Dot Plots (Strip Charts)

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## Get Data

Data may be imported from a local file or downloaded from the web. For this example we will use a CSV file downloaded from the web and data entered by hand.

 htwt = read.csv("http://facweb1.redlands.edu/fac/jim\_bentley/downloads/math111/htwt.csv")
 htwt$Group = factor(htwt$Group, labels=c("Male","Female"))
 head(htwt)

## Height Weight Group
## 1 64 159 Male
## 2 63 155 Female
## 3 67 157 Female
## 4 60 125 Male
## 5 52 103 Female
## 6 58 122 Female

For now, We will focus on the weight (***Weight***) data in the ***htwt*** dataframe.

 names(htwt)

## [1] "Height" "Weight" "Group"

 htwt$Weight

## [1] 159 155 157 125 103 122 101 82 228 199 195 110 191 151 119 119 112 87 190
## [20] 87

We can create a quick dotplot/stripchart using the base package.

 stripchart(htwt$Weight)



 stripchart(htwt$Weight ~ htwt$Group)



 stripchart(Weight ~ Group, data=htwt)



The lattice package provides a little more flexibility in creating dotplots. In particular, considering additional variables through the use of lattices (latti?) is sometimes useful in making comparisons.

 # Use the lattice library. cex is the character size multiplier
 # Using pch=1 chooses open circles which better show overlapped data.
 p\_load(lattice)
 dotplot(~Weight, data=htwt, cex=1.25, pch=1)



 # Lattice requires that the grouping variable be an integer and not factor variable
 dotplot(as.integer(Group) ~ Weight, data=htwt, cex=1.25, pch=1, ylab="Group")



 dotplot(~Weight, group=Group, data=htwt, pch=htwt$Group)



 dotplot(~Weight|Group, data=htwt, layout=c(1,2))

