Errata for Quantitative Social Science: An Introduction (Princeton University Press, 2017)

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5/5/2017

Chapter 4

Section 4.3.3

- pages 170 – 176. Throughout this section, the `primary2008` variable should be labeled as `primary2006` so that it matches with the `social.csv` data file introduced in Chapter 2. For now, we include another version of `social.csv` in this chapter's folder so that users can

Chapter 6

Section 6.2.2

- page 265. The original code for the Monty Hall problem does not return the right answer when the order of doors is changed. This is due to the fact that the `sample()` function behaves differently when an integer is supplied as an input. The correct code that avoids this problem is below:

```
sims <- 1000
doors <- c("goat", "goat", "car")
result.switch <- result.noswitch <- rep(NA, sims)

for (i in 1:sims) {
    ## randomly choose the initial door
    first <- sample(1:3, size = 1)
    result.noswitch[i] <- doors[first]
    remain <- doors[-first] # remaining two doors
    ## Monty chooses one door with a goat
    if (doors[first] == "car") # two goats left
        monty <- sample(1:2, size=1)
    else # one goat and one car left
        monty <- (1:2)[remain == "goat"]
    result.switch[i] <- remain[-monty]
}

mean(result.noswitch == "car")
```

```
## [1] 0.32
```

```
mean(result.switch == "car")
```

```
## [1] 0.68
```

Section 6.4.2.

- page 304, equation (6.42). The second term is missing X_i, which is highlighted in the correct equation below:

$$\mathbb{E}(\overline{X}_n) = \mathbb{E}\left(\frac{1}{n}\sum_{i=1}^{n} X_i\right) = \frac{1}{n}\sum_{i=1}^{n}\mathbb{E}(X_i) = \mathbb{E}(X)$$

Chapter 7

Section 7.1.3

- page 327, last paragraph. Change "such that $P(Z > \alpha/2) = 1 - P(Z \leq \alpha/2) = 1 - \alpha/2$" to "such that $P(Z > z_{\alpha/2}) = 1 - P(Z \leq z_{\alpha/2}) = 1 - \alpha/2$"
- page 329, last paragraph. Change "Consider the probability that $(1 - \alpha/2) \times 100\%$ confidence interval" to "Consider the probability that $(1 - \alpha) \times 100\%$ confidence interval"
- page 330, Step 3 in the box. Change "Compute the critical value $z_{\alpha/2}$ as the $(1 - \alpha) \times 100$ percentile value" to "Compute the critical value $z_{\alpha/2}$ as the $(1 - \alpha/2) \times 100$ percentile value"

Acknowledgements

Thanks to Jeff Arnold, Joel Gautschi, Soyoung Lee, and Rocio Titiunik for pointing out the errors.