

Preface

Several years ago, Dr. Eva Curry of Acadia University invited us to participate in a panel titled “Proving Hardy Wrong: Research Mathematics with Social Justice Applications”. We were tasked with countering G. H. Hardy’s characterization of worthwhile mathematics as a purely abstract – and perhaps esoteric – discipline, and challenging his claim that “[a] science is said to be useful if its development tends to accentuate the existing inequalities in the distribution of wealth, or more directly promotes the destruction of human life”. Although in his *A Mathematician’s Apology* Hardy notes that this quote was in part a rhetorical flourish, it does invite the search for examples of mathematics which serve to counter inequality and improve human welfare.

During the panel, held at the 2011 Joint Mathematics Meetings in New Orleans, we shared each of our own journeys connecting mathematics to social issues, one focused on public school districting and the other on policing practices in Los Angeles. We were deeply moved by the enthusiasm of the audience members and their willingness to seek out ways in which mathematicians could address social justice issues in their own work.

There are, of course, numerous strands to the broad theme “Mathematics for Social Justice”, from employing equitable teaching practices to challenging stereotypes and misconceptions about who gets to do mathematics. Hardy’s claim requires us, however, to examine course content in particular, as well as the ways that students can be empowered to use mathematical reasoning and tools in social and political contexts.

We thank Dr. Curry for inviting us to that 2011 panel; she started us on a joint path which led to these volumes. In the intervening years, we have been motivated to bring these topics and others into the mathematics classroom. We were delighted to find that many other mathematicians were excited by similar ideas. This volume, together with the companion text *Mathematics for Social Justice: Focusing on Quantitative Reasoning and Statistics*, represents the work of over forty such mathematicians and academics, thoughtful instructors who have developed original course materials with the understanding that today’s college students deserve to have the mathematical tools to tackle a wider range of real-world problems.

We have been greatly inspired by our contributors, who have taken on issues from voting rights to racial inequality. We hope that readers will be similarly inspired.

– Gizem Karaali and Lily S. Khadjavi