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Errata


From: RAND Corporation Publications and Creative Services Department

Date: September 5, 2012

Re: Corrected page 74

The attachment replaces page 74. The original page inadvertently repeated equations from Appendix B. The revised page includes the correct equations for the regression and weighting.
We weighted the responses to match the following airman population characteristics:

1. family
   a. officers married to service members
   b. officers married to civilians
   c. enlisted married to service members
   d. enlisted married to civilians

2. rank
   a. junior enlisted (airman basic, airman, airman first class, senior airman)
   b. senior enlisted (staff sergeant, technical sergeant, master sergeant, senior master sergeant, chief master sergeant)
   c. company-grade officer (second lieutenant, first lieutenant, captain)
   d. field-grade officer (major, lieutenant colonel, colonel)

3. children
   a. have children
   b. do not have children

4. race of the airman\(^1\)
   a. white
   b. nonwhite.

A logistic regression with dummy variables for the above characteristics was used to estimate the probability that each of the 194,118 families in the population completed the survey:

\[
\hat{y} = \frac{1}{1 + e^{-z}}
\]

where

\[
z = \beta_0 + \beta_{1\cdot}x_{\text{family}} + \beta_{4\cdot}x_{\text{rank}} + \beta_{7\cdot}x_{\text{children}} + \beta_{6\cdot}x_{\text{race}} + \varepsilon.
\]

Weights were calculated as follows:

\[
\text{weight} = \frac{1}{\hat{y}} \quad \text{if survey completed and} \quad = 0 \quad \text{if not.}
\]

We completed data analyses using survey estimation procedures (StataCorp, 2007) to ensure appropriate estimates of standard errors.

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\(^1\) The personnel files do not indicate the race of the spouse.