

Errata for *Applied Regression Including Computing and Graphics*
July 12, 2004

Please report any additional *errata* to arc@stat.umn.edu. Words in **bold face** are to be added. Changes since January, 2002 include numbers 11, 26, and number 23 in the “additional” list.

1. Page 12, line 9: “. . . *skewed* to the left, with more **extreme** small fish than large fish.”
2. Page 136, problem 6.8.3, change “confidence interval” to “**prediction** interval.”
3. Page 152, second displayed equation should be:

$$E(\text{BigMac}|\mathbf{x}) = \eta_0 + \eta_1 u_1 + \eta_2 u_2 + \eta_3 u_3 + \eta_4 u_4$$

(that is, change u_0 to η_0).

4. Page 178, line 5, change “have an inverse” to “have **a unique** inverse.”
5. Page 184, displayed equation in Problem 7.10: change $(\mathbf{u}_1 - \bar{\mathbf{u}})$ to $(\mathbf{u}_i - \bar{\mathbf{u}})$ twice in this equation (subscript changed from “1” to “*i*”).
6. Page 191, caption to Figure 8.3, change Figure to **Figure 8.2**.
7. Page 223, Problem 9.5.1, change y to \bar{y} .
8. Page 224, Problem 9.5.2, change y to \bar{y} .
9. Page 272, in the heading of Table 11.3, change Sleep to **Highway**.
10. Page 286, Problem 11.6.2. As written there is no contradiction with the “last result” in Problem 11.6.1. However, a contraction is obtained if the second line of this problem is replaced with “. . . with $\log_2(BW)$ **not** included in the mean function.”
11. Page 290, in Table 12.1, brackets around the F’s are missing. The corrected two lines are:

{F}C[2]	-17.0714	8.03949	-2.123
{F}C[3]	-16.3571	6.68926	-2.445

The same problem occurs in Table 12.6, p. 307. All the F in the extreme left column of this table should be {F}.

12. Page 314, Problem 12.8.5. There are two changes. First, change $E(\log(\text{Rain}|\mathbf{x}))$ to $E(\log(\text{Rain})|\mathbf{x})$. Second, in the displayed equation, change \mathbf{u} to

$$\mathbf{u}^T = (1, D, S, \log(C), A, AS)$$

13. Page 336, line 5 after (14.6): Replace the sentence beginning “If (14.5). . .” by “If (14.5) and (14.6) are supported by examining graphs of residuals versus functions of \mathbf{x} , we have no evidence against the model.”
14. Page 353, first line, change “Deletion” to **Delete**.
15. Page 372, problem 15.8.2. Change the word “without” to **after deleting three cases**.
16. Page 376 In the section heading for Section 16.2, the word “plots” should be capitalized, but not all capitals.
17. Page 377, line 1 in Section 16.2.1. Change $j = 2, \dots, k - 2$ to $j = 1, \dots, k - 2$.
18. Page 385, line 18 from the bottom. Change “of $\boldsymbol{\eta}_1 = (\eta_0, \eta_{11}, \eta_{12})^T$ ” to $\hat{\boldsymbol{\eta}}_1 = (\hat{\eta}_0, \hat{\eta}_{11}, \hat{\eta}_{12})^T$ (delete “of” and add hats).
19. Page 424, line 7, replace through by **though**.
20. Page 443, Problem 19.2, change bigmac.lsp to big-mac.lsp.

21. Page 524, problem 22.7.1. Change the sentence beginning “If you think . . .” to “If you think **that** some other terms . . .”
22. Page 528, line 3; page 528, line 3 from the bottom; Page 531 line 1 of Sec. 23.2.1; page 531, line 2 from the bottom, and page 589 in the index: change Menton to **Menten**.
23. Page 530, Figure 23.3. In this figure, the Inverse button should be highlighted, not the Exponential button.
24. Page 536 **Akaike** is misspelled on line 16 and in the index.
25. Page 541, line 4 from the bottom. Change “. . . let y_2 the . . .” to “. . . let y_2 **be** the . . .”
26. Page 547, line 9 of Section A.1.2. Change four menus to **three menus plus the Arc menu described in Section A.6**.
27. Page 572. The entry for Chen is incorrectly alphabetized, and should be moved before Clark.
28. Page 576, line 2, change second word to **regression**.

Additional *errata*

1. Page 22, Section 1.8. The first line of the computer code given in this section is incorrect. The correct computer code is:


```

      > (def x (+ 10 (* 2 (normal-rand 1000)))) Random data
      > (def h (histogram x)) Draw the histogram
      > (send h :plot-controls) Add plot controls
      
```
2. Page 78, line 2 after the displayed equation for z_r : change -0.889 to $+0.889$. Also, delete the last sentence in this paragraph, beginning with “Restoring the sign . . .”
3. Page 135, problem 6.7.5, line 3 of this problem, change “units if” to “units of”.
4. Page 210, last line before Section 9.3. The correct value of $\text{se}(y_{\text{pred}}|x = 0.2)$ is 11.7276.
5. Page 228, problem 9.9.2. Change $\text{Var}(\bar{y}|X)$ to $\text{Var}(\bar{y}|x)$.
6. Page 238, line 12, measurements is misspelled.
7. Page 249. In Figure 10.4, all the e should be \hat{e} .
8. Page 285, problem 11.4. On the last line of the problem, insert a right parenthesis “)” after the word response.
9. Page 290, line 2, change $\hat{\eta}_1$ to $\hat{\eta}_2$.
10. Page 290, line 10, “. . . is greater **than** . . .”
11. Page 313, Table 12.9. In the definition of A Action, coded 1 **if** the day . . . (not “of the day . . .”).
12. Page 322–323. Both Figures 13.3 and 13.4 are incorrect. These were computed using the predictors themselves as terms in the model, rather than converting them to factors and using the factors as terms. The correct graphs look almost identical to these. In Figure 13.4, the correct value of $\hat{\lambda} = -0.10$.
13. Page 352, Problem 14.5, line 2. Change “mean function” to **model**.
14. Page 364, line 5 above Section 15.4.3. Change that to **than**.
15. Page 388, equation (16.14) should be $y - \hat{\eta}^T u_1$ versus (u_2, u_3) . The equation is missing “ $y -$ ”
16. Page 431, equation (19.2). The left-hand side should read $E(x_j | \beta_1^T \mathbf{x}, \beta_2^T \mathbf{x})$.
17. Page 448, line 6, change Section 19.2 to Section 19.3.
18. Page 463, last line, change “outlier” to “outliers.”

19. Page 464, line 4 of problem 20.6. Change h to h_1 twice on this line.
20. Page 473, line 2 after (21.3). Add the italicized text: “If $y_1 \sim \text{Bin}(m_1, \theta_1)$ and $y_2 \sim \text{Bin}(m_2, \theta_2)$ are independent, . . .”
21. Page 484, lines 7–8, should read:

$$\begin{aligned} \text{NH} : \quad & \theta(\mathbf{x}) = \theta(\eta_1^T \mathbf{u}_1) \\ \text{AH} : \quad & \theta(\mathbf{x}) = \theta((\eta_1^T \mathbf{u}_1 + \eta_2^T \mathbf{u}_2)) \end{aligned}$$

22. Page 491, line 9 of Section 21.6.4. Change “After minor rearranging” to “After minor rearranging, and dropping an unimportant constant.”
23. Page 498, line 1 of Section 22.1.1 Change “making” to **make**.
24. Page 523, last line of Problem 22.3, replace the period just before “Give” with a question mark.
25. Page 535, equation (23.5) should read:

$$G^2 = 2 \left\{ \sum_{i=1}^n [\hat{y}_i \log(y_i/\hat{y}_i) - (y_i - \hat{y}_i)] \right\}$$

26. Page 577, insert new reference before Tierney (1990): Stuetzle, Werner (1987). Plot Windows. *Journal of the American Statistical Association*, 82, 466–475.
27. Page 592, the index entry for Settings menu, should be to page 559, not page 563.