

# The Statistical Sleuth

## *Errata for 1<sup>st</sup> Edition: Printing 3,4, and 5*

### Chapter 3

p. 76. The "na" in the data set of Display 3.10 is incorrectly listed as "-32768" in the file ex0325 on the data disk. (See DATA DISK, below).

### Chapter 5

p. 130. 1. -5: Delete "in which case ... about"

### Chapter 7

p. 197. Change the answer to 5.(a) to: "It is technically possible to fit the separate-means model. There would be 19 separate groups. In addition, since there are several nebula with the same velocities (X) there would be some degrees of freedom available for estimating the variance about the means. There is little merit, however, in such a model for describing any pattern in the mean distance as a function of velocity, and therefore for testing the Big Bang Theory. The separate-means model *can* be useful in this problem as a check on the validity of the straight line regression (see exercise 3 on p. 218)."

### Chapter 9

p. 252. Exercise 15. The column labels "Rainfall" and "Yield" in the file EX0915 on the data disk are reversed.

### Chapter 11

p. 317, ex 3: "third-order" should be "three-factor."

### Chapter 12

p. 332, Sect. 12.2.1, 1. -2: "many" should be "may."

### Chapter 14

p. 401. Add before "Note": The model used to estimate ozone-by-sulfur dioxide interaction is "ozone\*sulfur + water", for both cultivars (sulfur being numerical). The model used to estimate ozone-by-water stress interaction is "ozone\*water + sulfur."

p. 413. Display 14.15: In the display caption add: "The sums of squares presented are *extra* sums of squares corresponding to the following full and reduced models:

<b>Term tested</b>	<b>Full Model</b>	<b>Reduced Model</b>
ozone	ozone+SULFUR+water	SULFUR + water
SULFUR	ozone+SULFUR+water	ozone + water
water	ozone+SULFUR+water	ozone + SULFUR
ozone x SULFUR	all main effects+ 2-factor interactions	all main effects + 2-factor interactions, except ozone x SULFUR
ozone x water	all main effects+ 2-factor interactions	all main effects + 2-factor interactions, except ozone x water
SULFUR x water	all main effects+ 2-factor interactions	all main effects + 2-factor interactions, except SULFUR x water
ozone x SULFUR x water	all main effects + 2-factor interactions + 3-factor interaction	all main effects+ 2-factor interactions

p.414. Display 14.16 should be:

	FORREST			WILLIAMS		
	Coef.	Std. error	p-value	Coef.	Std. error	p-value
CONST	8.6082	0.0796		8.8239	0.0578	
ozone	-5.4361	0.9360	<.0001	-6.856	0.6801	<.0001
sulfur	-1.8695	1.1448	.1145	-4.1088	0.8319	<.0001
water	0.0935	0.1525	.5451	0.5086	0.1108	.0001

p. 414. Last paragraph: "14.525 (1,450.0%)" should be "22.00 (2,200%)."

## Chapter 17

p. 487. The columns of data on the data disk corresponding to Display 17.2 are in a different order than in the display. See the note under DATA DISK CASE1702, below.

## Chapter 22

p. 658. 1.2: insert "log of" before observation

## SOLUTIONS MANUAL

## Chapter 3

problem 3.20(b): "-0.295" should be "0.295." (c): " $\exp(-0.295) = 0.745\dots$ " should be " $\exp(0.295) = 1.343$  estimates the multiplicative effect on time to breakdown of changing voltage level from 28 kV to 26 kV."

problem 3.22(c): Add at the end: "(A 95% confidence interval for the ratio of median starting salaries (F/M) is from 1/1.21 to 1/1.10, or .82 to .91.)"

problem 3.30(b): "(1.41,2,23)" should be "(1.41,2.23)."

## Chapter 4

problem 4.25. Welch's t should have 97, not 93 d.f.

## Chapter 6

problem 6.19; paragraph 1, last sentence: change "no transformation" to "none of these transformations."

## Chapter 13

problem 13.18: 7.8 points should be 15.6 points (confidence interval 7.0 to 24.2 points). 5.8 points should be 11.6 points (confidence interval 7.1 to 24.1 points). The last two sentences should read: "It is evident that there is a slightly larger estimated effect of biological parents--15.58 points as compared to 11.6 points for the adoptive parents' effect."

## DATA DISK

CASE1702: The order of the columns in the data file is not the same as in Display 17.2. The data set has the Display columns in this order: 1,5,3,7,2,6,5,8. In other words the three letter code for the column names in the file has the first letter indicating the respondent (h for husband, w for wife), the second letter indicates the type of love (p for passionate, c for compassionate), and the third letter indicates the person who the love is perceived for (s for spouse, y for yourself).

EX0325: The missing value that is listed as "na" in Display 3.10 (p. 76) is coded as "-32768" in the data file.

EX0915: The column labels for rainfall and yield have been reversed.

EX1512: For row 20 the variable year should be 1840, not 1860.

