Universities as Innovation Managers

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Abstract

While the Bayh-Dole Act, landmark legislation governing technology transfer from federally funded research institutions, has long been criticized by advocates of a stronger public domain for scientific knowledge, it is now under challenge from a new direction. Proponents of free enterprise argue that universities increase technology transfer failures and suggest that inventors should control their own inventions regardless of whether federal funding is involved. This debate is gaining traction with legislators who are already concerned about whether U.S. universities are underperforming as drivers of innovation. As a result, Congress has intensified its scrutiny of the Bayh-Dole Act.

Although proposals for reform of the Act arising from this debate are directed at very different problems and seek very different solutions, they coincide in their marginalization of the university in decisions about technology transfer. This paper offers a different perspective that draws from economic theories of institutions and their governance. Technology transfer failures occur largely as a result of uncertainty, asymmetric information, opportunism and problems of appropriability among diverse actors in processes of innovation. As decades of economic research tell us, and theories of the firm demonstrate, these are precisely the conditions under which institutions and their governance can impact performance. I argue that the role of universities in the development and technology transfer process should be expanded rather than reduced because of the advantages that universities offer over firms and governments as sites for the collaborative production and transfer of knowledge. But it should not be expanded without including stronger safeguards around the role of universities as public stewards of university-generated inventions. The legal framework should be changed to give universities more discretion in deciding when and how to move university-generated discoveries into the market place, but only once their mandate to ensure public utilization of discoveries (rather than private revenue maximization) is clarified and reinforced. I provide specific recommendations for legal reform and suggest how these measures would allow for organizational innovation to address technology transfer failures.