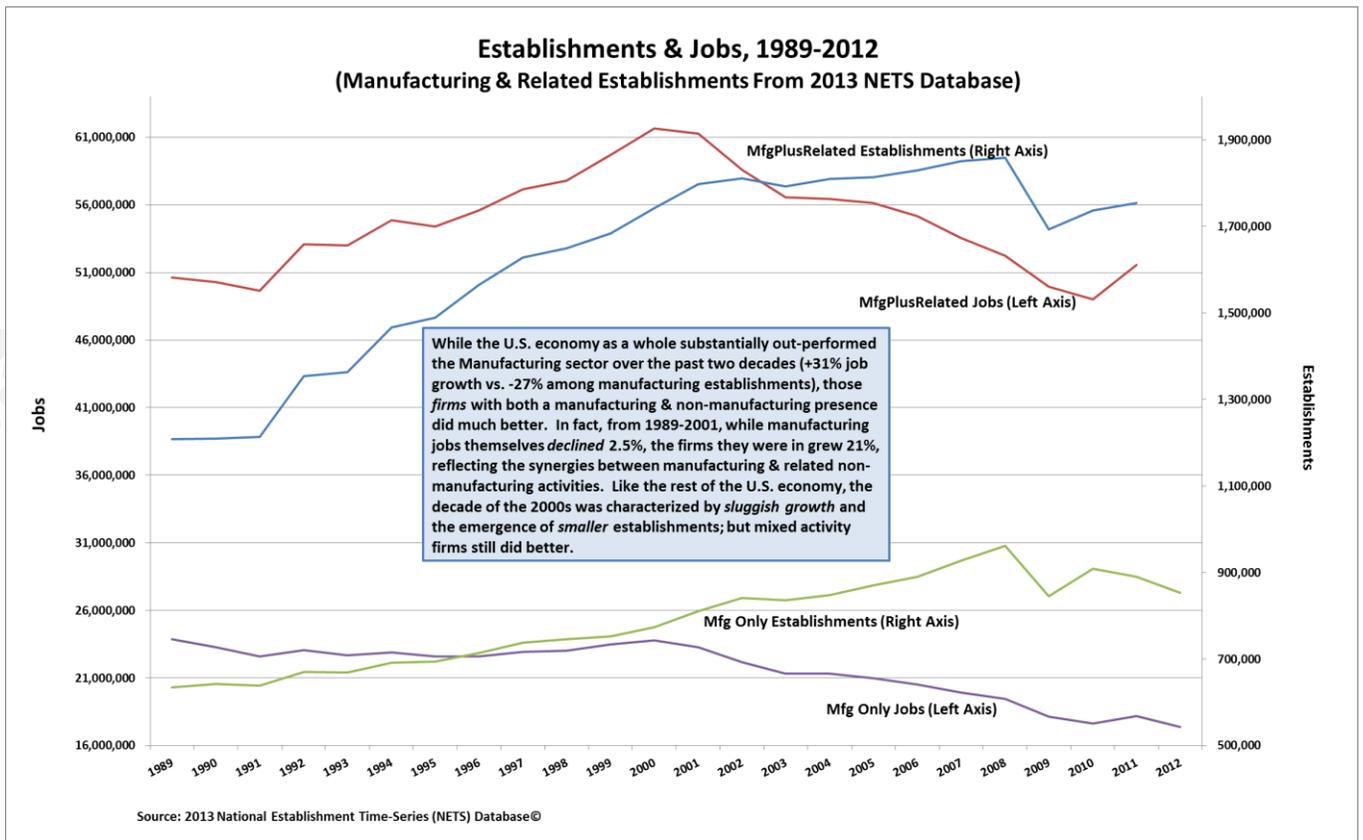




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2013 National Establishment Time-Series (NETS) Manufacturing Database[©]

The 2013 National Establishment Time-Series (NETS) Database[©] is the only historical database of its kind that provides time-series information on establishment sales growth performance, job creation and destruction, changes in primary markets, mobility patterns, and historical D&B ratings, to name a few. The annual time-series of information for over 54.7 million U.S. establishments from January 1990 to January 2013 and the detailed 8-digit SIC classification system (over 18,500 industries) allows us to "drill down" to specific sectors of interest at much greater detail than even the 6-digit federal NAICSS. We used this capacity to define the *Manufacturing Database* in a way that allows us to look at *full role* of manufacturing in the U.S. economy.



In order to build the Manufacturing Database, we first identified *all* establishments (2.2 million) that *ever* reported their primary market (SIC8) as manufacturing during the period 1990-2013. Then, in the second round, we found all establishments that were *related* to them (had the *same* headquarters) which increased the Database size to 3.9 million establishments. Over the period 1989-2012, jobs in manufacturing (NAICS 31-33) *declined* 27% while the total U.S. economy *expanded* by 31%. The conclusion that many researchers have drawn is that manufacturing was a considerable drag on the U.S. economy for more than two decades. However, if one looks

at *all* establishments in firms with manufacturing activity, a very different picture emerges (see graph). Total job growth 1989-2001 was 32% while firms with manufacturing grew 21%; not as fast, but much more respectable. Think, for instance, of IBM which had 1,500 unique U.S. establishments 1989-2012, 90% of which were non-manufacturing. However, many of those establishments would not have existed if it were not for the more than 40% of IBM's employment which was in manufacturing in 2012. Of course, post-2001 the overall economy stagnated through 2012 with a 1% *decline* in total employment (even with 53% *more* establishments). Firms with manufacturing establishments contributed to that decline with 6% *fewer* establishments and nearly 20% *fewer* jobs.

Nonetheless, the research community needs to evaluate manufacturing by exploring its role in firms for which it is not even the majority employer. The NETS Manufacturing Database—because it is establishment-based¹—allows the researcher to parse the various contributions to growth to different activities within the firm. It allows us to see how much *productivity* has permitted firms to shift employment from manufacturing establishments to non-manufacturing (e.g., from computers to software or computer hardware development or from food product machinery to commercial physical research).

This Database also lets one explore the role of merger and acquisition and its relationship to changes in primary market focus. For instance, active manufacturing establishments in 2013 were nearly *twice* as likely to have been involved in a merger or acquisition (5.9% vs. 3.2% for the private sector as a whole). More importantly, mergers and acquisitions disproportionately affect jobs: manufacturing mergers/acquisitions accounted for 31% of all 2013 manufacturing jobs, greater than the 21% share for the entire U.S. private. Some sectors are, of course, much more affected by mergers/acquisitions. For instance, in 2013 22% of *active* Railroad Transportation establishments (48% of their jobs), 18% of Insurance Carriers establishments (41% of jobs) and 34% of Depository Institutions establishments (36% of jobs) were involved in mergers.

Another question that begs for in-depth analysis is the observation that, if an establishment's primary market changes dramatically (at the SIC3 level), the likelihood of a merger or acquisition goes from 2.6% to 12.2%! Those *active* in 2013, with *no change* in their primary market, who were involved in mergers and acquisition still impacted nearly 19% of jobs in that category; but establishments that had both a change in primary market and were involved in a merger accounted for 33% of jobs in that category. For manufacturing, the correlations were similar with establishments that had *changed* their primary market nearly *three times* as likely to merge with or acquire another establishment. The job impacts were also enormous: over 39% of jobs in manufacturing establishments that had changed primary markets were subject to merger/acquisition.

If understanding the U.S. manufacturing sector is your goal, please take a look at the *Manufacturing2013.xlsx* analysis that summarizes **2013 NETS Manufacturing Database** by CBSA and SIC8 or contact us at the email address below.

¹ An "establishment" in the NETS Database is a unique primary market (SIC8) at a unique location. Unlike the federal definition (a firm's unique location), for multi-establishment firms, there may be more than one establishment at a location.