CORRECTION TO NOTES
"MORE HYPOTHESIS TESTING FOR TWO-WAY ANOVA" (March 3)
AND "ANALYSIS OF BALANCED FACTORIAL DESIGNS" (March 22)

I. In "MORE HYPOTHESIS TESTING FOR TWO-WAY ANOVA" (March 3):

1. On p. 2, under "***Testing the contribution of each factor in the complete model (equal sample sizes)***", after the statement of H_a^{A+AB}, insert:

However, it is traditional to use instead the following test:

H_0^A: $\alpha_1^* = \alpha_2^* = \ldots \alpha_a^*$

H_a^A: At least two of the α_i^*'s are different,

where $\alpha_i^* = \alpha_i + (\overline{\alpha\beta})_{i\bullet}$. That is, the test is whether or not the levels of A, averaged over the levels of B, have the same average effect on the response. If there is no interaction, then the two null hypotheses, H_0^{A+AB} and H_0^A (and hence the corresponding submodels) are the same.

2. In the remainder of the handout, replace the superscript A + AB with A, and the superscript B with B + AB.

3. Omit the *Note* on p. 2.

II. In "ANALYSIS OF BALANCED FACTORIAL DESIGNS" (March 22):

1. On p. 2, after the statement of H_0^{BC+ABC}, insert:

However, it is traditional to use instead the following test:

H_0^{BC}: All $(\beta\gamma)_{ij}^*$'s are equal

H_a^{BC}: At least two of the $(\beta\gamma)_{ij}^*$'s are different,

where the $(\beta\gamma)_{ij}^*$'s are defined in a manner analogous to the α_i^*'s for two-way ANOVA as the $(\beta\gamma)_{ij}$'s plus averages over the higher interaction terms.

The rough idea is that the test is whether or not the "levels" of BC interaction, averaged over the levels of other factors, have the same average effect on the response. If there is no higher-order interaction, then the two null hypotheses, H_0^{BC+ABC} and H_0^{BC} (and hence the corresponding submodels) are (I think) the same.

2. In the remainder of the handout, replace the superscript BC + ABC with the superscript BC.