Mathematical Statistics with Resampling and R, (Second Edition). By Laura Chihara and Tim Hesterberg

Errata (February 2020)

Page 10, First paragraph 1.10: Reference is Camill et al..

Page 16, Exercise 1.3. Eighty-eight patients...

Page 18, Exercise 11. Line -2: However, if on the ~~desktop~~ mobile, `m.value` is 0, that is, the company did not make any money, then the `m.cpr` is defined to be 0.

Page 23, Table 2.2. American Airlines, Delayed, No 86.5%.

Page 33, Figure 2.9 (a) Reference should be to Example 2.11.

Page 70 R Note, last line

```
2* (sum(result >= observed ) + 1) / (N + 1) #P-value
```

Page 83, R Note:

```
Y <- rpois(10^4, 12) # Draw 10^4 values from Pois(12)
```

Page 122 R Note: the output for `mean(testF)-mean(testM)` should be 83.0692

Page 147 Exercise 5.16(b): Bootstrap the difference in mean scores...

Page 148 Exercise 5.23(b)
...sample proportion X/r has mean $p = 0.025$...

Page 188 line 7
gives $Z = (\bar{X} - \mu)/(2.46/\sqrt{150}) \sim \mathrm{N}(0, 1)$

Page 238 Exercise 44.
find a $(1 - \alpha) \times 100\%$ confidence interval.

Page 247 R Note
Add before the for loop

```
N <- 10^5
```

Page 251, Section 8.3.1.3 "...use the test statistic
$T = (\bar{X} - \bar{Y})/(S_{\mathrm{p}}\sqrt{1/n_1 + 1/n_2})$, where S_p^2 is..."

Page 261, Table 8.2, second row should be

C_2	17	18	19	20	21	22
$P(X \geq C_2)$	0.0164	0.0074	0.0031	0.0012	0.0005	0.0002

Page 278, lines -3, -5

$$L(\mu_0, \hat{\sigma}_0^2) = a\hat{\sigma}_0^{-n} e^{-(1/2)\sum_{i=1}^n (X_i - \mu_0)^2/\hat{\sigma}_0^2} = a\hat{\sigma}_0^{-n} e^{-n/2}$$

and

$$L(\mu_A, \hat{\sigma}_A^2) = a\hat{\sigma}_A^{-n} e^{-(1/2)\sum_{i=1}^n (X_i - \bar{X})^2/\hat{\sigma}_A^2} = a\hat{\sigma}_A^{-n} e^{-n/2},$$

Page 284, Table in 8.7.1. Leftmost column header should be d.conv.pre (not d.conv.post).

Page 321 Last partial on page:

$$\frac{\partial \ln(L)}{\partial \sigma} = \frac{-n}{\sigma} + \frac{1}{\sigma^3} \sum_1^n (Y_i - \alpha - \beta x_i)^2$$

Page 364 bottom of page, argument to `chisq.test`: no space between the `simulate.p.` and `value`. Last line:
`chisq.test(mat, simulate.p.value = TRUE, B = 10^4-1)`

Page 423 Second sentence of Theorem 12.1.2
Let $\mu = \sum_{g=1}^{G} n_g \mu_g / n$.

Page 426 Lines 4, 5

$$= \sum_{k=1}^{44} (Y_{1k} - 3207.205)^2 + \sum_{k=1}^{90} (Y_{2k} - 3367.00)^2 + \sum_{k=1}^{107} (Y_{3k} - 3535.336)^2$$

Page 429 Section 12.1.2 R Note: within for loop – two errors.

```
results[i] <- anova(lm(Weight.perm ~ MothersAge, data = ILBoys))$F[1]
```

Page 466 middle of R Note:

```
sd(y2 - r2 * w2) / (mean(w2) * sqrt(N))
```

Page 472 R Note, within for loop:

```
beta <- 12(lambda1 + 3)
lambda1 <- (lambda1 + 5)/(beta + 1)
```

Page 485 Line -2
$\int_0^\infty \lambda e^{-u} \frac{1}{\lambda - t}\, du$ where $u = (\lambda - t)x$

Page 490 last line
$VarX = (1-p)/p^2$

Page 492 Section B.5, second line
size n, with $n \leq M + N$.

Page 502 Definition B.7 (exponent needs parentheses):

$$f(x) = \frac{\Gamma(k+1/2)}{\Gamma(k/2)\sqrt{k\pi}} \left(1 + \frac{x^2}{k}\right)^{-(k+1)/2} \quad \text{for} \quad -\infty < x < \infty.$$

Solutions

Page 518 Solution for 7.11: (28.34, 33.53) cm

Page 518 Solution for 7.23 $[5.18, \infty)$.

Page 519 Solution for 8.19: P-value = 0.014.

Page 521, Solution for 9.27 0.537, (0.3679, 0.7505).

Page 523, Solution for 11.15(c) 0.1749

Thank you to readers, including Wesley Burr, Rodrigo Gaitan, Bruce McCullough, Eric Nordmoe, Ute Hahn, Jeff Witmer, Matthew Schuelke, Gordon Chen, for sending in the errors.