

Discussion of Delgado, Kim, and Mills, “The Servicification of the U.S. Economy: The Role of Startups versus Incumbent Firms”

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1 Heterogeneity in the Great Sectoral Shift

The heart of U.S. economic activity has broadly shifted away from manufacturing physical goods towards services over the last 70 year. While manufacturing accounted for nearly 40% of private U.S. employment at the height of World War II, it accounts for just 8% today. In contrast, at the start of 2020, services account for 86% of total U.S. employment (Bureau of Labor Statistics, 2020). While this broad trend has been widely studied, the broad “services” label masks massive heterogeneity in products, workers, and tasks.

Delgado, Kim and Mills (2020) (DKM) study a particular set of service sub-industries, what they call “Supply Chain Traded Services”. These services are not aimed at final consumption, but are rather sold as intermediate inputs in the supply chain. Example range from consulting firms to “Software as a Service” companies. (Delgado and Mills, 2018). This goal of this chapter is to study employment in this sector (wages and head-counts), as well as study the types of establishments and firms operating in this sector. In doing so, this chapter raises and addresses a series of important aggregate economy-wide consequences.

2 Splitting Up Services

Why should services be split up and considered separately? In particular, why does either “tradability” or location on a “supply chain” matter? Tradability is important as it allows for production to be moved across space to places with greater comparative advantages. In the classic trade models, opening up sectors to trade will create a set of winners and losers; the winners being in locations with comparative advantage in that exported group. In today’s world, winners include engineers in Silicon Valley, technicians in China, financiers in New York, and oil rig workers in North Dakota.

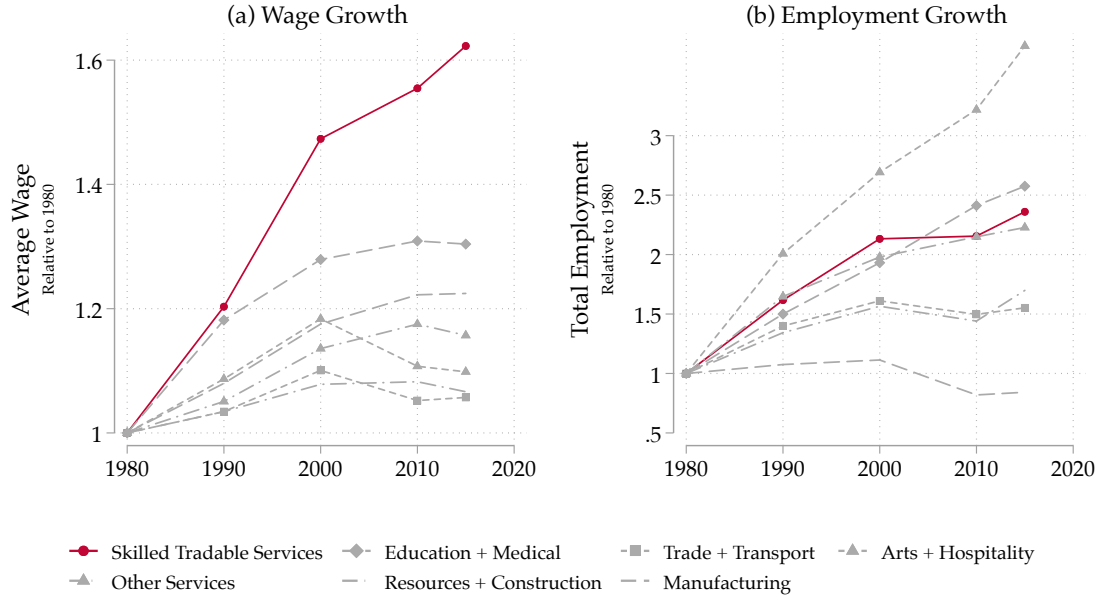
Service trade has recently opened up and taken off (Jensen et al., 2005). Traditionally, trade and spatial economics assumed a non-traded local service sector (See the Caliendo and Parro (2015) analysis of NAFTA), but newer work assumes that services are increasingly traded over space (Eckert, 2019). The causes of the opening of services to trade and the mechanism underpinning it are still in their infancy (Juhász and Steinwender, 2018). This chapter helps shed light on the black box of the wage and firm implications.

Supply chains are important for different reasons. Items “further up” a value chain have an outsized influence on outcomes ranging from environmental policy to market power (Shapiro, 2019; Baqaee and Farhi, 2020). In terms of policy, a tax on a consumer output (say though a consumption tax), may have different effects from that on a primary input.

The intersection of these two divisions may be particularly informative. If a supply chain can be traded across space, forces such as agglomeration economies can amplify gains (Moretti, 2012), and percolate throughout the economy to great effect. In particular, there should detectable wage and employment effects. As long as labor is imperfectly mobile, if a sector has a productivity jump from agglomeration, as well

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Figure 1: Skilled Tradable Services - Aggregate Trends



Source: Eckert, Ganapati and Walsh (2019), adjusted by the Bureau of Labor Statistic Consumer Price Indices.

as increased demand from tradability, we should see large wage increases in those regions with productivity advantages.

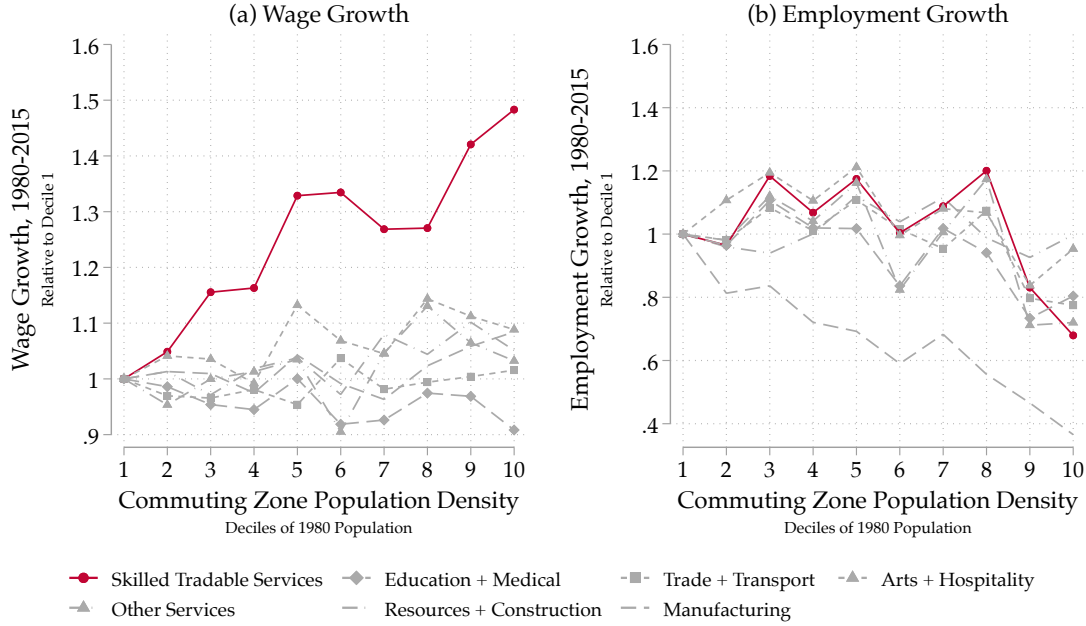
2.0.1 Service Trend Robustness

This chapter show the importance of these services, omitting the spatial aspect, and focuses on the aggregate trends in employment and wages. The authors show that not only has "Supply Chain Trade Services" employment grown, but so have wages. However, it is worthwhile to revisit the spatial nature of these statistics. Eckert, Ganapati and Walsh (2019) similarly approach this subject, but focusing on the scalable skill content of a task, looking at "Skilled Tradable Services". While conceptually different, this captures a similar set of industries to "Tradable Supply Chain Services", but drops remote call center workers and truck drivers, and adds software engineers and conglomerate executives.

As shown in Figure 1, wages for these closely related "Skilled Tradable Services" have skyrocketed over the last 40 years. However, the employment figures are much more muted - while still growing, they have been outpaced by many other sectors. The question is: why are these patterns so different? If wages are going up so much, why do we not see a rapid increase in employment? Is it due to the immobility of American workers today (Lee and Wolpin, 2006)? Or is there something fundamental about the nature of the work (Garicano and Rossi-Hansberg, 2006)?

In Figure 2, Eckert et al. (2019) divide up all U.S. commuting zones (a measure of labor markets) into ten equally sized deciles. They show that the wage growth in "Skilled Tradable Services" is most significant in the largest and most dense labor markets, but employment growth is not unevenly distributed. Is there something different about these workers in large metropolitan areas? While the wages of engineers and bankers in New York and San Francisco have leapfrogged all other workers, their numbers have remained relatively modest. Is the work performed in both "Skilled Tradable Services" and "Supply Chain Services" different when comparing the most dynamic large markets to smaller and less dynamic areas (Hsieh et al., 2019; Rossi-Hansberg et al., 2019)?

Figure 2: Skilled Tradable Services - Regional Trends



Source: Eckert, Ganapati and Walsh (2019)

3 The Role of Firms

The second part of this chapter delves into which firms are driving this trend. Dovetailing nicely with Ding et al. (2019), DKM find that this “Supply Chain Tradable Services” growth is entirely due to large incumbents growing in size, with the role of new entrants diminishing over time. However, many of these firms are not incumbents in supply chain services, rather they are often former manufacturing behemoths that have transitions to supply chain services. This trend echoes the trade literature, showing that China’s ascension to the World Trade Organization caused U.S. firms to shift employment away from manufacturing into services (Magyar et al., 2017). This paper shows that this may be a broader part of American structural change - much broader than just from international trade.

The authors show that new firm creation in “Supply Chain Tradable Services” has slowed down. This has many potential economic implications. While it is not clear that the trends in this sector are any different from the rest of the economy (Haltiwanger et al., 2013), implications in this sector may matter more due to the centrality of these services to economic growth. These trends tie to two literatures - the first focuses on the role of large firms in the economy and the second on the boundary of the firm.

Superstar Firms Historically, large firms paid workers more than small firms (Troske, 1999). However, this premium has recently fallen (Bloom et al., 2018). “Supply Chain Tradable Services” firms seem to keep up the historical trend in the large firm premium, as opposed to the larger economy. Why? In Autor et al. (2020), the trend in increasing national market concentration from large firms is linked to falling labor compensation. Are these “Supply Chain Tradable Services” different? In Ganapati (2018a,b) these increases in concentration and market share are entirely due to new fixed cost technologies, including the cost of communication infrastructure to trade services across space. In this case, the decline of new firms is not a negative thing; a few large firms are simply better than many little firms. Is it truly necessary to have millions of small shopkeepers?

Boundary of the Firm Does it matter that “servicification” is happening mostly in incumbent firms? Too many sclerotic old firms may cause the economy to deteriorate. These old giants may not invest or innovate,

facing the classic “Innovators Dilemma” (Christensen, 2013). So why do we not see this? DKM have one answer. These firms have been forced to innovate due to structural change. As old manufacturing firms saw business dry up (perhaps due to foreign competition), they either died or adapted. The new survivors forged into new service markets, found new products and new customers. While observed firm entry seems “low”, this is simply due to our ignorance. Many new service companies only look “old” due to their old names; they are effectively new companies that have nearly shed all their old business lines. The IBM of today bears little resemblance to your grandparent’s IBM.

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