1026-49-155 **Darinka Dentcheva*** (`darinka.dentcheva@stevens.edu`), Department of Mathematical Sciences, Stevens Institute of Technology, Hoboken, NJ 07030, **Rene Henrion** (`henrion@wias-berlin.de`), Mohrenstr. 39, Weierstrass Institute, 10117 Berlin, Germany, and **Andrzej Ruszczynski** (`rusz@business.rutgers.edu`), Department of Management Science and Informat, Rutgers University, 94 Rockafeller Rd, Piscataway, NJ 08854. *Stability and Sensitivity of Optimization Problems with First Order Stochastic Dominance Constraints.*

We analyze the stability and sensitivity of stochastic optimization problems with stochastic dominance constraints of first order. We consider general perturbations of the underlying probability measures in the space of regular measures equipped with a suitable discrepancy distance. We show that the graph of the feasible set mapping is closed under rather general assumptions. We obtain conditions for the continuity of the optimal value and upper-semicontinuity of the optimal solutions, as well as quantitative stability estimates of Lipschitz type. Furthermore, we analyze the sensitivity of the optimal value and obtain upper and lower bounds for the directional derivatives of the optimal value. The estimates are formulated in terms of the dual utility functions associated with the dominance constraints. (Received February 25, 2007)