

Task p. 27-1 / Anwendung S. 27-1

FK

automatic

Working directory

```
> setwd("D:/kronthafrenz/Documents/01Lehre/06Quantitative Forschungsmethoden  
dt en")
```

Load data

```
> load("D:/kronthafrenz/Documents/01Lehre/06Quantitative Forschungsmethoden  
dt en/04Parametric and nonparametric testing/growth.RData")
```

Define factor

```
> growth <- within(growth, {  
+   f_sex <- as.factor(sex)  
+ })
```

Descriptive statistics

```
> numSummary(growth[, "education", drop=FALSE], groups=growth$f_sex,  
+   statistics=c("quantiles"), quantiles=c(0,.25,.5,.75,1))
```

	0%	25%	50%	75%	100%	n
0	1	1	2	3	4	65
1	1	1	1	3	4	35

Wilcoxon Rank-Sum Test

```
> with(growth, tapply(education, f_sex, median, na.rm=TRUE))
```

```
0 1  
2 1
```

```
> wilcox.test(education ~ f_sex, alternative="two.sided", data=growth)
```

Wilcoxon rank sum test with continuity correction

data: education by f_sex

W = 1116.5, p-value = 0.8748

alternative hypothesis: true location shift is not equal to 0

Interpretation:

Do not reject H_0 , the level of male founders and female founders is the same