

An R Companion to Applied Regression, Second Edition

Errata and Changes

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Note: Some or all of these errors and changes may be corrected in your printing of the book.

- p. 33: At the bottom of the page,

```
> rownames(Duncan)[c(6, 16)]
```

```
[1] "minister" "contractor"
```

should read

```
> rownames(Duncan)[c(6, 16)]
```

```
[1] "minister" "conductor"
```

Explanation: Because the book was prepared using Sweave, this error should have been impossible, but the mistake was introduced during copy-editing of the L^AT_EX source.

- p. 134: The formula for the empirical logit, given as $\log[(x + 1/2)/(n + 1)]$, is in error; the correct formula is $\log[(x + 1/2)/(n - x + 1/2)]$. (The formula given in error is the proportion on which the empirical logit is based.) We are grateful to Bill Venables for pointing out this error.
- p. 179: Near the bottom of the page, “the B-spline regressors do not have a simple description,” should read, “the natural-spline regressors do not have a simple description.”
- p. 202: The arguments for the function `deltaMethod` were changed in August, 2011. Four lines above Section 4.4.7, change `deltaMethod(trans.mod, "b1/b2")` to `deltaMethod(trans.mod, "b1/b2", parameterNames=c("b0", "b1", "b2"))`.
- pp. 421–422: For Tukey’s test to be possible, the squared fitted values \hat{y}^2 must not be obtainable as a linear combination of the regressors. This will happen, for example, for one-way analysis of variance models. The revised version of the function shown on this page adds a check for this condition and returns NA when it occurs:

```

tukeyNonaddTest <- function(model){
  tol <- model$qr$tol
  qr <- model$qr
  fitsq <- predict(model, type="response")^2
  fitsq <- qr.resid(qr, fitsq/sqrt(sum(fitsq^2)))
  if(sum(fitsq^2) < tol){
    return(c(Test=NA, Pvalue=NA))
  } else {
    r <- residuals(model, type="pearson")
    m1 <- lm(r ~ fitsq, weights=weights(model))
    df.correction <- sqrt((df.residual(model) - 1)/df.residual(m1))
    tukey <- summary(m1)$coef[2, 3] * df.correction
    c(Test=tukey, Pvalue=2*pnorm(-abs(tukey)))
  }
}

```