

Solution to exercise 4-7

Statistical methods

The chance of getting a boy the second time is analyzed using a binomial model and estimates with 95% confidence intervals (CI) are presented.

Results

The risk of low birth weight is 3.6% (95% CI: 2.2% to 5.7%) if the child is a girl and 3.2% (1.8%-5.1%) if the child is a boy. Thus boys had a 0.4% point (-1.8% to 2.7%) lower (absolute) risk of low birth weight than girls, corresponding to a 12% lower risk (95% CI: 55% lower risk to 70% increased risk) as compared to girls. The risk of low birth weight is not statistically significant between the two genders ($p=0.70$).

Do file

```
cd "D:\Teaching\BasicBiostat\Exercises"
```

```
capture log close
```

```
log using "Solution4-7.log",text replace
```

```
use siblings.dta, clear
```

```
generate gender1=2-sex1 if sex1<.
```

```
label define gender 0 "girl" 1 "boy"
```

```
label val gender1 gender
```

```
generate lbw1=weight1<2500 if weight1<.
```

```
ci prop lbw1 if(gender1==0)
```

```
ci prop lbw1 if(gender1==1)
```

```
cs lbw1 gender1
```

```
log close
```