

# Empirical Analysis of the Effects of Cyber Security Incidents

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## **Abstract**

We analyze the time series associated with web traffic for a representative set of on-line businesses that have suffered widely reported cyber security incidents. Our working hypothesis is that cyber security incidents may prompt (security conscious) on-line customers to opt out and conduct their business elsewhere or at the very least, refrain from accessing on-line services. For companies relying almost exclusively on on-line channels, this presents an important business risk. We test for structural changes in these time series that may have been caused by these cyber security incidents. Our results consistently indicate that cyber security incidents do not affect the structure of web traffic for the set of on-line businesses studied. We discuss various public policy considerations stemming from our analysis.