Care - -
## Compatibility & Adjustability - -
## Dimensions - -
## Materials / How Its Made < 2e-16 -
## Product Capacity 1.0000 0.0602
## Product Feature < 2e-16 < 2e-16
## Relative Size & Fit < 2e-16 < 2e-16
## Safety Certifications & Details 0.7617 0.0639
## Touch & Feel 1.0000 6.9e-05
## Visual Details < 2e-16 < 2e-16
## Warranty & Guarantees < 2e-16 < 2e-16
## What's In the Box 0.2500 3.0e-10
## Product Capacity Product Feature
## Assembly & Installation - -
## Cleaning & Care - -
## Compatibility & Adjustability - -
## Dimensions - -
## Materials / How Its Made - -
## Product Capacity - -
## Product Feature 2.6e-06 -
## Relative Size & Fit 1.0000 < 2e-16
## Safety Certifications & Details 1.0000 3.5e-11
```

## Touch & Feel	1.0000	< 2e-16	
## Visual Details	2.8e-07	4.8e-10	
## Warranty & Guarantees	0.0051	< 2e-16	
## What's In the Box	1.0000	< 2e-16	
##	Relative Size & Fit		
## Assembly & Installation	-		
## Cleaning & Care	-		
## Compatibility & Adjustability	-		
## Dimensions	-		
## Materials / How Its Made	-		
## Product Capacity	-		
## Product Feature	-		
## Relative Size & Fit	-		
## Safety Certifications & Details	1.0000		
## Touch & Feel	1.0000		
## Visual Details	< 2e-16		
## Warranty & Guarantees	< 2e-16		
## What's In the Box	1.0000		
##	Safety Certifications & Details Touch & Feel		
## Assembly & Installation	-		-
## Cleaning & Care	-		-
## Compatibility & Adjustability	-		-
## Dimensions	-		-
## Materials / How Its Made	-		-
## Product Capacity	-		-
## Product Feature	-		-
## Relative Size & Fit	-		-
## Safety Certifications & Details	-		-
## Touch & Feel	1.0000		-
## Visual Details	2.5e-13		< 2e-16
## Warranty & Guarantees	< 2e-16		< 2e-16
## What's In the Box	1.0000		1.0000
##	Visual Details Warranty & Guarantees		
## Assembly & Installation	-	-	
## Cleaning & Care	-	-	
## Compatibility & Adjustability	-	-	
## Dimensions	-	-	
## Materials / How Its Made	-	-	
## Product Capacity	-	-	
## Product Feature	-	-	
## Relative Size & Fit	-	-	
## Safety Certifications & Details	-	-	
## Touch & Feel	-	-	
## Visual Details	-	-	
## Warranty & Guarantees	< 2e-16	-	
## What's In the Box	< 2e-16	< 2e-16	
##			
## P value adjustment method: bonferroni			

```
mean_CB = tapply(CustomerExp, biccontenttypename, mean)
```

```
mean_CB/mean(CustomerExp)
```


##	About the Brand	Assembly & Installation
##	1.2895027	0.9509453
##	Cleaning & Care	Compatibility & Adjustability
##	0.9557779	1.1068763
##	Dimensions	Materials / How Its Made
##	1.0698201	0.8353352
##	Product Capacity	Product Feature
##	1.0558708	1.0207145
##	Relative Size & Fit	Safety Certifications & Details
##	1.0271976	0.8354539
##	Touch & Feel	Visual Details
##	0.9358851	1.0296853
##	Warranty & Guarantees	What's In the Box
##	1.5443928	0.9134906

```
res_CC <- leveneTest(CustomerExp ~ clname, data = data)
```

```
## Warning in leveneTest.default(y = y, group = group, ...): group coerced to
## factor.
```

```
res_CC
```

```
## Levene's Test for Homogeneity of Variance (center = median)
##      Df F value    Pr(>F)
## group  47  40.783 < 2.2e-16 ***
##      243579
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
kruskal.test(CustomerExp ~ clname, data = data)
```

```
##
## Kruskal-Wallis rank sum test
##
## data: CustomerExp by clname
## Kruskal-Wallis chi-squared = 12557, df = 47, p-value < 2.2e-16
```

```
pairwise.wilcox.test(CustomerExp, clname, p.adj='bonferroni')
```

[illegible]

[illegible]

```
## exact p-value with ties

## Warning in wilcox.test.default(xi, xj, paired = paired, ...): cannot compute
## exact p-value with ties

## Warning in wilcox.test.default(xi, xj, paired = paired, ...): cannot compute
## exact p-value with ties

## Warning in wilcox.test.default(xi, xj, paired = paired, ...): cannot compute
## exact p-value with ties

## Warning in wilcox.test.default(xi, xj, paired = paired, ...): cannot compute
## exact p-value with ties

## Warning in wilcox.test.default(xi, xj, paired = paired, ...): cannot compute
## exact p-value with ties
```

```
##
## Pairwise comparisons using Wilcoxon rank sum test with continuity correction
##
## data: CustomerExp and clname
##
##
## Accent Chests / Cabinets
## Adirondack Chairs 1.00000
## Adjustable Beds 1.00000
## Air Fryers 8.4e-12
## Area Rugs 0.00661
## Bar Stools 1.00000
## Bathroom Storage 0.54850
## Bedding Sets 1.00000
## Beds 0.00029
## Cat Litter Boxes & Litter Box Enclosures 0.05115
## Ceiling Fans 1.00000
## Chandeliers 1.00000
## Charcoal Grills 1.00000
## Classroom Storage 0.00866
## Cribs 1.00000
## Desks 1.00000
## Dining Table Sets 7.4e-13
## Dressers & Chests 1.00000
## Electric Grills 1.00000
## End Tables 0.00056
## Filing Cabinets 0.00481
## Garage Storage Cabinets 0.02578
## Gas Grills 0.00043
## Gliders 1.00000
## Headboards 1.00000
## Innerspring Mattresses 0.12266
## Interior Doors 2.1e-09
## Kids Beds 1.00000
## Kids Dressers & Chests 1.00000
## Kitchen Islands 1.00000
## Mantels 1.1e-05
## Mattress Toppers and Pads < 2e-16
## Outdoor Conversation Sets 4.0e-12
## Outdoor Fireplaces 0.08965
## Pantry Cabinets 1.00000
## Patio Sofas 0.33195
## Pool Tables 1.5e-14
## Ranges 1.7e-07
## Reception Seating Chairs 0.05327
## Smokers 1.00000
## Sofas < 2e-16
## Swing Sets & Playgrounds 3.1e-11
## Tubs And Whirlpools < 2e-16
## TV Stands & Entertainment Centers 0.00030
## Vanities 1.5e-14
## Wall Art < 2e-16
## Wine Refrigerators 0.00023
## Wood Pellet Grills 1.00000
##
## Adirondack Chairs Adjustable Beds
## Adirondack Chairs - -
## Adjustable Beds 1.00000 -
## Air Fryers 1.6e-05 0.00017
```

## Area Rugs	1.00000	1.00000	
## Bar Stools	1.00000	1.00000	
## Bathroom Storage	1.00000	1.00000	
## Bedding Sets	1.00000	1.00000	
## Beds	1.00000	1.00000	
## Cat Litter Boxes & Litter Box Enclosures	1.00000	1.00000	
## Ceiling Fans	1.00000	1.00000	
## Chandeliers	1.00000	1.00000	
## Charcoal Grills	1.00000	1.00000	
## Classroom Storage	1.00000	1.00000	
## Cribs	1.00000	1.00000	
## Desks	1.00000	1.00000	
## Dining Table Sets	0.00037	0.42830	
## Dressers & Chests	1.00000	1.00000	
## Electric Grills	1.00000	1.00000	
## End Tables	1.00000	1.00000	
## Filing Cabinets	1.00000	1.00000	
## Garage Storage Cabinets	1.00000	1.00000	
## Gas Grills	0.36686	1.00000	
## Gliders	1.00000	1.00000	
## Headboards	1.00000	1.00000	
## Innerspring Mattresses	1.00000	1.00000	
## Interior Doors	0.00899	0.31115	
## Kids Beds	1.00000	1.00000	
## Kids Dressers & Chests	1.00000	1.00000	
## Kitchen Islands	1.00000	1.00000	
## Mantels	0.09303	1.00000	
## Mattress Toppers and Pads	9.2e-14	7.8e-09	
## Outdoor Conversation Sets	0.01123	1.00000	
## Outdoor Fireplaces	1.00000	1.00000	
## Pantry Cabinets	1.00000	1.00000	
## Patio Sofas	1.00000	1.00000	
## Pool Tables	9.6e-05	0.03156	
## Ranges	0.14346	1.00000	
## Reception Seating Chairs	1.00000	1.00000	
## Smokers	1.00000	1.00000	
## Sofas	0.00045	1.00000	
## Swing Sets & Playgrounds	0.00250	1.00000	
## Tubs And Whirlpools	< 2e-16	4.7e-12	
## TV Stands & Entertainment Centers	0.68770	1.00000	
## Vanities	0.00074	1.00000	
## Wall Art	6.2e-08	7.2e-05	
## Wine Refrigerators	0.12519	1.00000	
## Wood Pellet Grills	1.00000	1.00000	
##	Air Fryers	Area Rugs	Bar Stools
## Adirondack Chairs	-	-	-
## Adjustable Beds	-	-	-
## Air Fryers	-	-	-
## Area Rugs	6.5e-12	-	-
## Bar Stools	1.6e-11	< 2e-16	-
## Bathroom Storage	2.4e-05	2.8e-05	0.29118
## Bedding Sets	6.2e-08	1.00000	1.00000
## Beds	3.9e-16	0.79179	6.1e-09
## Cat Litter Boxes & Litter Box Enclosures	1.00000	0.00562	0.09588
## Ceiling Fans	4.1e-07	3.0e-05	1.00000
## Chandeliers	4.2e-12	0.00044	1.00000
## Charcoal Grills	0.00247	1.00000	1.00000
## Classroom Storage	1.6e-07	1.00000	1.4e-05

## Cribs	1.4e-12	1.00000	1.00000
## Desks	2.7e-12	1.4e-13	1.00000
## Dining Table Sets	< 2e-16	0.24347	< 2e-16
## Dressers & Chests	3.0e-10	1.00000	1.00000
## Electric Grills	1.00000	1.00000	1.00000
## End Tables	3.8e-06	< 2e-16	< 2e-16
## Filing Cabinets	0.00025	1.6e-12	3.3e-05
## Garage Storage Cabinets	3.6e-09	1.00000	1.00000
## Gas Grills	5.3e-10	1.00000	0.05623
## Gliders	5.3e-11	1.00000	1.00000
## Headboards	3.9e-11	0.00057	1.00000
## Innerspring Mattresses	0.00013	2.0e-15	5.2e-05
## Interior Doors	1.1e-11	1.00000	4.2e-07
## Kids Beds	6.1e-14	6.0e-05	1.00000
## Kids Dressers & Chests	1.00000	1.00000	1.00000
## Kitchen Islands	2.7e-14	1.00000	1.00000
## Mantels	2.4e-11	1.00000	0.01020
## Mattress Toppers and Pads	1.00000	< 2e-16	< 2e-16
## Outdoor Conversation Sets	4.2e-16	0.09239	< 2e-16
## Outdoor Fireplaces	3.6e-13	1.00000	0.04653
## Pantry Cabinets	1.00000	1.00000	1.00000
## Patio Sofas	8.4e-13	1.00000	0.03557
## Pool Tables	1.3e-15	1.00000	6.7e-11
## Ranges	6.1e-14	1.00000	3.2e-05
## Reception Seating Chairs	1.00000	0.01449	0.10441
## Smokers	0.00700	1.00000	1.00000
## Sofas	< 2e-16	1.00000	< 2e-16
## Swing Sets & Playgrounds	< 2e-16	1.00000	9.1e-13
## Tubs And Whirlpools	< 2e-16	< 2e-16	< 2e-16
## TV Stands & Entertainment Centers	< 2e-16	1.00000	2.2e-06
## Vanities	< 2e-16	1.00000	< 2e-16
## Wall Art	3.4e-13	< 2e-16	< 2e-16
## Wine Refrigerators	1.4e-12	1.00000	0.00067
## Wood Pellet Grills	7.4e-07	1.00000	1.00000
##	Bathroom Storage Bedding Sets Beds		
## Adirondack Chairs	-	-	-
## Adjustable Beds	-	-	-
## Air Fryers	-	-	-
## Area Rugs	-	-	-
## Bar Stools	-	-	-
## Bathroom Storage	-	-	-
## Bedding Sets	1.00000	-	-
## Beds	2.5e-07	1.00000	-
## Cat Litter Boxes & Litter Box Enclosures	1.00000	0.56122	8.0e-05
## Ceiling Fans	1.00000	1.00000	3.5e-08
## Chandeliers	0.02897	1.00000	0.25420
## Charcoal Grills	1.00000	1.00000	1.00000
## Classroom Storage	0.00599	1.00000	0.02051
## Cribs	0.00962	1.00000	1.00000
## Desks	0.21940	1.00000	8.7e-07
## Dining Table Sets	2.8e-13	2.2e-05	5.9e-08
## Dressers & Chests	0.14979	1.00000	1.00000
## Electric Grills	1.00000	1.00000	1.00000
## End Tables	1.00000	0.11861	< 2e-16
## Filing Cabinets	1.00000	0.20241	1.2e-13
## Garage Storage Cabinets	0.01577	1.00000	1.00000
## Gas Grills	0.00151	1.00000	1.00000
## Gliders	0.00714	1.00000	1.00000

## Headboards	1.00000	1.00000	0.00096
## Innerspring Mattresses	1.00000	0.11941	7.2e-16
## Interior Doors	6.2e-07	0.02165	4.5e-05
## Kids Beds	0.00635	1.00000	0.00343
## Kids Dressers & Chests	1.00000	1.00000	1.00000
## Kitchen Islands	0.00111	1.00000	1.00000
## Mantels	4.9e-05	1.00000	1.00000
## Mattress Toppers and Pads	< 2e-16	< 2e-16	< 2e-16
## Outdoor Conversation Sets	1.1e-11	0.00053	3.6e-08
## Outdoor Fireplaces	8.2e-05	1.00000	1.00000
## Pantry Cabinets	1.00000	1.00000	1.00000
## Patio Sofas	9.4e-05	1.00000	1.00000
## Pool Tables	1.1e-10	0.00064	2.1e-06
## Ranges	9.4e-07	0.61666	0.77022
## Reception Seating Chairs	1.00000	0.73513	0.00024
## Smokers	1.00000	1.00000	1.00000
## Sofas	7.2e-15	4.1e-05	4.6e-07
## Swing Sets & Playgrounds	3.6e-11	0.00275	0.01039
## Tubs And Whirlpools	< 2e-16	< 2e-16	< 2e-16
## TV Stands & Entertainment Centers	3.2e-08	1.00000	1.00000
## Vanities	9.7e-12	0.00024	2.5e-06
## Wall Art	< 2e-16	< 2e-16	< 2e-16
## Wine Refrigerators	1.1e-05	0.40520	1.00000
## Wood Pellet Grills	0.14985	1.00000	1.00000
## Cat Litter Boxes & Litter Box Enclosures	-	-	-
## Adirondack Chairs	-	-	-
## Adjustable Beds	-	-	-
## Air Fryers	-	-	-
## Area Rugs	-	-	-
## Bar Stools	-	-	-
## Bathroom Storage	-	-	-
## Bedding Sets	-	-	-
## Beds	-	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-	-
## Ceiling Fans	1.00000	-	-
## Chandeliers	0.02488	-	-
## Charcoal Grills	1.00000	-	-
## Classroom Storage	0.03553	-	-
## Cribs	0.00393	-	-
## Desks	0.03830	-	-
## Dining Table Sets	5.9e-07	-	-
## Dressers & Chests	0.06156	-	-
## Electric Grills	1.00000	-	-
## End Tables	1.00000	-	-
## Filing Cabinets	1.00000	-	-
## Garage Storage Cabinets	0.00031	-	-
## Gas Grills	7.2e-05	-	-
## Gliders	0.00092	-	-
## Headboards	0.09052	-	-
## Innerspring Mattresses	1.00000	-	-
## Interior Doors	5.3e-06	-	-
## Kids Beds	0.00673	-	-
## Kids Dressers & Chests	1.00000	-	-
## Kitchen Islands	0.00074	-	-
## Mantels	2.3e-06	-	-
## Mattress Toppers and Pads	1.00000	-	-
## Outdoor Conversation Sets	1.3e-05	-	-
## Outdoor Fireplaces	0.00037	-	-

## Pantry Cabinets	1.00000	
## Patio Sofas	0.00095	
## Pool Tables	1.3e-08	
## Ranges	9.5e-06	
## Reception Seating Chairs	1.00000	
## Smokers	1.00000	
## Sofas	3.2e-07	
## Swing Sets & Playgrounds	6.2e-07	
## Tubs And Whirlpools	4.7e-15	
## TV Stands & Entertainment Centers	2.4e-05	
## Vanities	7.2e-07	
## Wall Art	1.6e-06	
## Wine Refrigerators	4.7e-05	
## Wood Pellet Grills	0.00518	
##	Ceiling Fans	Chandeliers
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	0.16191	-
## Charcoal Grills	1.00000	1.00000
## Classroom Storage	0.00039	0.01453
## Cribs	0.02452	1.00000
## Desks	1.00000	1.00000
## Dining Table Sets	6.5e-16	2.9e-12
## Dressers & Chests	0.45429	1.00000
## Electric Grills	1.00000	1.00000
## End Tables	1.00000	2.7e-12
## Filing Cabinets	1.00000	5.3e-06
## Garage Storage Cabinets	0.00037	1.00000
## Gas Grills	4.7e-06	0.27007
## Gliders	0.00451	1.00000
## Headboards	1.00000	1.00000
## Innerspring Mattresses	1.00000	6.0e-06
## Interior Doors	1.3e-11	1.6e-05
## Kids Beds	0.05546	1.00000
## Kids Dressers & Chests	1.00000	1.00000
## Kitchen Islands	0.00318	1.00000
## Mantels	4.2e-08	0.08542
## Mattress Toppers and Pads	< 2e-16	< 2e-16
## Outdoor Conversation Sets	1.7e-13	1.3e-13
## Outdoor Fireplaces	1.8e-05	1.00000
## Pantry Cabinets	1.00000	1.00000
## Patio Sofas	7.9e-05	1.00000
## Pool Tables	< 2e-16	2.1e-08
## Ranges	7.0e-10	0.00569
## Reception Seating Chairs	1.00000	0.02993
## Smokers	1.00000	1.00000
## Sofas	< 2e-16	1.4e-15
## Swing Sets & Playgrounds	6.8e-14	3.9e-07
## Tubs And Whirlpools	< 2e-16	< 2e-16
## TV Stands & Entertainment Centers	6.2e-09	0.42963

## Vanities	3.8e-15	6.9e-10
## Wall Art	< 2e-16	< 2e-16
## Wine Refrigerators	5.0e-07	0.02790
## Wood Pellet Grills	0.01384	1.00000
##	Charcoal Grills	Classroom Storage
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	1.00000	-
## Cribs	1.00000	1.00000
## Desks	1.00000	1.5e-06
## Dining Table Sets	1.00000	1.00000
## Dressers & Chests	1.00000	1.00000
## Electric Grills	1.00000	1.00000
## End Tables	1.00000	2.6e-13
## Filing Cabinets	1.00000	1.4e-06
## Garage Storage Cabinets	1.00000	1.00000
## Gas Grills	1.00000	1.00000
## Gliders	1.00000	1.00000
## Headboards	1.00000	0.00086
## Innerspring Mattresses	1.00000	4.4e-10
## Interior Doors	1.00000	1.00000
## Kids Beds	1.00000	0.00039
## Kids Dressers & Chests	1.00000	1.00000
## Kitchen Islands	1.00000	0.16773
## Mantels	1.00000	1.00000
## Mattress Toppers and Pads	2.6e-05	< 2e-16
## Outdoor Conversation Sets	1.00000	1.00000
## Outdoor Fireplaces	1.00000	1.00000
## Pantry Cabinets	1.00000	1.00000
## Patio Sofas	1.00000	1.00000
## Pool Tables	1.00000	1.00000
## Ranges	1.00000	1.00000
## Reception Seating Chairs	1.00000	0.19832
## Smokers	1.00000	1.00000
## Sofas	1.00000	1.00000
## Swing Sets & Playgrounds	1.00000	1.00000
## Tubs And Whirlpools	0.00017	1.2e-14
## TV Stands & Entertainment Centers	1.00000	0.08674
## Vanities	1.00000	1.00000
## Wall Art	0.34251	1.8e-08
## Wine Refrigerators	1.00000	1.00000
## Wood Pellet Grills	1.00000	1.00000
##	Cribs	Desks
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
##	Dining Table Sets	

## Bathroom Storage	-	-	-
## Bedding Sets	-	-	-
## Beds	-	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-	-
## Ceiling Fans	-	-	-
## Chandeliers	-	-	-
## Charcoal Grills	-	-	-
## Classroom Storage	-	-	-
## Cribs	-	-	-
## Desks	1.00000	-	-
## Dining Table Sets	9.6e-05	< 2e-16	-
## Dressers & Chests	1.00000	1.00000	3.0e-05
## Electric Grills	1.00000	1.00000	1.00000
## End Tables	1.8e-06	1.7e-10	< 2e-16
## Filing Cabinets	2.7e-05	1.0e-04	< 2e-16
## Garage Storage Cabinets	1.00000	0.18718	1.00000
## Gas Grills	0.46793	0.00248	1.00000
## Gliders	1.00000	1.00000	1.00000
## Headboards	1.00000	1.00000	3.3e-14
## Innerspring Mattresses	6.9e-05	0.00013	< 2e-16
## Interior Doors	0.00019	6.1e-10	1.00000
## Kids Beds	1.00000	1.00000	7.3e-16
## Kids Dressers & Chests	1.00000	1.00000	0.04633
## Kitchen Islands	1.00000	1.00000	1.3e-07
## Mantels	0.12942	0.00053	1.00000
## Mattress Toppers and Pads	< 2e-16	< 2e-16	< 2e-16
## Outdoor Conversation Sets	0.00608	< 2e-16	1.00000
## Outdoor Fireplaces	1.00000	0.02043	0.03289
## Pantry Cabinets	1.00000	1.00000	1.00000
## Patio Sofas	1.00000	0.02588	1.00000
## Pool Tables	6.3e-07	2.9e-14	1.00000
## Ranges	0.10454	5.0e-07	1.00000
## Reception Seating Chairs	0.00449	0.04750	4.2e-06
## Smokers	1.00000	1.00000	1.00000
## Sofas	9.9e-05	< 2e-16	1.00000
## Swing Sets & Playgrounds	0.00259	1.8e-13	1.00000
## Tubs And Whirlpools	< 2e-16	< 2e-16	< 2e-16
## TV Stands & Entertainment Centers	1.00000	2.3e-05	8.8e-07
## Vanities	4.2e-05	< 2e-16	1.00000
## Wall Art	< 2e-16	< 2e-16	< 2e-16
## Wine Refrigerators	0.52392	5.8e-05	1.00000
## Wood Pellet Grills	1.00000	1.00000	1.00000
##	Dressers & Chests Electric Grills		
## Adirondack Chairs	-	-	-
## Adjustable Beds	-	-	-
## Air Fryers	-	-	-
## Area Rugs	-	-	-
## Bar Stools	-	-	-
## Bathroom Storage	-	-	-
## Bedding Sets	-	-	-
## Beds	-	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-	-
## Ceiling Fans	-	-	-
## Chandeliers	-	-	-
## Charcoal Grills	-	-	-
## Classroom Storage	-	-	-
## Cribs	-	-	-
## Desks	-	-	-

## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	1.00000	-
## End Tables	3.0e-08	1.00000
## Filing Cabinets	7.2e-05	1.00000
## Garage Storage Cabinets	1.00000	1.00000
## Gas Grills	1.00000	1.00000
## Gliders	1.00000	1.00000
## Headboards	1.00000	1.00000
## Innerspring Mattresses	4.0e-06	1.00000
## Interior Doors	0.13801	1.00000
## Kids Beds	1.00000	1.00000
## Kids Dressers & Chests	1.00000	1.00000
## Kitchen Islands	1.00000	1.00000
## Mantels	1.00000	1.00000
## Mattress Toppers and Pads	< 2e-16	1.00000
## Outdoor Conversation Sets	0.00047	1.00000
## Outdoor Fireplaces	1.00000	1.00000
## Pantry Cabinets	1.00000	1.00000
## Patio Sofas	1.00000	1.00000
## Pool Tables	0.01831	1.00000
## Ranges	1.00000	1.00000
## Reception Seating Chairs	0.09845	1.00000
## Smokers	1.00000	1.00000
## Sofas	0.00058	1.00000
## Swing Sets & Playgrounds	0.10018	1.00000
## Tubs And Whirlpools	< 2e-16	1.00000
## TV Stands & Entertainment Centers	1.00000	1.00000
## Vanities	0.00708	1.00000
## Wall Art	< 2e-16	1.00000
## Wine Refrigerators	1.00000	1.00000
## Wood Pellet Grills	1.00000	1.00000
##	End Tables	Filing Cabinets
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	-	-
## End Tables	-	-
## Filing Cabinets	1.00000	-
## Garage Storage Cabinets	0.00067	0.00049
## Gas Grills	1.7e-05	4.4e-05
## Gliders	0.00039	0.00053
## Headboards	0.00273	0.00773
## Innerspring Mattresses	1.00000	1.00000

## Interior Doors	1.6e-12	3.7e-10
## Kids Beds	4.1e-12	1.8e-06
## Kids Dressers & Chests	1.00000	1.00000
## Kitchen Islands	2.8e-08	3.1e-06
## Mantels	6.5e-07	3.7e-06
## Mattress Toppers and Pads	< 2e-16	< 2e-16
## Outdoor Conversation Sets	< 2e-16	< 2e-16
## Outdoor Fireplaces	1.9e-13	1.4e-08
## Pantry Cabinets	1.00000	1.00000
## Patio Sofas	4.4e-12	1.2e-08
## Pool Tables	< 2e-16	1.9e-14
## Ranges	1.9e-13	3.0e-10
## Reception Seating Chairs	1.00000	1.00000
## Smokers	1.00000	1.00000
## Sofas	< 2e-16	< 2e-16
## Swing Sets & Playgrounds	< 2e-16	< 2e-16
## Tubs And Whirlpools	< 2e-16	< 2e-16
## TV Stands & Entertainment Centers	< 2e-16	1.2e-13
## Vanities	< 2e-16	< 2e-16
## Wall Art	< 2e-16	< 2e-16
## Wine Refrigerators	1.1e-10	1.1e-08
## Wood Pellet Grills	0.04691	0.02172
##	Garage Storage Cabinets Gas Grills	
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	-	-
## End Tables	-	-
## Filing Cabinets	-	-
## Garage Storage Cabinets	-	-
## Gas Grills	1.00000	-
## Gliders	1.00000	1.00000
## Headboards	0.06889	0.00084
## Innerspring Mattresses	1.1e-06	3.3e-08
## Interior Doors	1.00000	1.00000
## Kids Beds	0.31503	0.00333
## Kids Dressers & Chests	1.00000	0.77510
## Kitchen Islands	0.20672	0.00459
## Mantels	1.00000	1.00000
## Mattress Toppers and Pads	< 2e-16	< 2e-16
## Outdoor Conversation Sets	1.00000	1.00000
## Outdoor Fireplaces	1.00000	1.00000
## Pantry Cabinets	1.00000	1.00000
## Patio Sofas	1.00000	1.00000

## Pool Tables	1.00000	1.00000
## Ranges	1.00000	1.00000
## Reception Seating Chairs	0.00317	0.00126
## Smokers	1.00000	1.00000
## Sofas	1.00000	1.00000
## Swing Sets & Playgrounds	1.00000	1.00000
## Tubs And Whirlpools	2.4e-15	6.5e-10
## TV Stands & Entertainment Centers	1.00000	0.80110
## Vanities	1.00000	1.00000
## Wall Art	5.0e-09	3.8e-05
## Wine Refrigerators	1.00000	1.00000
## Wood Pellet Grills	1.00000	1.00000
##	Gliders	Headboards
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	-	-
## End Tables	-	-
## Filing Cabinets	-	-
## Garage Storage Cabinets	-	-
## Gas Grills	-	-
## Gliders	-	-
## Headboards	1.00000	-
## Innerspring Mattresses	0.00094	0.03007
## Interior Doors	0.01285	7.6e-10
## Kids Beds	1.00000	1.00000
## Kids Dressers & Chests	1.00000	1.00000
## Kitchen Islands	1.00000	1.00000
## Mantels	1.00000	7.6e-05
## Mattress Toppers and Pads	< 2e-16	< 2e-16
## Outdoor Conversation Sets	1.00000	1.1e-12
## Outdoor Fireplaces	1.00000	0.05160
## Pantry Cabinets	1.00000	1.00000
## Patio Sofas	1.00000	0.07670
## Pool Tables	0.00085	4.3e-14
## Ranges	1.00000	5.6e-07
## Reception Seating Chairs	0.00233	0.06634
## Smokers	1.00000	1.00000
## Sofas	1.00000	7.2e-16
## Swing Sets & Playgrounds	1.00000	2.6e-10
## Tubs And Whirlpools	< 2e-16	< 2e-16
## TV Stands & Entertainment Centers	1.00000	0.00127
## Vanities	0.17609	3.0e-13
## Wall Art	3.3e-09	< 2e-16

## Wine Refrigerators	1.00000	0.00017	
## Wood Pellet Grills	1.00000	1.00000	
##	Innerspring Mattresses	Interior Doors	
## Adirondack Chairs	-	-	
## Adjustable Beds	-	-	
## Air Fryers	-	-	
## Area Rugs	-	-	
## Bar Stools	-	-	
## Bathroom Storage	-	-	
## Bedding Sets	-	-	
## Beds	-	-	
## Cat Litter Boxes & Litter Box Enclosures	-	-	
## Ceiling Fans	-	-	
## Chandeliers	-	-	
## Charcoal Grills	-	-	
## Classroom Storage	-	-	
## Cribs	-	-	
## Desks	-	-	
## Dining Table Sets	-	-	
## Dressers & Chests	-	-	
## Electric Grills	-	-	
## End Tables	-	-	
## Filing Cabinets	-	-	
## Garage Storage Cabinets	-	-	
## Gas Grills	-	-	
## Gliders	-	-	
## Headboards	-	-	
## Innerspring Mattresses	-	-	
## Interior Doors	7.7e-16	-	
## Kids Beds	7.6e-06	1.6e-09	
## Kids Dressers & Chests	1.00000	0.07315	
## Kitchen Islands	2.9e-05	1.1e-08	
## Mantels	3.4e-09	1.00000	
## Mattress Toppers and Pads	< 2e-16	< 2e-16	
## Outdoor Conversation Sets	< 2e-16	1.00000	
## Outdoor Fireplaces	3.0e-10	0.09939	
## Pantry Cabinets	1.00000	1.00000	
## Patio Sofas	2.3e-09	1.00000	
## Pool Tables	< 2e-16	1.00000	
## Ranges	4.2e-15	1.00000	
## Reception Seating Chairs	1.00000	0.00018	
## Smokers	1.00000	1.00000	
## Sofas	< 2e-16	1.00000	
## Swing Sets & Playgrounds	< 2e-16	1.00000	
## Tubs And Whirlpools	< 2e-16	2.2e-11	
## TV Stands & Entertainment Centers	2.4e-14	5.3e-06	
## Vanities	< 2e-16	1.00000	
## Wall Art	< 2e-16	1.5e-07	
## Wine Refrigerators	3.0e-11	1.00000	
## Wood Pellet Grills	0.00574	1.00000	
##	Kids Beds	Kids Dressers & Chests	
## Adirondack Chairs	-	-	
## Adjustable Beds	-	-	
## Air Fryers	-	-	
## Area Rugs	-	-	
## Bar Stools	-	-	
## Bathroom Storage	-	-	
## Bedding Sets	-	-	

## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	-	-
## End Tables	-	-
## Filing Cabinets	-	-
## Garage Storage Cabinets	-	-
## Gas Grills	-	-
## Gliders	-	-
## Headboards	-	-
## Innerspring Mattresses	-	-
## Interior Doors	-	-
## Kids Beds	-	-
## Kids Dressers & Chests	1.00000	-
## Kitchen Islands	1.00000	1.00000
## Mantels	0.00044	0.28221
## Mattress Toppers and Pads	< 2e-16	0.29189
## Outdoor Conversation Sets	< 2e-16	0.25897
## Outdoor Fireplaces	0.47233	1.00000
## Pantry Cabinets	1.00000	1.00000
## Patio Sofas	1.00000	1.00000
## Pool Tables	6.4e-14	0.01012
## Ranges	3.6e-06	0.40049
## Reception Seating Chairs	0.00589	1.00000
## Smokers	1.00000	1.00000
## Sofas	< 2e-16	0.06702
## Swing Sets & Playgrounds	1.3e-10	0.09033
## Tubs And Whirlpools	< 2e-16	4.9e-09
## TV Stands & Entertainment Centers	0.01454	1.00000
## Vanities	1.7e-14	0.03166
## Wall Art	< 2e-16	0.00226
## Wine Refrigerators	0.00073	0.34165
## Wood Pellet Grills	1.00000	1.00000
##	Kitchen Islands	Mantels
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-

## Electric Grills	-	-
## End Tables	-	-
## Filing Cabinets	-	-
## Garage Storage Cabinets	-	-
## Gas Grills	-	-
## Gliders	-	-
## Headboards	-	-
## Innerspring Mattresses	-	-
## Interior Doors	-	-
## Kids Beds	-	-
## Kids Dressers & Chests	-	-
## Kitchen Islands	-	-
## Mantels	0.00018	-
## Mattress Toppers and Pads	< 2e-16	< 2e-16
## Outdoor Conversation Sets	7.6e-06	1.00000
## Outdoor Fireplaces	1.00000	1.00000
## Pantry Cabinets	1.00000	1.00000
## Patio Sofas	1.00000	1.00000
## Pool Tables	7.4e-13	1.00000
## Ranges	2.8e-05	1.00000
## Reception Seating Chairs	0.00111	8.0e-05
## Smokers	1.00000	1.00000
## Sofas	5.0e-09	1.00000
## Swing Sets & Playgrounds	1.0e-06	1.00000
## Tubs And Whirlpools	< 2e-16	1.0e-13
## TV Stands & Entertainment Centers	1.00000	0.66401
## Vanities	8.1e-10	1.00000
## Wall Art	< 2e-16	1.5e-07
## Wine Refrigerators	0.02232	1.00000
## Wood Pellet Grills	1.00000	1.00000
##	Mattress Toppers and Pads	
## Adirondack Chairs	-	
## Adjustable Beds	-	
## Air Fryers	-	
## Area Rugs	-	
## Bar Stools	-	
## Bathroom Storage	-	
## Bedding Sets	-	
## Beds	-	
## Cat Litter Boxes & Litter Box Enclosures	-	
## Ceiling Fans	-	
## Chandeliers	-	
## Charcoal Grills	-	
## Classroom Storage	-	
## Cribs	-	
## Desks	-	
## Dining Table Sets	-	
## Dressers & Chests	-	
## Electric Grills	-	
## End Tables	-	
## Filing Cabinets	-	
## Garage Storage Cabinets	-	
## Gas Grills	-	
## Gliders	-	
## Headboards	-	
## Innerspring Mattresses	-	
## Interior Doors	-	
## Kids Beds	-	

## Kids Dressers & Chests	-
## Kitchen Islands	-
## Mantels	-
## Mattress Toppers and Pads	-
## Outdoor Conversation Sets	< 2e-16
## Outdoor Fireplaces	< 2e-16
## Pantry Cabinets	0.93547
## Patio Sofas	< 2e-16
## Pool Tables	< 2e-16
## Ranges	< 2e-16
## Reception Seating Chairs	1.00000
## Smokers	4.1e-05
## Sofas	< 2e-16
## Swing Sets & Playgrounds	< 2e-16
## Tubs And Whirlpools	< 2e-16
## TV Stands & Entertainment Centers	< 2e-16
## Vanities	< 2e-16
## Wall Art	< 2e-16
## Wine Refrigerators	< 2e-16
## Wood Pellet Grills	4.3e-10
##	Outdoor Conversation Sets
## Adirondack Chairs	-
## Adjustable Beds	-
## Air Fryers	-
## Area Rugs	-
## Bar Stools	-
## Bathroom Storage	-
## Bedding Sets	-
## Beds	-
## Cat Litter Boxes & Litter Box Enclosures	-
## Ceiling Fans	-
## Chandeliers	-
## Charcoal Grills	-
## Classroom Storage	-
## Cribs	-
## Desks	-
## Dining Table Sets	-
## Dressers & Chests	-
## Electric Grills	-
## End Tables	-
## Filing Cabinets	-
## Garage Storage Cabinets	-
## Gas Grills	-
## Gliders	-
## Headboards	-
## Innerspring Mattresses	-
## Interior Doors	-
## Kids Beds	-
## Kids Dressers & Chests	-
## Kitchen Islands	-
## Mantels	-
## Mattress Toppers and Pads	-
## Outdoor Conversation Sets	-
## Outdoor Fireplaces	1.00000
## Pantry Cabinets	1.00000
## Patio Sofas	1.00000
## Pool Tables	1.00000
## Ranges	1.00000

## Reception Seating Chairs	6.1e-05	
## Smokers	1.00000	
## Sofas	1.00000	
## Swing Sets & Playgrounds	1.00000	
## Tubs And Whirlpools	< 2e-16	
## TV Stands & Entertainment Centers	1.2e-05	
## Vanities	1.00000	
## Wall Art	< 2e-16	
## Wine Refrigerators	1.00000	
## Wood Pellet Grills	1.00000	
##	Outdoor Fireplaces	Pantry Cabinets
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	-	-
## End Tables	-	-
## Filing Cabinets	-	-
## Garage Storage Cabinets	-	-
## Gas Grills	-	-
## Gliders	-	-
## Headboards	-	-
## Innerspring Mattresses	-	-
## Interior Doors	-	-
## Kids Beds	-	-
## Kids Dressers & Chests	-	-
## Kitchen Islands	-	-
## Mantels	-	-
## Mattress Toppers and Pads	-	-
## Outdoor Conversation Sets	-	-
## Outdoor Fireplaces	-	-
## Pantry Cabinets	1.00000	-
## Patio Sofas	1.00000	1.00000
## Pool Tables	0.02143	0.81045
## Ranges	1.00000	1.00000
## Reception Seating Chairs	0.00157	1.00000
## Smokers	1.00000	1.00000
## Sofas	0.98221	1.00000
## Swing Sets & Playgrounds	1.00000	1.00000
## Tubs And Whirlpools	< 2e-16	0.01069
## TV Stands & Entertainment Centers	1.00000	1.00000
## Vanities	0.14735	1.00000
## Wall Art	< 2e-16	1.00000
## Wine Refrigerators	1.00000	1.00000
## Wood Pellet Grills	1.00000	1.00000

	Patio Sofas	Pool Tables	Ranges
##			
## Adirondack Chairs	-	-	-
## Adjustable Beds	-	-	-
## Air Fryers	-	-	-
## Area Rugs	-	-	-
## Bar Stools	-	-	-
## Bathroom Storage	-	-	-
## Bedding Sets	-	-	-
## Beds	-	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-	-
## Ceiling Fans	-	-	-
## Chandeliers	-	-	-
## Charcoal Grills	-	-	-
## Classroom Storage	-	-	-
## Cribs	-	-	-
## Desks	-	-	-
## Dining Table Sets	-	-	-
## Dressers & Chests	-	-	-
## Electric Grills	-	-	-
## End Tables	-	-	-
## Filing Cabinets	-	-	-
## Garage Storage Cabinets	-	-	-
## Gas Grills	-	-	-
## Gliders	-	-	-
## Headboards	-	-	-
## Innerspring Mattresses	-	-	-
## Interior Doors	-	-	-
## Kids Beds	-	-	-
## Kids Dressers & Chests	-	-	-
## Kitchen Islands	-	-	-
## Mantels	-	-	-
## Mattress Toppers and Pads	-	-	-
## Outdoor Conversation Sets	-	-	-
## Outdoor Fireplaces	-	-	-
## Pantry Cabinets	-	-	-
## Patio Sofas	-	-	-
## Pool Tables	1.00000	-	-
## Ranges	1.00000	1.00000	-
## Reception Seating Chairs	0.00156	9.1e-07	7.6e-05
## Smokers	1.00000	1.00000	1.00000
## Sofas	1.00000	1.00000	1.00000
## Swing Sets & Playgrounds	1.00000	1.00000	1.00000
## Tubs And Whirlpools	< 2e-16	< 2e-16	< 2e-16
## TV Stands & Entertainment Centers	1.00000	6.7e-08	0.18309
## Vanities	1.00000	1.00000	1.00000
## Wall Art	1.0e-12	4.6e-14	< 2e-16
## Wine Refrigerators	1.00000	1.00000	1.00000
## Wood Pellet Grills	1.00000	1.00000	1.00000
##	Reception Seating Chairs	Smokers	
## Adirondack Chairs	-	-	
## Adjustable Beds	-	-	
## Air Fryers	-	-	
## Area Rugs	-	-	
## Bar Stools	-	-	
## Bathroom Storage	-	-	
## Bedding Sets	-	-	
## Beds	-	-	
## Cat Litter Boxes & Litter Box Enclosures	-	-	

## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	-	-
## End Tables	-	-
## Filing Cabinets	-	-
## Garage Storage Cabinets	-	-
## Gas Grills	-	-
## Gliders	-	-
## Headboards	-	-
## Innerspring Mattresses	-	-
## Interior Doors	-	-
## Kids Beds	-	-
## Kids Dressers & Chests	-	-
## Kitchen Islands	-	-
## Mantels	-	-
## Mattress Toppers and Pads	-	-
## Outdoor Conversation Sets	-	-
## Outdoor Fireplaces	-	-
## Pantry Cabinets	-	-
## Patio Sofas	-	-
## Pool Tables	-	-
## Ranges	-	-
## Reception Seating Chairs	-	-
## Smokers	1.00000	-
## Sofas	2.4e-06	1.00000
## Swing Sets & Playgrounds	4.5e-06	1.00000
## Tubs And Whirlpools	1.1e-12	1.0e-06
## TV Stands & Entertainment Centers	6.3e-05	1.00000
## Vanities	5.7e-06	1.00000
## Wall Art	7.1e-05	0.02597
## Wine Refrigerators	0.00029	1.00000
## Wood Pellet Grills	0.02732	1.00000
##	Sofas	Swing Sets & Playgrounds
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	-	-
## End Tables	-	-

## Filing Cabinets	-	-
## Garage Storage Cabinets	-	-
## Gas Grills	-	-
## Gliders	-	-
## Headboards	-	-
## Innerspring Mattresses	-	-
## Interior Doors	-	-
## Kids Beds	-	-
## Kids Dressers & Chests	-	-
## Kitchen Islands	-	-
## Mantels	-	-
## Mattress Toppers and Pads	-	-
## Outdoor Conversation Sets	-	-
## Outdoor Fireplaces	-	-
## Pantry Cabinets	-	-
## Patio Sofas	-	-
## Pool Tables	-	-
## Ranges	-	-
## Reception Seating Chairs	-	-
## Smokers	-	-
## Sofas	-	-
## Swing Sets & Playgrounds	1.00000	-
## Tubs And Whirlpools	< 2e-16	< 2e-16
## TV Stands & Entertainment Centers	2.6e-06	0.00551
## Vanities	1.00000	1.00000
## Wall Art	< 2e-16	< 2e-16
## Wine Refrigerators	1.00000	1.00000
## Wood Pellet Grills	1.00000	1.00000
##	Tubs And Whirlpools	
## Adirondack Chairs	-	-
## Adjustable Beds	-	-
## Air Fryers	-	-
## Area Rugs	-	-
## Bar Stools	-	-
## Bathroom Storage	-	-
## Bedding Sets	-	-
## Beds	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-
## Ceiling Fans	-	-
## Chandeliers	-	-
## Charcoal Grills	-	-
## Classroom Storage	-	-
## Cribs	-	-
## Desks	-	-
## Dining Table Sets	-	-
## Dressers & Chests	-	-
## Electric Grills	-	-
## End Tables	-	-
## Filing Cabinets	-	-
## Garage Storage Cabinets	-	-
## Gas Grills	-	-
## Gliders	-	-
## Headboards	-	-
## Innerspring Mattresses	-	-
## Interior Doors	-	-
## Kids Beds	-	-
## Kids Dressers & Chests	-	-
## Kitchen Islands	-	-

## Mantels	-
## Mattress Toppers and Pads	-
## Outdoor Conversation Sets	-
## Outdoor Fireplaces	-
## Pantry Cabinets	-
## Patio Sofas	-
## Pool Tables	-
## Ranges	-
## Reception Seating Chairs	-
## Smokers	-
## Sofas	-
## Swing Sets & Playgrounds	-
## Tubs And Whirlpools	-
## TV Stands & Entertainment Centers	< 2e-16
## Vanities	< 2e-16
## Wall Art	1.00000
## Wine Refrigerators	2.0e-12
## Wood Pellet Grills	0.01470
## TV Stands & Entertainment Centers	
## Adirondack Chairs	-
## Adjustable Beds	-
## Air Fryers	-
## Area Rugs	-
## Bar Stools	-
## Bathroom Storage	-
## Bedding Sets	-
## Beds	-
## Cat Litter Boxes & Litter Box Enclosures	-
## Ceiling Fans	-
## Chandeliers	-
## Charcoal Grills	-
## Classroom Storage	-
## Cribs	-
## Desks	-
## Dining Table Sets	-
## Dressers & Chests	-
## Electric Grills	-
## End Tables	-
## Filing Cabinets	-
## Garage Storage Cabinets	-
## Gas Grills	-
## Gliders	-
## Headboards	-
## Innerspring Mattresses	-
## Interior Doors	-
## Kids Beds	-
## Kids Dressers & Chests	-
## Kitchen Islands	-
## Mantels	-
## Mattress Toppers and Pads	-
## Outdoor Conversation Sets	-
## Outdoor Fireplaces	-
## Pantry Cabinets	-
## Patio Sofas	-
## Pool Tables	-
## Ranges	-
## Reception Seating Chairs	-
## Smokers	-

## Sofas	-		
## Swing Sets & Playgrounds	-		
## Tubs And Whirlpools	-		
## TV Stands & Entertainment Centers	-		
## Vanities	1.0e-06		
## Wall Art	< 2e-16		
## Wine Refrigerators	1.00000		
## Wood Pellet Grills	1.00000		
##	Vanities	Wall Art	Wine Refrigerators
## Adirondack Chairs	-	-	-
## Adjustable Beds	-	-	-
## Air Fryers	-	-	-
## Area Rugs	-	-	-
## Bar Stools	-	-	-
## Bathroom Storage	-	-	-
## Bedding Sets	-	-	-
## Beds	-	-	-
## Cat Litter Boxes & Litter Box Enclosures	-	-	-
## Ceiling Fans	-	-	-
## Chandeliers	-	-	-
## Charcoal Grills	-	-	-
## Classroom Storage	-	-	-
## Cribs	-	-	-
## Desks	-	-	-
## Dining Table Sets	-	-	-
## Dressers & Chests	-	-	-
## Electric Grills	-	-	-
## End Tables	-	-	-
## Filing Cabinets	-	-	-
## Garage Storage Cabinets	-	-	-
## Gas Grills	-	-	-
## Gliders	-	-	-
## Headboards	-	-	-
## Innerspring Mattresses	-	-	-
## Interior Doors	-	-	-
## Kids Beds	-	-	-
## Kids Dressers & Chests	-	-	-
## Kitchen Islands	-	-	-
## Mantels	-	-	-
## Mattress Toppers and Pads	-	-	-
## Outdoor Conversation Sets	-	-	-
## Outdoor Fireplaces	-	-	-
## Pantry Cabinets	-	-	-
## Patio Sofas	-	-	-
## Pool Tables	-	-	-
## Ranges	-	-	-
## Reception Seating Chairs	-	-	-
## Smokers	-	-	-
## Sofas	-	-	-
## Swing Sets & Playgrounds	-	-	-
## Tubs And Whirlpools	-	-	-
## TV Stands & Entertainment Centers	-	-	-
## Vanities	-	-	-
## Wall Art	< 2e-16	-	-
## Wine Refrigerators	1.00000	2.3e-05	-
## Wood Pellet Grills	1.00000	1.00000	1.00000
##			
## P value adjustment method: bonferroni			


```
mean_CC = tapply(CustomerExp, clname, mean)
```

```
mean_CC/mean(CustomerExp)
```

##	Accent Chests / Cabinets
##	0.9782020
##	Adirondack Chairs
##	1.0443310
##	Adjustable Beds
##	0.9393514
##	Air Fryers
##	1.9886422
##	Area Rugs
##	0.9151882
##	Bar Stools
##	0.9904739
##	Bathroom Storage
##	1.1765119
##	Bedding Sets
##	1.0043426
##	Beds
##	0.8036721
##	Cat Litter Boxes & Litter Box Enclosures
##	1.5971776
##	Ceiling Fans
##	1.1341908
##	Chandeliers
##	0.9301584
##	Charcoal Grills
##	0.8517141
##	Classroom Storage
##	0.9785365
##	Cribs
##	0.8561993
##	Desks
##	0.9676322
##	Dining Table Sets
##	0.6055744
##	Dressers & Chests
##	0.9279661
##	Electric Grills
##	0.8620799
##	End Tables
##	1.2395746
##	Filing Cabinets
##	1.2542959
##	Garage Storage Cabinets
##	0.7020683
##	Gas Grills
##	0.6335175
##	Gliders
##	0.7976966
##	Headboards
##	0.9832785
##	Innerspring Mattresses
##	1.3010774
##	Interior Doors
##	0.5996117
##	Kids Beds
##	0.9217249
##	Kids Dressers & Chests

##	1.3675166
##	Kitchen Islands
##	0.8763649
##	Mantels
##	0.6115137
##	Mattress Toppers and Pads
##	2.0842919
##	Outdoor Conversation Sets
##	0.7162227
##	Outdoor Fireplaces
##	0.7971234
##	Pantry Cabinets
##	1.0466301
##	Patio Sofas
##	0.7659021
##	Pool Tables
##	0.5125318
##	Ranges
##	0.6725498
##	Reception Seating Chairs
##	1.5304397
##	Smokers
##	0.9746729
##	Sofas
##	0.6666552
##	Swing Sets & Playgrounds
##	0.6404805
##	Tubs And Whirlpools
##	0.3226478
##	TV Stands & Entertainment Centers
##	0.7897728
##	Vanities
##	0.6170046
##	Wall Art
##	1.0590570
##	Wine Refrigerators
##	0.6488002
##	Wood Pellet Grills
##	0.6204942

...