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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 fast-paced 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 noninformative (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 birthday 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 Beckett, 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