RESEARCH STATEMENT

November 11, 2014

My research spans the fields of economic history, applied microeconomics and labor economics. My current research addresses two deep questions. The first strand of research examines the effect of the Great Depression on the exit and employment of manufacturing establishments. While the previous literature on the Depression has focused mainly on the monetary side, there is a small but growing area that investigates the real-side. Since Schumpeter (1942), economists have debated whether recessions are cleansing. My job market paper sheds counterintuitive light on this open question, suggesting that financial distress led to the exit of small but productive establishments. This line of research also contributes to identifying the source of unemployment and job recovery by analyzing the characteristics of establishments that create and destroy jobs.

The second strand of research studies the development of cotton textile industry in earlytwentieth-century North Carolina. In the takeoff of the Southern cotton textile industry, familybased businesses with long histories led the productivity race. With this historical case, I examine the effect of firm and plant age on survival, productivity and growth to explain how old leaders maintained their leadership. Economists have explored the drivers of firm survival and growth beyond the technical efficiency of productivity, examining the role of strategic factors such as demand management, product innovation and good management practices (Syverson 2011). My preliminary findings show that old leaders were ahead of new entrants in these aspects, which may explain their continued success: they invested in marketing and adopted new product and technology earlier than others. My research explores the connection between the role of these family firms and the broader theme of the indigenous development of the South.

These two lines of research have contrasting and common features. My research on the Great Depression studies how a serious business cycle downturn changes an industry, finding that access to credit is likely to affect the survival pattern of business units. On the other hand, my research on North Carolina examines long-run industry evolution, highlighting the role of firm knowledge and marketing assets as the driving forces of business growth. Both projects use micro-level data constructed from historical sources and emphasize the role of within-firm resource allocation as a countervailing mechanism to market entry and exit. These project reflect my enduring interest in understanding the role of industrial dynamics, firm organization, and the interaction of the real and monetary sectors in economic development.

Great Depression and Industry Dynamics

The first chapter of my dissertation examines whether the Great Depression itself was cleansing with a case study of the auto industry. I address this question by building an improved, establishment-level dataset from the Census of Manufactures from 1929 to 1935. I find that, in general, establishments with higher revenue productivity were more likely to survive the Depression, though Ford Motor Company plants show a different pattern. However, this effect of productivity on survival is small while establishment size has a larger impact on survival. These results reflect the subtle features of Depression dynamics and confirm that the cleansing process is mediated by firms and industries. In the auto industry during the Depression, smaller establishments and single-establishment firms were more likely to exit because they faced credit constraints. Large but less productive establishments did not exit, but instead converted to mass production techniques to improve productivity. Their ability to convert to mass production helps to explain why size is a more important predictor of survival than is than productivity.

I plan to build on this research in the following directions. First, I will compile the National Recovery Administration's financial statistics of the automobile companies, which is housed at the National Archives. I will use this data to directly test the hypothesis that credit constraints hindered cleansing process. In addition, I plan to investigate the cleansing effect (or lack thereof) for a wider set of industries with different characteristics, such as cotton goods, petroleum, rubber tires and sugar. (I have already obtained and am cleaning the establishment-level records for these industries.) My goal is to determine whether the counterintuitive findings in the auto industry were an anomaly. Widening the scope serves another goal, namely identifying the sources of job destruction and creation during the Great Depression.

The Rise of Cotton Textile Industry in North Carolina

Another chapter of my dissertation examines the development of the cotton textile industry in early twentieth century North Carolina, concentrating on a comparison of the role of leaders and new entrants. Empirical analysis of contemporary data suggests that newer business units tend to be more productive than old ones (Foster et al., 2008 and 2012). However, theory does not predict a priori whether old or new should triumph. On the one hand, older plants suffer from a capital vintage effect , yet on the other hand, older firms have had more time to acquire knowledge, reputation, and better manage demand. To shed light on this tension, I have constructed a comprehensive longitudinal dataset for the North Carolina cotton industry that includes information for every mill (plant), digitizing and coding state records from 1900-1926. I find that family businesses with long history maintain their leadership, while opening or acquiring new plants. They build their own marketing network and adopt new technologies

before younger firms do. This paper's findings parallel similar case studies such as Braguinsky, Ohyama, Okazaki and Syverson (2014).

This work will be extended in two ways. First, I will link the dataset to the U.S. Census of Manufactures data rom 1929-1935to examine whether the advantages of historical leaders continued in the face of the Northern firms' southward migration and the Great Depression. The information about mill age will enable to test the liquidationist hypothesis that old production units can be scrapped at lower opportunity cost during recessions (Caballero and Hammour 1994; Foster, Grim and Haltiwangner 2014). Second, I will use the data to investigate various issues related to the mill villages in the South. Previous research has shown that mill villages relied on a family labor system that affected fertility (McHugh 1988). With local monopsony power, these firms developed unique paternalistic institutions. I plan to investigate how the mill village system affected the experiences of work, schooling and disease.

Extension: the Effect of National Recovery Administration

I will extend my current research to a later period to examine the effect of the National Recovery Administration on industries. The National Recovery Administration was an important experiment in American economic history. It had two goals: prevent prices from falling to support businesses and improve labor conditions. There have been several studies of the NRA's impact on coordination and collusion (such as Coopers and Haltiwanger 1993; Vickers and Ziebarth 2014). On the other hand, relatively little attention has been paid to the impact on labor markets and the studies that have been done rely on aggregate time series data (Neumann, Taylor and Fishback 2013). I plan to examine the effectiveness of the NRA's work-sharing policy using the plant-level data constructed for my dissertation, considering its effects both on employment and firm entry and exit decisions. This research will build on my work on plant and firm-level determinants of industry dynamics to evaluate and inform economic policy.

Reference

- Braguinsky, Serguey, Atsushi Ohyama, Tetsuji Okazaki, and Chad Syverson (2014) "Acquisitions, Productivity, and Profitability: Evidence From the Japanese Cotton Spinning Industry," NBER Working Paper No. 19901.
- Caballero, Ricardo and Mohamad Hammour. (1994) "The Cleansing Effect of Recessions." *American Economic Review*, 84 (5): 1350-1368.

- Cooper, Russell and John Haltiwanger (1993) "Automobiles and the National Industrial Recovery Act: Evidence on Industry Complementarities," *Quarterly Journal of Economics*, 108 (4): 1043-1071.
- Foster, Lucia, Cheryl Grim and John Haltiwanger (2014) "Reallocation in the Great Recession: Cleansing or Not?" working paper.
- Foster, Lucia, John Haltiwanger and Chad Syverson (2008) "Reallocation, Firm Turnover, and Efficiency: Selection on Productivity or Profitability?" *American Economic Review*, 98 (1): 394-425.
- Foster, Lucia, John Haltiwanger, Chad Syverson (2012) "The Slow Growth of New Plants: Learning about Demand?" NBER Working Paper No. 17853.
- McHugh, Cathy L. (1988) Mill Family: The Labor System in the Southern Cotton Textile Industry, 1880-1915. Oxford University Press.
- Neumann, Todd, Jason Taylor, and Price Fishback (2013) "Comparisons of Weekly Hours over the Past Century and the Importance of Work-Sharing Policies in the 1930s," *American Economic Review: Papers and Proceedings*, 103 (3): 105-110.
- Syverson, Chad (2011) "What Determines Productivity?" *Journal of Economic Literature*, 49 (2): 326–365.
- Wanamaker, Marianne (2012) "Industrialization and Fertility in the Nineteenth Century: Evidence from South Carolina," *Journal of Economic History* 72 (1): 168-196.
- Vickers, Chris and Nicolas Ziebarth (2014) "Did the National Industrial Recovery Act Foster Collusion? Evidence from the Macaroni Industry," *Journal of Economic History* 74 (3): 1-31.