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Scale and Innovation During Two U.S. Breakthrough Eras

by Tom Nicholas

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Abstract

The effect of scale on innovation is central to traditional endogenous growth theory and to new theoretical approaches that focus on variability in innovation outcomes within the firm size distribution. Using new data on 11,514 U.S. R&D firms active during the interwar and post-WWII periods, this paper examines long-run effects. Although the level and quality of innovation scaled strongly with firm size, innovation novelty was considerably more invariant to firm size across both breakthrough eras. While there is some evidence of firm-level heterogeneity as a determinant of the scale effect, the new data highlight the importance of variability in the nature of technological discovery.

Keywords: [R&D](#); [Scale](#); [Innovation](#); [Size](#); [Research and Development](#); [Innovation and Invention](#);

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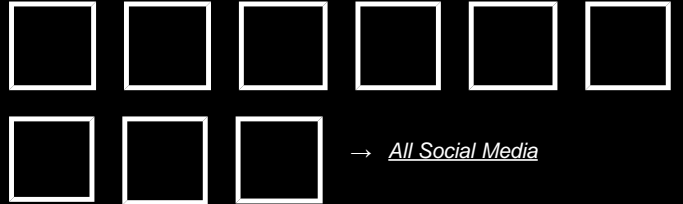
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