

# Preface to the Revised Edition

*Microeconometrics Using Stata*, published in December 2008, was written for Stata 10.1. The book incorporated version 10.1 additions to Stata 10.0, most notably, the new random-number generators.

In this revised edition, we present other additions to Stata 10 that appear for the first time in Stata 11. With few exceptions, we present these additions in a way that reproduces the results given in the first edition.

First, we introduce the new construct of factor variables. These provide a simple way to specify models with sets of indicator variables formed from a categorical variable and to specify models with interactions. Factor variables replace the `xi` prefix command. See especially section 1.3.4 and the end of section 2.4.7.

Second, we describe the new `margins` command for prediction and for computation of marginal effects in regression models. The `margins` command with options including the `dydx()` option replaces the Stata `mfx` command and the user-written `margeff` command. Additionally, the `margins` command when used in conjunction with factor variables can simplify computation of marginal effects in models with interactions. See sections 10.5 and 10.6, especially subsections 10.5.7 and 10.6.5. Throughout this revised edition, notably, in chapters 14–17, we replace `mfx` and `margeff` with the `margins` command.

In the first edition, we most often calculated the marginal effect at the mean (MEM), rather than the average marginal effect (AME), because the `mfx` command did not compute the AME. The new `margins` command can compute both the MEM and the AME. In this revised edition, we have endeavored to replicate the results given in the first edition. For that reason, we continue to most frequently calculate the MEM, though in practice, the AME is usually preferred.

Third, we describe the new `gmm` command for generalized method of moments and nonlinear instrumental-variables estimation. See sections 10.3.8 and 17.5.2.

Fourth, we present some minor changes that need to be made to the existing `ml` command when the `d1` and `d2` methods are used. These changes arise because the `ml` command is now a front-end to the new Mata `moptimize()` function. We also present the new `lf0`, `lf1`, and `lf2` methods. See section 11.6. The Mata `optimize()` evaluator has been renamed to `gf` evaluator; see section 11.7.

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