

Gilpatric, S., Evans, M., McKee, M., and Vossler, C. (2005). The Effects of Financial Distress, Organizational Structure, and Auditing Rules on Firm Emissions and Compliance with Environmental Information Disclosure Programs. Grant from U.S. Environmental Protection Agency.

Abstract

Publicly available information concerning the environmental behavior of firms enhances the use of the private market (through liability for harm and through consumer and shareholder reactions) as a mechanism to control firm environmental malfeasance. Programs such as the EPA Toxic Release Inventory (TRI) program require firms to report releases of listed toxics each year. Other programs such as the Fuel Economy Information Program and Energy Guide labeling programs require firms to inform consumers of various environment-related performance properties of the firm's products. For such programs to be effective in introducing the market as a mechanism to limit malfeasance such information must be disclosed in a timely fashion and it must be correct and accurate. In the following description of our research agenda we describe the results for an emissions information program (such as the TRI) but the behavioral conclusions hold for environmental performance programs such as Energy Guide.

We develop models of a firm in which we explicitly incorporate the incentives for emissions decisions and information disclosure and examine the implications for two classes of firms: a firm managed by an entrepreneur-manager and a firm consisting of several divisions in which the division managers are compensated by rank order tournament (such as a promotion ladder) and there is an upper level manager.

These models yield predictions of firm behavior that show a relation between observable firm characteristics and emissions. Further, our models show a relation between observable firm characteristics and the reporting of such emissions. Finally, our models provide insights for the improvement of such programs for the overall enhancement of environmental quality. That is, such programs can be modified in ways that enhance the role of market forces in controlling firm environmental performance.

We will be testing our models via a series of laboratory market experiments and with field data. The laboratory experiments will test the predictions of our models of firm behavior including responses to changes in the information programs. We investigate the effects of ways to improve the TRI program through policy options such as enhanced auditing of TRI reports, more rapid publication of the data, and more publicity attached to the information.