October 2022

Will Damron

Address: Department of Economics
Yale University
New Haven, CT 06520-8268

Telephone: 704-575-6033

E-mail: will.damron@yale.edu

Web page: https://sites.google.com/view/willdamron/home

Citizenship: USA

Fields of Concentration:
Primary Field: Economic History
Secondary Field: Political Economy

Desired Teaching:
Economic History
Political Economy
Economic Development

Comprehensive Examinations Completed:
2019 (Oral): Economic History, Political Economy
2018 (Written): Macroeconomics, Microeconomics

Dissertation Title: *Essays in the Economic Development of the US South*

Committee:
Professor Timothy Guinnane (Chair)
Professor José-Antonio Espín-Sánchez
Professor Naomi Lamoreaux

Degrees:
Ph.D., Economics, Yale University, 2023 (expected)
M.Phil., Economics, Yale University, 2020
M.A., Economics, Yale University, 2018
B.S., Mathematics, Davidson College, 2017 (magna cum laude)

Fellowships, Honors and Awards:

Dissertation Fellowship, Yale University	2022
Doctoral Fellowship, Yale University	2017–2023
A. K. Phifer Award, Davidson College Department of Economics	2016
Rostan Award, Davidson College Department of Economics	2015

Research Grants:

Data Acquisition Grant, Yale Department of Economics ($2500) 2022
Research Funding, Yale Program in Economic History ($2264) 2021

Teaching Experience:

Summer 2021, Instructor, Economic History of the American South (Undergraduate), Yale College
Spring 2022, Teaching Assistant to Prof. Maggie Jones, American Economic History (Undergraduate), Yale College
Fall 2021, Teaching Assistant to Prof. Timothy Guinnane, European Economic History: 1815–1945, Yale College
Spring 2021, Teaching Assistant to Prof. Shari Eli, American Economic History (Undergraduate), Yale College
Fall 2020, Teaching Assistant to Prof. Evangelia Chalioti, Economic Models of New Technology (Undergraduate), Yale University
Spring 2020, Teaching Assistant to Prof. Naomi Lamoreaux, American Economic History (Undergraduate), Yale College
Fall 2019, Teaching Assistant to Prof. Timothy Guinnane, European Economic History: 1700–1815, Yale College

Research and Work Experience:

Research Assistant to Prof. Ebonya Washington, 2018, Yale University

Publications:

"Classically integral quadratic forms excepting at most two values" (2018) with Madeline Barowsky, Andres Mejia, Frederick Saia, Nolan Schock, and Katherine Thompson, *Proceedings of the American Mathematical Society*, 146(9), 3661-3677.

Working Papers:

"Gains from Factory Electrification: Evidence from North Carolina, 1905–1926", (November 2022), *Job Market Paper*

"Organizational Form and Factory Size: Evidence from North Carolina", (September 2022)

Work In Progress:

"The New South City, Sorted", (October 2022)

Seminar and Conference Presentations:

2022: Economic History Association Annual Meeting (Poster)

Languages:

English

October 2022

References:

Prof. Timothy Guinnane
Yale University
Department of Economics
New Haven, CT 06520
PO Box 21345
Phone: 203-432-3610
timothy.guinnane@yale.edu

Prof. Jose-Antonio Espin-Sanchez
Yale University
Department of Economics
New Haven, CT 06520
PO Box 21345
Phone: 203-432-0890
Jose-antonio.espin-sanchez@yale.edu

Prof. Naomi Lamoreaux
Yale University
Department of Economics
New Haven, CT 06520
PO Box 21345
Phone: 203-432-3625
naomi.lamoreaux@yale.edu

Dissertation Abstract

Gains from Factory Electrification: Evidence from North Carolina, 1905–1926[Job Market Paper]

During the early 1900s, manufacturers replaced steam- and water-power with electricity. In this paper, I use a newly-collected establishment-level dataset to answer three sets of questions. First, I show that factory electrification led to large and rapid increases in productivity. Second, I show that electrification increased the wages paid by manufacturers but also widened the within-plant wage distribution. Third, I show that electricity diffusion was delayed by the costs of adoption.

I collect a new establishment-level dataset from reports published by the North Carolina Department of Labor between 1905 and 1926. These reports include detailed factory-specific information on revenue, employment, capital, and energy use. Because the original records from the national Census of Manufacturers have been lost, prior research on electrification has relied on aggregate data at the industry- or location-level. Several features of this dataset make it particularly useful. First, the use of establishment-level data allows me to isolate the effect of electrification where studies using aggregate data conflate changes on the intensive- and extensive-margin. Second, because I am able to link factories across reports, I can describe factors which predict factory electrification. Factory-level panel data with this level of detail and frequency is quite rare in economic history.

In my baseline estimates, I find that electricity adoption increased factory TFP in the textile sector by ten percent relative to plants that did not electrify. Electrified factories adopted new production processes that were more capital- and energy-intensive. I address the endogeneity of electrification two ways. First, I control for establishment fixed-effects to capture factory-specific features that may drive electricity adoption. Second, I instrument for electrification using local variation in the costs of electrification. These changes support narrative evidence that electricity adoption allowed factories to reorganize production by removing the need to structure factories around a steam engine or waterwheel.

Turning to the effects of electrification on workers, I find that electrified factories paid higher average wages. However, within factories, I find that electrification increased the top wages of men and women but not the bottom wages, widening the pay dispersion within plants. I also find an increase in the number of machines operated by each worker, suggesting that increased wages served partly to compensate workers for an increase in work-intensity. This evidence points to electrification as an early case of skill-biased technological change.

Organizational Form and Factory Size: Evidence from North Carolina

Although a growing literature in economic history has discussed the role of the corporation and other organizational forms, the scarcity of historical firm-level data has made it difficult to study how firms choose their form. I draw on records from the North Carolina Department of Labor Report for 1915 which provides factory-level data for over 3800 plants and describes whether each plant is owned by a corporation, partnership, or individual. I find that factories owned by corporations are larger, more productive, more capital-intensive, and more likely to operate on a year-round basis. Factories owned by a corporation are more likely to survive than others until at least 1926. Differences in the amount of capital invested and industry explain much, though not all, of the apparent differences in productivity. Corporations accounted for less than half of the factories through the eighth decile of capital invested, suggesting that even though access to the corporate form was not legally restricted in this time and place, the costs of incorporation outweighed the benefits for most small- and medium-sized enterprises.

The New South City, Sorted *(work in progress)*

In this paper, I construct a new block-level measure of segregation in Southern cities in the early twentieth century by collecting data from city street directories which include information on the race of each household. This measure has several benefits relative to alternative Census-based measures: it is available on an annual basis, making it possible to document changes at a higher frequency than the decennial Census, and it is constructed at a more-precise level than measures based on city wards or Census tracts. As a proof of concept, I collect this data for Charlotte, North Carolina, but will continue data collection for other southern cities. I find substantial block-level segregation: around 80% of blocks in 1910 were occupied entirely by members of one race. Next steps include collecting data for additional cities and linking blocks through time to understand the process of block transition.