

# Preface

John N. Mordeson, Mark J. Wierman, and Terry D. Clark began working 8 years ago on the application of fuzzy Mathematics to public choice models. Their initial intent was to explain the formation of governments in parliamentary systems. However, they soon discovered that they would have to devote significant attention to matters of theory. As a consequence, they ended up producing what can only be described as a very large volume of work on public choice theory. While they also produced some empirical work, the best of which has appeared on the pages of the journal *Public Choice*, the theoretical work has clearly overshadowed the empirical work in sheer volume.

This book partially redresses that imbalance. It is a compilation of most, if not all, of the effort that went into the empirical question that motivated the initial project. In it we present the results of several attempts to predict the outcome of the government formation process in parliamentary systems using fuzzy public choice models. However, even in this volume we present a substantial amount of the theoretical work related to the fuzzy models. While much of it has appeared previously in print, most readers would find understanding the approach that we take with each model incomprehensible had we not restated many of our main theoretical findings here.

As those who are familiar with our work are aware, we have engaged many bright young students over the last 8 years. Several of them have gone on to pursue Ph.D. in Political Science or Mathematics. This is as true for our empirical work as it is for our theoretical work. Peter Casey and Michael Gibilisco took the lead in the work presented here. They were assisted by a very large number of their student colleagues, one of whom Carly Goodman was particularly instrumental in helping to formulate the approaches and undertake the tests that led to the results that we report in the book in front of you. Carly also took the lead in editing the resulting papers, which included checking the models and re-verifying the results. Kelly Pook finished the task, which Carly passed on to her before departing for a lucrative position as a business analyst.

Peter C. Casey, is presently pursuing Ph.D. in Political Science at the University of Washington in St. Louis. Peter dedicates this book to his mother, Virginia Casey, for her guidance and support. Michael Gibilisco is pursuing Ph.D. in Political Science at the University of Rochester. Michael dedicates this book to his parents whose moral, and, at times, financial support, made the work possible.

They have always encouraged him and his research throughout school and this project, and his passion for learning began with them. Carly Goodman is grateful to her co-authors and mentors in the Fuzzy Research Colloquium, without whom this book would not have been possible. She dedicates her contribution to her parents and to Eric Norrgard for their constant encouragement and support. Kelly Pook dedicates her work to Ryan, for the first year of many. She is at present the head research assistant for the Social Network Analysis Working Group. As such, she supervises the work of 20 students. John Mordeson dedicates this book to his loving wife Pat. Mark J. Wierman dedicates this book to Mary K. Dobransky. Terry D. Clark dedicates his work in this book to his wife of 37 years, Marnie, whom he adores, and to his granddaughter, Zoey, whose coming into this world has brought such joy.

Omaha, USA, March 2014

Terry D. Clark  
John N. Mordeson  
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Fuzzy Social Choice Models

Explaining the Government Formation Process

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