Record Nr. UNINA9910300251303321 Autore Behr Andreas Titolo Production and Efficiency Analysis with R / / by Andreas Behr Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 3-319-20502-1 **ISBN** Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (X, 227 p. 49 illus.) Disciplina 658.500727 Soggetti **Statistics** Production management Industrial engineering Production engineering Operations research **Decision making Econometrics** R (Computer program language) Statistics for Business, Management, Economics, Finance, Insurance **Operations Management** Industrial and Production Engineering Operations Research/Decision Theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Introduction -- Linear Production Model -- Production Functions --Production Functions with Panel Data -- Introduction to Linear Programming -- Data Envelopment Analysis -- Stochastic Data Envelopment Analysis -- Stochastic Frontier Analysis -- Panel Data Stochastic Frontier Analysis. Sommario/riassunto This textbook introduces essential topics and techniques in production and efficiency analysis and shows how to apply these methods using

the statistical software R. Numerous small simulations lead to a deeper understanding of random processes assumed in the models and of the

provides an understanding of advanced approaches such as stochastic

behavior of estimation techniques. Step-by-step programming

frontier analysis and stochastic data envelopment analysis. The text is intended for master students interested in empirical production and efficiency analysis. Readers are assumed to have a general background in production economics and econometrics, typically taught in introductory microeconomics and econometrics courses.