Volume Title: Productivity Differences within the Service Sector

Volume Author/Editor: Victor R. Fuchs and Jean Alexander Wilburn

Volume Publisher: NBER

Volume ISBN: 0-87014-443-X

Volume URL: http://www.nber.org/books/fuch67-2

Publication Date: 1967

Chapter Title: Introduction to "A Contrast in Productivity Trends within Personal Services: The Barber and Beauty Shop Industries"

Chapter Author: Jean Alexander Wilburn

Chapter URL: http://www.nber.org/chapters/c1437

Chapter pages in book: (p. 55 - 60)

4

INTRODUCTION

AMONG the industries providing personal services, barber and beauty shops rank second with respect to annual receipts and employment.[1] According to the most recent *Census of Business,* in 1963 their receipts amounted to $2.5 billion out of $9.2 billion, and these shops engaged half a million people of the 1.4 million working in the personal services.

Because they share many common characteristics, barber and beauty shops are frequently treated as one industry. First, their function is essentially similar, both being engaged primarily in grooming the hair. Second, the size of establishment in both cases is referred to as "typically small." Furthermore, most of these establishments are unincorporated. Of 106,000 establishments engaged in barbering in 1963, 99,000 were individual proprietorships and only 44,000 had any paid employees. Out of 152,000 beauty salons, 136,000 were individual proprietorships and only 74,000 had one or more paid employees.[2]

Both businesses are heavily labor-intensive. When barbers are paid on a straight commission basis, their earnings can run as high as 75 per cent of their receipts; the percentage for beauticians is somewhat less.[3] Cost of materials used by beauty salons is estimated at about 10

[1] The *1963 Census of Business* includes under personal services, in addition to barber and beauty shops, laundries (including cleaning and dyeing plants), photo studios, shoe repair, funeral services, pressing establishments (including garment repair and storage), and miscellaneous personal services. Laundries rank first, with receipts of $4.0 billion and personnel of about 600,000.

[2] *Census of Population,* 1930, 1940, 1950 editions; *Occupational Outlook Handbook,* 1963–64 edition, Bureau of Labor Statistics, pp. 317, 319; *1963 Census of Business,* Selected Services, Legal Form of Organization, BC 63-SS5, Table 1, and Employment Size, BC 63-SS3, Table 1.

[3] Bureau of Labor Statistics, *Monthly Labor Review,* June 1939, pp. 1287–1299; also, *Occupational Outlook Handbook,* Bulletin 1215, 1957, pp. 212–214.

per cent of receipts.[4] The figure is probably lower for barbers. Finally, capital investment in machinery and furniture for either type of establishment is low. To equip a one-chair beauty shop cost about $2,000 in 1955, and only $5,000 for a four-booth shop. In 1960, a one-chair barber shop was estimated to cost only $1,500. These figures can be considerably reduced by the use of secondhand equipment.[5]

In view of these similarities, it might appear appropriate for this study not to distinguish between barber and beauty shops and to treat them as one industry. From the standpoint of productivity, however, the differences between the two are more noteworthy than the likenesses. In fact, the contrast between them is so sharp as to suggest that more can be learned by a comparison of one with the other than through an attempt to understand them in the context of the service sector as a whole, or by juxtaposition with some other industry in the goods or service sector.

Their divergent performance is clearly reflected in Table II-1, which shows the price index of each industry and the index of real output per full-time worker for the benchmark years 1939, 1948, and 1963.[6] The more rapidly rising prices of barber services—which increased from an index of 52.6 in 1939 to 183.9 in 1963, as contrasted with 54.6 in 1939 to 136.6 in 1963 for beauticians—suggest a lower increase in productivity in that industry. This is substantiated by the productivity figures.[7]

Chart II-1 shows graphically the same index numbers of real output per worker as well as indexes of real output and employment. The relation between changes in output, employment, and productivity can be seen in two ways. During the years 1939–48, real output and employment dropped slightly in both industries, accompanied by increases in productivity for each industry of about the same order of magnitude,

[4] Interview with L. A. Freiberg, executive secretary, National Hairdressers' and Cosmetology Association, Inc.

[5] Department of Labor, *Employment Opportunities for Women in Beauty Services,* Women's Bureau Bulletin No. 260, 1965; *Occupational Outlook Handbook,* Bureau of Labor Statistics Bulletin No. 1300, 1961.

[6] Productivity figures for the decade 1929–39 have not been included because barber and beauty shops were not included in the *Census of Business* until 1933. The depression years are not suitable as benchmarks against which to measure changes in productivity.

[7] A gross measure of output per worker is used rather than value added because the cost of material is very small and has changed little over time.

TABLE II-1

Indexes of Prices and Productivity in Barber Shops and Beauty Shops, 1939, 1948, 1963
(1948=100)

Year	Prices		Real Output per Man[a]	
	Barbers	Beauticians	Barbers	Beauticians
1939	52.6	54.6	91.5	90.6
1948	100.0	100.0	100.0	100.0
1963	183.9	136.6	106.4	129.0

Source: Bureau of Labor Statistics, component part of the Consumer Price Index, *Census of Business*, 1939, 1948, 1963.

[a]For 1939 and 1948, employment is in terms of full-time equivalents. Part-time employees were reduced to full-time equivalents by assuming that hourly earnings were the same for part-time workers and therefore that hours worked were proportionate to earnings. For 1963, the 1958 ratio of full-time equivalent employees to the number of full-time plus part-time employees was assumed to apply. Real output was calculated by deflating each industry's receipts from the *Census of Business* by the component part of the Consumer Price Index.

1.0 per cent per annum for the barber and 1.1 for the beautician. Between 1948 and 1963, beauty shops had a very large increase in output, employment, and productivity. In contrast, the barber's increase in output and employment was modest and the rise in productivity small.

Over the twenty-five year period, output, employment, and productivity all rose substantially in beauty shops. Employment among barbers, on the other hand, remained almost constant, while output rose a little and productivity increases were small. These comparisons tend to agree with Victor Fuchs' study, which found a high degree of correlation between changes in output, productivity, and employment.[8]

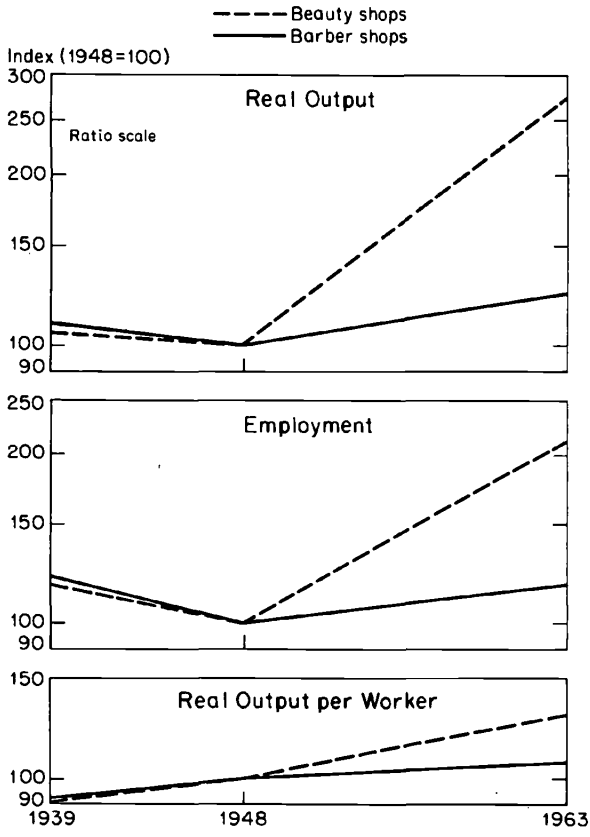
Table II-2 shows that the average annual rate of increase in real output per full-time worker is considerably higher for the beautician than for the barber: 1.5 contrasted with .6 for the latter.[9] The performance

[8] See pp. 19–23.

[9] Output per man-hour is not included in this table because data on hours are not strictly comparable over time. Data for 1940 refer to wage and salary workers only. In addition, there is wide variation in time allotted for lunch and dinner. Often a meal is eaten in the shop as opportunity provides.

CHART II-1

Indexes of Output, Employment, and Productivity, Barber and Beauty Shops, 1939–63



Source: U.S. Bureau of the Census, *Census of Business,* 1939, 1948, 1963.

in the period 1948–63 is primarily responsible for the marked long-run differences: 1.8 per cent for the beautician and only .3 per cent for the barber. During the same period, barber prices rose from an index of 100.0 to 183.9, but beauty-shop prices rose to only 136.6. Table II-2 indicates that although neither industry matched the performance of the total economy in growth of real output per worker for any period, beauty shops performed much better than barber shops.

Comparisons of changes in output per unit of total factor input

TABLE II-2

Average Annual Rates of Change of Productivity of Barber Shops, Beauty Shops, and the Total Economy, 1939–58

	Real Output per Worker[a]			Real Output per Worker Relative to Total Economy			Real Output per Unit of Total Factor Input[b] Relative to Total Economy		
	1939–48	1948–63	1939–63	1939–48	1948–63	1939–63	1939–48	1948–63	1939–63
Barber shops	.99	.33	.64	–1.35	–2.03	–1.71	–.35	–2.15	–1.52
Beauty shops	1.10	1.80	1.53	–1.24	–.56	–.82	+.05	–.13	–.07
Total economy	2.34	2.36	2.35	—	—	—	—	—	—

[a]Real receipts per full-time equivalent employee.

[b]Computed indirectly through the use of price indexes. Differences in price movements reflect differences in productivity changes unless there are unequal changes in the price of a unit of factor input. For a full description of the method used, see Edward F. Denison, *The Sources of Economic Growth in the United States and the Alternatives Before Us*, Committee for Economic Development, Supplementary Paper No. 13, New York, 1962, pp. 217–219.

(based on relative price changes) yield similar results.[10] Again, the beauty shop surpasses the barber shop over each period, 1948–63 showing the largest increase. The beauty shop's performance is about the same as the total economy's in both periods.

The plan of this study has been influenced by the dramatic difference in performance between the barber and beauty shops. It will treat them as two distinct industries and compare one with the other with respect to those factors which traditionally have been thought to bear on productivity, such as capital investment, hours worked, the quality of labor, technological change, and changes in demand.

Emphasis will be placed on comparison of productivity changes over the long-run period 1939–63,[11] rather than on analysis of each decade separately, for two reasons. First, average annual rates of change over the long period are likely to be more accurate than those for shorter periods. Second, when a factor influencing productivity has been operating over both decades, it is not always possible to be certain to what extent each decade has felt the impact.

New earnings data, providing information not previously available, and leading to some surprising results, will then be analyzed along with certain factors that appear to have special relevance for productivity in these industries. In conclusion, implications of the results of this study for other service-industry studies will be indicated and some suggestions will be offered for further research on the two industries.

[10] The method of computing changes in output per unit of total factor input differs from that for output per worker, but the methods are not completely independent since both involve the use of the same price indexes. Consistency between both sets of figures, therefore, does not offer proof but only support of the accuracy of the measures.

[11] Some data are not available for 1963. In that case, either 1939–58 or 1940–60 is considered the long-run period.