

THE EFFECT OF SELF-REGULATION ON INDUSTRIAL  
ORGANIZATION: A CASE STUDY OF THE  
OKLAHOMA DRY CLEANING INDUSTRY

By

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## PREFACE

The purpose of this study is to investigate the effects of occupational self-regulation on the allocation of resources. For this purpose a particular example was chosen. The purpose of the study is not to argue for or against the policy of self-regulation in the Oklahoma dry cleaning industry. As such it is hoped the study will contribute to filling a rather large gap in the literature concerning occupational self-regulation.

Special thanks go to Dr. Larkin Warner, my thesis advisor who first suggested the topic, for the immediate return of my letters and many drafts of this study. Since most of the paper was written in Charlottesville, Virginia his rapid attention to matters and replies were certainly a major contribution to the completion of this paper. I also wish to thank him for his patience and many, many helpful suggestions and criticisms.

My wife, who typed several drafts, and Mrs. Betty Tillman, who typed the final copy deserve special credit. Their ability to translate numerous insertions, deletions and marginal notes into a coherent text is certainly remarkable. Credit should also go to the Oklahoma State Dry Cleaner's Board who were most cooperative in supplying data and advice.

Finally, I would like to thank my fellow students at Oklahoma State University and the University of Virginia. Their fundamental disbelief in anything I have to say has forced me to investigate many problems that I would otherwise have never recognized.

Charles Raymond Plott

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## CHAPTER I

### SCOPE OF THE STUDY

#### Introduction

This study is an examination of the development of the Oklahoma dry cleaning industry from 1939 to 1958. During this period the industry was regulated by a method generally termed as occupational self-regulation. The purpose of the study is to isolate the effects such a policy may have had on the industry's development.

Although the self-regulation of industrial or professional groups is well-established in the United States it has met widespread criticism. Such self-regulation is usually administered by a board vested with the power to determine the necessary qualifications of new entrants in the industry and to govern industrial practices through licensing procedures. Often these boards which are composed of a few members of the industry are vested with the authority to set minimum prices. Such boards exist in professions ranging from medicine, accounting, and law to watchmaking, the shoeing of horses, and manicuring. The Council of State Governments reported that in 1952 there were more than seventy-five different occupations in the United States for which a license to practice was

required, and that there were more than 1,200 occupational licensing laws within the States--an average of 25 per state.<sup>1</sup> An earlier study discovered as many as 250 trades subject to license restrictions.<sup>2</sup>

The professions seeking such regulations do so for a multiplicity of reasons. They wish to give their occupation the status of a 'profession.' Some groups desire to eliminate "unfair competition" or to be guaranteed a "fair return." Groups point out the superior nature of such regulations for protecting the 'public interest' and cite the licensing board, as opposed to the courts, as a means for making possible inexpensive and quick remedy.<sup>3</sup> Despite the seeming advantages of such controls, these practices have been severely criticized. Critics usually feel that such boards are representative of the occupational interests and not the public interests. With the power to set qualifications for licenses, they are able to restrict supply; and where the power is also granted to fix minimum prices, they are able to further enhance their own well-being at the expense of the public. Indeed, Nathaniel Wallman begins his forward for F. C. Iron's A Survey of Licensing in New Mexico with:

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<sup>1</sup>The Council of State Governments, Occupational Licensing Legislation in the States (Chicago, 1952), p. 2.

<sup>2</sup>A study referred to in: William Beard, Government and Technology (New York, 1934), p. 494 as cited in: Walter Gellhorn, Individual Freedom and Government Restraints (Baton Rouge, 1956), p. 194.

<sup>3</sup>See, Blanch B. Davis, "Licenses Can be Policemen," National Municipal Review, XXXVII (February 1948).

Under the cloak of protecting the public interest a number of activities have been given monopoly power. Monopoly power is obvious when in the form of exclusive ownership of raw materials or processes, or when it is based on huge size. But the little men of business also are not averse to having their business subject to monopolistic controls--provided, of course, that such controls are exercised for their benefit. The little men of business, however, cannot secure monopoly power without the help of the government. Each activity, once it is well enough organized, puts pressure on the government to protect those already on the inside from the aggression of those still on the outside. The general public interest of course, may suffer.<sup>4</sup>

Some see licensing activity as a fundamental encroachment upon individual freedom; others think the entrepreneurial activity should be subject to even more restrictions. Aside from the normative arguments concerning good, bad, freedom, and legality, a paucity of literature exists concerning the actual effect of such self-regulation on the physical allocation of resources.

The dry cleaning industry is often guided by self-regulation. In several states a license issued by a state board is necessary for the operation of a dry cleaning establishment, and in one state, Oklahoma, the board also has the authority to approve minimum prices. The dry cleaning industry in the United States today makes sales well over one and one-half billion dollars annually and employs over three hundred thousand people in over seventy thousand establishments. This

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<sup>4</sup>Frederick C. Iron, A Survey of Licensing in New Mexico (Albuquerque, 1949), p. iii.

is not surprising because Americans spend tens of billions of dollars each year on personal apparel and on household effects. These items cannot be discarded when they are soiled and the fabric, trimmings and detail make washing the items at home impractical. Thus, whether or not dry cleaners are "little businessmen" seeking "monopoly power" through the government, they are important both in magnitude of operations and in relation to other personal services. The number of people who do not repeatedly seek the services of a dry cleaner is probably extremely small.

#### Statement of the Problem and Methodology

Oklahoma has twenty-four boards vested with the authority to issue a license for an independent occupation. All of the boards are able to determine, within varying limits, the qualifications necessary for obtaining a license and are composed primarily of members of their respective occupations. Two of the boards, The Oklahoma State Board of Barber Examiners and the Oklahoma State Dry Cleaners Board, have the authority to approve minimum prices in a particular county as set by the members of the occupation in that county. Both of these boards are composed only of members of the occupation.

The self-regulated industries initially considered for this study were those of Oklahoma because of the relative ease with which information could be obtained. The barbers

and dry cleaners were the most likely candidates because of the additional authority of approving minimum prices. Finally, the dry cleaning industry was chosen because (1) the records kept by the State Board were more accurate and the secondary data were more plentiful and (2) Oklahoma is the only state that presently allows its dry cleaning board to approve minimum prices. Moreover, in many states licenses are not required of dry cleaners whereas barbers are required to have licenses in all but two states.<sup>5</sup> The time period selected was 1939, two years before the legislation, to 1958, the latest year for which data are available.

The problem in this study is to determine how the allocation of resources has been affected by the policy of self-regulation in the Oklahoma dry cleaning industry from 1939 to 1958. There are three aspects to this problem. First, the regulations and method of regulation must be reviewed as set forth by the Statute (59 Oklahoma Statutes 1941, Sections 741 to 756). The effect of the policy on resource allocation would certainly depend on the regulations that evolve from the policy. Second, the effect these regulations have had on the quantity of resources employed must be determined. Third, the effect these regulations have had on the organization of employed resources must be determined. The exact resources to be examined and the reasons for choosing them are made explicit in the text of this study.

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<sup>5</sup>Thus, in the case of barbers, the range of examples of the effects of unregulated competition is reduced to two.

The normative aspects of the problem, whether the results are good or bad, are not considered. The method adopted is essentially one of 'positivism,' but the method is normative in that a norm of behavior, the norm of competition, is used to delineate "effects." It is realized, however, that a study to be made devoid of value judgments is probably impossible.<sup>6</sup>

#### Plan of the Study

The study is composed of four major parts plus a conclusion. Chapter II "The Structure of the Dry Cleaning Industry" is a discussion of the process of dry cleaning, the technology involved, and a summary of the market structure of the dry cleaning industry. The various suppliers of dry cleaning services are classified and defined in accordance with the data to be used in later chapters. The nature and definition of the dry cleaning product with references to types of product differentiation, non-price competition, and close substitutes are discussed. Finally the nature of the demand for dry cleaning services is observed. Variables that

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<sup>6</sup>For a survey of some of the controversies concerning positive economics, see: Campbell R. McDonald, "Advocacy Versus Analysis in Economics," Southern Economic Journal, XXII (October 1955), pp. 145-163. See also: Gustav Bergman, "Ideology," Ethics, LXI (April 1951), p. 217.

Richard Pudner, "Value Judgements in the Acceptance of Theories," The Validation of Scientific Theories, ed., Philip G. Frank (New York, 1961), p. 33.

A. W. Coats, "The Values of Positive Economics" (unpub. and unfin. brief, Univ. of Virginia, 1963), p. 10.



influence the total demand for dry cleaning and per capita demand for dry cleaning are isolated and analyzed.

Chapter III is a discussion of the existing regulations and their evolution from 1941 to 1958. A brief discussion of the early self-regulated industries opens the chapter. The discussion then moves to the original dry cleaning act in Oklahoma, the environment at the time it was passed, how it evolved through the courts, how it has been amended and other relevant bills. The final discussion in the chapter pertains to the licensing and price fixing activities of the State Board. The licensing activities are reviewed with emphasis on the degree of entry restriction that may be the result of regulation induced practices. The procedure for setting prices and the method of enforcing the prices set are then examined.

The fourth chapter, "Deviations from the Competitive Norm," and the fifth chapter, "The Organization of Employed Resources," deal with the manner in which resource allocation in Oklahoma has differed from a competitive norm. The first problem considered is the problem of establishing a norm for the comparison. Kansas, which has no supervisory board and requires no license for dry cleaning, was chosen as the area most suitable for the comparison. The method of delimitation is included as an appendix. A model based on the findings of Chapter III is then constructed. From this model predictions of the effect of the regulations are made. The last part of

Chapter IV deals with the predictions about the quantity of resources employed. In Chapter V predictions about the deviations in the organization of resources employed such as types of establishments, size of plants and services offered, are considered.

The final chapter is a summary of the findings of the previous chapters. An analysis of these findings is presented, and the chapter concludes with some of the many limitations to the findings and the analysis.

## CHAPTER II

### STRUCTURE OF THE DRY CLEANING INDUSTRY

This chapter is divided into two parts. The first section is a review of the process of dry cleaning which includes a discussion of the process of production and the technology involved. The second section summarizes the market structure and is composed of: (1) a classification of the suppliers of dry cleaning services, (2) a discussion of the nature of the dry cleaning product, and (3) an examination of the demand for dry cleaning services.

#### The Process of Dry Cleaning

An understanding of the industry's technical features is necessary for an understanding of the terminology and definitions used in the study. Although there are certain basic processes performed in the industry, there are alternative technologies. These will be discussed in turn.

#### Production Processes

The actual process of dry cleaning from the time the garments are brought into the establishment until the time they are ready for the customer can be divided into marking, classifying, prespotting, washing, extracting, drying, spot-

ting, finishing, and inspecting.<sup>1</sup> Each phase is important when considering the fact that the quality of work is a form of product differentiation.

When garments are first brought into a dry cleaning establishment they are 'marked.' This is the process of labeling or tagging garments with the name of the garment owner. Little need be said concerning the importance of proper tagging to prevent loss of garments. Clothes that are not properly or securely marked can easily be lost by delivery to the wrong person.

The garments are next classified according to groups that may be cleaned together. The garments are also examined for minor repairs or spots that need attention before the washing process. Garments are classified into several categories such as: linty materials, silks and light-colored items, bright-colored materials, items to be cleaned separately, and those requiring hand washing. Failure to classify garments accurately may appreciably reduce the quality of work done by an establishment because garments may pick up lint or color from the garments with which they are washed.

Some garments may require prespotting. Many stains, such as blood, are removed before the washing process. These stains are primarily those that are only water soluble and are removed without damage to color or pleats.

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<sup>1</sup>U.S. Department of Commerce, Office of Domestic Commerce, Establishing and Operating a Dry Cleaning Business (Washington, D.C., 1947), p. 90.

After classification, the garments are washed. The items are weighed to avoid loading a machine beyond capacity and then placed in a solvent containing machine. Filtering takes place all during the washing process to avoid the insoluble portions of the solvent being redeposited on the garments. If a soap is used, the garments are rinsed in solvent until they are free of soap. The size or weight of the load and the solvent level affects the quality of work. If the garments are not thoroughly rinsed they may develop an unpleasant odor.

After the garments are washed, a centrifugal extractor is used to remove the solvent from the fabrics. The process may be undertaken in the same machine as the washing process simply by shifting the gears into a higher speed revolution. The longer the garments are extracted, the more solvent is recovered and the faster the garments will dry. However, if the garments are extracted too long the process may produce wrinkles which require substantially longer to remove in the finishing process.

The process of drying used depends upon the type of solvent used. If a petroleum solvent is used, the garments are removed from the extractor and placed in a tumbler or drying cabinet where they are tossed about in a cylinder through which a current of warm air is passed. This removes odor and surplus lint and softens the garments. If a synthetic solvent is used, the garments are hung in a drying

cabinet where the solvent is vaporized, condensed, and recovered.

After garments have been dried they are checked for spots that need to be removed. Three major types of materials are used for spotting: absorbants, which absorb the staining substance; solvents, which dissolve the staining substance; and bleaches. Spots that are not easily removed are wet cleaned (cleaned with soap and water) which should be avoided as much as possible because it may lead to shrinkage or fading. The spotting operation is very important if garments are to be properly cleaned.

Finishing operations usually consist of pressing and the making of minor repairs. The heat from pressing often discloses previously indistinguishable spots on the clothes which the alert presser will return to the spotter. An unskilled presser will leave many garments wrinkled or scorched. And, without proper review, the garments will be finished without proper repairs.

The last stage of production is inspection and assembly. Each order is inspected to insure that the quality of work was good and the order was complete. "Quality work demands painstaking inspection and the return of any imperfect work to . . . [the] presser, spotter, or cleaner." "Every order must be complete. If one item is . . . [missing], it will usually turn out to be the one item which the customer wanted

to wear that evening."<sup>2</sup>

### Technology of Dry Cleaning

The technology of the industry is based primarily on the type of solvent used by the dry cleaning plant. Petroleum solvents and synthetic solvents are the two basic types. However, the use of either of these types of solvents is not without disadvantage.

The first type, petroleum solvents, includes a number of naphthanes or benzenes, gasolines, and Stoddart Solvent, which is a petroleum solvent refined to meet the specific needs of dry cleaners.<sup>3</sup> Admittedly, the petroleum solvents have a lower cost, the initial cost per gallon being lower, and therefore make the cost per pound of garments cleaned lower. And, although the vapors from petroleum solvents are usually less toxic than those from synthetic solvents, they definitely do present a fire hazard.

On the other hand, the synthetic solvents which include carbon tetrachloride, perchlorethylene, and trichlorethylene, are nonflammable and thus present no fire hazard.

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<sup>2</sup>U.S. Department of Commerce, Establishing, p. 100.

<sup>3</sup>This is a solvent introduced to the industry in 1925 by president Stoddard of the National Institute of Dry Cleaning. The new solvent had good cleaning qualities. Complete deodorization was possible in modern tumblers. The evaporation rate was low, thereby lowering solvent cost. A tremendous advantage was the lessening of fire hazards. The solvent would burn but was not easily ignited by static sparks. It had disadvantages, but they were not considered serious. It was more difficult to distill. Drying time was 10 to 15 minutes longer." Edna M. Michelsen, Remembering the Years 1907-1957 (Silver Springs, 1957), p. 67.

Nevertheless, they too are individually unsatisfactory in a particular way. For instance, carbon tetrachloride is definitely toxic and fumes may cause illness or even death due to the improbability of a correct diagnosis.<sup>4</sup> Dissimilarly, perchlorethylene presents very little toxic danger, but it is quite expensive. Also, less toxic than carbon tetrachloride is trichlorethylene, but it has a tendency to fade some materials. The synthetic solvents as a group are very volatile, so cleaning plants using the equipment designed for their use observe every precaution to prevent evaporation of the solvent. This is done for the protection of the workers' health, and to curb the additional expense caused by the loss of the solvent.

#### The Market Structure

This section is composed of three parts. The first part is an outline of the types and classes of establishments that supply dry cleaning services. The second part is a discussion of the nature of the dry cleaning product, and the third part is a discussion of the demand for dry cleaning. All definitions are those of the Standard Industrial Classifications used for collecting the data presented below. Data collected by use of different definitions are indicated accordingly, either by footnote or in the text.

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<sup>4</sup>Robert M. Farrier, M.D. and Richard H. Smith, M.D., "Carbon Tetrachloride Nephrosis, A Frequently Undiagnosed Cause of Death," The Journal of the American Medical Association, CXLIII (July 15, 1950), 965-967.



### Types of Classes of Establishments

Two classifications of establishments offering dry cleaning services are used in this study. The first classification is based on the functions performed by the establishment and the second is based on establishment size. On a functional basis, the establishments fall into three general categories: dry cleaning plants, press shops, and combined laundries and cleaners.

Dry cleaning plants are essentially those establishments that wash garments as explained above. Most dry cleaning plants undertake all functions explained above. Although some plants do only wholesale work, i.e. washing and spotting without pressing or finishing, they are not of explicit concern in this study. The Standard Industrial Classification dry cleaning plants are establishments "primarily engaged in dry cleaning and dyeing apparel and household fabrics,"<sup>5</sup> except rugs. Data for establishments engaged primarily in cleaning rugs are classified separately by the Bureau of the Census.

The operations of collecting and distributing units (branch outlets) owned and operated by cleaning and dyeing plants were included in plant reports but such outlets have not been treated as separate establishments. Establishments generally known as 'taylor shops' or 'cleaners' are included in this classification only if they operate their own cleaning plants or units.<sup>6</sup>

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<sup>5</sup>U.S. Department of Commerce, Bureau of the Census, Census of Business 1954, p. v.

<sup>6</sup>Ibid.

Press shops are establishments which do only spotting and pressing. According to the Standard Industrial Classification they are:

independently owned shops primarily engaged in pressing or arranging for the cleaning and pressing of clothing for individuals. Valet shops and establishments generally known as 'taylor shops,' primarily engaged in garment pressing, are included in this classification but custom tailors . . . [are not]. Establishments known as 'cleaners' which do no dry cleaning but have their cleaning done for them by cleaning and dyeing plants and independently operated collecting and distributing agencies serving cleaning and dyeing plants or power laundries are included in this classification. Not included in this classification are data for plant owned shops for the pick-up and delivery of cleaning work.<sup>7</sup>

Combination laundry and dry cleaning plants are not formally included in the Standard Industrial Classifications. Some establishments have both laundry equipment and dry cleaning equipment. These are classified as "power laundries" or "dry cleaning plants" according to their "primary source of income." Plants classified by the Census as "power laundries" but that own dry cleaning equipment are referred to in this study as combinations.<sup>8</sup> Establishments classified by the Census as dry cleaning plants owning laundry equipment are referred to as dry cleaning plants with laundry equipment in this study. Collecting and distributing units or branch outlets that are owned and operated by the plants are included

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<sup>7</sup>Ibid.

<sup>8</sup>The method of computing data on 'combinations' is detailed below.

in both classifications but are not treated as separate establishments.<sup>9</sup>

Plants primarily engaged in garment repairs, alterations, fur cleaning and storage, and rug cleaning are not included in the above classifications. Such establishments are classified and recorded separately in the Census. However, establishments classified as dry cleaning plants, press shops or combinations may engage in these activities. The extent to which these activities can be delineated is discussed in Chapter V.

The sizes of dry cleaning plants are examined in the study. Size data for press shops and combinations are not provided by the Census. However, several measures of sizes of dry cleaning plants are provided. Both the number of plants and the receipts of plants are classified according to employment size, receipt size, and unit size. Because the data were incomplete and for other reasons explained in Chapter V, the only data for sizes that are examined in this study are the number of dry cleaning plants classified according to receipt size and employment size.

#### Nature of the Product

Dry cleaning has been defined above as primarily purchased cleaning, by means other than water (i.e. usually an organic based solvent), and pressing of garments used for

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<sup>9</sup>See: U.S. Department of Commerce, Bureau of the Census, Census of Business 1954, p. v.

personal wear. However, there is certainly room for product differentiation within the definition. There are also some close substitutes which would fall within the above definition but, as explained in the following section, these are specifically excluded.

Product differentiation is in the form of the quality of the cleaning performed and the additional services provided by the dry cleaner. The distinction between the two forms is not clear but it is useful for exposition purposes. The quality of the dry cleaning service can be discussed in terms of the 'accuracy' with which the above functions are performed. The absence of lint on the material after washing or the absence of dirt in pockets and seams is usually a consideration in evaluating the quality of dry cleaning. Spot removals, lack of deterioration of the material, the mending of holes and the replacement of buttons are all important as is the returning of all garments to their proper owners. Observations seem to indicate that increased quality is the result of increased labor input.

Closely related to quality, however, are the additional services provided by dry cleaners. Items such as hangers and plastic bags sometimes are a large item of expense.<sup>10</sup> The rapid service was not utilized as frequently in the period covered by this study because of the then existing technology. Fast service was available but sometimes at the expense of

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<sup>10</sup>Interview with the State Board of Dry Cleaners, July, 1962.

quality.<sup>11</sup> Delivery services are important as are drive-in windows. Of course, location and advertising are a form of product differentiation. Rug cleaning, fur cleaning and storage are all services offered by dry cleaners as is the convenience advantage of handling laundry.

Fabric treatment is an important service. The charge system has added greatly to fabric preservation. This is the practice of adding a soap to the solvent to reduce the amount of wet cleaning necessary after dry cleaning. Sizing the material makes it stiffer and gives it more body. Water-proofing and moth-proofing are also services performed on fabrics that may contribute to product differentiation.

#### Demand for Dry Cleaning

Several substitutes for dry cleaning exist. The first is home dry cleaning. The fact that any number of spot removers can be purchased indicates that a substantial amount of spot removing is done at home that would otherwise have to be sent to a dry cleaning establishment. Cleaning of the complete garment seems to be done less frequently at home because of the inconvenience and danger. Several additional substitutes started appearing in late 1955. These are coin-operated dry cleaning machines, wash-and-wear clothes, wrinkle resistant and spot repellent material, the increased popularity of dark colors and casual dress and an increased use of

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<sup>11</sup>Ibid.

air conditioning in buildings and in cars. The purchase of dry cleaning from a machine falls within the definition of a dry cleaning product. But because of its recent introduction (in 1960 authorities were still unsure of its implications)<sup>12</sup> and the absence of data, it is excluded from the product of concern and included as a near substitute. Thus, until late 1955 there were no real substitutes for dry cleaning the complete garment, so the demand for dry cleaning services was probably relatively inelastic during the first years examined and increased in elasticity with the introduction of substitutes.

The demand for dry cleaning depends not only on substitute goods and their prices but also on the number, income, and characteristics of the people demanding dry cleaning services. In Table I forty-one<sup>13</sup> states are ranked according to the 1958 figures for total retail dry cleaning sales, population, per capita personal income, percent urban, and percent employed in white collar occupations; in 1960, population density, total urban population, percent urban, and percent of income spent on dry cleaning. States with the largest population tend to have the largest total expenditures on dry cleaning as indicated by a rank correlation<sup>14</sup> of .97631.

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<sup>12</sup>Art Schuelke, "Leaders Adopt Wait-and-See Attitude on Coin-op Dry Cleaning," The National Cleaners (Reubin H. Donnelley Corp.: New York, August 1960), p. 26.

<sup>13</sup>States not included are those for which data were not available.

<sup>14</sup>Rank correlations were used because of the ease and

TABLE I

SELECTED STATES RANKED ACCORDING TO TOTAL RETAIL  
TOTAL POPULATION, PER CAPITA PERSONAL INCOME,  
PERCENT OF EMPLOYMENT IN WHITE COLLAR  
PERCENT OF INCOME SPENT

Ranked According to:*				
	(1)	(2)	(3)	(4)
	Total Re- tail Dry Cleaning Sales	Per Capita Retail Dry Cleaning Sales	Popula- tion	Total Urban Popula- tion
Alabama	22	34	19	23
Arizona	35	25	34	30
Arkansas	34	40	31	35
California	2	8	2	2
Colorado	28	15	32	28
Connecticut	19	6	25	19
Dst. of Col.	30	1	38	31
Florida	11	20	11	10
Georgia	16	24	15	16
Illinois	3	4	4	4
Indiana	10	14	10	11
Iowa	26	36	24	24
Kansas	29	28	28	27
Kentucky	24	32	21	26
Louisiana	21	30	20	18
Maine	38	38	35	38
Maryland	15	9	22	14
Massachusetts	9	7	9	9
Michigan	8	16	7	7
Minnesota	23	37	18	17
Mississippi	31	39	29	32
Missouri	12	17	13	12
Nebraska	33	26	33	34
Nevada	40	5	41	40
New Hampshire	39	27	39	39
New Jersey	7	2	8	8
New Mexico	37	21	36	37
New York	1	3	1	1
North Carolina	14	29	12	22
Ohio	5	11	5	5
Oklahoma	25	22	27	25
Pennsylvania	4	13	3	3
Rhode Island	36	10	37	33
South Carolina	27	33	26	29
Tennessee	18	23	17	21
Texas	6	12	6	6
Vermont	41	41	40	41
Virginia	13	19	14	15
Washington	20	18	23	20
West Virginia	32	35	30	36
Wisconsin	17	31	16	13

DRY CLEANING SALES, PER CAPITA RETAIL DRY CLEANING SALES,  
 PERCENT OF POPULATION RESIDING IN URBAN DWELLINGS,  
 OCCUPATIONS, DENSITY, TOTAL URBAN POPULATION,  
 AND ON DRY CLEANING: 1958

(5)	(6)	(7)	(8)	(9)
Percent Urban	Density	Percent Employed in White Collar Occupations	Per Capita Personal Income	Percent of Income Spent on Dry Cleaning
31	25	37	38	9
16	40	11	11	39
36	33	38	40	18
5	13	2	7	31
14	38	5	16	20
8	5	8	2	33
1	1	1	1	1
12	16	12	25	22
29	23	34	34	6
7	10	13	5	17
22	12	27	18	19
32	27	31	23	38
26	36	16	20	36
35	20	36	35	12
23	22	26	33	16
33	35	33	30	35
13	7	4	9	23
6	4	7	8	21
9	11	22	13	30
24	30	18	22	40
41	28	41	41	2
19	26	19	17	28
30	37	25	21	34
17	41	15	4	26
27	24	29	24	32
2	3	6	6	5
20	39	10	27	13
4	6	3	3	10
38	15	39	37	7
10	9	20	10	29
25	34	14	29	15
15	8	23	14	27
3	2	24	15	14
37	18	40	39	3
34	17	35	36	4
11	32	17	26	8
39	31	28	31	41
28	14	21	28	11
18	29	9	12	25
40	19	32	32	24
21	21	30	19	37



Table I (continued)

	Rank Correlation Coefficients:			(10)
	Total Re- tail Dry Cleaning Sales	Per Capita Retail Dry Cleaning Sales	Popula- tion	Total Urban Popula- tion
Total Retail Dry Clean- ing Sales	1.00000		.97631	.95723
Per Capita Re- tail Dry Clean- ing Sales		1.00000	.3847	
Population			1.00000	.95723
Total Urban Population				1.00000
Percent Urban Density				
Percent Employed in White Collar Occupations				
Per Capita Per- sonal Income				
Percent of Income spent on Dry Cleaning				

\*(Source: Derived from U.S. Department of Commerce, Bureau of the Census, Census of Business, 1958.) Retail dry cleaning receipts of dry cleaning plants and laundry plants were added to sales of press shops. Data for both laundry and dry cleaning plants were computed under the assumption that the partial returns from plants with a payroll were characteristic of all plants with a payroll. Dry cleaning plants without a payroll were considered as making only retail sales and laundry plants without a payroll were considered as making no dry cleaning sales.

$$(2) = (1) \div (3)$$

(3) U.S. Department of Commerce, Statistical Abstract of the United States (82d ed., 1961), Table 6, p. 10.

$$(4) = (3) \times (5)$$

Percent Urban	Density	Percent Employed in White Collar Occupations	Per Capita Personal Income	Percent of Income Spent on Dry Cleaning
.8883	.5842	.7683	.8323	
.3719				
1.0000	.5072		.8684	.0119
	1.0000		.52552	
		1.0000		
			1.00000	-.2758
				1.0000

- (5) Interpolated from U.S. Department of Commerce, Bureau of the Census, Census of Population 1960, and Census of Population 1950. See, Ibid. 1960, P.C.1, Table 6, p. 10.
- (6) Census of Population 1960. These data are for 1960. Population per square mile of land area.
- (7) Ibid. These data are for 1960.
- (8) Statistical Abstract. Ibid., Table 419, p. 307.
- (9) = (2) ÷ (8)
- (10)  $p = 1 - \frac{6 d^2}{N(N^2 - 1)}$  According to George W. Snedecor and William G. Cochran, Statistical Methods (5th ed., Ames, 1956), p. 174. The coefficients are significant at the 95 percent confidence level if the value is greater than .304 and at the 99 percent confidence level if above .449.

There is also a distinct pattern of per capita dry cleaning expenditures. People that reside in or near urban areas tend to spend more on dry cleaning as indicated by the rank correlation of .8883 between percent of the population urban and per capita dry cleaning sales, and the rank correlation of .5842 between density and per capita dry cleaning sales. This does not mean that all dry cleaning sales are to urban dwellers because the rank correlation between total urban population and total dry cleaning sales is .95723 as compared with the correlation with total population of .97631. States with a high per capita income tend to have high per capita dry cleaning sales (rank correlation of .8323) as do states with a high percentage of the population employed in white collar occupations (rank correlation of .7683). It cannot be said that urban persons spend a higher percent of their income on dry cleaning than non-urban persons due to no correlation (.0119) between percent urban and percent of income spent on dry cleaning. It can be said, however, but with little confidence, that higher income areas tend to spend a smaller percent of their income on dry cleaning due to a rank correlation of  $-.2758$  between per capita personal income and percent of income spent on dry cleaning.

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speed with which they could be calculated and because an assumption of a bivariate population is not necessary. See: Sandord M. Dornbusch and Calvin F. Schmid, A Primer of Social Statistics (New York, 1955), pp. 195-199.

A detailed explanation of isolated cause and effect between the above variables and per capita dry cleaning sales fortunately is not necessary. From the data presented it is impossible to show which variable contributes the greatest influence on per capita dry cleaning sales because the variables themselves are correlated. Thus states which have a large population tend to have a large percent urban (rank correlation coefficient of .3719) and states with a high percent urban tend to have high per capita incomes (rank correlation coefficient of .8684). All that need be established is the direction one would expect dry cleaning activity to take with changes in this general group of variables. If any two of these variables were to change in opposite directions, an estimation of the effect on per capita dry cleaning sales would be little more than guess. One can say, however, that an upward pressure on per capita dry cleaning could be caused by an increase in the percentage of the population urban, density, per capita income and/or percentage of the population employed in white collar occupations. And, one can also say that the percentage of the population urban and the amount of income would have little effect on percent of income spent on dry cleaning.<sup>15</sup>

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<sup>15</sup>One would also expect geographic location to be an important variable--that people in colder areas spend more for dry cleaning. But the data do not allow sufficient separation of the variables to adequately test such a hypothesis.

## CHAPTER III

### OKLAHOMA DRY CLEANING REGULATIONS

This chapter consists of three parts. The first part presents a general introduction to the nature of administrative regulations of the type under consideration. Next, the historical development of Oklahoma legislation is examined. Then the activities of the regulatory agency in charge of the Oklahoma dry cleaning industry are reviewed.

#### The Nature of Occupational Self-Regulation

##### Origin

The controls pertaining to the Oklahoma dry cleaning industry fall directly within the broad framework of self-regulation of industrial groups and professions. The regulations pertain to the methods of production, minimum prices, and entry through licensing practices. Such self-regulation of industrial groups was sanctioned by public authorities as early as the eleventh century guilds.<sup>1</sup> However, self-regulation in the United States has not been granted as much respectability as have the European cartels. Frequently, the

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<sup>1</sup>J. A. C. Grant, "The Guild Returns to America," Journal of Politics, No. 4 (1942).

present day self-regulation of industries is viewed as completely analogous with the medieval guilds.<sup>2</sup> The guilds, under the auspices of the church and the concept of the 'just price,' sought to enhance their own welfare through high prices and restricted entry. These practices are cited as causes for the eventual downfall of the guilds. Although analogies can be made, this view of the guild system is misleading. First, many recent economists believe the price sanctioned by the church, 'just price' as it was viewed by the scholastic economists, is not to be interpreted as an objective theory of value but merely as a 'competitive' price.<sup>3</sup> Second, it is not clear which type of guild to which the proposition refers. Merchant guilds were not primarily originated or designed to exploit the public, but to protect the membership, in their travels, from highwaymen and/or to gain freedom for the towns with oppressive lords.<sup>4</sup> In fact, the guild members were so central to the city administration

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<sup>2</sup>To cite a few: Ibid.; Walter Gellhorn, Individual Freedom and Government Restraints (Baton Rouge, 1956), p. 113; and Council of State Governors, Occupational Licensing Among the States (1952).

<sup>3</sup>Joseph Schumpeter, History of Economic Analysis (New York, 1954), pp. 60-62; Bernard W. Dempsey, "Just Price in a Functional Economy," Essays in Economic Thought: Aristotle to Marshall, ed., J. Spengler and Allen (Chicago, 1960); Raymond de Roover, "The Concept of the Just Price: Theory and Economic Policy," The Journal of Economic History, XVIII, No. 4 (December 1958).

<sup>4</sup>Henri Pirenne, Medieval Cities (Princeton, 1925), p. 176; M. Postan and E. E. Rich, ed., The Cambridge Economic History of Europe (Cambridge, 1952), XI, 267-268.

it is often impossible to separate the two.<sup>5</sup> And, their downfall was not necessarily the result of monopolistic practices. This can better be attributed to the appearance of the craft guilds<sup>6</sup> and to the increasing fraternal nature of the merchant guilds.<sup>7</sup>

Third, it is not at all clear that the craft guilds had so much "monopolistic power." The craft guilds were usually subordinate to the public authorities, who were often untrusting, and the craft guilds were charged with the responsibility of subordinating themselves to the 'common good.' But a precise definition of the 'common good' was lacking and it was left to the individual to decide precisely whose good was to come before his own.<sup>8</sup> There can be little doubt that economic gain played an important role in guild membership for guilds paid sizable amounts for grants of monopoly from the Kings. Curiously enough, however, guild price regulations were concerned with maximum prices rather

<sup>5</sup>Stella Kramer, "The English Craft Gilds and The Government," Studies in History, Economics, and Public Law, XXIII, No. 61 (1905), p. 23.

<sup>6</sup>The membership of the merchant guilds found it more advantageous to join craft guilds. E. M. Carus-Wilson, "The English Cloth Industry in Late Twelfth and Early Thirteenth Centuries," The Economic History Review, XIV, No. 1 (1944), p. 41. Kramer, pp. 23-28.

<sup>7</sup>Sylvia L. Thrupp, "Medieval Gilds Reconsidered," The Journal of Economic History, II, No. 2 (November 1942), pp. 172-173.

<sup>8</sup>Sylvia L. Thrupp, "Social Control in the Medieval Town," The Journal of Economic History, I (December 1941).

than minimum prices. This is notable departure from today's legislative practices of self-regulated industries.<sup>9</sup> Also, qualifications must be made concerning the degree to which guilds were able to assert their powers--checks did exist. The monopolies were expensive to enforce. Frauds were frequent.<sup>10</sup> The city fathers and other guilds often imposed severe limitations on the powers of any particular guild.<sup>11</sup> The workings of public opinion were also serious limitations. In local areas where the market was sufficiently stable for monopoly control, the economic relationships were more personal and the influence of the church was much greater.<sup>12</sup>

As will be seen, there is a great similarity between the medieval guild and many of the present day administrative boards. The justification of self-regulation of industry and the nature of the regulations are much the same today as they were then. In fact, there seems to be a great deal of validity

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<sup>9</sup>In an admittedly incomplete survey of the literature, the author has not found a single example of a minimum price set by a guild. And, only a few examples of price setting were found. By far, the majority of cases seem to be privileges granted to set maximum prices only. J. A. C. Grant, "Gild Returns," p. 309: Grant asserts that ". . . their principle interests lay in minimum prices and maximum wages," but no supporting evidence is produced.

<sup>10</sup>For a few examples see: L. F. Salzman, English Industries of the Middle Ages (Oxford, 1923), p. 250 and p. 309; also Thrupp, "Gilds Reconsidered," p. 170.

<sup>11</sup>For a few examples see: Herbert Heaton, Economic History of Europe (New York, 1948), p. 204; N. S. B. Gras, Industrial Evolution (Cambridge, 1930), p. 56; E. Lipson, An Introduction to the Economic History of England (London, 1920), p. 338.

<sup>12</sup>Thrupp, "Social Control," p. 46.



in the view that self-regulation of industry became well-established with the guild system. But to argue against today's self-regulation of industry by analogy to medieval guilds which supposedly wielded uncontrollable power to exploit the public is historically incorrect at best.

### United States

Moving on to more recent periods, the legal setting for self-regulation of industries in the United States is of passing interest.<sup>13</sup> Licensing regulations are regulations under police power which "is the power to restrain common rights of liberty or property,"<sup>14</sup> as resides under the authority of the states by the Tenth Amendment to the United States Constitution and checked by the Fourteenth Amendment. The common law deals with violations of interest which the police power protects, but only after the act is done. The police power seeks "to prevent evil by checking the tendency toward it, and . . . [by placing] a margin of safety between that which is permitted and that which is sure to lead to injury

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<sup>13</sup>Space does not allow a more detailed discussion of the historical evolution and legality of self-regulated industries. The interested reader is referred to: Council of State Governments, pp. 10-27; Gellhorn, pp. 105-151; Grant, "The Guild," JP; Louis L. Jaffe, "Law Making by Private Groups," Harvard Law Review, LI (1937); Lane W. Lancaster, "The Legal Status of 'Private' Organizations Exercising Governmental Powers," Southwestern Social Science Quarterly, XV (1935).

<sup>14</sup>Ernst Freund, The Police Power, Public Policy and Constitutional Rights (Chicago, 1904), p. 19.

or loss."<sup>15</sup> The constitutionality of minimum price fixing statutes, however, is a more recent development and will be reviewed while considering the cases under the Oklahoma Statutes.

Self-regulation in the form of a guild system was never well-established in the American Colonies, possibly because the occupations were primarily agrarian. Virtually only two occupations were subject to governmental regulation before the nineteenth century. Medicine, for one, became regulated in Virginia in 1639 due to complaints about high prices; but the statute was revised in 1736 placing personal requirements on those entering the occupation. Nevertheless, few attempts were made by the colonial governments to regulate medicine until the late eighteenth century.<sup>16</sup> Lawyers were from the earliest periods considered officers of the courts. As such, admission to practice was regulated by the legislative body, the governor, or the courts.<sup>17</sup>

Then, in the nineteenth century with the industrial revolution the number of professions expanded. Prior to this

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<sup>15</sup>Ibid., p. 25. See also: Hugo Wall, "A Study of the License Laws of Eighteen Selected States" (unpub. Ph. D. dissertation, Stanford, 1929), pp. 1-4; Morstein Marx, "Comparative Administrative Law: Exercise of Police Power," University of Pennsylvania Law Review, XC (January 1962), pp. 266-291. Cited in Council of State Governments, p. 6.

<sup>16</sup>Louis G. Caldwell, "Early Legislation Regulating the Practice of Medicine," Illinois Law Review, XVIII (December 1923), p. 233. Cited in Council of State Governments, p. 15.

<sup>17</sup>Council of State Governments, p. 16.

period, primarily the medical and legal professions which required a longer period of training were the only occupations considered as 'professions.' But the changing technology and increased specialization found engineers, dentists, accountants, and others, gradually being granted professional status.<sup>18</sup> The states unquestionably had the right to grant these groups licensing powers. However, licensing privileges granted by the states declined during the first half of the nineteenth century, and around the middle of the century states began revoking such privileges previously granted.<sup>19</sup> After the Civil War, the states once again began to regulate occupations and have continued to expand rapidly ever since.<sup>20</sup>

### The Oklahoma Legislation

#### Legislative History

The first bill intended to regulate the Oklahoma dry cleaning industry was introduced in 1939. The bill was supported by members of the industry to protect the public from frauds, fire hazards in dry cleaning shops and the hazards of unfair competition, and to make the occupation a respectable profession.<sup>21</sup> To accomplish these ends, the bill authorized

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<sup>18</sup>A. M. Carr-Sanders and P. W. Wilson, "Professions," Encyclopedia of Social Sciences, VI, pp. 476-477. See also: A. M. Carr-Sanders, "Metropolitan Conditions and Traditional Professional Relationships," The Metropolitan Life, ed., Robert Moore Fisher (1955).

<sup>19</sup>Council of State Governments, pp. 18-19.

<sup>20</sup>Ibid.

<sup>21</sup>Interview with the State Dry Cleaners' Board and

a State Dry Cleaning Board to:

promulgate rules and regulations to enforce sanitary and health regulations and to reduce fire hazards of clothes cleaning and pressing establishments; empowering and authorizing said Board to promulgate rules and regulations to promote occupational security of operators engaging in said business; and to promulgate rules to prevent unfair trade practices; and to require the issuance of licenses by said Board to persons, firms, corporations or associations, as a prerequisite in engaging in said cleaning and dyeing and/or pressing business; to determine fitness and reliability of applicants to engage in said business: authorizing said Board to approve agreements and make orders fixing minimum prices for all dry cleaning, dyeing and/or pressing services; and providing penalties for the violation of any of the provisions of this Act; and providing for judicial review of the acts of said board.<sup>22</sup>

The bill passed the House<sup>23</sup> although some attempts were made to block it,<sup>24</sup> and was sent to the Senate. The reception in the Senate was not especially enthusiastic. Senator Waldrop submitted amendments to remove the price fixing authority granted by the bill.<sup>25</sup> These amendments were adopted. But, attempts were still made to "kill" the bill.<sup>26</sup> The bill

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Kirksey Nix, Oklahoma Supreme Court Justice, July, 1962.

<sup>22</sup>Oklahoma House Journal 1939, House Bill 232.

<sup>23</sup>The vote was - Aye: 67, Nay: 22, Excused: 10, Absent: 16.

<sup>24</sup>See: Ibid., p. 3345.

<sup>25</sup>Oklahoma Senate Journal 1939, p. 2122.

<sup>26</sup>Senators Church and Taylor submitted the following amendment which was tabled: "Mr. President: We move to amend H.B. 232, line 1, p. 4, by inserting after the word 'pressing' and before the word 'industry,' the following: Boot Blacks, Auto Washers, Window Washers, Char Women, Janitors, Furnace Tenders, Lawn Sprinklers, Trash Haulers, Tire Changers, Street Sweepers, Livery Stable Tenders, Chimney Sweeps, Shoe Cobblers." Ibid., p. 2273.

passed the Senate<sup>27</sup> and was sent to Governor Phillips who killed it by means of the "pocket veto."<sup>28</sup>

The Act which is presently in force is substantially the bill that was introduced in 1939 and was also supported by dry cleaners in the state.<sup>29</sup> It was introduced in the House of Representatives on Monday, February 10, 1941. Only two of the thirty-two authors, Witt and Miskovsky, were also authors of the 1939 bill. The bill did not contain a minimum price clause and received considerably more support in both the House and the Senate,<sup>30</sup> and it became law without the governor's signature.<sup>31</sup>

#### Provisions of the Act and Court Interpretations

The Act created a State Board of Dry Cleaners. The members are to be appointed by the governor. At least three

<sup>27</sup>The vote was - Aye: 28, Nay: 16, Not Voting: 9.

<sup>28</sup>Oklahoma House Journal 1939, p. 4361.

<sup>29</sup>A pamphlet distributed by the Oklahoma Dry Cleaners' Association claims that: "Enactment of the State Dry Cleaners Law in 1941 created stabilized pricing in the industry, and has enhanced the prestige of the professional dry cleaner. This law, proposed and directed through the State Legislature by the OAD, has eliminated the unethical operator. Now competition is based on quality and service, rather than price, giving the customer more value for his money. The Licensing provision promotes a safe, healthy atmosphere for both the public and employees."

<sup>30</sup>House vote - Aye: 75, Nay: 28. Oklahoma House Journal 1941, p. 1527. Senate vote - Aye: 27, Nay: 6, Excused: 3. Oklahoma Senate Journal 1941, p. 1354.

<sup>31</sup>Oklahoma House Journal 1941, p. 3444.

of the members must have been engaged in the dry cleaning business for at least five years and the members are to serve until their successors are appointed.<sup>32</sup> The Board is an instrument of the state invested with the power: to supervise and regulate the cleaning industry within the framework of existing health, sanitation and labor laws; to investigate and regulate matters pertaining to "the proper supervision and control" of the cleaning industry with the power to subpoena to carry out the purposes of the Act; and to act as mediator in controversies between employee and employer.<sup>33</sup>

The Act sets forth five main functions of the Board.

- (1) The Board is to adopt and promulgate rules and regulations necessary to identify to the public all licensed practitioners and prohibit false and misleading statements.
- (2) Separate licenses for each place of business are to be granted by the Board.
- (3) As a prerequisite for obtaining a license, the Board is to require all persons to comply with the standards deemed necessary by the Board for the protection of the public.
- (4) The Board is to enforce and assist in the enforcing of fire, sanitation, labor and other laws applicable to the industry.
- (5) The Board is to "act with the purposes of this Act, as a competent authority in

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<sup>32</sup>Session Laws of Oklahoma 1951, Chapter 17, Section 2, p. 244.

<sup>33</sup>Ibid., p. 245.

connection with matters pertinent thereto: provided, however, that nothing herein shall be construed as granting said Board the right or power in any manner to fix prices."<sup>34</sup>

The Law provides that no person shall engage in the business of dry cleaning without first obtaining a license from the Board. The license is to be valid for one year and may be suspended by the Board at any time. A license fee is to be collected by the Board and the fee itself was originally one dollar per thousand on gross business done during the preceding calendar year. And originally, no fee was to be less than three dollars or more than forty dollars. Funds collected by the Board are to be deposited with the State Treasurer. One tenth of these funds are to be appropriated to the general revenue fund of the state and the remainder is appropriated to the Board for administrative purposes.<sup>35</sup>

The Board is able "to adopt and enforce all rules and orders necessary to carry out the provisions of . . . [the] Act." If the Board finds anyone in violation of these rules, the procedure for investigation must include reasonable notice to persons involved and the opportunity for the involved to be heard at a public hearing. Any member of the Board has the power to conduct the hearing, administer oaths

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<sup>34</sup>Ibid., pp. 245-246.

<sup>35</sup>Ibid., pp. 246-247.

and issue subpoenas. A refusal of a witness to testify can result in contempt proceedings. A person who operates a dry cleaning establishment without a license is guilty of a misdemeanor. The penalty is a fine of not less than ten dollars nor more than five hundred dollars, and/or a jail sentence of not less than five days nor more than thirty days. Each day the violation occurs can be a separate offence. The Board may revoke or refuse to grant a license if the "licensee has violated any provisions of this Act of . . . any lawful rule or order of . . . [the] Board." If the licensee wishes to appeal the action of the Board he must file a petition in district court within ten days after receipt of the order. The court has "jurisdiction to reverse, vacate or modify" the action of the Board.<sup>36</sup>

The constitutionality of the Act was upheld in Jack Lincoln Shops, Inc. v. State Dry Cleaners' Board in 1943.<sup>37</sup> Plaintiff charged that the Act was in violation of sections two<sup>38</sup> and seven<sup>39</sup> of Article Two of the Oklahoma Constitution and Section One of the Fourteenth Amendment to the Constitu-

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<sup>36</sup>Ibid., pp. 246-248.

<sup>37</sup>192 Okla. 251, 136 Pac. 2d 332 (1943).

<sup>38</sup>"All persons have the inherent right to life, liberty, the pursuit of happiness, and the enjoyments of gains of their own industry." Oklahoma Statutes 1961 (St. Paul, 1961), p. 46.

<sup>39</sup>"No person shall be deprived of life, liberty, or property without due process of Law." Ibid., p. 48.



tion of the United States.<sup>40</sup> Plaintiff argued that although the dry cleaning business is subject to "many abuses which may be remedied by appropriate legislation, the law goes too far."<sup>41</sup> Noting that several decisions had declared such laws unconstitutional<sup>42</sup> the plaintiff attempted to prove that the law effectually empowered the Board to fix prices, and that it was arbitrary, discriminatory and without reasonable relation to the public interest.

The court, however, agreed with the defense that the plaintiff's argument was primarily directed at the wisdom of the legislature. Other courts had recognized similar legislation<sup>43</sup> and though dry cleaning businesses are neither per se nor prima facie a nuisance it is "unquestionably" subject to control by the state in exercise of police power.<sup>44</sup> Even

<sup>40</sup>"No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any state deprive any person of life, liberty, or property without due process of law; nor deny to any person within its jurisdiction the equal protection of the law." *Ibid.*, p. 6.

<sup>41</sup>192 Okla. 252.

<sup>42</sup>"Kent Stores v. Welentz (1936) 14 F. Supp. 1 (New Jersey Statute); Becker v. State (1936) 37 Del. 454, 185 Atl. 92; and State v. Harris (1940) 216 N.C. 746, 6 S.E.2d 854, 128 A.L.R. 658" 192 Okla. 252.

<sup>43</sup>Miami Laundry Co. v. Florida Dry Cleaners & Laundry Board, 183 So. 759, 119 A.L.R. 950 (annotation, p. 985); Public Cleaners, Inc. v. Florida Dry Cleaners & Laundry Board, 32 Fed. Sup. 31; Klever Shampy Karpel Kleaners v. The City of Chicago, 49 A.L.R. 103 (1926); State of North Carolina v. Harris, 6 S.E.2d 854, 128 A.L.R. 658 (1940); Herrin, et al. v. Arnold, District Judge, 183 Okla. 392, 82 Pac. 2d 977, 119 A.L.R. 1471; Nebbid v. New York, 291 U.S. 502, 78 L. ed. 940 (1934).

<sup>44</sup>American Jurisprudence (1941), pp. 3-10. As quoted

though this is so, the court continued, the legislature is considered as the best judge of whether a business is affected with a public interest and though the courts may disagree with the "wisdom of the legislature, they may not annul it as being in violation of substantive due process unless it is clearly irrelevant to the policy the Legislature may adopt or is arbitrary, unreasonable or discriminatory."<sup>45</sup>

#### Amendments and Court Interpretations

In 1945, the Act was amended to read substantially as the first bill of 1939 had read. All sections were removed that explicitly stated that the Act was in no way to grant price fixing powers to the Board. Annual license fees were increased and penalty fees for late payment<sup>46</sup> and inspection<sup>47</sup> were added.

The primary change to the 1941 Law was the empowering of the Board to set minimum prices.

The Board shall have the authority and power to approve price agreements establishing minimum prices for cleaning, pressing and dyeing services signed and submitted by at least seventy-five percentum (75%) of the duly registered and licensed cleaning and pressing operators in any county of this state, after ascertaining by such investigation, and proofs as the condition permits and requires, that

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in: the Brief for the defense, Jack Lincoln Shops, Inc. v. State Dry Cleaners' Board.

<sup>45</sup>Jack Lincoln Shops, Inc. v. State Dry Cleaners' Board, 192 Okla. 251.

<sup>46</sup>Oklahoma Statutes, Paragraph 745.

<sup>47</sup>Ibid., Paragraph 745.1.

such price agreement is just, and under varying conditions will best protect the public health and safety by affording a sufficient minimum price for cleaning and pressing services to enable the persons engaged in such business to furnish modern and healthful service and safe appliances so as to minimize the danger to the public health and safety incident to such work.<sup>48</sup>

The Board is to take into consideration costs when setting prices and is endowed with the authority to fix "the minimum price for all services usually furnished and performed by a cleaning and pressing establishment."<sup>49</sup>

This amendment was supported by the state dry cleaners as was the original Act.<sup>50</sup> They argued that they were required to undertake additional expenses in order to protect the public, but when prices were so low they could not afford these safety measures. In addition to the necessary extra expenses, they submitted that they needed sufficient income to insure themselves against fires because fire insurance for dry cleaners was not available. Also, additional income was needed to prevent misleading advertising.<sup>51</sup>

The constitutionality of the amendment was upheld in State Dry Cleaners' Board v. Compton.<sup>52</sup> Compton held that,

<sup>48</sup>Ibid., 59 Paragraph 757, p. 672.

<sup>49</sup>Ibid.

<sup>50</sup>Interview with the State Board of Dry Cleaners, Oklahoma. July 1962.

<sup>51</sup>Interview with Fred Hansen, First Assistant Attorney General of Oklahoma. July, 1962.

<sup>52</sup>205 Pac. 2d 286. The argument developed here is taken from Brief of the Defendant in Error of this case.

first, the Act was unconstitutional because it was not a valid exercise of police power,<sup>53</sup> that it was an unlawful delegation of legislative power,<sup>54</sup> and that the Legislation violated Article Two, Sections 2 and 7 of the Oklahoma constitution and the Fourteenth Amendment to the Constitution of the United States. Secondly, Compton maintained that even if the Act were constitutional the order of the Board was "arbitrary, discriminatory and unreasonable." He felt that such regulations should be made by disinterested parties and based on "ample evidence showing a substantial relation to the ends to be accomplished thereby."<sup>55</sup>

The courts again adopted the view of the defense. The Board maintained first that the law was well-settled in Oklahoma decisions. The dry cleaners law is very similar to act pertaining to the Oklahoma barbers for which the price fixing arrangements were held constitutional in Herrin, et al. v. Arnold, District Judge.<sup>56</sup> Secondly, the Board maintained

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<sup>53</sup>Nebbia v. New York establishes that even though a business is subject to regulation, as was the Oklahoma dry cleaning industry in Jack Lincoln Shops, Inc. v. State Dry Cleaners' Board, each regulation imposed on the industry must bear a "substantial" relation to the purposes of the law.

<sup>54</sup>The Act violated Article 4, Section 1 and Article 5, Section 1 of the Oklahoma constitution. All powers delegated must be exercised within the limits and standards set by the legislature. Plaintiff maintained that such words as "just price," "best protect the public," and "properly regulate" are not standards.

<sup>55</sup>State Dry Cleaners' Board v. Compton, Brief of the Defendant in Error, p. 16.

<sup>56</sup>183 Okla. 392, 82 Pac. 2d 977. The constitutionality

the price fixing order was based on "ample testimony to validate the price fixing order complained of."<sup>57</sup> The court in its own words found that:

The price fixing authority of the State Dry Cleaners' Board is constitutional and the record before us does not disclose that the prices fixed are unreasonable, arbitrary or otherwise unjust. In fact all of the evidence points to the fact that the prices fixed are necessary to stabilize the industry and are reasonable and will promote the public welfare, health and safety.<sup>58</sup>

In other states such as California, New Mexico, Delaware, Florida and New Jersey the price fixing statutes have been declared void by the courts usually on the ground that the laws were arbitrary. The Oklahoma courts, however, have made it clear that the removal of the Oklahoma law will come only from the legislature. Oklahoma State Representative Kessler introduced a bill in 1951 that would have removed the licensing power and the price fixing power of the

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of price fixing powers granted to barbers has been upheld in many states on the basis of Board of Barber Examiners of Louisiana v. Parker, 190 La. 214. If the business is "affected with a public interest" price fixing powers are valid under the police power. By the authority of Munn v. Illinois, 94 U.S. 113, and Nebbia v. New York, 291 U.S. 502 such regulation has been upheld for insurance rates, compensation in insurance agents, rates of market agencies for livestock and tobacco warehouse rates. See: "Constitutional Law--Police Power--Minimum Price Fixing Statutes--Barbers," Tulane Law Review, XIII (December 1938), pp. 144-46.

<sup>57</sup>Brief of Plaintiffs in Error, State Dry Cleaners' Board, et al., Plaintiffs in Error v. V. M. Compton, Defendant in Error, p. 24.

<sup>58</sup>State Dry Cleaners' Board v. Compton, 250 Pac. 2d 286.

Oklahoma Dry Cleaners' Board.<sup>59</sup> Kessler, at the same time introduced a bill that would have repealed the same controls in the barbering industry.<sup>60</sup> Both groups applied pressure. Nearly two hundred barbers filled the state supreme court chambers in opposition to the bill at a public hearing,<sup>61</sup> and two days later the House committee voted, eighteen to ten, in favor of postponing consideration of the bill indefinitely.<sup>62</sup> The dry cleaners claimed that: for "good" service, price fixing is a "must"; that under present regulations a person doing this work was able to make a "decent living";<sup>63</sup> and that out of thirty-one major items used by dry cleaners, twenty-one were fixed in price to them--they would not mind if all price controls were removed.<sup>64</sup> Over four hundred cleaners attended the public hearings on the bill<sup>65</sup> which was later killed when the House voted eighty-three to twenty in favor of a motion to table a motion to bring the bill out of committee.<sup>66</sup> The fact that the committee chairman was

<sup>59</sup>Okla. House Journal 1951, House Bill 97.

<sup>60</sup>Okla. House Journal 1951, House Bill 96.

<sup>61</sup>Ibid., The Daily Oklahoman (Tuesday, January 30, 1951), p. 20.

<sup>62</sup>Ibid. (February 1, 1951), p. 1.

<sup>63</sup>Tulsa Tribune (Wednesday, February 15, 1951), p. 18.

<sup>64</sup>Interview with the State Dry Cleaners' Board.

<sup>65</sup>William R. Palmer, "Price Control Upheld in Oklahoma," The National Cleaner and Dyer (1951), p. 114.

<sup>66</sup>The Daily Oklahoman (Thursday, February 22, 1951), p. 1.

against Kessler's bill did not aid his efforts<sup>67</sup> but because both bills were introduced at the same time, substantial political opposition was aroused. Kessler was not re-elected.

#### The Activities of the Oklahoma Dry Cleaners' Board

The Oklahoma Dry Cleaners Board has many activities. In 1957 it promulgated an act that allowed dry cleaners to give unclaimed garments to charitable organizations.<sup>68</sup> Such activities are also closely associated with the Oklahoma Association of Dry Cleaners with which the Board works closely. In fact, the Oklahoma Dry Cleaners' Association goes so far as to say that "the State Board is a governmental group whose members are appointed by the governor upon recommendation of the ODA."<sup>69</sup> (Italics added.) Together they have provided a monthly publication, established a credit union, and participated in research in dry cleaning at the Oklahoma State University School of Technical Training. However, the primary activities of the Board are determining, interpreting and enforcing the regulations governing the industry.

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<sup>67</sup>Ibid., p. 3.

<sup>68</sup>Okla. House Journal 1957, House Bill 398.

<sup>69</sup>A pamphlet distributed by the Oklahoma Association of Dry Cleaners. Of course, the necessity of such recommendations is not stated in the Act.

### License Requirements

The Board's activities are financed completely through license fees and fines. The annual license fees are one dollar and fifty cents per one thousand dollars in annual sales. The penalty fees are primarily for late payments (five dollars per month) which account for only a small proportion of total receipts as shown in Table II. The first license fee is fifteen dollars plus an original inspection fee of thirty-five dollars. As noted earlier, the great expense of maintaining guilds was one contributor to their downfall. The dry cleaners paid an average of thirty-four dollars in 1958 for the maintenance of supervision over the industry. This would not seem to be a significant cost of operation.<sup>70</sup>

To obtain a license, an application is filed with the State Dry Cleaners' Board and a payment of fifty dollars license fee plus original inspection fee is made. This entry fee amounting to \$85 would not seem to be entry restricting. Licenses are renewed once a year and the fee as explained above, depends on the previous year's sales. The only personal requirement is that the applicant must have an established permanent business locality within the state of Oklahoma. This business locality and building are inspected

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<sup>70</sup>These data could be used to estimate total sales of dry cleaning. But a downward bias would be expected because the more sales one reports, the higher would be his fees. Thus, there is an incentive to refrain from reporting sales. Penalties and inspection fees would also bias this estimate.



TABLE II  
 REVENUE OF OKLAHOMA DRY CLEANERS' BOARD, 1947<sup>a</sup> - 1958  
 (dollars)

Period		Fines	License Fees	Total
July 1, 1947	to June 30, 1948	n.a. <sup>b</sup>	n.a.	26,660
" " 1948	" " " 1949	n.a.	n.a.	28,425
" " 1949	" " " 1950	n.a.	n.a.	29,352
" " 1950	" " " 1951	n.a.	n.a.	32,342
" " 1951	" " " 1952	n.a.	n.a.	31,623
" " 1952	" " " 1953	n.a.	n.a.	32,429
" " 1954 <sup>c</sup>	" " " 1955	1,180	31,409	32,589
" " 1955	" " " 1956	1,095	32,894	34,090
" " 1956	" " " 1957	1,430	32,012	33,442
" " 1957	" " " 1958	1,755	33,140	34,895

<sup>a</sup>Earlier years are not available.

<sup>b</sup>n.a. = not available.

<sup>c</sup>The year, July 1, 1953 to June 30, 1954 is not available.

(Source: Compiled from: Audit Report of State Dry Cleaners' Board, State Examiner and Inspector, Oklahoma. (Mimeograph).)

before the license is approved. Most of the regulations of the Board, then, pertain to, first, the building requirements and standards of performance, and second, the pricing activities, rather than to the personal character of the applicant.<sup>71</sup> These will be discussed in turn.

The building and equipment requirements established by the Board could act as a barrier to entry if they were sufficiently stringent and well-enforced, or if the capital markets were somewhat imperfect. Without a detailed examination of the regulations as compared with the practices of the firms where no such regulations exist, one is not able to determine whether these are stringent or not. Also, although the regulations are admittedly in need of revision,<sup>72</sup> they are taken primarily from the regulations of the National Board of Fire Underwriters many of which are incorporated into the building codes in this and many other states. Thus, any attempt to ascertain whether or not and to what degree the regulations are used to restrict entry would entail many complications. With these qualifications in mind, a review of some of the regulations should be informative.<sup>73</sup>

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<sup>71</sup>Only two questions on the application are directed at the applicant personally: (1) whether or not he has had any previous dry cleaning experience, and (2) whether or not he has ever been refused a license by this Board or any other Dry Cleaners' Board.

<sup>72</sup>Interview with the State Dry Cleaners' Board, July, 1962.

<sup>73</sup>The regulations discussed are primarily those found in: State Dry Cleaners' Board, State Law and Regulations for Safeguarding Dry Cleaning Plants, Oklahoma City. pp. 11-31.

The regulations to which a plant is subject depends to some extent upon how it is classed. Plants are classified according to the flammability of the solvents used. Plants using highly flammable solvents such as ether, gasoline and alcohol are in Class I, and those using the less flammable solvents such as kerosene and the parafin oils are in Class II. The regulations governing Class I plants are the same as those governing Class II plants, plus some additions. Therefore, the latter are discussed first. Certainly not all technical regulations are covered and statements of preference or advice have been omitted. The discussion does provide, however, a general impression of the nature of the regulations.

If the applicant for a license is building a new plant, he must submit the plans to the Board for approval. If the license is to be approved, no local zoning ordinance can be violated and the plant cannot operate in connection with a place of residence. The building must have a mechanical system of ventilation sufficient for a change of air every three minutes with explosive proof motors in a "non-hazardous" location. Ventilation must work automatically when the machines are in use. Heating must be by steam or water only.

Dry cleaning in open vessels (except spotting) is prohibited and machines must be designed to prevent the escape of fumes. All solvent storage tanks must be underground, and aboveground treatment tanks must be securely

mounted, grounded, and not over three hundred and fifty gallons. The pipe lines of all continuous systems must have quick acting valves so the pipes can be quickly emptied into the underground tanks, and stills must have heat-actuated emergency drains to the underground tanks. Each washer must have button and lint traps, be secured to the floor, and grounded. The establishment must at least have hand fire extinguishers and must conform to other fire prevention codes of the state.

If the plant is in Class I it must conform to all of the above Class II regulations plus several more. The building must be located at least ten feet from the property line unless it has a solid brick wall, and cannot be over one story in height. The walls must be equivalent to twelve inches of brick in width and floors must be non-combustable. The roof must be flat and fire resistant with metal framed sky lights. The drying room and dry cleaning room must be separated by fire resistant walls and the cleaning rooms must have provisions for humidifying or conditioning the air. The building must be equipped with an automatic fire extinguisher system, and an asbestos blanket at least seven feet by seven feet must be provided in each cleaning room.

Most of the above regulations pertaining to the building and equipment as set by the Board seem to be those that would ordinarily be required by state building and fire prevention codes. Others, such as the requirements that all lighting be electric incandescent, or that no zoning laws

and state code be violated, or that machines be grounded and secured, seem to be activities that would be undertaken regardless of the regulations. However, the regulations governing Class I establishments are sufficiently stringent that any new establishment desiring to use those types of solvents would probably have to build a special building in order to meet the specifications. The impression of this writer is that the regulations would probably, in effect, prohibit Class I plants. The use of these solvents, however, terminated everywhere early in the 1940's, so the regulations have probably had little effect.

In addition to establishing requirements for obtaining a license, the Board has the authority to adopt rules to support and enforce the standards of the practice. The Board strictly prohibits deceptive advertising, non-enforceable guarantees, exceptions to advertised prices and the advertising of "regular" services or terms such as "special." Sufficient insurance to cover possible losses to customers must be carried and false statements regarding the amount of this insurance are prohibited. All foreign material must be removed from garments before washing. Only the type solvents for which a machine was made can be used in it and all machines must be emptied at the end of the day. All employees must be instructed as to the hazards of their work, and a gas mask or respirator must be furnished for employees engaged in maintenance work where they "may" be exposed to "excessive" fumes. No flammable liquids can be used to clean

the floors and no smoking can be allowed on the premiss.

The standard of performance regulations are usually enforced through complaints and yearly inspections. Illustrations 1, 2, and 3 are the forms used in these inspections which show that most of the above mentioned items are examined. The Board is regulating the standards of performance also makes quality checks. The items examined for this purpose are presented on illustration No. 4 and are self-explanatory. The Board has rejected no applicants and has revoked only one license since it was established.<sup>74</sup> This seems to indicate that, since the regulations are enforced and the entry fee does not seem to be a barrier, the regulations themselves are not hard for dry cleaners to meet. Otherwise, more court cases, license revocations and license refusals would have occurred. If this is so, the Board operates almost completely in the capacity of a state fire or building inspector without using the powers to set the performance standards of the industry as barriers to entry in the traditional sense.

#### Price Fixing

The second major group of activities evolves around the Board's authority to approve price agreements for each county. Such agreements must be submitted by at least seventy-five percent of the licensed operators in a county whether it

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<sup>74</sup>Interview with the State Dry Cleaners' Board, July, 1962.

PLATE 1  
STATE DRY CLEANERS BOARD

INSPECTION OF CLEANING PLANTS USING SYNTHETIC SOLVENTS

Name of Plant ----- Address -----  
 City or Town ----- Owner -----  
 When Established: ----- Number of employees exposed: Male ----- Female -----  
 Number of cleaning unit operators ----- Any Alcoholics employed? -----  
 Are employees informed of toxic nature of the solvent and instructed in the proper operation of dry cleaning equipment? -----  
 Open flames near solvent? ----- Sanitary facilities -----  
 CLEANING EQUIPMENT: Manufacturer ----- Model -----  
 Open or closed type unit ----- Location -----  
 -----  
 Condition -----  
 Exhaust piping, size and condition -----  
 Point of discharge to outside -----  
 SOLVENT: Kind of synthetic solvent -----  
 Manufactured by -----  
 Method of storage and transfer -----  
 -----  
 Vapors in excess of maximum permissible? -----  
 RESPIRATORS: Manufacturer and type -----  
 Are they worn during the cleaning of filter and still? ----- Available in emergency? -----  
 VENTILATION OF WORKING AREA: Location and size of exhaust fans -----  
 ----- R. P. M. -----  
 Are solvent vapors vented away from working area? -----  
 REMARKS: -----  
 -----  
 YOU SHOULD: -----  
 -----  
 -----  
 Copy given to -----  
 Date: -----

STATE DRY CLEANERS BOARD

-----  
Inspector

PLATE 2



STATE DRY CLEANERS BOARD

BOX 3181—STATE CAPITAL BUILDING

OKLAHOMA CITY, OKLAHOMA

Date.....

INSPECTION FOR NEW PETROLEUM PLANTS

Firm Name..... Street & No..... City.....

Order to..... Copy of order to.....

Engaged in: Dry Cleaning?..... Pressing?..... Dyeing?.....

Construction of Building.....

Proximity to other property.....

Construction of Dry Cleaning Room: Walls.....

Floors..... Roof..... Skylights.....

Windows..... Exits..... Fire Doors.....

Ventilation.....

Dry Room: Location..... Construction..... Ventilated?..... Steam Jet?.....

Lighting..... Heating..... Power.....

Electric Motors, explosion proof?..... Switches..... Overcurrent Devices.....

Boiler: Location..... Fuel.....

Storage Tanks..... Filters.....

Pumps..... Relief valves.....

Washers..... Liquid tight?..... Grounded?..... Overflow Pipe?.....

Piping.....

Emergency Drains.....

Skull.....

Tumblers: Grounded?..... Steam Jet..... Vented outside?..... Explosion Hatches.....

Fans housed and interlocked?..... Extinguishing equipment.....

Extractors: Grounded?..... Covered?..... Drains to..... Brakes.....

Fire extinguishers?..... Smothering devise.....

Nearest Fire Department.....

No Smoking Signs?..... Waste cans for lint, etc.....

Requirements:.....

.....

.....

STATE DRY CLEANERS BOARD

By.....



PLATE 3



STATE DRY CLEANERS BOARD  
BOX 3181—STATE CAPITOL BUILDING  
OKLAHOMA CITY, OKLAHOMA

Inspector.....  
Date.....

HAZARDOUS INSPECTION

FIRM NAME..... Street..... City.....

OWNER..... Copy of Inspection given to.....

ENGAGED IN: Dry Cleaning..... Pressing..... Dyeing..... Agency.....

Proximity to Other Property.....

DRY CLEANING ROOM: Walls:..... Floor..... Roof.....  
Windows..... Exits..... Fire Doors.....  
Fire Extinguishers..... No Smoking Signs.....  
Wiring..... Cleanliness.....

WASHERS:..... Liquid Tight..... Grounded..... Motor explosion proof.....

TUMBLERS:..... Grounded..... Vented outside..... Explosion hatches.....  
Extinguishing equipment on tumbler..... Motor explosion proof.....

EXTRACTORS..... Covered..... Drains to..... Brakes.....  
Motor explosion proof.....

BOILER ROOM LOCATION.....

TYPE OF CLEANING FLUID USED: Petroleum..... Synthetic.....

Plant owner furnished with a pamphlet containing a copy of the law, Rules and Regulations of this Department: YES..... NO.....

Suggested corrections to be made.....  
.....  
.....  
.....

STATE DRY CLEANERS BOARD

By.....

PLATE 4

A QUALITY RATING FOR A DRY CLEANING PLANT

Petroleum \_\_\_\_\_  
 Synthetic \_\_\_\_\_  
 Both \_\_\_\_\_

Inspection Classification	Description of Violation	Tally	Total Tally	Rej. Factor	Total Rej.
Cleanliness 18 Points	Spots, Stains, Streaks			10	
	Redeposition or Off Color			2	
	Foreign Odor			3	
	Loose Dirt in Pockets, Cuffs			3	
Finishing 17 Points	Double Creases or Wrinkles, Lapels				
	Not Rolled			8	
	Shine or Seam Impressions			6	
	Linings Not Pressed			2	
Minor Repairs 10 Points	Tag or Button Impressions			1	
	Buttons Missing or Broken (Fasteners Not Working)			4	
	Loose Buttons or Shoulder Pads			3	
	Open Seams, Loops, Hemlines, Cuffs not tacked, etc.			3	
Appearance 5 Points	Lacks "Body"			3	
	Lint or Loose Threads			2	

Men's. . . . .	<table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>				Total	<table border="1"> <tr><td> </td></tr> <tr><td>X4</td></tr> <tr><td> </td></tr> </table>		X4	
X4									
Ladies'. . . . .	Total Items Inspected	Total Rejection Score							
Other. . . . .									

Comments: . . . . .

Items Inspected x 100. . . . .

Minus Rejection Score. . . . .

Quality Factor. . . . .

Divide by items inspected. . . . .

Equals. . . . .

Final Quality Rating Score

Use other side if necessary

A Score of 95-100 is Excellent  
 90-94 is Good  
 85-89 is Fair  
 Below 85 is Unsatisfactory

is an increase in prices or a decrease. If the prices agreed upon are found by the Board to be insufficient to provide "healthful and safe" service to the public, the Board has the power to refix the prices. To this end, the Board must undertake "such investigation and proofs as the condition permits and requires."<sup>75</sup>

The procedure for approving price agreements is as follows. An application for approval of price agreements that is signed by a representative group of the county and that includes an operating statement for each signer, must be submitted to the Board. The operating statement includes an estimate of total sales and a detailed estimation for expenses. Such items as advertising, salaries, rent, claims, etc., must be included. The statements are then examined by the Board. The Board sends notice of a hearing to all licensed cleaners in the county that have not signed the application. At this hearing the Board hears the reasons for the price agreement. Some cleaners may object, but if seventy-five percent of the cleaners are in agreement, the Board ratifies the agreement.<sup>76</sup>

The price agreements, however, are of little importance if they are not enforceable. So, enforcing these agreements

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<sup>75</sup>Oklahoma Statutes.

<sup>76</sup>This is not documented, but it is the impression of the author that the Board has never refused an agreement that has had the necessary support of the cleaners.

is another major function of the Board. If someone disagrees with the wisdom of the Board's decision on building regulations or pricing agreements, the decision can be appealed to the District Court. In such situations, the Board has never lost a case. If an operator just refuses to comply with the Board's decision, he may lose his license or be convicted of a misdemeanor with a fine up to \$500 and a jail sentence of up to thirty days. Each day the violation occurs can be deemed a separate offense.

Even though the decisions of the Board seem to be final and enforceable, there would probably be substantial room for prices to fluctuate because of the great variety of garments that are cleaned. The Board, however, seems to have adequately anticipated this problem. The pricing agreements involve the setting of retail prices on over one hundred items ranging from bathrobes, scarfs, and gloves to sheep-lined short coats, long leather jackets, sleeveless sweaters, football uniforms for men, and knitted blocked dresses, white or silk sweaters, velvet skirts and jumpers, and slacks for women. Household items are covered depending on whether it is for cash and carry, delivery, or dyed. A certain percentage of the retail price is set on each item for such services as cleaning or pressing only, extra spot removals and a variety of wholesale work. In spite of the detail, ways still exist in which prices may in effect be lowered--for example, the prices for minor repairs are not fixed. But, the Board is,

it seems, efficient in keeping these to a minimum. In 1951, the Board found a cleaner had violated the minimum price law because he offered free storage.<sup>77</sup> Indeed, one cannot help but conclude that if the service is "usually furnished and performed by a cleaning and pressing establishment" it is fixed in price by the Board.

#### Summary

Today's self-regulated industries can be compared within limits to the medieval guilds. Charged with the duty of subordinating themselves to the "common good" both have had the accompanying problem of determining just whose good was to come before their own. Since today's self-regulating groups have sought, as did the guilds, the authority bestowed upon them, they must have anticipated a personal gain. But checks do exist regarding the extent to which they can exploit their power.

Self-regulation of industrial groups is a relatively recent development in the United States. But, the legality of the authority given them is virtually unquestionable. This is manifest in the well-established right of the Oklahoma dry cleaners to regulate themselves. This position of the Oklahoma dry cleaners has been opposed and challenged in both the legislature and the courts.

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<sup>77</sup>"That Minimum Price Law," National Cleaner and Dyer (September, 1951), p. 121.

The Oklahoma Dry Cleaners' Board, which is composed of three members of the industry, is charged with the responsibility of maintaining the standards of the dry cleaning industry. To this end, it has the authority to determine the qualifications necessary for obtaining a license and to approve price fixing agreements. The entry fee does not seem sufficiently high to prohibit entry. The regulations concerning qualifications and standards do not appear to be different from those usually required by other state agencies. And, with the exception of establishments that use highly inflammable solvents, which have seldom been used anywhere since the early 1940's, the regulations do not seem to be an attempt or to have the affect of limiting entry into the dry cleaning industry.

With respect to pricing activities, a different impression prevails. The Board has chosen to let the dry cleaners be the best judge of whether they are receiving a "fair" price or not. And, what restraints the Board places on this decision are based primarily on the income of the dry cleaners. Other restraints exist, but the prices agreed upon seem to be sufficiently detailed and enforced to be effective.

## CHAPTER IV

### DEVIATIONS FROM THE COMPETITIVE NORM

The contents of this chapter and the contents of the next chapter analyze the effects of the regulations outlined in Chapter III. The first part of this chapter sets forth a model from which the effects of the regulations can be predicted. However, in order to test these predictions a norm must be established to indicate how the Oklahoma industry would have developed in the absence of these regulations. For this purpose the Kansas industry was chosen. The justifications for using Kansas as the norm are included as an appendix. In the second part of the chapter the implications of the model on the quantity of resources employed in the dry cleaning industry are analyzed. Chapter V contains an analysis of the implications on the organization of employed resources.

#### The Model

##### Assumptions

The assumptions used to formulate the model are those which seem to be justified by the analysis in the previous chapter. These assumptions relate to pricing, entry and costs.

The explicit purpose of the legislation is to prohibit price competition in order to maintain prices at a "fair" level. Whether or not any price is "fair" is, of course, a value judgment. One can only assume that the "fair" price as judged by a dry cleaner is above that which would evolve from an unregulated market. Unfortunately, accurate price data are unavailable. But on the bases of the data contained in Table III it is assumed throughout the paper that the Oklahoma dry cleaners have succeeded in maintaining a "fair" price which is also above the "competitive" price. It is not assumed that the dry cleaners set a price that would maximize profits. Pressures much like those experienced by medieval guilds as well as insufficient information would prevent this. It is simply assumed that dry cleaners set prices an arbitrary amount above the "competitive" prices.<sup>1</sup>

The State Board has not only been successful in enforcing the minimum price. It has also been successful in preventing tie-in sales which would, in effect, reduce price. The firms cannot then, give away items with dry cleaning sales. This, of course, prevents many of the forms of non-

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<sup>1</sup>No data on prices in Oklahoma are available prior to 1949 and the data on prices since then are not available for all seventy-seven counties. The counties selected are from the low income areas, Coal, Seminole and Woods, and from the high income areas, Garfield, Washington, Oklahoma and Tulsa. The dates are those dates on which a price order was made by the State Board. No data are available for prices in Kansas other than a survey of eight dry cleaning firms in Wichita, Kansas, a high income area, made by the writer in September, 1962. All plants reported the same price.



price competition.

TABLE III  
THE PRICE OF DRY CLEANING SUITS, SELECTED COUNTIES  
IN OKLAHOMA AND FOR WICHITA, KANSAS,  
1949-1961

Place	Date	Price
Coal .....	May 1950 .....	.90
Seminole .....	May 1950 .....	.90
Woods .....	March 1950 .....	.85
Garfield .....	April 1950 .....	1.00
	November 1958 .....	1.35
	May 1962 .....	1.25
Washington .....	July 1949 .....	1.10
	March 1955 .....	1.25
Oklahoma .....	July 1949 .....	.85
	April 1952 .....	1.00
	September 1955 .....	1.10
Tulsa .....	July 1949 .....	1.00
	July 1955 .....	1.15
Wichita, Kansas .....	September 1962 .....	.85

(Source: Oklahoma State Board of Dry Cleaners; and a survey of eight plants in Wichita, Kansas.)

Entry into the industry is assumed to be free. The analysis of the previous chapter indicates that neither the Board nor its regulations tend to restrict entry.<sup>2</sup>

No data on costs are available. It is, however, assumed that the average cost curve has a downward slope at small plant sizes. Whether the costs are constant after this downward slope or whether they increase makes no difference to the analysis. The fact that there is a lower limit on sizes

<sup>2</sup>See pp. 48, 49, 57 of this study.

of existing plants<sup>3</sup> indicate that costs are not constant throughout the lowest output ranges.<sup>4</sup>

### Competitive Sectors

The arrangement appears then as a cartel with price fixing powers but no control over production or entry. If the price of dry cleaning is all that is regulated it is in the interest of the individual producer to undertake non-price competition and to offer tie-in sales, e.g., the offering of free goods or other goods at "reduced" prices with every sale of dry cleaning. Figure 2 illustrates such a model. Assume the price of dry cleaning is increased from the "competitive equilibrium" price ( $P_1$ ) to ( $P_2$ ) as the result of a minimum price agreement. If "non-price" competition is undertaken by means of purchasing "other" goods on a competitive market and giving them away with each sale of dry cleaning<sup>5</sup> the average and marginal costs will be shifted upward vertically. This process would continue until average costs equal price. If the market demand for dry cleaning were not perfectly inelastic and the non-price competition did not affect demand, the result would be fewer establish-

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<sup>3</sup>Data for plant sizes are presented in Chapter V.

<sup>4</sup>G. J. Stigler, "Economics of Scale," The Journal of Law and Economics, 1 October, 1958, p. 54.

<sup>5</sup>The assumption that the goods are given away with each sale of dry cleaning is only a simplifying assumption. If it is assumed that the goods are offered at a "lower" price, the analysis is more complicated but essentially the same.

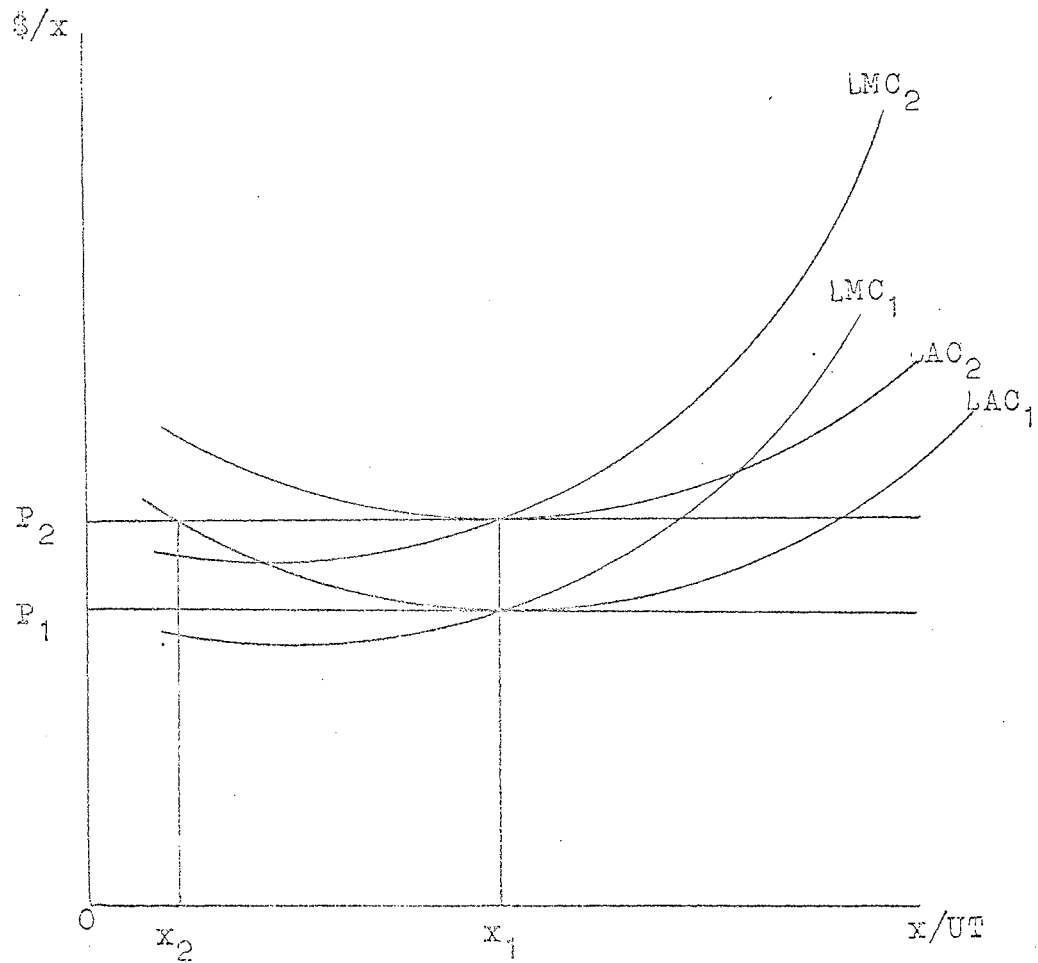


Figure 1

OUTPUT ADJUSTMENTS WITH A MINIMUM PRICE

ments that are larger than before when classified according to the dollar volume of total sales.

The Board, however, has not allowed this type of competition to take place. The prices set are in sufficient detail to be enforceable and the Board has been effective in enforcing them. Moreover, the Board has eliminated such practices as tie-in sales. Any such practice as described above would be considered by the Board as a violation of the price fixing agreement.<sup>6</sup> Assuming then that the Board has been successful in eliminating tie-in sale arrangements or any type of arrangement that would, in effect, lower price,<sup>7</sup> different conclusions are forthcoming. If this is the case an increase in price from  $(P_1)$  to  $(P_2)$  would cause profits to accrue. This would attract new firms the entry of which would cause sales of a representative plant to move toward  $(X_2)$ . That is, entry would continue until no profits exist. When measured by receipt size, plants must be smaller since total costs equal total revenue and marginal cost is positive, i.e. cost elasticity is always greater than one. A greater number of plants would exist especially if the market demand is some-

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<sup>6</sup>See p. 55 of this study.

<sup>7</sup>This means, of course, any type of non-price competition that would have the effect of shifting the average cost upward. The customer cannot be offered "more for his money" in terms of better quality, more advertising, better building front, etc. This is abstracting from many of the facts but it can be regarded as a simplifying assumption in that most of the things that would seem to be the basis of non-price competition and would "significantly" increase costs are controlled in price by the Board.

what inelastic.<sup>8</sup>

### Oligopolistic Sectors

Many of the towns in both Kansas and Oklahoma are relatively small. Such places would be able to support very few dry cleaning firms if there are decreasing costs in the dry cleaning industry for small plant sizes. Since transportation costs limit the range of alternatives to purchasers of dry cleaning, the industry in these small towns would be characterized by oligopoly.<sup>9</sup>

Recent theories suggest that a primary barrier to profits in industries characterized by oligopoly is their inability to keep firms from cutting prices.<sup>10</sup> A minimum price law removes this barrier. The analysis is much the same as the analysis of the competitive sector above. The only difference is that entry would not occur when profits are being made unless the market could support another firm. In the competitive case a fall in demand would reduce the number of firms. A fall in market demand in the oligopoly case may just reduce profits rather than the number of firms.

<sup>8</sup>See p. 20 of this study.

<sup>9</sup>In some towns monopolies may exist but they seem unimportant for purposes of analysis.

<sup>10</sup>G. J. Stigler, "A Theory of Oligopoly," The Journal of Political Economy, LXXII, No. 1 (1964), p. 44.  
G. W. Nutter, "Duopoly, Oligopoly, and Emerging Competition," Southern Economic Journal, XXX, No. 4 (April 1964), p. 342.

### The Quantity of Resources Employed

One would expect, from the above analysis, that the effect of the Oklahoma regulations would be to attract additional resources. It is the purpose of this section to test this hypothesis. The resources under consideration are labor and capital (including land and technology). The purpose is to observe changes in the quantity of these resources employed in the industry during the time period and inquire to what extent the changes are consistent with the hypothesis.

Data are not available for a direct measure of these resources, so indirect indicators must be used. These indicators are the number of establishments offering dry cleaning services, retail dry cleaning receipts, and employees and proprietors engaged in providing dry cleaning services.

The number of establishments offering dry cleaning services is the total of dry cleaning plants, press shops and laundries with dry cleaning equipment. The number of establishments does not necessarily reflect the total amount of physical resources employed. One large establishment may employ just as many resources as several small establishments. If there are monopolistic elements, however, value added or total retail receipts would not be a sufficient measure. Data for employees and proprietors are available for dry cleaning plants and press shops, but are not available for laundry plants with dry cleaning equipment. Besides, labor data would

mean little without knowledge of other resources with which it is combined. By observing all three indices--number of establishments, retail sales, and employment--some indication of the flow of resources into the dry cleaning industry can be gained.

#### Number of Establishments

The number of establishments offering dry cleaning services in the United States, Kansas and Oklahoma in years 1939, 1948, 1954, and 1958 are presented on Table IV. The

TABLE IV<sup>a</sup>

TOTAL NUMBER OF ESTABLISHMENTS OFFERING DRY CLEANING SERVICES, UNITED STATES, KANSAS, OKLAHOMA, 1939-1958

Year	United States		Kansas		Oklahoma	
	Number	Percent Change From Previous Census	Number	Percent Change From Previous Census	Number	Percent Change From Previous Census
1939	64,119		643		807	
1948	72,411	12.93	775	20.53	902	11.77
1954	66,922	-7.58	784	1.16	982	8.87
1958	70,834	5.85	757	-3.44	1,013	3.16

(Source: U.S. Department of Commerce, Census of Business.)

<sup>a</sup>Total plants offering dry cleaning services include dry cleaning plants, press shops and laundry plants with dry cleaning equipment. For a computation of laundry plants with dry cleaning equipment, only partial returns were available for plants with a payroll. These returns are assumed to be characteristic of the population. Laundry plants with no payroll were assumed to provide no dry cleaning services.

Data for 1939 do not include laundry plants with dry cleaning equipment because the data were not gathered by the Census.

number of establishments in Oklahoma has continued to be greater than the number of such establishments in Kansas since 1939, two years before the legislation. And, the increase in the number of establishments in Oklahoma has been greater than the increase in Kansas in every year except 1948. Such results are more meaningful, however, after adjustments for population changes are made. Number of establishments per capita is an indicator of the quantity of resources employed in serving the average person.

Table V shows the number of establishments serving each 1,000 persons. The number of establishments per person in Oklahoma was below Kansas before 1948 and below the national average before 1954. The absolute increase and percentage increase in establishments per person has been greater for Oklahoma each year than for either Kansas or the United States. For the entire period, from 1939 to 1958, establishments per person increased 28.95 percent in Oklahoma, 0.298 percent for Kansas, and -16.93 percent for the United States. There is little doubt that there has been a marked tendency for each establishment to serve fewer people in Oklahoma than in either Kansas or the United States. This supports the view that higher prices in Oklahoma have caused a greater amount of resources to be employed in the Oklahoma industry. This view is further supported by the next indicator, retail dry cleaning receipts.



TABLE V  
 NUMBER OF ESTABLISHMENTS OFFERING DRY CLEANING SERVICES  
 PER 1,000 PERSONS, UNITED STATES, KANSAS, OKLAHOMA,  
 1939-1958

Year	United States		Kansas		Oklahoma	
	Establishment per 1,000 Persons (10,000)	Percent Increase Over Previous Census	Establishment per 1,000 Persons	Percent Increase Over Previous Census	Establishment per 1,000 Persons	Percent Increase Over Previous Census
1939	.4899067		.3525219		.3459065	
1948	.4956500	1.17	.4096194	16.20	.4317855	24.83
1954	.4151720	-16.24	.3875432	-5.39	.4492223	4.04
1958	.4069586	-1.98	.3535730	-8.77	.4460590	-.70
Percent Increase 1939-58	-16.93		.298		28.95	
Average Yearly Increase 1939-58	-.8911		.016		1.524	

(Source: Table IV and Table XXI.)

### Retail Dry Cleaning Receipts

The second index used to estimate the quantity of resources flowing to the Oklahoma dry cleaning industry is retail receipts. As has been mentioned, such an indicator of the quantity of resources could be misleading because of monopoly profits in oligopolistic sectors. However, in view of the large number of such establishments and the changes in the number of such establishments, as shown above, one would not suspect "large" monopoly profits to exist.<sup>11</sup>

Total dry cleaning receipts are shown on Table VI. The total receipts in Oklahoma have remained above the total receipts in Kansas. However, total receipts for both Kansas and the United States have tended to increase by a larger percentage each year than total receipts in Oklahoma. Notice that in 1958 there was a decline in Oklahoma dry cleaning receipts while there was an increase in the other two areas. The differences among the areas could be due to two variables other than minimum prices in Oklahoma. The first is population and the second is income.

Changes in expenditures<sup>12</sup> by the average person are

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<sup>11</sup>The census data presented above is not based on ownership but a data based on ownership shows sufficiently similar characteristics to warrant this statement. See: U.S. Dept. of Commerce, Census of Business, V (1958), Table 5A, p. 5-3; Table 5B, p. 5-34; Table 5B, p. 5-60; Ibid., V (1954), Table 5A, p. 5-3; Table 5B, p. 5-31; Table 5B, p. 5-51; Ibid., III (1939), Table 5, p. 479, Table 5, p. 481. Also, as noted above, licensing activity has not been such that it would restrict entry.

<sup>12</sup>Revenue and expenditures are the same assuming that persons trade only in their own states. This could be a source

TABLE VI  
TOTAL RETAIL DRY CLEANING RECEIPTS,<sup>a</sup> UNITED STATES,  
KANSAS, OKLAHOMA, 1939-1958  
(in thousands of dollars)

Year	United States		Kansas		Oklahoma	
	Receipts	Percent Change From Previous Census	Receipts	Percent Change From Previous Census	Receipts	Percent Change From Previous Census
1939	330,914		3,434		4,563	
1948 <sup>b</sup>	1,126,375	240.38	11,572	236.08	14,366	214.84
1954	1,504,561	33.58	15,616	34.95	19,349	34.69
1958	1,549,597	9.64	15,972	2.28	19,089	-1.34

(Source: U.S. Department of Commerce, Census of Business.)

<sup>a</sup>These data include retail sales of dry cleaning for all establishments: i.e., dry cleaning plants, laundry plants with and without dry cleaning equipment, and press shops.

Data for both laundry and dry cleaning plants were computed under the assumption that the partial returns from plants with a payroll were characteristic of all plants with a payroll. Dry cleaning plants without a payroll were considered as making only retail sales and laundry plants without a payroll were considered as making no dry cleaning sales.

<sup>b</sup>Data do not include sales made by laundry plants without dry cleaning equipment or the category listed as "other." The reason is because this datum, not included, was not available for Oklahoma due to the disclosure rule.

presented on Table VII. The increase in per capita expenditures for each period from 1939 to 1954 tended to be greater for Oklahoma in both absolute and percentage terms than either of the two other areas. But the opposite is true for the period from 1954 to 1958. It is during this later period that the substitute goods, wash and wear cloths, coin operated dry cleaning machines, etc., were introduced. The results were decreased expenditures per capita in both Oklahoma and Kansas. The greatest decrease occurred in Oklahoma, where the prices were higher. The effect of the introduction of substitute goods is more clearly seen after the data are adjusted for income differences.

The data adjusted for income differences are presented on Table VIII. The percent of income the average person spends on dry cleaning reveals the relationship between expenditures on dry cleaning and spending on other things. The average Oklahoman spends a larger percent of his income on dry cleaning than does either the average person in the United States or Kansas. The changes between the years, however, have the same general trends as did the changes in per capita expenditures. In the period from 1939 to 1954 average Oklahomans increased the percentage of their income spent on dry cleaning more in absolute and percentage terms each year than

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of a small error resulting in an understatement of expenditures on dry cleaning by persons in Oklahoma since prices are somewhat higher. One would not expect this to be great, however, due to high costs of transportation and convenience relative to the savings on dry cleaning by traveling across a state line.

TABLE VII

PER CAPITA DRY CLEANING EXPENDITURES, UNITED STATES,  
KANSAS, OKLAHOMA, 1939-1958

Year	United States		Kansas		Oklahoma	
	Expenditure Per Capita	Percent Change Over Previous Census	Expenditure Per Capita	Percent Change Over Previous Census	Expenditure Per Capita	Percent Change Over Previous Census
1939	\$2.528		\$1.883		\$1.956	
1948	7.710	204.98	6.116	224.80	6.877	251.58
1954	9.334	21.06	7.719	26.21	8.851	28.70
1958	9.477	1.53	7.460	-3.36	8.406	-5.03

(Source: Computed from Table VI, and Table XXI.)

TABLE VIII

PERCENT OF PER CAPITA INCOME SPENT ON DRY CLEANING,  
 UNITED STATES, KANSAS, OKLAHOMA, 1939-1958

Year	United States		Kansas		Oklahoma	
	Percent of In- come Spent on Dry Cleaning	Percent Increase Over Previous Census	Percent of In- come Spent on Dry Cleaning	Percent Increase Over Previous Census	Percent of In- come Spent on Dry Cleaning	Percent Increase Over Previous Census
1939	.4547		.4955		.5670	
1948	.5430	19.42	.4793	-3.27	.6091	7.43
1954	.5273	-2.89	.4565	-4.76	.6038	-.87
1958	.4592	-12.92	.3760	-17.64	.4842	-19.81

(Source: Computed from Table VII and Table XXII.)

did the average person in Kansas or the United States, with the exception of the United States' percentage in 1948. However, the reverse is true for the period from 1954 to 1958 where the figures move in the same way generally, as did the figures for per capita expenditures. Large decreases occurred for all three but the decrease for Oklahoma of 19.81 percent was much greater than the 12.92 percent for the United States and also greater than the 17.64 percent for Kansas.

Since people spend a relatively small proportion of their income on dry cleaning and there were relatively few substitutes before 1955 the demand for dry cleaning was probably relatively inelastic. The prices were set higher in Oklahoma, thus people spent more of their income on dry cleaning. The introduction of substitutes caused the demand to both decrease in magnitude and increase in elasticity. Since prices were set higher in Oklahoma the result was a greater decrease in expenditures.

#### Employees and Proprietors

The third estimate of the quantity of resources that has been drawn to the dry cleaning industry is employees and proprietors. As stated above, however, the data are incomplete. The figures do not take into account the number of employees of laundry establishments that do dry cleaning work. Also, employees of dry cleaning plants and press shops that do laundry work are included. A further error is in the nature of the indicator itself. The number of employees is

actually an attempt to indicate hours and intensity of labor performed. The figures do help to give some indication of direction and magnitude of movements, however, and are presented on Table IX.

TABLE IX

TOTAL EMPLOYEES AND PROPRIETORS WORKING IN DRY CLEANING  
PLANTS AND PRESS SHOPS, UNITED STATES,  
KANSAS, OKLAHOMA, 1939-1958

Year	United States		Kansas		Oklahoma	
	Number	Percent Change Over Previous Census	Number	Percent Change Over Previous Census	Number	Percent Change Over Previous Census
1939	176,715		1727		2441	
1948	315,357	78.45	3239	87.55	4160	70.42
1954	314,059	-.41	3409	5.25	4263	2.48
1958	318,380	1.38	3212	-5.78	4031	-5.44

(Source: U.S. Department of Commerce, Census of Business.)

The total number of employees and proprietors that provide dry cleaning services is greater for Oklahoma than for Kansas. However, there were greater percentage increases in Kansas in 1948 and 1954. The percentage increases for the United States were less than the percentage increases for Oklahoma only in 1954 when there was a slight decrease in the United States. Decreases occurred for both Kansas and Oklahoma in 1958 with the greatest percentage decrease occurring



for Kansas. Again, however, the data need to be adjusted for population changes.

Although the total number of employees and proprietors has tended to increase more for the United States and Kansas than for Oklahoma, the amount of labor engaged in serving the average person has tended to increase more for Oklahoma. As shown on Table X, the only exception to this trend is the period from 1948 to 1954 when the decrease in Kansas was less than the decrease in Oklahoma.

#### Summary

Using the three measures of resources, number of establishments, retail sales or expenditures, and employment, a general idea of the magnitude of resource required to provide the average person with dry cleaning services can be ascertained. From 1939 to 1948 the average Oklahoman added a larger proportion of his income to finance a greater increase in expenditures for dry cleaning than did the average person in Kansas. This greater increase in expenditures paid for the services of a greater increase in the number of employees and proprietors to serve the average person, and a greater increase in the number of establishments that provide dry cleaning services for the average person.

From 1948 to 1954 the average Oklahoman decreased the proportion of his income spent on dry cleaning less than did the average person in Kansas in order to finance a greater increase in expenditures. There was also a greater increase in

TABLE X  
 EMPLOYEES AND PROPRIETORS PER 1,000 PERSONS, UNITED STATES,  
 KANSAS, OKLAHOMA, 1939-1958

Year	United States		Kansas		Oklahoma	
	Employees and Proprietors Per 1,000 Persons	Percent Increase Over Previous Census	Employees and Proprietors Per 1,000 Persons	Percent Increase Over Previous Census	Employees and Proprietors Per 1,000 Persons	Percent Increase Over Previous Census
1939	1.350206		.946820		1.046292	
1948	2.158604	59.87	1.711945	80.81	1.991383	90.33
1954	1.948365	-9.74	1.685121	-1.57	1.950137	-2.07
1958	1.829170	-6.12	1.500233	-10.97	1.774988	-8.98
%						
1939-1958	35.47		58.45		69.65	

(Source: Compiled from Table IX and Table XXI.)

the number of establishments providing dry cleaning services to the average person in Oklahoma. However, there was not a greater increase in the number of employees and proprietors. Even so, looking at all the variables it seems a greater quantity of resources were used to serve the average person.

From 1954 to 1958 there was a general decline in the demand for dry cleaning. This was probably due to the introduction of substitutes such as 'Wash and Wear' clothes, wrinkle resistant and spot repellent material, the increased popularity of dark colors and casual dress and an increased use of air conditioning in buildings and in cars such as has been mentioned above. This would not only decrease the demand for dry cleaning but also increase its elasticity. Because the prices were higher, the average Oklahoman decreased the proportion of his income spent on dry cleaning more than did the average person in Kansas and decreased his absolute expenditures by a greater amount. However, neither the number of employees and proprietors serving the average person in Oklahoma nor the number of establishments serving him decreased by as much as they did in Kansas. This result is consistent with the view that profits existed in some Oklahoma establishments which were squeezed out by a fall in demand.

## CHAPTER V

### ORGANIZATION OF EMPLOYED RESOURCES

The analysis in the previous chapter contains implications about (1) the organization of existing establishments and (2) the services offered by these establishments. These are discussed in turn.

#### The Organization of Establishments

The types of resource organization to be examined relate to the type of establishment offering dry cleaning services and the size of dry cleaning plants. First the analysis implies that there are advantages for the firm that owns certain types of equipment. Wholesale prices as well as retail prices are subject to the minimum price laws. In addition, quality is a major method of non-price competition. For these two reasons it is in the interest of a dry cleaner to own his own equipment. It is also in his interest to own laundry facilities in order to provide the customer with the additional convenience. Secondly the analysis implies that the firms will be smaller in size.

The types of establishments offering dry cleaning as explained in Chapter II are: dry cleaning plants, establishments with dry cleaning equipment which derive fifty percent

or more of their income from providing dry cleaning services, combinations or laundry plants with dry cleaning equipment which derive fifty percent or more of their income from providing laundry services, and press shops which do no dry cleaning work, only pressing. To be examined are the number, receipts (computed here to approximate value added - see p. 86), and employment of each type. The object of the examination is to see which form of resource organization has flourished most favorably.

#### Number of Each Type Establishment

The number of each type of establishment is shown on Table XI. The census reports did not include data for laundry plants with dry cleaning equipment in 1939 and did not include data for dry cleaning plants with laundry equipment for either 1939 or 1948.

The general trend in the type of establishments offering dry cleaning services has been similar between the areas under consideration. Dry cleaning plants have increased in number; press shops have decreased in number; laundry plants with dry cleaning equipment have remained somewhat stationary in number with a slight decrease in Kansas and Oklahoma; and, dry cleaning plants with laundry equipment have slightly increased in number. However, the number of dry cleaning plants in Oklahoma increased more than the number of plants in Kansas and the number of press shops decreased more in Oklahoma than in Kansas.

TABLE XI

DRY CLEANING PLANTS, PRESS SHOPS AND COMBINATIONS: NUMBER, AND AS A PERCENT OF TOTAL ESTABLISHMENTS OFFERING DRY CLEANING SERVICES, UNITED STATES, KANSAS, OKLAHOMA, 1939-1958

Year	Dry Cleaning Plants		Press Shops		Combinations		Dry Cleaning <sup>a</sup> Plants With Laundry Equipment Plus Combinations	
	Number	Percent of Total Establishments	Number	Percent of Total Establishments	Number	Percent of Total Establishments	Number	Percent of Total Establishments
United States								
1939	11,604	18.10	52,515	81.90	n.a. <sup>b</sup>		n.a.	
1948	24,017	33.17	45,554	62.91	2,840	3.92	n.a.	
1954	27,423	40.98	36,726	54.88	2,773	4.14	5,078	7.59
1958	31,805	44.90	35,961	50.77	2,068	4.33	8,801	12.42
Kansas								
1939	342	53.19	301	46.81	n.a.		n.a.	
1948	492	63.48	231	29.81	52	6.71	n.a.	
1954	495	63.14	235	29.97	54	6.89	81	10.33
1958	515	68.03	191	25.23	51	6.74	109	14.40
Oklahoma								
1939	286	35.44	521	64.56	n.a.		n.a.	
1948	613	67.96	226	25.05	63	6.98	n.a.	
1954	627	63.85	294	29.93	61	6.21	98	9.98
1958	719	70.98	236	23.30	58	5.73	131	12.93

(Source: U.S. Department of Commerce, Census of Business.)

<sup>a</sup>Dry cleaning plants with laundry equipment are included in Column # 1, 'Dry Cleaning Plants.'

<sup>b</sup>Not available.

The larger changes in Oklahoma have been the result of additional establishments tending to possess dry cleaning equipment and probably some press shops adding equipment. The proportion of total establishments offering dry cleaning services which have dry cleaning equipment has increased much more for Oklahoma than Kansas.

The importance of combinations (combinations are laundry plants with dry cleaning equipment) has decreased over the period in both Oklahoma and Kansas. However, the decrease in Oklahoma was greater, more consistent and was a greater decrease as a percentage of establishments offering dry cleaning services.

Generally there has been less tendency for additional establishments in Oklahoma, that offer dry cleaning services, to possess both laundry equipment and dry cleaning equipment than there has been in Kansas. The number of establishments with both laundry and dry cleaning equipment, designated in Table XI as "Dry Cleaning Plants With Laundry Equipment Plus Combinations" has increased more in number for Oklahoma. But, as a percentage of total plants offering dry cleaning services, the increase has been less for Oklahoma. This, however, does not mean that in Oklahoma dry cleaning resources have not had a greater tendency to be used with laundry resources. This will be shown when receipts are considered. Notice that the increases in establishments with both types of equipment in both states are due to an increase in those

classified as dry cleaning plants with laundry equipment.<sup>1</sup> Thus the reduction of combinations could be due to an increase in the proportion of revenue derived from dry cleaning services resulting in a reclassification to a dry cleaning plant with laundry equipment rather than a combination. This, however, is an unexpected conclusion when it is realized that 1958 was a period of falling demand for dry cleaning. We can conclude, however, that establishments offering dry cleaning services in Oklahoma have had a greater tendency than the establishments in Kansas to own dry cleaning equipment.

#### Receipts of Each Type Establishment

The calculations of receipts are derived in a manner to indicate the value added to the total retail sales of dry cleaning services. The purpose is still to find which type of establishment has provided the most favorable environment for resources providing dry cleaning services. One type of value added is payments to resources which, in a competitive market, is a measure of total resources employed. To compute value added from the data source, wholesale sales from all sources have been deducted from sales made by press shops. The sales by both plants and combinations include all dry cleaning sales made by them -- both wholesale and retail.

When receipts are used as an index the general trends are the same as was indicated by the number of each type

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<sup>1</sup>Subtract Combinations (laundry plants with dry cleaning equipment) from "Combinations plus Dry Cleaning Plants with Laundry Equipment."



establishment above. Resources have tended to move into dry cleaning plants more than either combinations or press shops. Payments to resources employed by press shops as a percentage of total payments to resources providing dry cleaning services has decreased whereas the same ratio for combinations has remained relatively constant. The movement of resources from press shops to dry cleaning plants has been larger for Oklahoma than either Kansas or the United States. These figures are shown on Table XII.

The proportion of dry cleaning expenditures that pay for the employment of resources employed in combinations in Oklahoma has increased more than either Kansas or the United States. There was a much greater increase in the importance of dry cleaning plants with laundry equipment in Oklahoma. This suggests that in Oklahoma there is a greater tendency for additional resources to be provided with the additional service of processing laundry than in Kansas. And, the increase in importance of dry cleaning plants with laundry equipment supports the hypothesis above that dry cleaning has become of sufficient importance so that some laundries with dry cleaning equipment have been reclassified as dry cleaning plants.

#### Number of Employees and Proprietors

A third measure of the organization of resources employed in the various establishment types is the number of employees and proprietors engaged in the providing of dry

TABLE XII

DRY CLEANING PLANTS, PRESS SHOPS, COMBINATIONS, AND COMBINATIONS PLUS DRY CLEANING PLANTS WITH LAUNDRY EQUIPMENT: RECEIPTS AND RECEIPTS AS A PERCENT OF TOTAL RETAIL DRY CLEANING SALES, UNITED STATES, KANSAS, OKLAHOMA, 1939-1958

Year	Total Dry Cleaning Receipts of Dry Cleaning Plants		Sales of Press Shops Minus All Wholesale Receipts		Dry Cleaning Receipts of Combinations		Combinations Plus Plants With Laundry Equipment	
	Dollar Volume (000)	Percent of Retail Dry Cleaning Sales	Dollar Volume (000)	Percent of Retail Dry Cleaning Sales	Dollar Volume (000)	Percent of Retail Dry Cleaning Sales	Dollar Volume (000)	Percent of Retail Dry Cleaning Sales
United States								
1939	174,177	52.64	114,928	34.73	41,809 <sup>a</sup>	12.63	n.a. <sup>b</sup>	
1948	772,551	68.59	230,532	20.47	122,782	10.90		
1954	996,003	66.20	274,487	18.24	195,151	12.97	365,781	29.31
1958	1,133,848	68.74	258,261	15.66	227,545	13.80	484,975	(42.77)
Kansas								
1939	2,112	61.50	778	22.65	544 <sup>a</sup>	15.84		
1948	8,678	74.99	1,257	10.86	1,637	14.15		
1954	11,391	72.94	1,636	10.48	2,468	15.80	3,694	23.66
1958	12,159	76.11	1,342	8.40	2,223	13.92	4,694	29.39
Oklahoma								
1939	2,347	51.44	1,622	35.55	594 <sup>a</sup>	13.02		
1948	10,836	75.43	2,022	14.07	1,508	10.50		
1954	14,353	74.18	2,609	13.48	2,134	11.03	3,368	17.41
1958	14,026	73.48	1,905	9.98	2,905	15.22	5,911	30.97

(Source: U.S. Department of Commerce, Census of Business.)

<sup>a</sup>All dry cleaning sales by all laundries. No distinction was made concerning the ownership of dry cleaning facilities.

Sums of percentages do not equal 100 percent because of rounding errors in collecting the data from the source.

Also data for laundry plants without dry cleaning equipment are included in total retail sales.

<sup>b</sup>Data for dry cleaning plants with laundry equipment -- not available.

cleaning services. The number of employees used to provide dry cleaning services in laundry plants with dry cleaning equipment is not available as has been mentioned. Also not available is the number of employees providing dry cleaning services only in dry cleaning plants with laundry equipment. This omission is especially important here since there seems to have been a greater tendency in Oklahoma for plants to add laundry services which would bias the data for Oklahoma in favor of dry cleaning plants as opposed to press shops.

Only with the above qualifications made explicit is an interpretation of Table XIII justified. The data indicate that there has been a marked shift in importance from press shops to dry cleaning plants in all three areas considered. The largest shift occurred in Oklahoma.

#### Size of Dry Cleaning Plants

No data are available on the size structure of press shops or laundry plants with dry cleaning equipment. Size data for dry cleaning plants are presented by the Bureau of the Census in several different forms. However, only the number of dry cleaning plants ranked according to receipt size and the number of dry cleaning plants ranked according to employee size is examined here. The reason for these omissions are, first, because only fragmentary data on receipts and payrolls are available due to the disclosure rule and, second, because the other data that are available support

the same conclusions as the data presented here.<sup>2</sup>

TABLE XIII

NUMBER OF EMPLOYEES AND PROPRIETORS OF DRY CLEANING  
PLANTS AND PRESS SHOPS, UNITED STATES,  
KANSAS, OKLAHOMA, 1939-1958

Year	Plants		Press Shops	
	Number	Percent of Total	Number	Percent of Total
United States				
1939	94,655	53.56	82,060	46.44
1948	230,468	73.08	84,889	26.92
1954	246,254	78.41	67,805	21.59
1958	256,436	80.54	61,944	19.46
Kansas				
1939	1,201	69.54	526	30.46
1948	2,735	84.43	504	15.56
1954	2,995	87.85	414	12.14
1958	2,859	89.00	353	10.99
Oklahoma				
1939	1,392	57.02	1,049	42.97
1948	3,485	83.77	675	16.22
1954	3,684	86.41	579	13.58
1958	3,613	89.63	418	10.36

(Source: U.S. Department of Commerce, Census of Business.)

The number of dry cleaning plants ranked according to receipt size is presented on Table XIV. Because of the large

<sup>2</sup>Available are receipts of dry cleaning plants ranked according to receipt size and employment size; and, payrolls of dry cleaning plants ranked according to receipt size and employment size. U.S. Department of Commerce, Census of Business, 1939; Ibid., 1948; Ibid., 1954; Ibid., 1958.

TABLE XIV  
NUMBER OF DRY CLEANING PLANTS RANKED ACCORDING  
TO RECEIPT SIZE OF ESTABLISHMENT, UNITED  
STATES, KANSAS, OKLAHOMA, 1939-1958

	1958					
	United States		Kansas		Oklahoma	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Total All Establishments	31,805		515		719	
Establishments Operating the Entire Year	29,864	100	493	100	691	100
300,000 or more	320	1.07	1	.20	...	
100,000 - 299,000	1,781	5.96	15	3.04	20	2.89
50,000 to 99,000	4,261	14.26	43	8.72	41	5.93
20,000 to 49,000	11,163	37.37	140	28.39	164	23.73
10,000 to 19,000	7,686	25.73	165	33.46	240	34.73
Less than 10,000	4,653	15.58	129	26.17	226	36.51
Not Operating the Entire Year	1,941		22		28	
1954						
Total All Establishments	27,423		495		627	
Establishments Operating the Entire Year	26,287	100	475	100	607	100
300,000 or more	245	.93	...		1	.16
100,000 - 299,000	1,630	6.20	13	2.73	17	2.80
50,000 to 99,000	3,593	13.66	41	8.63	35	5.76
20,000 to 49,000	10,010	38.07	136	28.63	192	31.63
10,000 to 19,000	6,749	25.67	185	38.94	228	37.56
Less than 10,000	4,070	15.48	100	21.05	134	22.08
Not Operating the Entire Year	1,136		20		20	

(Source: U.S. Department of Commerce, Census of Business.)

Table XIV (continued)

	1948					
	United States		Kansas		Oklahoma	
	Number of	Percent of Total	Number of	Percent of Total	Number of	Percent of Total
Total All Establishments	24,017		492		613	
100,000 or more	1,331	5.54	5	1.01	8	1.30
50,000 to 99,999	2,442	10.16	19	3.86	25	4.07
30,000 to 49,999	3,369	14.02	54	10.97	57	9.29
25,000 to 29,999	1,475	6.14	23	4.67	38	6.19
20,000 to 24,999	1,987	8.27	35	7.11	55	8.97
15,000 to 19,999	2,491	10.37	50	10.16	69	11.25
10,000 to 14,999	3,034	12.63	96	19.51	120	19.57
5,000 to 9,999	2,856	11.89	90	18.29	101	16.48
3,000 to 4,999	912	3.80	26	5.85	34	5.55
Less than 3,000	758	3.16	22	4.47	28	4.57
Not Operating the Entire Year	3,362		72		78	
1939						
Total All Establishments	11,604		342		286	
50,000 or more	659	5.68	2	.58	4	1.40
30,000 to 49,999	637	5.49	3	.88	12	4.20
20,000 to 29,999	778	6.70	7	2.05	11	3.85
15,000 to 19,999	826	7.12	16	4.68	10	3.50
10,000 to 14,999	1,542	13.29	29	8.48	37	12.94
5,000 to 9,000	2,777	23.93	88	25.73	62	21.68
3,000 to 4,999	1,893	16.31	75	21.93	62	21.68
Less than 3,000	2,492	21.48	122	35.68	88	30.77

increases in the price level, the categories of receipt size are much larger for 1958 and 1954 than those for 1948 and 1939. Observation shows, however, that the plants in Oklahoma have had a tendency to decrease in receipt size relative to plants in Kansas and the United States. This point is summarized in Table XV by the percentage of plants in the lowest two<sup>3</sup> and lowest three<sup>4</sup> categories on Table XIV.

TABLE XV

PERCENTAGE OF DRY CLEANING PLANTS IN THE LOWEST TWO,  
AND IN THE LOWEST THREE CATEGORIES OF RECEIPT  
SIZE IN TABLE XIV, UNITED STATES, KANSAS,  
OKLAHOMA, 1939-1958

Year	The Lowest Two Categories			The Lowest Three Categories		
	United States	Kansas	Oklahoma	United States	Kansas	Oklahoma
1939	37.79	57.61	52.45	61.72	83.34	74.13
1948	6.96	10.32	10.12	18.85	28.61	26.60
1954	41.15	59.99	59.64	79.22	88.62	91.27
1958	41.31	59.63	71.24	78.68	88.02	94.97

(Source: Table XIV.)

In 1939 the plants in Oklahoma tended to be somewhat larger than the plants in Kansas. By 1948 the size of plants had decreased relative to the size of plants in Kansas by

<sup>3</sup>The plants with below \$19,000 sales in 1958 and 1954; and the plants with below \$4,999 in 1948 and 1939. Plants not operating the entire year are excluded.

<sup>4</sup>The plants with below \$49,000 sales in 1958 and 1954; and the plants with below \$9,999 sales in 1948 and 1939. Plants not operating the entire year are excluded.

enough to render the size distribution of plants almost the same. By 1954 the plants in Oklahoma tended to be smaller than the plants in Kansas. The tendencies are even more pronounced in 1958 when slight decrease occurred in the proportion of Kansas plants in both the lowest two and lowest three categories while the proportion of Oklahoma plants in both categories increased considerably.

The second indicator of size trends is the number of dry cleaning plants by employment size. The data presented on Table XVI and summarized in Table XVII support the conclusion above. There has been a tendency for the plants in Oklahoma to decrease in size relative to the plants in Kansas.

The proportion of Kansas plants that employed from zero to three workers increased from 54 percent to 61 percent from 1948 to 1958. The proportion in Oklahoma increased from 54 percent to 70 percent. There was a similar decrease in size of plants for the complete United States. However, the decrease in the size of Oklahoma plants was greater than the decrease in Kansas or the United States.

Both measures of plant size, number of plants by receipt size and number of plants by employee size, indicate that the size of dry cleaning plants has tended to decrease in the United States, Kansas, and Oklahoma. The move toward smaller plant size, however, has been more pronounced in Oklahoma than either of the two other areas.



TABLE XVI

NUMBER OF DRY CLEANING PLANTS BY EMPLOYMENT SIZE, UNITED STATES,  
KANSAS, OKLAHOMA, 1948-1958

	United States	Percent of Establishments Operating Entire Year	Kansas	Percent of Establishments Operating Entire Year	Oklahoma	Percent of Establishments Operating Entire Year
1958						
Total All Establishments	34,311		515		719	
Operating Entire Year	32,158	100	493	100	691	100
None	3,627	11.28	42	8.52	119	17.22
1 to 3	12,438	38.68	260	52.74	368	53.26
4 to 7	8,496	26.42	113	22.92	131	18.95
8 to 19	5,602	17.42	63	12.78	50	7.24
Over 20	10,795	6.20	15	3.04	23	3.33
Not Operating Entire Year	2,153		(1)		(1)	
In Business at End of Year			22		28	
1954						
Total All Establishments	29,200		495		627	
Operating Entire Year	27,994	100	475	100	607	100
None	3,514	12.55	56	11.79	66	10.87
1 to 3	8,466	30.24	199	41.89	263	43.33
4 to 7	8,356	29.85	141	29.68	193	31.80
8 to 19	5,508	19.68	67	14.11	66	10.87
Over 20	2,150	7.68	12	2.53	19	3.13

Table XVI (continued)

	United States	Percent of Establishments Operating Entire Year	Kansas	Percent of Establishments Operating Entire Year	Oklahoma	Percent of Establishments Operating Entire Year
1954						
Not Operating Entire Year In Business at End of Year	1,206		20		20	
1948						
	United States	Percent <sup>1</sup> of Total Establishments	Kansas	Percent of Total Establishments	Oklahoma	Percent of Total Establishments
Total All Establishments Operating Entire Year	24,017	99.99	492	100	613	100
None	2,225	9.26	85	17.28	69	11.26
1 to 3	7,328	30.51	182	36.99	262	42.74
4 to 7	7,253	30.20	151	30.69	200	32.62
8 to 19	5,138	21.39	68	13.82	66	10.77
Over 20	2,073	3.63	6	1.22	16	2.61
Not Operating Entire Year In Business at End of Year						

(Source: U.S. Department of Commerce, Census of Business.)

<sup>1</sup>Data for establishments not operating the entire year are not available.

TABLE XVII

PERCENTAGE OF DRY CLEANING PLANTS EMPLOYING FROM  
0 TO 3 AND FROM 0 TO 7 EMPLOYEES,  
UNITED STATES, KANSAS, OKLAHOMA,  
1948-1958

Year	0 to 3 Employees			0 to 7 Employees		
	United States	Kansas	Oklahoma	United States	Kansas	Oklahoma
1948	39.77	54.27	54.00	69.97	84.96	86.62
1954	42.79	53.68	54.20	72.64	83.36	86.00
1958	49.96	61.26	70.48	76.38	84.18	89.43

(Source: Table XVI.)

The Available Data on Services Offered  
By Dry Cleaning Plants

The absence of price competition below a certain level of prices may foster non-price competition. The State Board of Dry Cleaners feels that one of the major purposes of the legislation was to promote the entrepreneurs to compete on the basis of quality rather than price and that the legislation has been successful in this respect.<sup>5</sup> No estimates of the quality of the services offered by Oklahoma dry cleaners are available. Such data should take the form of: processes used; equipment used; the actual grading of work based on the removal of stains, preservation of the material, cleanliness, etc.; advertising, and so forth. Data pertaining to some of the additional services provided by dry cleaners are provided

<sup>5</sup>This was expressed to the author during an interview with the State Board, July 1962.

by the Bureau of the Census. However, because the small amounts reported for some categories render comparisons rather unreliable, only two additional services are examined. First is dry cleaning delivery service, and second is rug cleaning. As was the case with size data above, only data for dry cleaning plants are available.

### Delivery Service

Retail receipts from cleaning and dyeing delivered to the home are presented on Table XVIII. The data are not available for 1939. The proportion of total dry cleaning plant sales delivered to the home has decreased consistently in Kansas and the United States. The consistent decrease did not occur in Oklahoma and when the percentage did decrease it

TABLE XVIII

RETAIL RECEIPTS FROM CLEANING AND DYEING DELIVERED  
TO THE HOME, UNITED STATES, KANSAS,  
OKLAHOMA, 1948, 1954, 1958<sup>a</sup>

Year	United States		Kansas		Oklahoma	
	Amount (000)	Percent of Total Plant Dry Cleaning Sales	Amount (000)	Percent of Total Plant Dry Cleaning Sales	Amount (000)	Percent of Total Plant Dry Cleaning Sales
1948	289,492	37.47	2,973	34.26	2,948	27.21
1954	299,675	30.09	2,672	23.46	2,751	19.17
1958	311,127	27.45	2,409	19.81	3,729	26.59

(Source: U.S. Department of Commerce, Census of Business.)

<sup>a</sup>Plants that reported their source of receipts were considered to be the total number of plants that delivered to the home. This source of error is reduced if large plants tend to be those that deliver and if they are also those that have sufficient records to report sources of receipts.

was less than the decrease in Kansas. The implication is that the dry cleaning plants in Oklahoma have tended to do more delivery work than plants in Kansas or in the United States.

### Rug Cleaning

The second indicator of additional services provided by dry cleaning plants is the amount of rug cleaning done. The ratio of rug receipts of dry cleaning plants to dry cleaning receipts indicates the relative importance of this additional service in relation to dry cleaning. The data are presented on Table XIX.

TABLE XIX

DRY CLEANING PLANT RECEIPTS FROM RUG CLEANING: THE AMOUNT, AND AS A PERCENT OF DRY CLEANING PLANT DRY CLEANING SALES, UNITED STATES, KANSAS, OKLAHOMA, 1939-1958

Year	United States		Kansas		Oklahoma	
	Amount (000)	Percent of Dry Cleaning Sales	Amount (000)	Percent of Dry Cleaning Sales	Amount (000)	Percent of Dry Cleaning Sales
1939	2,011	1.155	10	.462	6	.256
1948	4,657	.603	20	.224	3	.028
1954	4,701	.472	67	.543	21	.146
1958	5,540	.489	53	.398	80	.570

(Source: U.S. Department of Commerce, Census of Business.)

No consistent trend presents itself throughout the complete period. The ratio declined for all three areas in 1948 and increased for all three areas in 1954. The period

from 1948 to 1954 is the only one in which the ratio for Oklahoma did not have a greater tendency to increase when compared with the ratio for Kansas. Oklahoma is the only area of the three for which the ratio increased consistently from 1948 to 1958, and it is the only area of the three for which the ratio was larger in 1958 than it was in 1939. This does support the assertion that Oklahoma dry cleaning plants have had a greater tendency to offer the additional service of rug cleaning than the plants in the other two areas. The tendency, however, is not pronounced and the mere smallness of the numbers raises doubts concerning the reliability of the data.

To the extent that non-price competition is manifest in the addition of services other than dry cleaning, this section concludes that non-price competition has been somewhat greater in Oklahoma than in the other two areas. This does not mean that the particular items mentioned have been sold at lower prices in Oklahoma to promote dry cleaning sales because the charges of these items are subject to review by the State Board.<sup>6</sup> All such services are "reviewed carefully" and "effectively enforced" by the State Board.<sup>7</sup> But this does not preclude the services being offered for customer convenience. If they are indicators of attempts by the dry cleaners to

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<sup>6</sup>"The Board, after making such investigation, shall fix, by official order, the minimum price for all services usually furnished and performed by a cleaning and pressing establishment." 59 Oklahoma Statutes, 1941.

<sup>7</sup>By interview with the State Board of Dry Cleaners, July 1962.

promote dry cleaning sales rather than to sell these services for their particular returns, one may suspect that the cost outlay of Oklahoma plants for advertising, building beautification, etc., must be somewhat greater than in either Kansas or the United States.

#### Summary

There has been a greater tendency for establishments offering dry cleaning services in Oklahoma to own dry cleaning equipment; and there has been a slightly greater tendency for Oklahoma dry cleaning resources to be used where laundry services are offered. There is also a slightly greater tendency for plants in Oklahoma to offer services in addition to dry cleaning. However, the plants in Oklahoma have tended to be smaller in size.

## CHAPTER VI

### CONCLUSIONS

#### Summary and Interpretation of the Findings

Broadly stated, the problem of concern in this study has been to ascertain what effect the policy of self-regulation in the Oklahoma dry cleaning industry has had on the allocation of resources. It has been assumed that in the absence of such a policy the Oklahoma industry would have developed in the same manner as did the Kansas industry.<sup>1</sup> The differences in the decision making process were examined and from this a model was constructed. The implications of this model were then tested.

The Oklahoma Dry Cleaning Act granted a State Dry Cleaners' Board the power to establish requirements for operating dry cleaning plants within the state and to approve minimum price agreements. Thus, the Board has the power to circumvent two of the major forces of competition: entry into the occupation and price cutting. The decisions of this Board, although challenged, have been final. In establishing operating requirements, the Board appears to have functioned much like the fire prevention boards and health and safety

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<sup>1</sup>See Appendix.



boards of other states. The regulations of the Board do not appear to be of an "entry preventing" nature.

The method of setting prices varies considerably from that of "competitive" markets. The Board has the authority to approve minimum price agreements that have been established by seventy-five percent of the dry cleaners in a particular county. The purpose of the price agreement is to assure a "fair" price to dry cleaners and to eliminate "cut throat" competition. The Board seems to have regarded the operators of dry cleaning establishments as the best judge of a "fair" price so it seldom, if ever, fails to approve a price agreement. As a result the prices in Oklahoma are higher than the "competitive" prices.

The result has been that the flow of resources into the Oklahoma industry has been greater than that of the competitive norm each year. Oklahoma has experienced greater increases, per capita, in the number of establishments offering dry cleaning services, employees of dry cleaning establishments, expenditures, and the percent of income spent on dry cleaning. This implies that more resources are used in Oklahoma for the processing of a unit of dry cleaning. This is the result of two major factors. First, resources are organized in smaller, less efficient, plants. Second, the Oklahoma plants have had a greater tendency to increase resource utilization through non-price competition. Many of the methods of non-price competition are controlled by the Board

and no tie-in sales are allowed but Oklahoma plants have had a greater tendency to offer additional services. Some of these services such as home delivery and rug cleaning cannot be offered at reduced prices but do offer additional convenience to the consumer. Others such as the addition of laundry facilities can be sold at reduced price. It is in the addition of these latter facilities that the Oklahoma industry varies greatest from the competitive norm. The relative reduction in the importance of press shops in Oklahoma could reflect the desire of dry cleaners to compete on the basis of quality or personal care of garments. Curiously enough, location does not seem to be a major factor of non-price competition if it can be said to be reflected by the number of branch outlets owned by a plant.<sup>2</sup>

To this general pattern only two exceptions occur. The first is the change in dry cleaning employees per capita from 1948 to 1954. The United States, Kansas and Oklahoma all experienced a decrease in employment per capita of .210239, .026824 and .041246 respectively. Oklahoma had a greater decrease than Kansas in both absolute and percentage terms. This is in direct conflict to what was predicted. However, the fact that Oklahoma had greater increases in the number of

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<sup>2</sup>The data for the number of units operated by each dry cleaning establishment is only available for 1958. In this year, 95.97 percent of Oklahoma dry cleaning plants operated a single unit whereas the figure for Kansas was 91.07 percent and for the United States was 93.04 percent. U.S. Department of Commerce, Bureau of the Census, United States Census of Business: 1958, Vol. V, Table 4B.

plants per capita, expenditures per capita, and percent income spent on dry cleaning seems sufficient to allow a conclusion that from 1948 to 1954, Oklahoma experienced a greater increase in resources employed by the dry cleaning industry.

The second exception to the greater flow of resources into the Oklahoma dry cleaning industry occurred in the period from 1954 to 1958. Decreases in resources utilized per capita occurred in all three areas during this period. Oklahoma, however, had greater decreases in per capita retail sales and the percent of income spent on dry cleaning. The general decrease in expenditures on dry cleaning was due to a fall in demand precipitated by the introduction of substitute goods-- coin operated dry cleaning machines, wash and wear garments and the increased popularity of garments that require less dry cleaning.<sup>3</sup> This would not only decrease market demand but would also increase its elasticity. Because the prices in Oklahoma were higher, the decrease in sales per capita were greater. The fact that Oklahoma did not clearly experience greater decreases in establishments per capita and employment per capita does not necessarily contradict this thesis. If Oklahoma plants were enjoying monopolistic profits due to oligopolistic markets, the decrease in demand would only squeeze out these profits and cause existing plants to become smaller. That this is the case is supported by the

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<sup>3</sup>See p. 20 of this study.

data. Oklahoma plants consistently tended to become smaller relative to the competitive norm throughout the entire period of examination--1939 to 1958. But in the period from 1954 to 1958 the relative decrease of plant size in Oklahoma was the greatest of the entire period. If this was a decrease to a smaller, less efficient plant, it could have caused more labor per unit to be used and thus explain the failure of Oklahoma to experience a greater decrease in dry cleaning employment per capita.

#### Limitations

The limitations of the study fall in two general categories--the data utilized, and the method utilized. With respect to the data, particular attention should be given to the method by which it was derived from the Census of Business. Many assumptions such as those used in deriving retail dry cleaning receipts were supported by more intuition than fact. It is possible that such assumptions could affect all conclusions in the study. Attention should also be given to data given only for dry cleaning plants and not other dry cleaning establishments. Finally, the fact that data is presented every four years gives rise to the possibility that those years were exceptional years not at all related to general trends.

The second major limitation to the study is the employment of a norm of comparison. If a statistician takes the greatest pains to find two people who are the most perfectly

alike he may, upon examining his results, find that one is male and the other female. Regardless of the pains taken to determine the comparability of two areas there is always the possibility of important factors being left unexamined. Such is the case with the norm used in this study. It is conceivable that the differences in development trends may be the result of some factor that has nothing to do with the laws in the state.

## APPENDIX A

### The Norm of Comparison: Kansas

#### Method of Delimitation

A significant feature of the social sciences is that identical circumstances for the testing of a single variable do not avail themselves. An attempt to duplicate all variables first without the legislation, then with the legislation, and then tracing out its effects is of course impossible. The number of variables that have, or may have affected the development of the Oklahoma dry cleaning industry are unlimited. However, there is a basic underlying pattern to human activity<sup>1</sup> part of which has been established in relation to the dry cleaning industry.<sup>2</sup> But according to Howard W. Odum, "many of the dominant forces of regions, such as tradition, opinion, conflict, arrangements of local stateways, and folkways, which constitute a part of the picture, are not measurable in terms of units that can be counted."<sup>3</sup> It seems reasonable to assume that these unmeasurable variables are more closely related within close geographical areas. Such

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<sup>1</sup>Donald J. Bogue, "Economic Areas as a Tool for Research and Planning," American Sociological Review, XV (1950), p. 410.

<sup>2</sup>See Chapter II, p. 26 of this study.

<sup>3</sup>Howard W. Odum, Southern Regions of the United States (Chapel Hill, North Carolina, 1936), p. 3.

unmeasurables could conceivably have a pronounced effect on the amount of dry cleaning demanded just as could temperature, humidity and dust. For this reason only those states adjoining Oklahoma were considered for a norm of 'what would have been' in order to give meaning to an analysis of effect.

For the purpose of delimitation, State Economic Areas and the Economic Subregions compiled by the Bureau of the Census were utilized. State Economic Areas are counties or groups of counties that constitute a relatively homogeneous subdivision of a state.<sup>4</sup> Many factors were taken into account in addition to industrial and commercial activity such as "demographic, climatic, physiographic, and cultural factors, as well as factors pertaining more directly to the production and exchange of agricultural and nonagricultural goods."<sup>5</sup> The 119 Economic Subregions of the United States represent combinations of State Economic Areas. The boundaries of the Subregions cut across state lines but preserve the homogeneous characteristics of State Economic Areas.<sup>6</sup> No change has occurred in the boundaries of Economic Subregions since their establishment in 1950.

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<sup>4</sup>U.S. Department of Commerce, Bureau of the Census, State Economic Areas, ed., Donald J. Bogue (Washington, D.C., 1951), p. 1.

<sup>5</sup>U.S. Department of Commerce, Bureau of the Census, 1960 Census of Population, P.C. (1), 1A, p. XXVIII. For a more detailed explanation of the computations see U.S. Department of Commerce, State; also, Donald J. Bogue and Calvin L. Beale, Economic Areas of the United States (New York, 1961), Appendix A.

<sup>6</sup>Ibid., p. XXVII.

The use of such areas is not without criticism.

Rutledge Vining has maintained that there is no such thing as a 'natural area' because no criteria exists. Space, he says, is a continuum and the primary criteria for the delimitation of the state economic areas used by the Department of Commerce is the cost of providing the information.<sup>7</sup> Bogue and Beale assert in refutation that the existence of areas in space is obvious.<sup>8</sup> It is not within the scope of this paper nor the competence of the writer to enter into this debate. However, the variables quantified in the areas are of importance in ascertaining dry cleaning expenditures and it is the only information of its kind available. But this does not mean their use is without limitations.

As shown in Figure 2, three Economic Subregions cross the Kansas-Oklahoma border. Within these three regions reside 62.14 percent of the population of Kansas and 34.28 percent of the population of Oklahoma. This percent of Oklahoma's population is approximately the same percent of Oklahoma's population that resides within all other interstate regions combined (101, 96, 81, and 82). Region 95, which overlaps no state boundary, accounts for 40.60 percent of Oklahoma's population in 1960.<sup>9</sup> The variables in this region more

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<sup>7</sup>Rutledge Vining, "Delimitation of Economic Areas: Statistical Conceptions in the Study of the Spatial Structure of an Economic System," Journal of the American Statistical Association, XLVIII (March 1953), pp. 44-64.

<sup>8</sup>Bogue & Beale, Economic Areas, p. 1001.

<sup>9</sup>The Standard Metropolitan Statistical Area of Oklahoma City is included in the computations.



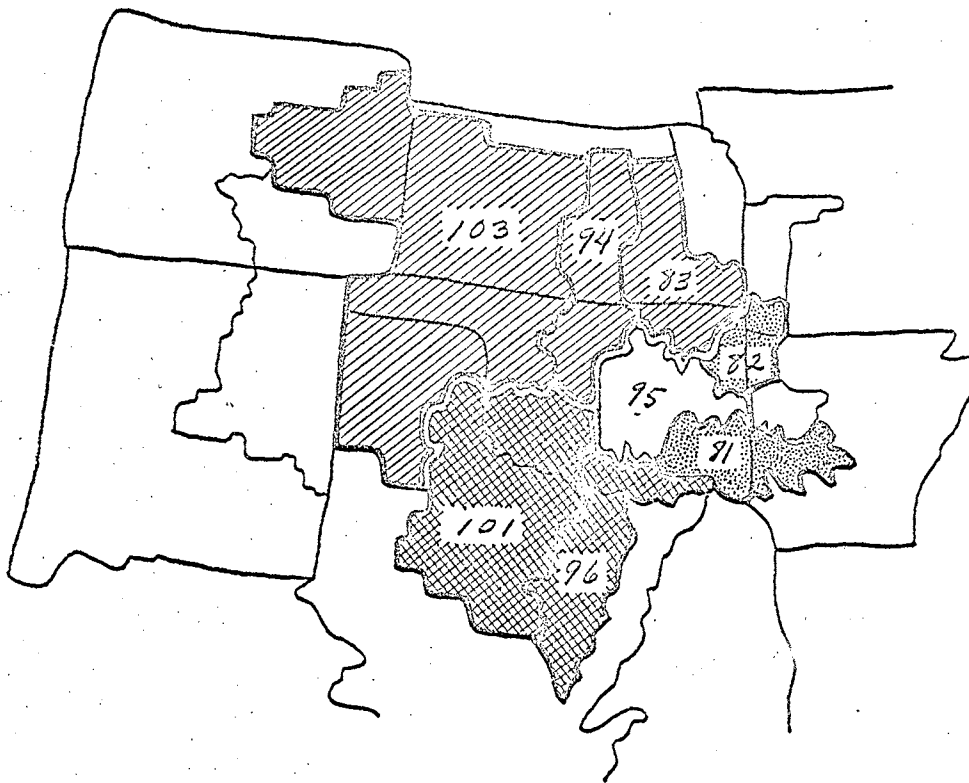


Figure 2

## PERCENT OF 1960 POPULATION IN THE SAME SUBREGIONS

Oklahoma	34.28%	Oklahoma	22.30%	Oklahoma	7.37%
Kansas	62.14%	Texas	18.18%	Arkansas	13.28%
Oklahoma	4.08%	Oklahoma	1.89%		
Colorado	59.57%	Missouri	3.77%		

(Source: U.S. Department of Commerce, Bureau of the Census, 1960 Census of Population, P.C. (1), 1A, Figure 7, pp. S8-S9; and Table XXXVIII, pp. 1-122 and 1-123.

closely correspond with the variables in Region 96 than any other region,<sup>10</sup> but also closely correspond with those in area 83.<sup>11</sup> Since the Subregions overlapping the Texas-Oklahoma border account for only a small portion of the Texas population (18.18%), the remainder of which resides in nine other Economic Subregions, Kansas was chosen for the comparison.

#### Relevant Variables

As outlined in Chapter II, several variables seem to be directly related to the activities within the dry cleaning industry. Since any divergence of dry cleaning activity from that of Kansas could be due to differences in these variables rather than differences in the decision making process, a review of these variables for the two states and the United States is necessary. Total dry cleaning sales had a rank correlation coefficient of .97631 with total population. Table XXI shows the population of the two states during the time period under consideration. Although Oklahoma has a larger population, its population has decreased during the time period while that of Kansas has increased.

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<sup>10</sup>The method of computing from Table XX was as follows: Variables for each region were ranked in relation to the variables of each of the other regions according to their approximation to the variables in Region 95. After each variable for each region was assigned a rank, the sum of the ranks was obtained for each region. The region with the lowest sum was considered to be the most similar.

<sup>11</sup>Area 83 contains the Tulsa Standard Metropolitan Statistical Area.



TABLE XXI

TOTAL POPULATION, UNITED STATES, KANSAS,  
OKLAHOMA, 1933-1958

Year	United States		Kansas		Oklahoma	
	Number (000)	Percent of 1939	Number (000)	Percent of 1939	Number (000)	Percent of 1939
1933	125,579	95.95	1,877	102.91	2,329	99.83
1935	127,250	97.23	1,872	102.63	2,386	102.27
1939	130,880	100.00	1,824	100.00	2,333	100.00
1948	146,093	111.62	1,892	103.73	2,089	89.54
1954	161,191	123.16	2,023	110.91	2,186	93.70
1958	174,057	132.99	2,141	117.38	2,271	97.34

(Source: Statistical Abstract of the United States: Personal Income by States Since 1929, U.S. Department of Commerce, Office of Business Economics.) Table III, p. 144.

Per capita personal income had a rank correlation of .8323 with per capita retail dry cleaning sales. The per capita income for Oklahoma is lower than that of Kansas and it has not increased as rapidly. These data are presented on Table XXII.

The rank correlation between percent of the population residing in urban dwellings and per capita retail dry cleaning sales was .8883. Table XXIII reveals that the rate of urbanization has been somewhat greater in Oklahoma than in Kansas. But, the difference does not seem to be extremely pronounced.

Population density had a rank correlation of .5842 with per capita retail dry cleaning sales. Table XXIV shows that the density of Oklahoma is greater than that of Kansas but the density of Kansas increased while the density of Oklahoma re-

mained approximately the same.

The rank correlation between percent of the labor force employed in white collar occupations and per capita dry cleaning sales was .7683. Table XXV shows that approximately the same percent of the employees of Kansas and Oklahoma are employed in white collar occupations.

TABLE XXII

PER CAPITA PERSONAL INCOME, UNITED STATES, KANSAS, OKLAHOMA, 1933-1958

Year	United States			Kansas			Oklahoma		
	Amount	Percent	Changes Over Previous Year	Amount	Percent	Changes Over Previous Year	Amount	Percent	Changes Over Previous Year
1933	375	67.45		251	66.05		222	64.35	
1935	472	84.89	25.87	357	93.95	42.23	293	84.93	31.98
1939	556	100.00	17.80	380	100.00	6.44	345	100.00	17.75
1948	1420	255.40	155.40	1276	335.79	235.79	1129	327.25	227.25
1954	1770	318.36	24.65	1686	443.68	32.13	1466	424.93	29.85
1958	2064	371.22	16.16	1984	522.11	17.67	1736	503.19	18.42

(Source: U.S. Department of Commerce, Personal Income by States Since 1929, a supplement to the Survey of Current Business, Office of Business Economics, Table II; Survey of Current Business, August 1961.)

TABLE XXIII

## PERCENT OF POPULATION URBAN, UNITED STATES, KANSAS, OKLAHOMA, 1930-1960

	Counterminous United States		Kansas		Oklahoma	
	Percent of Total Popula- tion	Percent In- crease Over Preceding Census	Percent of Total Popula- tion	Percent In- crease Over Preceding Census	Percent of Total Popula- tion	Percent In- crease Over Preceding Census
<b>Current Urban Definition</b>						
1950	64.0	...	52.1	...	51.0	...
1960	69.9	29.3	61.0	33.8	62.9	28.5
<b>Previous Urban Definition</b>						
1930	56.2	27.3	38.8	18.4	34.3	52.7
1940	56.5	7.9	41.9	3.3	37.6	7.1
1950	59.6	20.6	47.4	19.8	49.6	25.9
1960	63.1	25.4	56.4	36.0	61.0	28.2

(Source: U.S. Bureau of the Census, U.S. Census of Population: 1960.)

TABLE XXIV

POPULATION DENSITY AND RANK AMONG ALL STATES,  
UNITED STATES, KANSAS, OKLAHOMA, 1930-1960

Year	Population Per Square Mile				
	United States	Kansas	Rank	Oklahoma	Rank
1930	34.7	22.9	37	34.6	32
1940	37.2	21.9	38	33.7	34
1950	42.6	23.2	38	32.4	35
1960	50.5	26.6	38	33.8	36

(Source: U.S. Department of Commerce, 1960 Census of Population.) P.C.(1), 1A, U.S., Table 12, p. 1-20.

TABLE XXV

PERCENT OF EMPLOYEES ENGAGED IN WHITE COLLAR OCCUPATIONS,  
UNITED STATES, KANSAS, OKLAHOMA, 1960

Year	United States		Kansas		Oklahoma	
	Percent	Rank	Percent	Rank	Percent	Rank
1960	41.1	21	41.8	20	42.4	17

(Source: U.S. Department of Commerce, 1960 Census of Population.) P.C.(1), 1C, U.S. Table 106, p. 1-249.



## APPENDIX B

### DATA SOURCES

Data sources too lengthy to be easily presented with the tables are listed in this Appendix. Such details are of little interest to the average reader so are seldom included in studies of this nature. However, they will be very valuable to anyone desiring to conduct research in the area covered by this paper.

#### Table Number in this Text

#### Sources

- I. U.S. Department of Commerce, Bureau of the Census, Census of Business 1958, Vol. V, Table 7A, pp. 7-2 thru 7-8.
- IV, VI, XI, XII U.S. Department of Commerce, Bureau of the Census, Census of Business, 1939, Vol. III, Table 1C, p. 2.5; Table 7A, p. 485, p. 459.
- Ibid. 1948, Vol. VI, Table 8s, pp. 8.150 thru 8.158; Table 1Q, p. 1.45; Table 8G, p. 8.59, p. 8.66 and p. 8.70.
- Ibid. 1954, Vol. V, Table 7E, pp. 7-27 thru 7-31; Table 7A, pp. 7-2 thru 7-5; Table 7B, p. 7-7, p. 7-9, p. 7-12.
- Ibid., Vol. VI (part I), Table 101, p. 16-11; Table 1A, p. 1-4.
- Ibid., Vol. VI (part 2), Table 101, p. 36-4.
- Ibid. 1958, Vol. V, Table 7E, pp. 7-24 thru 7-27; Table 7A, pp. 7-2 thru 7-6; Table 7B, p. 7-6, p. 7-10, p. 7-12.
- Ibid., Vol. VI (part 1), Table 2, p. 1-6; Table 101, p. 16-6.
- Ibid., Vol. VI (part 2), Table 101, p. 36-6.

Table Number  
in this Text

## Source

IX, XIII

U.S. Department of Commerce, Bureau of the Census, Census of Business 1939, Vol. III, Table 1A, p. 468; Table 1C, p. 25.

Ibid. 1948, Vol. VI, Table 1G, p. 1.09; Table 8C, p. 8.19 and p. 8.27.

Ibid., Vol. VII, Table 101A, p. 15.02 and 35.02.

Ibid. 1954, Vol. V, Table 1A, p. 1-4.

Ibid., Vol. VI (part 1), Table 101, p. 16-4.

Ibid., Vol. VI (part 2), Table 101, p. 36-4.

Ibid. 1958, Vol. V, Table 2, p. 1-6.

Ibid., Vol. VI (part 1), Table 101, p. 16-6.

Ibid., Vol. VI (part 2), Table 101, p. 36-6.

XIV

U.S. Department of Commerce, Bureau of the Census, Census of Business 1939, Vol. III, Table 2A, p. 33-37.

Ibid. 1948, Vol. VI, Table 2E, pp. 2.34 thru 2.37.

Ibid. 1954, Vol. V, Table 2A, p. 2-5; Table 2.B, p. 2-60 and p. 2-100.

Ibid. 1958, Vol. V, Table 2B, p. 2-27; Table 2D, p. 2-86 and p. 2-126.

XVI

U.S. Department of Commerce, Bureau of the Census, Census of Business 1948, Vol. VI, Table 3C, pp. 3.21 and 3.22.

Ibid. 1954, Vol. V, Table 3A, p. 3-5; Table 3B, p. 3-53 and p. 3-83.

Ibid. 1958, Vol. V, Table 3A, p. 3-5; Table 3C, p. 3-70 and p. 3-100.

Table Number  
in this Text

## Source

XVIII

U.S. Department of Commerce, Bureau of the Census, Census of Business 1948, Vol. VI, Table 8s, pp. 8.150 thru 8.154.

Ibid. 1954, Vol. V, Table 7E, pp. 7-27 thru 7-31.

Ibid. 1958, Vol. V, Table 7E, pp. 7-24 thru 7-27.

XIX

U.S. Department of Commerce, Bureau of the Census, Census of Business 1939, Vol. III, Table 7A, p. 485.

Ibid. 1948, Vol. VI, Table 8G, p. 8.59, p. 8.66 and p. 8.70.

Ibid. 1954, Vol. VI, Table 7A, p. 7-3; Table 7B, p. 7-7.

Ibid. 1958, Vol. VI, Table 7A, p. 7-2; Table 7B, p. 7-9.

## BIBLIOGRAPHY

### Books

- Beard, William. Government and Technology. New York: St. Martin's Press, 1934.
- Bogue, Donald J. and Calvin L. Beale. Economic Areas of the United States. New York: Free Press of Glencoe, 1961.
- Dornbusch, Sandord M. and Calvin F. Schmid. A Primer of Social Statistics. New York: McGraw-Hill Book Co., Inc., 1955.
- Freund, Ernst. The Police Power, Public Policy, and Constitutional Rights. Chicago: Callaghan and Co., 1904.
- Gellhorn, Walter. Individual Freedom and Government Restraints. Baton Rouge: Louisiana State University Press, 1956.
- Gras, N. S. B. Industrial Evolution. Cambridge, Mass.: Harvard University Press, 1930.
- Heaton, Herbert. Economic History of Europe. New York: Harper and Bros., 1948.
- Iron, Frederick C. A Survey of Licenses in New Mexico. Albuquerque: University of New Mexico Press, 1949.
- Lipson, E. An Introduction to the Economic History of England. London: A. & C. Black, Ltd., 1920.
- Michelsen, Edna M. Remembering the Years 1907-1957. Silver Springs, Maryland: National Institute of Dry Cleaning Press, 1957.
- Odum, Howard W. Southern Regions of the United States. Chapel Hill, North Carolina: University of North Carolina Press, 1936.
- Pirenne, Henri. Medieval Cities. Princeton: Princeton University Press, 1925.

Postan, M. and E. E. Rich (eds.). The Cambridge Economic History of Europe. Vol. II. Cambridge: Cambridge University Press, 1952.

Salzman, L. F. English Industries of the Middle Ages. Oxford: Clarendon Press, 1923.

Schumpeter, Joseph. History of Economic Analysis. New York: Oxford University Press, 1959.

#### Articles and Component Parts of Books

Bergman, Gustav. "Ideology." Ethics, LXI (April, 1951).

Bogue, Donald J. "Economic Areas as a Tool for Research and Planning." American Sociological Review, XV (1950).

Caldwell, Louis G. "Early Legislation Regulating the Practice of Medicine." Illinois Law Review, XVII (Dec., 1923).

Carr-Sanders, A. M. "Metropolitan Conditions and Traditional Professional Relationships." The Metropolis in Modern Life. Ed. Robert Moore Fisher. Garden City, New York: Doubleday, 1955.

\_\_\_\_\_, and P. W. Wilson. "Profession." Encyclopedia of Social Sciences, XII (1930).

Carus-Wilson, E. M. "The English Cloth Industries in the Late Twelfth and Early Thirteenth Centuries." The Economic History Review, XIV, No. 1 (1944).

Coats, A. W. "The Values of Positive Economics" (unpub. and unfin. brief, University of Virginia, 1963).

Davis, Blanch B. "Licenses Can be Policemen." National Municipal Review, XXXVII (Feb., 1948).

Dempsey, Bernard W. "Just Price in a Functional Economy." Essays in Economic Thought: Aristotle to Marshall. Eds. J. Spengler and Allen. Chicago: Rand McNally and Co., 1960.

Farrier, Robert M., M.D. and Richard H. Smith, M.D. "Carbon Tetrachl Nephrosis, A Frequently Undiagnosed Cause of Death." Journal of the American Medical Association, CXLIII (July 15, 1950).

Grant, J. A. C. "The Guild Returns to America." Journal of Politics, Vol. 4, No. 4 (1942).

- Jaffe, Louis L. "Law Making by Private Groups." Harvard Law Review, LI (1937).
- Kramer, Stella. "The English Craft Gilds and the Government." Studies in History, Economics, and Public Law, XXIII, No. 61 (1905).
- Lancaster, Lane W. "The Legal Status of 'Private' Organizations Exercising Governmental Powers." Southwestern Social Science Quarterly, XV (1935).
- Marx, Morstein. "Comparative Administrative Law: Exercise of Police Power." University of Pennsylvania Law Review, XC (Jan., 1962).
- Nutter, G. W. "Duopoly, Oligopoly, and Emerging Competition." Southern Economic Journal, XXX, No. 4 (April, 1964).
- Palmer, William R. "Price Control Upheld in Oklahoma." The National Cleaner and Dyer, September, 1951.
- Pudner, Richard. "Value Judgements in the Acceptance of Theories." The Validation of Scientific Theories. Ed. Philip G. Frank. New York: Collier Books, 1961.
- Roover, Raymond de. "The Concept of the Just Price: Theory and Economic Policy." The Journal of Economic History, XVIII, No. 4 (Dec., 1958).
- Schuelke, Art. "Leaders Adopt Wait-and-See Attitude on Coin-op Dry Cleaning." The National Cleaner, August, 1960.
- Stigler, George J. "A Theory of Oligopoly." The Journal of Political Economy, LXXII, No. 1 (Feb., 1964).
- \_\_\_\_\_. "The Economies of Scale." The Journal of Law and Economics, I (Oct., 1958).
- Thrupp, Sylvia L. "Medieval Gilds Reconsidered." The Journal of Economic History, II (Nov., 1942).
- \_\_\_\_\_. "Social Control in the Medieval Town." The Journal of Economic History, I (Dec., 1941).
- Vining, Rutledge. "Delimitation of Economic Areas: Statistical Conceptions in the Study of the Spatial Structure of an Economic System." Journal of the American Statistics Association, XLVIII (March, 1953).
- Wall, Hugo. "A Study of the License Laws of Eighteen Selected States" (unpub. Ph. D. dissertation, Stanford University, 1929).

## Hidden Author

"Constitutional Law - Police Power - Minimum Price Fixing Statutes - Barbers." Tulane Law Review, XIII (Dec., 1938).

"That Minimum Price Law." National Cleaner and Dyer, Sept., 1951.

## Newspapers

The Daily Oklahoman (Tues., Jan. 30, 1951).

The Daily Oklahoman (Thurs., Feb. 22, 1951).

Tulsa Tribune (Wed., Feb. 14, 1951).

## Government Publications and Brochures

Council of State Governments. Occupational Licensing Among the States. Chicago: The Council of State Governments Press, 1952.

Oklahoma House Journal 1939.

Oklahoma House Journal 1941.

Oklahoma House Journal 1951.

Oklahoma House Journal 1957.

Oklahoma Senate Journal 1939.

Oklahoma Statutes 1961.

Session Laws of Oklahoma 1941.

State Board of Dry Cleaners. State Law and Regulations for Safeguarding Dry Cleaning Plants. Oklahoma City.

U.S. Department of Commerce, Bureau of the Census. Census of Business 1939. Vol. III. Washington: Government Printing Office, 1939.

U.S. Department of Commerce, Bureau of the Census. Census of Business 1948. Vol. VI. Washington: Government Printing Office, 1948.

- U.S. Department of Commerce, Bureau of the Census. Census of Business 1954. Vols. V, VI. Washington: Government Printing Office, 1954.
- U.S. Department of Commerce, Bureau of the Census. Census of Business 1958. Vols. V, VI. Washington: Government Printing Office, 1958.
- U.S. Department of Commerce, Bureau of the Census. 1960 Census of Population, P.C. (1), 1A. Washington: Government Printing Office, 1960.
- U.S. Department of Commerce, Bureau of the Census. State Economic Areas. Ed. Donald J. Bogue. Washington: Government Printing Office, 1951.
- U.S. Department of Commerce, Office of Business Economics. Statistical Abstract of the United States. Washington: Government Printing Office, 1961.
- U.S. Department of Commerce, Office of Business Economics. Personal Income By States Since 1929. A Supplement to the Survey of Current Economics. Washington: Government Printing Office, 1957.

#### Cases Cited

- Becker v. State, 37 Del. 454, 185 Atl. 92 (1936).
- Herrin, et al. v. Arnold, Dist. Judge, 183 Okla. 392, 82 Pac. 2d 977, 119 A.L.R. 1471 (1937).
- Jack Lincoln Shops, Inc. v. State Dry Cleaner's Bd., 192 Okla. 251, 136 Pac. 2d 332 (1943).
- Kent Stores v. Welentz, 14 F. Supp. 1 (New Jersey Statute) (1936).
- Klever Shampy Karpet Kleaners v. The City of Chicago, 49 A.L.R. 103 (1926).
- Miami Laundry Co. v. Florida Dry Cleaners' & Laundry Bd., 183 So. 759, 119 A.L.R. 956 (annotation, p. 985).
- Nebbia v. New York, 291 U.S. 502, 78 L. Ed. 940 (1934).
- Public Cleaners, Inc. v. Florida Dry Cleaner's & Laundry Bd., 32 Fed. Supp. 31.
- State of North Carolina v. Harris, 216 N.C. 746, 6 S.E.2d 854, 128 A.L.R. 658 (1940).
- State Dry Cleaner's Bd. v. Compton, 201 Okla. 284, 205 Pac. 2d 286 (1946).



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