

# **Information Technology Externalities: Empirical Evidence from 42 U.S. Industries\***

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## **Abstract**

Using interindustry transaction in input-output tables, we examine Information Technology (IT) externalities in U.S. private industries over the period 1984-2000. Our empirical results show that computerization of an industry's customer and supplier industries reduces both labor and material costs of the industry. Moreover, cost savings driven by supplier industries are larger than those driven by customer industries. We also find that industries in the services sector enjoy more benefits from IT spillovers than industries in other sectors because of their high IT capital intensity and composition of interindustry transaction. Decomposition of total factor productivity (TFP) suggests that IT externalities can explain considerable parts of TFP growth, although possible mismeasurement of output in services industries leads to exacerbated technical changes of services industries.

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