36-315: Statistical Graphics and Visualization

Handout 3

Date: January 22, 2003

Jitterplot - A direct plot of the data; not a summary. The x values are given by the data and the y values are random.

- Especially useful for data along time
- Similar idea used in dot maps

Histodot or "stacking plot" - Like a jitterplot but the dots are compacted in the vertical dimension, forming stacks of varying height.

Density curve - A smoother version of the histogram. It is the sum of identical small bumps (a.k.a. kernels) placed at the data locations.

Like histogram, all have a parameter controlling "bin size" or degree of smoothing:

$\operatorname{Display}$	Parameter	
Jitterplot	Vertical scale, symbol size	
$\operatorname{Histodot}$	$\operatorname{Symbol\ size}$	
Density curve	Kernel width	

What each plot emphasizes (1-3, 3 highest):

	Outliers	Modes
Histogram	2	2
${ m Jitterplot}$	3	1
$\operatorname{Histodot}$	3	2
Density curve	1	3

Figure on page 3: Jitterplot of Ethernet traffic over time, with duration of each connection depicted by horizontal line. Can see the intensity of traffic as well as the distribution of durations.

