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for the Social Sciences

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BAYESIAN SOCIAL SCIENCE STATISTICS

From the Very Beginning

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Bayesian Social Science Statistics

From the Very Beginning

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Abstract: In this Element, the authors introduce Bayesian probability and inference for social science students and practitioners starting from the absolute beginning and walk readers steadily through the Element. No previous knowledge is required other than that in a basic statistics course. At the end of the process, readers will understand the core tenets of Bayesian theory and practice in a way that enables them to specify, implement, and understand models using practical social science data. Sections will cover theoretical principles and real-world applications that provide motivation and intuition. Because Bayesian methods are intricately tied to software, code in both R and Python is provided throughout.

Keywords: Bayesian statistics, probability, prior distribution, posterior distribution, likelihood function

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