

## LETTER TO THE EDITOR FROM ROGER FRANTZ

Posted on 2/27/2012 3:05 PM

I'm posting the following Letter to the Editor, on behalf of Roger Frantz:

In the Fall 2011 issue Michael Perelman's article on X-Efficiency appeared in this Journal. While Perelman covers many of the important issues of the history of the idea of X-efficiency, I question one aspect of his article. On page 212 he says that Leibenstein "knew that he was not providing a formal theory or empirical proof of the existence of X-inefficiency." Rather, Leibenstein offered "spotty evidence" for the existence of X-efficiency. Perelman then summarizes some of the studies, all from Leibenstein's original 1966 article which offer "spotty evidence." Perelman then states, correctly in my opinion, that Leibenstein's main critic, George Stigler, also did not present evidence disproving the existence of X-inefficiency. \*

Perelman is correct that Leibenstein did not publish any original empirical studies of X-efficiency. Leibenstein, who was trained at Princeton by the Austrian economist Oscar Morgenstern, had somewhat of an aversion to empirical research; he preferred to develop the theory. In 1982 Leibenstein asked me to survey the empirical literature on X-efficiency. When I told him that there were approximately 30 published studies between the early 1970's and 1984 he was surprised. These 30 studies are those in which the authors stated that their empirical results were consistent with an X-efficiency theory. There were many other studies where the empirical results were consistent with X-efficiency but where the authors did not explicitly mention X-efficiency. From the early 1970's through 1986 there were 37 such studies. Between 1987 and 1996 there were 55 such studies.\*\* And now, between 1997 and 2011 there are over 100 studies. There is an overwhelming amount of evidence consistent with X-efficiency theory. Of course, someone adhering to the "tight priors of neoclassical theory" can "explain" why these studies do not really represent evidence.

\* The argument by the critics and a response can be found in Frantz, Roger (1985). "X-Efficiency and Its Critics." Quarterly Review of Economics and Business, Vol.25, Winter: 38-58.

\*\* These studies are summarized in Frantz, Roger (1997), X-Efficiency. Theory, Evidence, and Applications. Norwell, Mass.: Kluwer Academic Pub, second edition. A summary of the 1997 to 2011 articles is currently in progress.