

Sources of University Research Funding and Their Impact On Commercialization Outcomes

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The Bayh-Dole Act of 1980 gave U.S. universities control over the intellectual property arising from inventions created through federal government-funded research and the Act is considered by some scholars to incentivize greater efforts in university research commercialization (Jensen & Thursby, 2001). Other studies argue that the change in research funding allocation contributed to the growth of patenting and licensing (Mowery, Nelson, Sampat & Ziedonis, 2001). The presence of technology transfer offices has also been found to have a positive impact on licensing revenues (Heisey & Adelman, 2011). At the same time, Aghion, Dewatripont, and Stein (2008) point out the possibility of negative consequences on innovation as a result of privatizing academic research sooner than is socially optimal.

This study concentrates on university commercialization outcomes by focusing on the effect of the source of research funding, the existence of university technology transfer offices, and their impact on commercialization outcomes such as number of start-ups and licensing income. We apply the Arellano-Bover dynamic panel model to investigate university commercialization performance in relation to industry and government funding. Examining the years 1997-2010, we find that there is a positive impact on academic research commercialization from the growth of technology transfer offices. In addition, we find that federal funding positively affects university licensing income while industry funding negatively affects licensing income. We also examine the disparate effects on start-up activity based on the source of research funding.