## Using Websites to Understand Factors Associated with Growth in Green Goods Companies

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## **Abstract**

The green goods sector has received much attention for its potential to re-generate the economy in addition to its energy and environmental benefits. At the same time, the promise of "green jobs" for example, has not always necessarily lived up to near-term hopes for large scale economic renewal through the green economy (Brookings 2011). To understand what is behind the dynamics of the green sector, this study looks at a subset of small and medium sized enterprises (SMEs) involved in green goods manufacturing. The paper uses an explicit definition of green goods that is keyword based, building on traditional government industry classifications and patent-oriented definitions but operating at a more disaggregated level. The work is guided by a set of hypotheses that above average growth in green goods companies is positively associated with the extent of linkages to other industries, universities, and government agencies and research organizations. We further posit that these linkages will be more significant to the extent that they occur in the same local region as the green goods company. A hallmark of this study is the use of websites as unobtrusive, unstructured data sources to complement commonly used information from business databases, patents, and publications. Information about company websites in the 2004-2008 timeframe (in archive.org) is obtained through scraping of keywords and places to represent geographic and sectoral characteristics; these characteristics are regressed on employment growth, with controls for region, scale, and green industry included. The results suggest that government linkages are positively associated with growth of green goods companies, a finding which emphasizes the importance of demand-led innovation by national government entities. While the extent of local linkage is also significant, a substantial role for international linkages with companies and universities outside the local region is noted in the data. This finding suggests that green goods companies must be both local and global in their orientation and linkages with government, universities, and businesses if they are to be successful.