

```
data(package = "datasets")
data(UCBAdmissions)
dimnames(UCBAdmissions)
```

```
proportion=function(x){
  Tot=apply(x,2,sum)
  prop=sweep(x,2,Tot,"/")
  prop
}
```

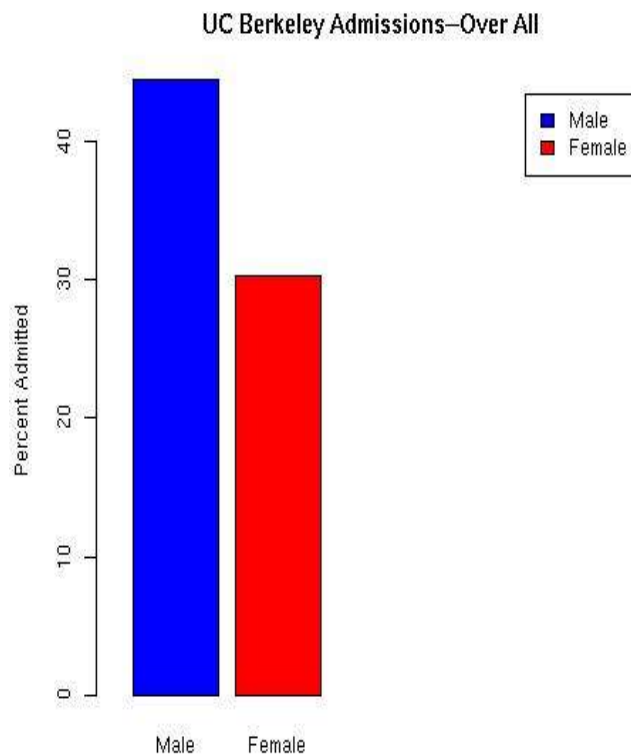
```
Totals=apply(UCBAdmissions,c(1,2),sum)
```

```
OverAll=proportion(Totals)
```

```
OverAll
```

```
help(barplot)
```

```
barplot(100*OverAll[1,],beside=T,legend.text=T,width=c(.5,.5), xlim=c(0,3), col=c
("Blue","Red"), ylab="Percent Admitted", main="UC Berkeley Admissions--Over All")
```

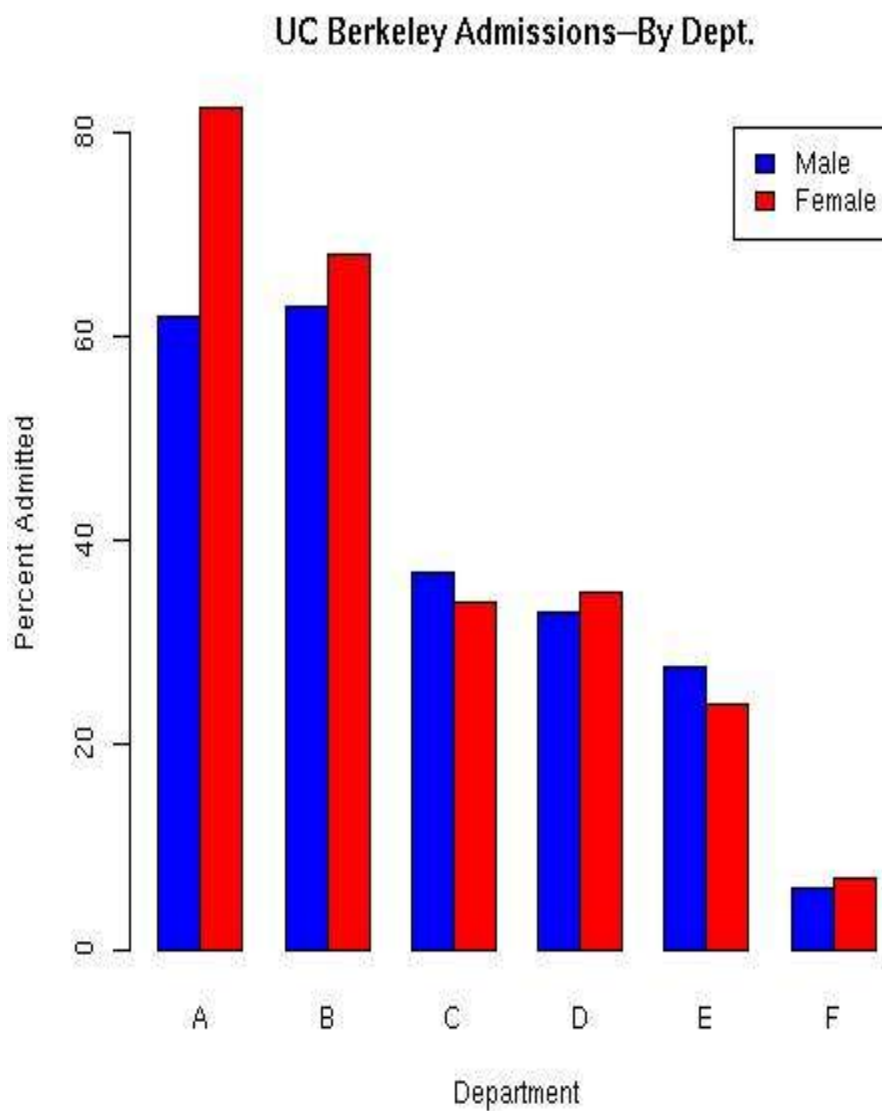


#How Does the Admission Rate Look By Department?

```
ByDept=apply(UCBAdmissions,3,proportion)
```

```
final=array(ByDept, dim = dim(UCBAdmissions), dimnames = dimnames  
(UCBAdmissions))  
Admitted=final[1,,]
```

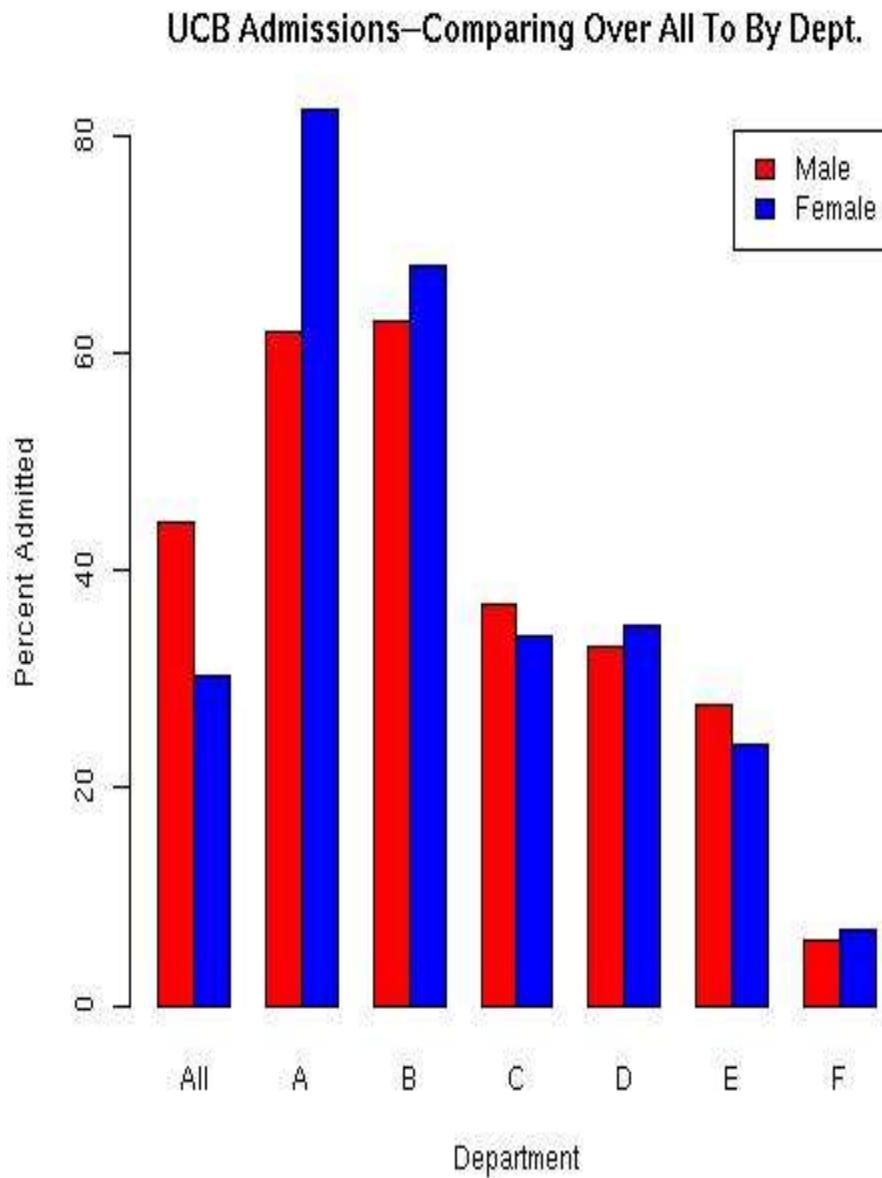
```
barplot(100*Admitted, beside=T, legend.text=T, col=c("Blue","Red"), ylab="Percent  
Admitted", main="UC Berkeley Admissions--By Dept.", xlab="Department")
```



#How Do the Two BarPlots Compare?

```
Compare=cbind(OverAll[1,],final[1,,])  
dimnames(Compare)[[2]][1]="All"
```

```
barplot(100*Compare, beside=T, legend.text=T, col=c("Red","Blue"), ylab="Percent  
Admitted", main="UCB Admissions--Comparing Over All To By Dept.",  
xlab="Department")
```



Extra Work--Experimenting

```
par(mfrow = c(2,2))
```

```
Admitted=final[1,,]
```

```
barplot(Admitted,beside=T,legend.text=T)
```

```
barplot(OverAll[1,],beside=T,legend.text=T,width=c(.5,.5), xlim=c(0,4))
```

```
barplot(OverAll[1,],beside=T,legend.text=T)
```

```
barplot(Compare, beside=T, legend.text=T,col=c("Blue","Red"))
```

