Knowledge lost in capital

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**Abstract**

We estimate the contribution of research-related assets in the production of new knowledge. We hereby exploit a set of 111 adverse events at research institutions as plausibly exogeneous physical capital shocks. We find that productivity of affected scientists is substantially reduced after these shocks, both in terms of number of publications and their impact, as measured by citations. We explore the heterogeneity of this effect for the scientist’s role in subsequent research projects and find differential effects with respect to the type of lost capital. In particular, losses of specific and internally processed research material show the highest impact, which underlines the role of unique and knowledge-inherent physical assets for scientific productivity. Furthermore, the effect appears strongest for first and last-authored publications, which represent the most salient publications for a scientist.
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KEYWORDS: Science, academic research, laboratories, capital losses, adverse events.

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