

FigRs Reference Handout – Short

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barplot()

Plot horizontal or vertical bars (need to extract bar midpoints for overlays!)

```
md.pts <-barplot(runif(26,min=3,max=50))
axis(side=1,at=c(min(md.pts),max(md.pts)), labels=c("A", "Z"))
lines(md.pts,1:26)
```

layout()

Divides the screen or pdf page (i.e. the active plotting device)

```
mat <- matrix(c(1,3,2,3), byrow=TRUE, nrow=2)
layout(mat, heights=c(2,1), widths=c(1,2))
layout.show(3) # check the 3 panels
```

Moving average using filter()

Can use linear filtering of a univariate time series to plot moving averages

```
y <- runif(101,min=3,max=50)
plot(1910:2010,y,type="l")
# add 4yr mov avg
lines(1910:2010, filter(y,filter=rep(1/4,4),sides=1),col="red",lwd=2)
```

Number handling in figure labels

R defaults are compact, but don't work well for broader audience (e.g. 1e+05)

```
y <- runif(200,min=1, max=100000000)
max(y) # default display
prettyNum(round(max(y),digits=0),big.mark=",") # formatted display

# plot with default labels
options(scipen=0); barplot(y)

# plot with formatted labels
par(omi=c(0.5,1,0.5,0.5)); options(scipen=4)
ticks <- pretty(y,n=4) # get 4 tick points for y axis
barplot(y,axes=FALSE,ylim=c(0,max(y,ticks)))
axis(side=2,at=ticks,labels=FALSE)
text(x=rep(-14,length(ticks)),y=ticks,
      labels=prettyNum(ticks,big.mark=",",), adj=1,xpd=NA)
```

Print to pdf slides

```
pdf("SampleSlides.pdf",width=11, height=8.5,onefile=TRUE)
# insert all your plotting code here
dev.off() # close the plotting device
```

xpd = TRUE or NA

Expands a plotting area beyond its current boundaries.

```
abline(v=c(1980,1990,2000,2010),xpd=NA, col="gray")
```