

James Bessen (Research on Innovation and MIT)
Robert M. Hunt (Federal Reserve Bank of Philadelphia)

jbessen@researchoninnovation.org

An Empirical Look at Software Patents

Abstract

U.S. legal changes have made it easier to obtain patents on inventions that use software. Software patents now comprise 15% of all patents. Compared to other patents, software patents are more likely to be owned by large U.S. firms. Most are assigned to manufacturing firms; only 6% to software publishers. Our regression analysis finds that software patents have become a cheap form of appropriability. This cost advantage, not “technological opportunity,” accounts for their increased use. Also software patents substitute for firm R&D rather than complement it. Their growth is associated with lower R&D, consistent with strategic “patent thicket” behavior.