Preface

Thirty years ago, Stata was created with a vision of a future in which computational resources would make data management and statistical analysis readily available and understandable to someone with a personal computer. The research landscape today validates this vision. We have increasing amounts of data and computational power and are faced with the necessity for rigorous statistical analysis and careful handling of our information.

Yet the increasing amount of information also poses daunting challenges. We have to disentangle the part of our data that communicates meaningful relationships (signal) from the part that is uninformative (noise). Distinguishing signal from noise was the task of researchers thirty years ago, and it is still today. The fact that we have more data and computational prowess does not mean that we have less noise lurking. The tools of careful data management, programming, and statistical analysis are fundamental to maximize the potential of our resources and to minimize the noise.

In this volume, we gather 14 essays and an interview that answer how Stata has helped researchers in the process of distinguishing signal from noise. In the first part, we begin with a new essay based on a speech given by Bill Gould during Stata's 2014 holiday celebration, which we follow by revisiting two contributions that were written to commemorate Stata's 20th anniversary. These three pieces provide a perspective from inside Stata. The first, the speech, discusses the decisions made regarding Stata's software architecture. The second is an interview of Bill Gould by Joe Newton that reveals the guiding principles behind Stata. The third, written by Sean Becketti, gives us insight into the culture and challenges of Stata in its developing stages.

The second part of the book represents points of view from the outside. Researchers from different disciplines answer how Stata has helped advance research in their fields and how their fields have evolved in the past three decades. Some of the contributions look at the discipline as a whole, while others speak about very specific experiences with Stata. The contributions in this part come from the disciplines of behavioral science, business, economics, epidemiology, time series, political science, public health, public policy, veterinary epidemiology, and statistics. Also in this part, Nick Cox writes about the history of Stata and devotes part of his essay to the conception and evolution of the Stata User Group meetings.

Having a vision from inside and a vision from outside is a fitting way to celebrate Stata's 30th anniversary. The vision from inside reminds us of the ideas that made Stata popular and the principles that guide Stata to this day. Yet, it is the researchers, their interests, their concerns, their active participation, and their interaction with Stata that

help the software evolve. The relationship between Stata users and StataCorp is the fundamental reason that we are celebrating this anniversary.

To all that have been inside and to all those outside, this book is for you.

Acknowledgments

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Shelbi Seiner and Stephanie White did a wonderful job, respectively, with the editing and the formatting of the book. The cover design is the work of Annette Fett.

To all of you, thanks.

Caveat Emptor

All the contributions in this volume were written before the release of Stata 14.