International Journal of Industrial Organization 59 (2018) 282–315

Contents lists available at ScienceDirect

International Journal of Industrial Organization

www.elsevier.com/locate/ijio

Competition, productivity, and survival of grocery stores in the Great Depression ☆

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A R T I C L E I N F O

Article history:
Received 28 February 2017
Revised 13 February 2018
Accepted 23 April 2018
Available online 27 April 2018

JEL classifications:
L11
L81
N82

Keywords:
Grocery Stores
Survival
Great Depression
Chains
Competition

A B S T R A C T

We study the grocery industry in Washington, DC, during the Great Depression using data from the 1929 Census of Distribution, a 1929–1930 survey by the Federal Trade Commission, and a 1935 business directory. We first document the differences between chains and independents in the Washington, DC, grocery market circa 1929 to better understand chains' competitive advantages. Second, we study correlates of survival from 1929 to 1935, a period of major contraction and upheaval. We find that more productive stores survived at higher rates, as did stores with greater assortment and lower prices. Presaging the supermarket revolution, combination stores were much more likely to survive to 1935 than other grocery formats.

Published by Elsevier B.V.

☆ Comments welcome. The views expressed are those of the authors and not necessarily those of the U.S. Census Bureau. The research in this paper does not use any confidential Census Bureau information. The University of Iowa helped defray the cost of transcribing the records. We thank Eric Wilbrandt for helping to photograph the Census schedules, and Randy Becker, Roger Betancourt, Paul Ellickson, José-Antonio Espín-Sánchez, Lucia Foster, Taehwan Kim, Marc Levinson, Bitsy Perlman, Peter Scott, Robert Whaples, and seminar participants at the U.S. Census Bureau, the 2015 Cliometrics Society Conference, and the 2016 Southern Economic Association for helpful comments.

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https://doi.org/10.1016/j.ijindorg.2018.04.003
0167-7187/Published by Elsevier B.V.

1. Introduction

The consequences of recessions for productivity, particularly the relationship between productivity and survival, have been of interest to economists at least since Joseph Schumpeter. The sheer magnitude of the downturn in the Great Depression makes it a particularly interesting case in which to examine this process of selection. Most studies of this period have focused on the manufacturing or agricultural sectors, with retail receiving comparatively little attention. This gap is unfortunate, as this was a period of rapid change in the sector. For example, Field (2006) calculates a total factor productivity growth rate of 2.39% for the period 1929–1941 in retail and wholesale trade. Moreover, the retail-trade sector is economically important, accounting for 10.6% of national income in 1929, more than all of agriculture.

Within retail, the grocery industry was in the midst of several transformations during the period we study. Presaging the development of the supermarket in the 1950s, "combination" grocery stores for the first time sold both meat and dry goods such as flour, oil, and coffee. Stores were beginning to adopt the self-service format, first introduced in 1916, which allowed customers to shop without the intervention of the clerk. Large national grocery chains were taking over the industry, inspiring many state legislatures to pass anti-chain-store legislation starting in the mid-1920s (Ross, 1986).

We draw on a novel sample of store-level records from the 1929 Census of Distribution (CoD). This survey was the first comprehensive tally of U.S. retail and wholesale operations and includes almost 1900 grocery-store schedules (forms) from Washington. We combine these records with microdata from a 1929–1930 Federal Trade Commission (FTC) inquiry on chain stores that obtained detailed information on store selection and prices. We control for local demand using demographic characteristics of the population in each store's Census tract from the 1930 Census of Population. Finally, matching the CoD records to a business directory from 1935 allows us to study survival and understand its relationship to business and neighborhood characteristics in 1929.

We use these rich data to paint a picture of the retail grocery industry in Washington, DC, at the start of the Great Depression. The literature on early chain stores has cited various facts about early chain stores, including their lower prices and more "modern" logistics. Chain stores were reputed to have succeeded by standardization, better site selection, leaner inventory, vertical integration, and private labels. Standardization included common store layouts and common product selection.[1] Our analysis confirms some of these but cast doubt on others. In particular, we find that chains carried both a wider range of nationally branded products and more varieties within a product category than independents, but that assortment varied considerably both across chains and, to a lesser extent, within chains. We develop a measure to quantify this correlation in product assortment across stores and show that, although not all stores in a chain carry the same

[1] For background literature, see Vaile (1932), Beckman and Nolen (1938), Lebhar (1950), Barger (1955), Tedlow (1990) and Ellickson (2016).