LEGAL AND INSTITUTIONAL BARRIERS TO INTERREGIONAL TRADE AND MEAT PACKING PLANT LOCATION

by

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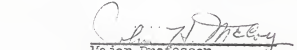

Major Professor

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INTRODUCTION

This study was undertaken as a contributing project to North Central Regional Project No. 25 entitled "Adjustments in Livestock Marketing in the North Central States to Changing Patterns of Production and Consumption." One of the anticipated products of the NCM 25 project is an indication of the probable future changes in packing plant location and interregional trade in meat as derived on the basis of economic criteria. Recognizing the possibility that the existence of legal and institutional barriers to plant location and interregional trade could have relevance to the changes suggested by economic criteria, a study was undertaken to discover and evaluate such barriers. The Kansas Agricultural Experiment Station was assigned the responsibility of carrying out this project.

DEFINITIONS

Before attempting to determine the legal and institutional barriers to interregional trade and meat packing plant location it is of primary importance to define what is meant by the terms posed in this research project. A legal barrier is construed to mean any governmental enactment, whether federal, state or local, that tends to limit or prohibit the physical location of a meat packing plant in a given area; or to hinder or prohibit trade across state lines.

In a technical sense legal enactments are institutions. Therefore a legal barrier would also be classified as an institutional barrier. As used in this study, however, there may be institutional barriers which

are not legal enactments. These could be such things as custom, tradition or religious belief. An example of the latter might be the Orthodox Jewish religious stipulation that meat should be consumed within a specified number of hours following slaughter. This has tended to encourage the location of slaughter plants nearer heavy Jewish centers of consumption than otherwise might be the case.

Interregional trade may be defined as commerce between states but it does not refer to trade within a state. Meat packing plant location is the actual site or physical location of the establishment. A meat packing plant is a firm that does slaughtering and slaughter-and-processing.

Meat Packer Clarified

In general usage, the term "packing company" is usually meant to include the slaughtering firm, the processing firm and the slaughtering-and processing firm. However, in the meat industry, meat packers refers generally to the slaughtering and slaughtering-and-processing firms.

Meat processors do not slaughter livestock but purchase their meats at wholesale for further processing and sale to retail trade. Meat processors include sausage makers, canners, boners, makers of frozen meat specialty portions, etc.

Large meat packers are classified primarily by their amount of annual sales, whereas the terms applied to smaller meat packers are usually governed by their annual volume. The meat industry regards national packers as those slaughter-processor firms that have national distribution of their product, and obtain sales of over $100 million annually. Regional packers have annual sales between $15 and $100 million, while sectional packers have annual sales between $3 and $15 million.

Wholesale packers slaughter more than 2 million pounds per year and/or are federally inspected; while local packers distribute products in the immediate area and slaughter between 300,000 and 2 million pounds per year (and have less than $3 million in annual sales). Individual packers not connected with national or regional packers are termed independent wholesale packers. Butchers and frozen food-locker companies that slaughter less than 300,000 pounds annually are generally not regarded as meat packers.

The functions of the packer are: (1) to slaughter the livestock; (2) to dress, cure, process, and can the meat; (3) to convert or dispose of by-products; (4) to store perishable and nonperishable meat products; and (5) to distribute meat and meat products.

FACTORS AFFECTING INTERREGIONAL TRADE AND MEAT PACKING PLANT LOCATION

Many authors writing in the field of location economics state that there are many considerations which influence all prospective plant builders. These factors include materials used in production, nearness to markets, availability of labor and the quality of labor, means of transportation, power and fuels, and availability of desirable sites. For most firms these factors dominate the location process.

The prospective builder can ascertain some of the fixed liabilities facing his firm by examining status of the tax structure. Beside the property tax, there are other business taxes such as the general franchise tax, state income tax, sales and license taxes, occupation taxes in some states, severence taxes, and in some states discriminatory taxes.

Several studies[1] indicate that taxation differentials do not represent

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[1] M. L. Greenhut, "Observation's and Motives to Industry Location," Southern Economic Journal, p. 227.

much of a "pull" in industrial location. The State Planning Board of the State of Indiana states:

> (We) have amassed a great deal of information pertaining to industry and employment.....it is our opinion that taxation has but little to do with the location or shift into or out of the State as compared to other factors as labor, nearness to markets, nearness to raw materials, transportation facilities, and inducements held out by various local Chambers of Commerce. There has been but very little movement of industry either into or out of the State and of these none has been due to taxation that we know of.[1]

It appears that personal considerations play an important role in selecting a plant location. A study[2] in Alabama revealed that despite the fact that factor costs would have been lower elsewhere the proprietor felt that contract advantages were greater in the city where the owner was raised and had his business apprenticeship. Also, bankers in the home town were acquainted with the owner of the firm and would probably advance credit more readily than would be expected at other possible locations. Another important consideration is that life-long residents of the city will not only buy from the people they know but will also recommend the firm to others. This is a real advantage because many sales are effected through buyers who are recommended to the firm in question by the leaders of the community.

A study involving the food industry was conducted in Florida.[3] The firms comprising the food and kindred products and preferring location

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[1]J. D. Garwood, "Taxes and Industrial Location," National Tax Journal, Vol. No. 5. Dec., 1952. p. 367.

[2]Greenhut, op. cit., p. 227.

[3]M. L. Greenhut, "Underdeveloped Areas Offer Plant Location Advantages," Industrial Development and Manufacturer's Record. Vol. 129, December 1960. p. 93-97.

in developed counties differed substantially in their location factor selection from those firms locating in underdeveloped counties. Size of the plant (see table 1) made no difference at all in this respect. Thirty-eight companies of the fifty-two locating in developed counties selected the demand factors (access to market or anticipation of growth of markets) as the main determinant. Five were influenced by climate, seven by low freight costs or raw materials. Where raw materials were more expensive to transport than finished products, location near a source of materials enables a firm to cut its cost and to sell in markets at more favorable prices than will firms that fail to gain this advantage.

The conclusion reached was that canneries and other packers of foods (including meat) tend to locate near raw materials, and are not concerned with the stage of county development, being in fact very willing to locate in underdeveloped places.

CHANGES IN THE STRUCTURE OF THE INDUSTRY

The purpose of this section is to present the scope of the meat industry and the changes in the location and size of meat packing plants that have taken place over the years from 1955 to 1960. Possible reasons for the shifts in the structure of the meat industry are elaborated on throughout this paper—reasons that are at least partially attributable to barriers in either meat packing plant location or interregional trade, or both, that will be discussed later—but for the present this discussion will concern itself only with the actual changes in the meat industry and not with the reasons for the changes.

Table 1. Plant location in developed and underdeveloped counties in Florida.

Factors	0-24		25-99		100-499		500-Over		Total
	Dev.	Und.	Dev.	Und.	Dev.	Und.	Dev.	Und.	Factors
				Food and Kindred Products					
Access to markets	27	1	1						29
Anticipation of growth of market	10								10
Low sellers mill price on raw material		1			1				2
Low freight costs to obtain raw material	5	2		7	1	3	1		19
Climate as attraction to top management	5				1				6
								Total	66

Source: Industrial Development and Manufacturer's Record, "Underdeveloped Areas offer Plant Location Advantages" by M. L. Greenhut, Vol. No. 129, Dec. 1960. p. 95.

The following table breaks the states of the United States down by sections and indicates the trends taking place. As shown by Table 2, the number of slaughtering plants in the United States has dropped from 3,217 in 1955 to 3,114 in 1960. These were plants slaughtering over 300,000 pounds, live weight, annually. Although the total number of plants has declined the number under federal inspection has increased in every section of the country and in all but 15 states.

To briefly summarize the major points presented, Table 2 indicates that New England is declining as a slaughter area. According to a circular published by the University of California[1] there was a 15 per cent decline in livestock production; a 20 per cent decline in the number of slaughter plants; and a 27 per cent decline in slaughter, between 1955 and 1959. The Middle Atlantic New England and Middle Atlantic regions must depend upon transportation of livestock because, other than diary cattle, quality meat is not produced in sufficient quantities. Thus, because of transportation costs, the prospects of increasing livestock slaughter in both of these regions appears dismal.

The number of slaughtering plants declines in the East North Central region which is second in total slaughter, but the average slaughter per plant rose between 1955 and 1959. The leading region in total slaughter, the West North Central area, gained between 1955 and 1960 largely due to the increase that took place in Kansas. Although there is some doubt that this region will remain a major slaughtering area.[2] The substantial increase

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[1]Allen B. Richards and Peggy J. Biaggi, California and United States Meat Packing Industry, Division of Agricultural Sciences, University of California, Circular 518, January, 1963, p. 10.

[2]Ibid., p. 10.

Table 2. Number of slaughtering establishments,* March 1955 & 1960.

State+	Under Federal Inspection		Other Commercial‡				Total Establishments	
			Large		Medium			
	1955	1960	1955	1960	1955	1960	1955	1960
New England	19	14	18	13	55	46	92	73
Middle Atlantic								
New York	23	30	36	29	80	65	139	124
New Jersey	17	17	10	8	36	31	63	56
Pennsylvania	21	26	87	92	217	228	325	346
Total	61	73	133	129	333	324	527	526
East North Central								
Ohio	29	32	83	81	133	125	245	238
Indiana	14	13	33	23	89	87	136	123
Illinois	32	39	30	22	73	49	135	110
Michigan	4	4	82	87	113	103	199	194
Wisconsin	17	19	30	12	12	26	59	57
Total	96	107	258	225	420	390	774	722
West North Central								
Minnesota	10	12	9	2	24	17	43	31
Iowa	21	27	7	9	21	15	49	51
Missouri	13	17	26	23	20	24	59	64
North Dakota	2	—	2	3	7	7	11	10
South Dakota	6	7	2	3	9	5	17	15
Nebraska	18	29	11	7	21	22	50	58
Kansas	16	16	12	12	33	55	61	83
Total	86	108	69	59	135	145	290	312
South Atlantic								
Delaware-Maryland	11	10	17	16	39	22	67	48
Virginia	9	12	12	11	25	19	46	42
West Virginia	--	—	12	13	20	25	32	38
North Carolina	2	3	33	29	65	55	100	87
South Carolina	1	5	11	13	34	32	46	50
Georgia	7	5	33	38	48	56	88	99
Florida	4	6	26	19	36	29	66	54
Total	34	41	144	139	267	238	445	418

*Includes all plants with 300,000 pounds or more live weight annually.

+New England includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut. D. C. is included in Delaware and Maryland.

‡Other commercial or nonfederally inspected plants.

Source: U.S. Dept. of Agr., No. of Livestock slaughter plants, Mar. 1, 1960. Wash., D. C., 1960., p. 5.

Table 2. (Cont.) Number of slaughtering establishments,* March 1955 & 1960.

State	Under Federal Inspection		Other Commercial+				Total Establishments	
			Large		Medium			
	1955	1960	1955	1960	1955	1960	1955	1960
South Central								
Kentucky	7	7	18	21	21	20	46	48
Tennessee	9	9	24	22	38	41	71	72
Alabama	4	6	11	16	47	34	62	56
Mississippi	3	5	5	6	24	22	32	33
Arkansas	2	4	12	13	37	38	51	55
Louisiana	2	4	14	20	57	58	73	82
Oklahoma	3	3	27	37	39	25	69	65
Texas	22	30	75	71	121	119	218	220
Total	52	68	186	206	384	357	622	631
Mountain								
Montana	4	5	9	10	19	17	32	32
Idaho	5	6	9	11	20	38	34	55
Wyoming	1	1	-	2	10	7	11	10
Colorado	12	14	12	10	17	20	41	44
New Mexico	--	1	2	3	16	22	18	26
Arizona	1	1	9	9	3	7	13	26
Utah	4	6	10	8	16	12	30	26
Nevada	2	2	--	--	4	3	6	5
Total	29	36	51	53	105	126	185	215
Pacific								
Washington	13	15	19	17	56	41	88	73
Oregon	9	9	21	13	33	34	63	56
California	56	59	53	48	22	11	131	118
Total	78	83	93	78	111	86	282	247
U.S. Total	455	530	952	902	1810	1712	3217	3144

*Includes all plants with 300,000 pounds or more live weight annually.

+Other commercial or nonfederally inspected plants.

Source: U.S. Dept. of Agr., No. of Livestock slaughter plants, Mar. 1, 1960. Wash., D. C., 1960., p. 5.

in the number of plants in the Mountain region was due to an increase in only four states: Idaho, Colorado, New Mexico and Arizona. Montana remained unchanged.

Despite the fact that the Delaware-Maryland section is deficient in livestock, the other states in the South Atlantic region produced more livestock than they slaughtered between 1955 and 1959. By the same token, Tennessee was the only state that did not produce more livestock than it slaughtered in the South Central region.

The future of the packing industry in the South Central region as well as in the entire Southern section of the United States depends heavily upon the prospective location of livestock production. An increase in the number of slaughtering plants is expected if the South continues as a surplus area of livestock production.

Viewing the United States as a whole, most regions have shown a decrease in slaughtering plants even though some areas or regions are experiencing an increase.

PROCEDURE AND SOURCES OF INFORMATION

The nature of this study necessitated (1) an exhaustive search of literature and (2) extensive correspondence with original sources of information. Several studies were known to have been made on barriers to interregional trade, though none were known with particular reference to trade in meat or livestock. Many publications were also known to be in existence concerning plant location. In general they emphasize economic and physical factors but, nevertheless, many were reviewed for possible hints or clues to legal and institutional factors.

The search was begun in the Kansas State University library by using the following indices:

1) United States Code (January 6, 1959)
2) Code of Federal Regulations (complete as of January 1, 1962)
3) Agricultural Index (1954-1961)
4) Applied Science and Technology Index (1958-June 1962)
5) Business Periodicals Index (1958-1961)
6) Public Affairs Information Bulletin (1958-1961)
7) Index of Economic Journals (1954-1959)

In addition to the above mentioned sources a search was made of the card catalogue at the same library.

Because this paper is concerned with the legal aspects of meat packing plant location and interregional trade, and because the Kansas State University does not have an extensive legal library, a thorough search was undertaken at the State Legislative Library in Topeka, Kansas. With the aid of two legally trained librarians the following publications were searched:

1) Index to Legal Periodicals (1948-1962)
2) United States Code (1962)
3) United States Government Publications (1959-November, 1962)
4) Harvard Business Review (1958-1962)
5) Public Affairs Information Service (1961-1962)

With the aid of the State Legislative librarians court cases were searched as a source of information concerning meat packing plants and interregional trade.

In addition to the search in the two libraries, much benefit was derived from direct interviews with personnel employed by the federal and state governments who are knowledgeable on the subject concerning barriers to interregional trade and meat packing plant location.

Those persons interviewed were:

1) Dr. S. J. Couger (Federal Veternarian)
2) Dr. J. F. Huddleson (Kansas Veternarian)

3) Dr. D.O. Manley (USDA official in the disease and eradication field)
4) Mr. A. G. Pickett (State Livestock Sanitation Commissioner)
5) Kansas Industrial Development Corporation
6) Kansas Board of Health

Every issue of a weekly meat industry magazine, The National Provisioner, was thoroughly scrutinized from 1954 to 1963. Many references were discovered in this source which opened the way for further probing. In addition, a personal letter was sent to each of the following asking for information on the subject:

1) Railroads
   a-Association of American Railroads
   b-National Public Relations Association
2) Trucking Organizations
   a-American Trucking Association
   b-United Truck Owners of America
3) Interstate Commerce Commission
   a-Bureau of Rates and Practices
   b-Bureau of Traffic
   c-Bureau of Motor Carriers
   d-Bureau of Transport Economics and Statistics
4) Federal Trade Commission
   a-Director of Public Information
   b-Legal Advisor on Antimonopoly
   c-Bureau of Restraint of Trade
5) Labor Department
   a-Secretary of Labor
   b-Bureau of Labor Statistics
   c-Assistant Secretary of Labor for Labor-Management Relations
   d-Director of the Office of Information
6) Military
   a-Office of Information Director (Air Force)
   b-Special Assistant for Procurement (Army)
   c-Defense Subsistance Supply Center
   d-Surgeon General of Public Health
7) Meat Packing Companies
   a-John Morrell & Co.
   b-Geo. A. Hormell & Co.
   c-Hygrade Food Products Corp.
   d-Rath Packing Co.
   e-Swift & Co.
   f-Wilson & Co., Inc.
   g-Cudahy Packing Co.
   h-Armour & Co.
8) United States Department of Agriculture
   a-Packers and Stockyards Division
   b-Staff Officer for Contracts and Enforcement
   c-Meat Inspection Division
   d-Packer Branch, Packer and Stockyards Division

9) Others
   a-American Meat Institute
   b-Economics Research Council
   c-AFL-CIO
   d-The National Provisioner
   e-Industrial Development Corporation of all 50 states, Puerto Rico and the Virgin Islands
   f-Department of Commerce, Information Office
   g-Sec. of Health Education, and Welfare
   h-Water Supply and Pollution Control Division

The response from these letters prompted further correspondence and a formal questionnaire to all persons, agencies and organizations listed above, with the addition of the State Boards of Health in all 50 states, Puerto Rico and the Virgin Islands, asking specific questions in the area that person was associated with that dealt with some aspect of possible legal and institutional barriers in interregional trade and meat packing plant location.

RESULTS OF THE SURVEY

Where a company should locate a plant is a very perplexing question that is of utmost importance. The factors that are important in selecting a plant site vary with each individual but there are some common denominators. While these "common denominators" are not all peculiar to meat packers alone, one of the chief concerns of this research project does involve the location of meat packing companies; therefore, as stated in the Procedure and Sources of Information section, questionnaires were sent to some of the larger meat packing companies to ascertain what they felt were the primary factors to be considered in the selection of a plant site. The response to this question can be roughly categorized into three classes: (1) economic and physical factors; (2) symptoms of a bad business climate; and (3) the lack of uniformity of the food laws of the states. The economic and physical

factors were lumped together into one class because of their close interrelationship; and the third class, the lack of uniformity of the food laws of the states, will be dealt with more extensively in a later section.

The following are the economic and physical factors that the management personnel of the major meat packing companies deemed to be the primary considerations when choosing a plant site for a branch of their company.

1. An adequate supply of livestock in the plant area. Because it is considerably cheaper to transport the carcass than live weight it is more important to locate as close as possible to the source of supply of the raw material than to locate near the point of consumption. More will be stated about this subject later in this paper under the heading of Transportation Costs in both Federal and State Barriers section.

2. A favorable consumer market potential in the immediate plant area. Of course, it is highly desirable to have your cake and eat it, too. If at all possible meat packing plants are established where they have both an abundant supply of livestock and a large immediate consumer market.

3. An adequate supply of labor, with good work attitudes to fill employment needs. The packers state that it is not necessary to make the size of the community a factor in itself as long as there is an abundant supply of labor in the surrounding area. However, it is most desirable if the supply of labor can be drawn from the community in which the plant is located.

4. Some packers stated that not only is an abundant water supply necessary but also a stream with sufficient year around flow to accommodate pre-treated effluent from the plant.

5. Adequate facilities for sewage treatment and reasonable laws affecting waste disposal. The ramification of sewage disposal, water

pollution, and the Federal Water Pollution Control Act will be dealt with more extensively later in this paper under the heading of Sewage Disposal.

6. Freedom from floods.

7. A favorable supply of power commodities--coal, oil, gas, electricity, etc. The price of these power commodities is also a determining factor in plant location.

8. Availability of efficient rail and truck service. Commensurate with this criteria is the necessity for reasonable access to all-weather roads and direct access to rail connections. Because a meat packing plant survives only through the transportation of its products it is of utmost importance that the availability of both truck and rail facilities be sufficient, efficient and as low in cost as possible. Because of the importance of this factor this subject will also be dealt with more extensively later under the heading of Transportation Costs.

9. Fair tax rates, both state and local, that affect the plant, its products, as well as the property and income of the employees. It may be noted that the packers do not object to paying taxes—or even high taxes—as long as the tax is not a discriminatory one and as long as the benefits are proportional to the amount paid.

10. Not only must the plant site be free of floods and have good access to all-weather roads and rail connections but it must also be located in an area where a relatively large tract of land can be obtained at a reasonable price. Packers have found that single story plants are more efficient than multi-storied plants—and that it is more profitable in the long-run to obtain a single story plant on the outskirts of a

city that allows plenty of room for parking and expansion than to locate near the center of a city and operate a multi-storied plant.

The meat packers also indicated that there were several intangible factors--factors that are not readily observed--that deserve as much consideration as the more readily observed factors. These subtle idiosyncracies of each community which packers deem symptoms of a bad business climate are:

1. A "soak business" attitude. The old adage, "You can't get something for nothing" certainly applies here. Many cities offer extremely attractive incentives to induce new firms to locate in their community, through tax incentives, free land or plant structures, etc. But in the end the city has to obtain a return on its investment--it has to get out of the new firm at least as much, and undoubtedly more, than the original investment in some way or another or else the city would not offer the incentive in the first place. The method of obtaining the return on the city's investment is the crux of this discussion. If the city government intends that the benefits accrued to the city should be long-run in nature--when the return is yielded through increased jobs, flow of money, etc.--then the community would be an advantageous location, other things being equal. But it becomes quite another matter if the return is intended to be short-run in nature which would probably mean excessively high or discriminatory taxation.

2. Irresponsible union leadership--the union official must not be determined to be the master instead of the servant of the employees. Commensurate with this factor is union trouble, such as strikes, jurisdictional disputes, secondary boycotts, featherbedding, etc., which are

all criteria that need full consideration when choosing a plant site. More information will be stated on this subject under the heading of Labor Unions.

3. Abuses in unemployment and workmen's compensation administration is a hidden factor that can cause a company much trouble and cost a great deal of money in the long-run.

4. Inadequate law enforcement. Because most plants have invested a great deal in capital equipment it is very important that this investment is adequately protected.

5. Low individual productivity. Innumerable factors may cause the average productivity of the source of labor that is intended to be tapped to be low.

6. Inadequate schools, housing, public transportation and vital facilities are important to the employees of the plant. Employee satisfaction and well-being cannot be over emphasized--this makes it imperative that the wives and children as well as the employees themselves are satisfied with the location.

7. Corrupt local government, rackets, excessive city debt, and instability of the city government all make a community an undesirable place in which to locate a new plant.

8. When an influential segment of the community is hostile toward a new business there is good cause for a re-examination of that city to be used as a plant site. Case studies show that influential leaders of the community have a tremendous affect upon the prosperity of a company.[1]

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[1] M. L. Greenhut, "Observations and Motive to Industry Locations." Southern Economic Journal, Vol. No. 18, October, 1951. p. 225-228.

Good-will with influential leaders can be a real advantage because many sales are effected through buyers who are recommended to the firm by the leaders of the community.

9. Outmoded city codes is another potential barrier to interregional trade and new packing plant location. City laws that are not kept up-to-date may cause a company needless expense fulfilling obsolete requirements.

It is not intended that the above-mentioned factors completely exhausts the legal and institutional barriers to interregional trade and meat packing plant location. Obviously the list of actual or possible barriers in this area is almost infinite, however, the above-mentioned were the factors the management personnel of meat packing companies deemed some of the most important barriers in their industry.

FEDERAL FARM PROGRAMS

Passing mention should be given to the effects of the federal policies concerning agriculture. As will be shown under Transportation Costs in the Federal Barriers section, a primary factor in plant location of a meat packing company is the proximity or nearness to the source of supply--therefore, meat packing plants tend to follow the shifts that take place in livestock production.

The point to be made in this section is that federal farm programs tend to influence the shifts in the location of livestock. For example, because of the past federal policy of limiting the number of acres that farmers can plant of a certain crop, western Kansas has become an important feeding center for livestock because instead of planting wheat, grain sorghum was raised. An indication of the tendency for meat packers to

follow the source of supply--livestock--can be witnessed by the fact that Kansas has increased substantially as an area for meat packers to locate. See Table 2 and Changes in the Structure of the Meat Industry.

It therefore appears that the federal agricultural policy affects changes in the individual farm programs which in turn effects changes in industry.

GENERAL BARRIERS

General barriers to interregional trade and meat packing plant location are those barriers that could not appropriately be classed under either Federal barriers or State barriers. While the barriers mentioned in this section may be applicable under the state and/or federal barriers section, the general barriers cannot be primarily associated with either.

Meat Consumption

It is quite odd to note that the consumption of meat may be a general barrier in itself to meat packing companies! The reason for this potential locational barrier to meat packing companies lies in the fact that a packer may build a new plant in an area in which the trend in meat consumption and/or production has shown a long-run tendency to be on the decline. For example, a packer may build a plant specializing in the slaughter and processing of a certain type of animal, such as pigs, and be unaware of the fact that there is a long-run trend away from pork consumption in that region--or even nationally--with a consistent long-run tendency toward increased beef consumption. Or the packer may build a plant in an area where livestock production has shown a long-run tendency to be declining, such as the New England and Middle Atlantic regions discussed under the Changes in the Structure in the Meat Industry Chapter, which would put that

packer at a potential economic disadvantage due to the increase in transportation costs.

Because a shift in the concentration of population or the meat-eating habits of people can have great economic consequences to the meat packer as to his present and future plant location plans, as well as the type of animals he will slaughter and process, the meat packers will probably want to avail himself of the most up-to-date information concerning the income of the population, the per cent of that income spent on the purchase of meat, and the present and forecast trends in meat consumption of the future. Because expected trends in livestock production of the United States was given in detail in the Changes in the Structure of the Meat Industry chapter, this livestock production aspect will not be reiterated. It will therefore be the purpose of this section to expose as many barriers in this area as possible through a discussion of the present and expected future trends in the consumption of meat.

The two major types of meat consumed in the United States are beef and pork, which are competitive. That is, they compete with each other so that a pound of beef bought means one pound less of pork that will be purchased, and vice-versa. Only in the past seven years has beef consumption surpassed that of pork. Lamb and mutton consumption was high during the 1930's and World War II but has declined to a fairly constant rate of four pounds per capita over the past ten years, while per capita consumption of veal slipped to 5.7 pounds in 1959, an all-time low.[1]

Table 3 shows the use of meat per person for 6,000 households, in the United States as a whole, and in the four geographical areas, during one

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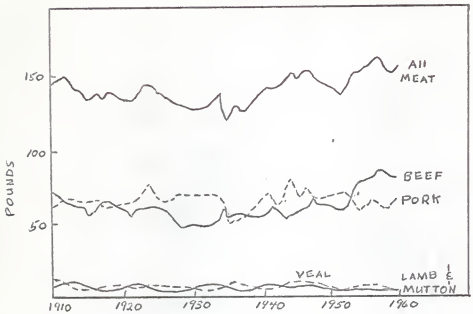
[1]Allen B. Richards and Peggy J. Biaggi, California and United States Meat Packing Industry, Division of Agricultural Sciences, University of California, Circular 518, January, 1963, p. 10.

Table 3. Use of Meat per Person, Farm and Non-farm Household, One Week in Spring 1955, by Regions.

Region and Household Group	All Meat	Beef	Veal	Lamb and Mutton	Pork	Variety Meat	Luncheon Meats	Lard
				Pounds				
United States								
All	3.02	1.25	0.08	0.09	1.14	0.10	0.36	---
Urban	3.17	1.34	0.10	0.12	1.13	0.11	0.36	0.07
Rural non-farm	2.08	1.10	0.05	0.03	1.15	0.08	0.39	0.18
Farm	2.72	1.18	0.02	0.02	1.21	0.07	0.32	0.39
Northeast								
All	3.07	1.29	0.12	0.19	0.98	0.13	0.37	---
Urban	3.10	1.29	0.15	0.23	0.95	0.14	0.35	0.02
Rural non-farm	2.92	1.23	0.06	0.09	1.01	0.10	0.43	0.07
Farm	3.30	1.54	0.05	0.07	1.15	0.09	0.39	0.18
North Central								
All	3.37	1.51	0.07	0.05	1.23	0.09	0.42	---
Urban	3.42	1.52	0.10	0.08	1.22	0.09	0.42	0.04
Rural non-farm	3.17	1.43	0.05	0.01	1.17	0.08	0.43	0.11
Farm	3.45	1.61	0.02	0.01	1.34	0.06	0.40	0.27
South								
All	2.57	0.85	0.04	0.02	1.26	0.09	0.30	---
Urban	2.93	1.09	0.06	0.03	1.33	0.12	0.30	0.16
Rural non-farm	2.32	0.64	0.03	0.02	1.22	0.06	0.34	0.32
Farm	2.18	0.68	0.01	0.01	1.18	0.06	0.23	0.56
West								
All	3.31	1.62	0.07	0.13	1.00	0.11	0.37	---
Urban	3.25	1.52	0.07	0.17	1.00	0.12	0.38	0.04
Rural non-farm	3.58	1.89	0.12	0.04	1.05	0.09	0.38	0.08
Farm	3.15	1.73	0.03	0.10	0.89	0.08	0.31	0.12

Source: Breimyer, Harold F. and Charlotte A. Kause, "Consumption Patterns for Meat," in Household Food Consumption Survey, 1955. Rpt. No. 5, Washington D. C., U. S. Govt. Printing Office, 1956, p. 11.



Graph 1. Meat Consumed Per Capita, United States, 1910-1960.

Source: "Meat Consumption Trends and Patterns," U. S. Dept of Agriculture, Agriculture Handbook No. 187, Washington, D. C., 1960.

week in the spring of 1955. Graph 1 shows per capita consumption in the United States as a whole from 1910 to 1960.

The outlook for the meat industry is determined by the changed in population and changes in per capita consumption of meat, as influenced by consumer preference and income. Conservative estimates expect the United States population to reach 220 million by 1975 and possibly 272.5 million or over by 1980.[1]

Possible future trends in meat consumption are indicated by changes within the total population. In the United States it is expected that the number of consumers in the heavy meat-eating age group, those between 14 and 24, will increase in the coming years and at a greater rate of increase

[1]Richards and Biaggi, op. cit., p. 10.

than that of other age groups. There are several factors that point to the possibility that per capita meat consumption may not continue to increase at the present rate. These factors are: (1) the bulk of the male labor force (ages 24 to 44) will remain fairly constant; (2) the number of working women is increasing; (3) fewer people over 65 will be in the labor force; (4) younger persons will have a longer period of education; and (5) part-time employment will increase. All of these factors have an adverse effect upon consumption. However, after 1965 the population composition and the characteristics of the labor force suggest a marked increase in consumption of meat of all kinds. It has been predicted that per capita consumption of all meat may reach 175 pounds by 1975, compared with the present 165 pounds.[1]

Present trends indicate that more types and varieties of meat will be demanded but beef is expected to continue to be consumed at a higher rate than all other types. It is also expected that beef consumption will rise proportionately more than that of other meats as income increases.

Not only will the demand for beef continue to increase relatively more than the demand for pork, lamb, or veal, but present consumption trends indicate an increased demand for convenience meats—precut, frozen, precooked, prepared meats, variety and luncheon meats, as well as canned products. However, it appears unlikely that the demand for convenience meats will increase more rapidly than the demand for other types of meats.

While personal disposable income has increased in the United States, the percentage of that income spent for meat has declined from 5.5 in 1950 to 4.8 in 1959. Despite the fact that from 1950 to 1959, the demand for

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[1]Richards and Biaggi, op. cit., p. 10.

pork has slipped by 25 per cent, the percentage of income spent on beef has increased (See Table 4).

The relative growth rates and increases in income are very important in determining future consumption patterns.

> The effect of income changes on the quantity of meat consumed can be measured by the income elasticity of demand. This is the per cent of increase in quantity of meat consumed that results from a one per cent increase in real income--income after price changes are taken into account. Recent estimates indicate that a one per cent increase in real income results in a percentage increase in consumption of all meat of 0.35; of beef, 0.4; of pork, 0.25; of lamb, 0.06. As real income rises, consumers tend to buy better quality meats, rather than larger quantities.[1]

This indicates that cattle producers will tend to gain by providing top quality products to meet the rising consumer demand.

Meat prices were at their low in 1956, when per capita consumption was at a record high. Lower relative prices since then, however, have not induced consumers to eat more meat. In fact, per capita consumption since 1956 has been well below the 167 pounds recorded for that year.

> It is likely that, as livestock numbers grow, they will have a dampening effect on meat prices. Also, red meats will be subject to continued price competition from other food products, particularly poultry, eggs, and dairy products. Price elasticities of demand show the influence of prices on meat consumption by indicating the changes in consumption associated with a one per cent change in retail price. Estimates for all meats range from -0.82 to-0.24. This means that a one per cent change in the price of all meats is associated with a 0.24 to 0.82 per cent change in the opposite direction in quantity of meat consumed. For beef, estimates of price elasticities have an even wider range from -0.75 to -0.96. Therefore, other things being equal, lower relative prices will result in a less than proportionate increase in meat consumption.[1]

Again it would appear that it would be to the meat packers advantage to constantly familiarize himself with the most recent information concerning the trends in meat consumption so that these shifts do not become economic barriers.

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[1]Richards and Biaggi, op. cit., p. 10

Table 4. Retail Value of Meat Consumed, As a Percentage of Disposable Personal Income, 1935-39 Average and 1946-59*

Year	Total Meat	Beef	Pork
		Per Cent	
1935-39 Average	5.7	2.2	2.8
1946	4.6	1.6	2.4
1947	6.3	2.6	3.1
1948	6.1	2.6	2.8
1949	5.6	2.5	2.6
1950	5.5	2.5	2.4
1951	5.5	2.5	2.5
1952	5.4	2.5	2.4
1953	5.1	2.3	2.2
1954	5.0	2.3	2.2
1955	4.7	2.3	2.0
1956	4.5	2.2	1.8
1957	4.6	2.4	1.8
1958	5.0	2.6	1.9
1959	4.8	2.6	1.8

*Retail value is computed by multiplying by retail prices the fresh retail-cost equivalents of beef, veal, lamb and mutton, and pork consumed. Includes home produced meat as well as all meat sold.

Beef, veal, lamb and mutton, and pork.

Preliminary

Source: The National Food Situation, NFS-93, Washington, D. C., USDA, July, 1960

City Ordinances

A barrier to interregional trade and meat packing plant location that virtually defies analysis exists in the area of city ordinances. Early probing in this area disclosed that perhaps the greatest barriers to meat packers lies in this field but because the laws, regulations, requirements and restrictions placed upon meat packers and their products were as many and varied as the number of cities themselves it was beyond this writer's capacity to investigate the various city ordinances to its fullest extent. About all that can be said about this subject is that each city has some ordinances that will govern his plants and products.

Some of the "typically varied" city ordinances can be found in the following: (1) almost all cities have zoning laws governing the building of structures to be used in differing capacities. Meat packing plants are usually--but not always--banned to the outskirts of the community to avoid obnoxious odors, noise, flies, etc.; (2) a circumstance that was as effective as a city ordinance developed in a city in Texas when a local meat packer was "prevented" from obtaining state meat inspection in lieu of city inspection because the city inspection "froze" at the suggestion of state meat inspection;[1] (3) some cities do not recognize the inspection seal of other political units. When a city does not permit reciprocity of inspection and demands the product be further inspected by city officials before the product can be sold in that city, it has the effect of a local tariff on the incoming product which tends to raise the cost of that product and gives a meat packer already located in that city a cost advantage.

For these reasons and other reasons similar in nature to this,

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[1] The National Provisioner, What's the State of State Meat Inspection. p. 8.

innumerable barriers--both legal and institutional—may confront a meat packer in a potential location that he may be totally unaware of unless a thorough search is made.

Labor Unions

The subject of labor and labor unions is a critical area that deserves much consideration when contemplating a site for a new plant of any type. Because of the economic impact of labor upon a plant's operation and profit, this area is being thoroughly explored at Michigan State University, a co-partner in the entire research project. Because of this fact, this writer has not done extensive research in this area and it is suggested that the interested reader write the Economics Department at Michigan State University for a copy of the analysis concerning labor and labor unions.

The limited amount of research in this area disclosed that labor unions are fairly active and effective in gaining concessions from the companies for whom they are employed. Apparently there are three major "meat" unions: (1) the United Packinghouse, Food and Allied Workers, (2) the Amalgamated Meat Cutters and Butcher Workmen of North America, both AFL-CIO affiliated, and (3) the National Brotherhood of Packinghouse Workers, an independent union. Further, according to private letters from meat packing companies in response to a questionnaire, the employees range from unskilled to very skilled, with the greatest portion being in the semi-skilled to skilled class.

It has been found that there is a cost advantage in locating a plant where there is no labor union because labor unions are able to gain higher

wages for their members than their counterparts who are not so represented.[1] This survey conducted by the United States Department of Labor revealed that the average expenditures were relatively higher for the class of establishments in which a majority of the employees were under collective bargaining agreements as compared to establishments in which a majority of the employees were not unionized.[1] On the basis of this survey, then, it appears probable that small meat packers have an advantage because they are too "small" to be unioned and that meat packers located in the southern portions of the United States have a cost advantage because of the general absence of labor unions in that area. It is therefore probable that non-unionized meat packers will be able to avail themselves of lower labor costs.

These probabilities have been partially substantiated by one packer who stated that some of his company's branches in the South, as well as other national packers with branches in southern states, have ceased operation that was due in part to the wage differential that existed between their non-unionized plants in the south and their competitors in the same area who were non-unionized.

If these probabilities are subsequently borne out by the Michigan State University analysis the barrier to meat packing plant location would be derived from locating in an area where the likelihood of the plant being unionized is high. Therefore, other things being equal, it would be economically advantageous for a meat packer to locate his plant in the areas where the company would not be under union control, thereby avoiding comparatively

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[1] Employer Expenditure for Selected Supplementary Remuneration Practices for Production Workers in Manufacturing Industries, 1959. Bulletin No. 1308, 1962. p. 91.

higher wage costs, which in turn would give him a cost advantage in selling his products.

FEDERAL BARRIERS

Federal barriers to interregional trade and meat packing plant location are, on the whole, general in nature. That is, they generally affect the whole meat industry in the same way but in such a manner as to put the meat industry at a relative disadvantage with other industries. For example, a very strict, detailed and relatively costly meat inspection regulation may cause a general increase in meat products so as to give the poultry, fish, seafoods, etc. industries a relative cost advantage. It will be the purpose of this section, then, to expose the barriers facing the meat industry imposed by the federal government.

Federal Inspection

Packers who sell meat in inter-state or foreign commerce are required to meet certain federal inspection requirements. All equipment and material that will or may be in contact with edible products must have Meat Inspection Division approval. The material must be cleared for toxicity, physical usefulness and durability. Toxicity could pose a danger even in ceiling and wall materials because of the possibility that water might drip from the surface and contaminate the product. For this reason a person about to purchase a building formerly used as a packinghouse would probably want to ascertain whether or not the building was cleared by the MID because the products produced in that plant may have been sold in intra-state commerce only.

The cost of constructing and equipping a plant to meet these specifications is greater than would otherwise be the case. In order to get Meat Inspection Division approval very exacting requirements must be met[1]— requirements that tend to discourage the construction of new plants and encourage the continued use of older plants that have met the MID requirements. Thus, the erection of a new plant may be hindered in what might be a more economic location.

It should be recalled, however, that federal inspection regulations are uniform throughout the United States and that this in itself is no more of a barrier in one state than another. In so far as it is a barrier it supresses uniformly.

As will be discussed later under State Inspection Costs, a great deal of variation exists from state to state thereby causing inspection costs to be greater in one state than another.

A further small barrier is encountered by meat packing companies in the area of federal inspection costs. The government pays the salaries of inspectors for services performed during regular hours. However, the packer is required to re-imburse the government for the cost of overtime inspection. This, therefore, presents an added cost to these packers who have a larger volume of business than their plant can handle during regular hours.

Transportation Costs

In the initial stages of the research of legal and institutional barriers to interregional trade and meat packing plant location it seemed

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[1]U.S. Inspected Meat Packing Plants: A Guide to Construction, Equipment and Layout, Agriculture Handbook No. 191, Agriculture Research Service, USDA, January, 1961.

probable that a primary consideration in locating a meat packing plant might be due to a large consuming immediate market and/or a single large consumer of meat such as a large federal or state institution that purchased hugh quantities of meat products because that packer presumably would have a selling advantage due to lower transportation costs to the point of destination. However, further investigation into this area revealed that the packer may or may not have a selling advantage because it is considerably cheaper to ship the carcass than the live weight. One major packer[1] estimated that he saved 75¢ to 80¢ cwt by shipping carcass rather than liveweight, which is coupled with the fact that there are fewer problems concerning bruising of the animals in transient. Despite the fact that insurance will cover this loss, there are still the correspondingly higher insurance costs.

It has also been found that there is a tissue shrink to contend with during transport which can amount to as much as $12 per head. Some packers claim that this is no deterrent because they generally keep the animals for a day or two before slaughter. However, this misses the point because there is an additional cost of feed required to replace the shrinkage, not to mention the additional facilities and labor necessary to keep the animals until they are slaughtered. Compared to the 2% to 4% shrink for live animals during shipment there is only an approximate .5% shrink for carcass shipment.[1]

Because of the aforementioned reasons, it is more profitable to locate a packing plant as close as possible to the source of supply rather

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[1]Bruce P. Lord, The Potential for Meat Packing in Northeastern Oregon, Research Report No. 44, October, 1961. p. 22.

than in the area of consumption. However, if a packer can locate in the proximity of both the source of supply and consumption—especially if it is also near a large prison or military reservation that consumes large quantities of meat--the packer would definitely have a locational advantage.

There are other aspects to the location of a meat packing company that fall under the jurisdiction of the federal government. All interstate transportation facilities are regulated by the Interstate Commerce Commission--and commensurate with the ICC are myriads of rates from the point of origin to destination and different rates that apply to different types of commodities. For example, the rate from Denver to Topeka for a ton of coal is different than for a ton of furniture, or a ton of meat, etc. Moreover, the rate to haul the same goods back from Topeka to Denver may be different.

The point of the discussion is this: Some interstate rates for hauling products may be favorable while other rates may not be favorable to the shipper. Therefore, it would be an advantage, other things being equal, for a meat packer to locate in a community in which the freight rates to other points of destination are favorable. Moreover, there are many communities in the United States that do not have existing rates for certain types of commodities, such as meat, when that community is used as a point of origin. Therefore, a meat packer may be able to obtain favorable rates, perhaps through political pressure, for his meat products, thereby gaining a cost advantage.

Vertical Integration

In the meat-packing industry, integration generally means the linking of different stages of production and marketing between two or more firms

through contract or other form of agreement, rather than having units in the various production levels under the control of one organization.

While most integration results from two or more firms contracting to control various stages of production there have been several noteable exceptions in which vertical integration has been attempted by a single meat packing company. Full vertical integration may be defined as the control of a product from the source of supply to the sale of the finished product; whereas partial vertical integration is the control of more than one process or step in converting raw material at the source of supply to the sale of the finished product. Through a consent decree issued by a United States Federal court in 1920, four major meat packing companies were barred from engaging in expanding their partial vertical integration attempts. A brief summary of this legal barrier to meat packing companies is in order.

The Wilson Packing Company, Swift & Company, Armour and Company and The Cudahy Packing Company were all forbidden to: (1) deal in more than 140 non-meat items in 14 specified classes, including fish, vegetables, fruits, spices and grain; (2) use their distributive facilities for handling those items; (3) engage in retail trade, and (4) deal in fresh milk or cream.

Three of the packers, Swift, Armour and Cudahy, sought relief from the consent decree in 1932 to which U. S. Supreme Court Justice Benjamin Cardoso stated that unless the petitioners presented a clear showing of hardship, hardship "so extreme and unexpected as to justify us in saying that they are the victims of oppression" and "grievous wrong evoked by new and unforeseen conditions,"[1] the packers would not receive relief

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[1]The National Provisioner, Dec. 17, 1960. p. 17

from the consent decree. Judge Julius J. Hoffman, who decided the most recent plea for relief by the packers in 1960, stated that

> The petitioners remain, to the extent that they were in 1930, the dominating forces in the meat industry. In combined totals, they own assets in excess of $1,000,000,000, over half the value of the assets of the entire meat industry. They account for nearly half the nation's meat sales. They slaughter nearly 40 per cent of the commercially slaughtered livestock in the nation.
>
> On the question of hardship, Judge Hoffman said, it is not enough that the petitioners' profits have been modest, or that other concerns in the food industry have enjoyed greater returns and more rapid growth. To the extent that the petitioner's hardship is only the denial of the opportunity to diversify into more rewarding branches of the food industry, the burden is not new or unforeseen, but was specifically contemplated in the framing of the decree.[1]

Apparently the main contention of the meat packers was the economic conditions had changed enough to warrant a waiver of the consent decree. The legal barrier to interregional trade foisted upon the meat packers in this area is that other industries are not subjected to the consent decree and therefore have an important economic advantage over the meat packers because they can enjoy the economies of scale of vertical integration to its fullest extent that is profitable to them. Specifically, the dominating position of the retail chain stores have caused the meat packers the greatest concern. This position is steadily increasing and

> the chain stores have gained an almost unassailable bargaining position, as exemplified by the tremendous growth of private label merchandise. Chain stores, canners, frozen food processors and others freely enter the meat packing field but the decree blocks the four packers from competing fully with such processors and bars them from entering the retail field.[1]

It has been only recently that the federal government has sought to remove this legal barrier confronting meat packing companies; to place

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[1] The National Provisioner, June 22, 1957. p. 29.

all of the industries competing in the meat field on an equal footing. Because it was obviously discriminatory to restrict one industry in their vertical integration efforts and allow another industry to go unchecked, the wheels of government are slowly beginning to turn. A bill to bar meat packers from retailing and retailers from packing—and to exclude both groups from the livestock feeding business-if their gross sales exceeded $30,000,000 in the preceding calendar year, has been introduced in the Senate as S-1270 by Senator George McGovern (D-S.D.). The proposed amendment to the Packers and Stockyards Act is similar to a pending House Bill (HR-1706) sponsored by Rep. James Roosevelt (D-Cal.), but the Roosevelt bill proposed that the meat packers and livestock feeders would be able to compete in each other's field—to be treated as one class--while the retailers would be prohibited from entering this area, and would be considered a class by themselves. Senator McGovern stated when introducing his measure:

> I have been concerned for several years about the growing concentration of power and monopolistic practices in livestock, meat and poultry marketing. This problem has been made more acute by the recent sharp decline in cattle and beef prices. Throughout the meat and poultry industry the vertical integration of retailing with wholesaling, transportation, manufacturing, processing and production including livestock feeding has added to the concentration of economic power. In addition, the acquisition by large corporate food chains of competing retailers and manufacturing and processing plants is a further threat to independent business....This bill, I am convinced, would be a great help to livestock feeders and poultry growers in preventing the use of feedlots and packinghouse to depress prices.[1]

The penalty proposed by both bills is a fine up to $50,000 and/or imprisonment for up to one year.

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[1]The National Provisioner, April 13, 1963. p. 17.

Nevertheless, the legal barrier prohibiting further vertical integration to meat packers still exists because neither of the proposed amendments to the Packers and Stockyards Act have been passed. Senator McGovern's proposed bill for the removal of dominating and unassailable position of the other industries presently entering and competing with meat packers and placing them at an economic disadvantage may be the answer to the packer's plea for relief for the removal of this legal barrier to interregional trade confronting them.

Price Discrimination

Price discrimination may be deemed to be a barrier to meat packing plant location and interregional trade because of its tendency to eliminate competition in the long-run. While all of the companies interviewed in the survey (see Procedure and Sources of Information Section) felt that price discrimination in the meat industry was definitely lacking, there nevertheless have been cases involving this type of practice.

According to Glenn G. Bierman, head of the Packer section, Packers and Stockyards Branch, Livestock Division, United States Department of Agriculture, the discriminatory trade practices of the types prescribed by the Robinson-Patman Act, which is enforced by the Federal Trade Commission, also would be illegal under the terms of Title II of the Packers and Stockyards Act.

The five types of illegal practices listed by Mr. Bierman are:

> 1. To discriminate in price between different purchasers of commodities of like grade and quality where the effect of such discrimination may be substantially to lessen competition or tend to create a monopoly in any line of commerce, or to injure, destroy or prevent competition with any person who either grants or knowingly receives the benefit of the discrimination, or with customers of either of them.

2. To be a party to, or assist in, any transaction or sale or contract to sell which discriminates to the packer's knowledge against competitors of the purchaser in that any discount, rebate, allowance or advertising service charge, whether based on volume or tonnage or otherwise, is granted to the purchaser over and above any discount, rebate, allowance transaction to said competitors in respect of sale of goods of like grade, quality and quantity.

3. To pay, or offer to pay, to managers or other employees of a purchaser, premiums or money payments as an inducement to such employees to 'push' the sale of the packer's products rather than the sale of its competitors' products at retail in the purchaser's store or stores.

4. To make payments to a purchaser for providing shelf space in its store or stores to display the packer's products, and not to make equal payments to other customers who provide equivalent display space for the packer's products in their stores.

5. Where both the seller and the purchaser are 'packers' subject to the Packers and Stockyards Act and the purchaser induces the seller to grant to it, or accepts or permits its employees to accept from its seller, any such discounts, rebates, allowance, or payments as above-described, the said purchaser having knowledge of the discriminatory nature thereof.[1]

At the present time the United States Department of Agriculture has the problem of enforcing these laws. Some people claim that the USDA does not have the "teeth" or facilities to investigate and insure the compliance of laws of the industries under its jurisdiction. It has been further claimed that the Federal Trade Commission is a "natural" to take over the investigation and enforcement duties of the USDA because the Federal Trade Commission has the facilities for this type of work, whereas the USDA does not.

The shifting of the enforcement responsibilities from the USDA to the Federal Trade Commission is not a popular idea among the meat packers. Every responding meat packer declared that in his opinion the USDA could do

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[1]The National Provisioner, November 28, 1959. p. 20.

an adequate job of enforcement, as indicated by the past record. Moreover, the meat packers claim, the USDA knows the problems of the meat industry and has competent specialists to deal with those problems whereas the Federal Trade Commission does not have the background in this area.

The barrier in this area is the proposed inability of the USDA to adequately police the industry. Despite the fact that the responding meat packers were in favor of the USDA continuing to enforce price discrimination regulations, many people[1] still claim that at the present time and with the present facilities the USDA cannot comprehensively investigate the meat industry as to its price practices. There is always the possibility that the motivation behind the packer's decision for continuing USDA enforcement is for this very reason.

Some information pointing to this conclusion is evidenced in the November 28, 1959, issue of The National Provisioner which stated, in effect, that industries completely outside the meat packing industry may buy a portion of a meat packing company in order to fall under the jurisdiction of the USDA. It appears, then, that the "business world" feels that the Federal Trade Commission, under whose jurisdiction the area of price discrimination would ordinarily fall, is a much more effective agency in investigating and enforcing strict compliance of price discrimination regulations that is the USDA.

While it is true that the USDA has uncovered some cases of price discrimination the point still remains that there is at least some question as to its effectiveness in policing this area of the industry. And if price discrimination is not adequately enforced a great barrier to trade

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[1]The National Provisioner, May 4, 1957. p. 43.

may confront the smaller meat packers because they could not compete with the unfair competition of the larger suppliers of meat. It would, therefore, be of special benefit to the smaller meat packers if this barrier to trade were eliminated through strict enforcement of the price discrimination laws. And as stated above, there is some question as to the USDA's ability to perform this demanding tasks for which it is not primarily geared.

Sewage Disposal

A very important factor to be considered when contemplating a location of a new packing plant is that of sewage disposal. The possibility of a tremendous cost advantage may be realized by locating near a river or stream that is large enough to dispose of effluent from a meat packing plant. In response to a question concerning the method of disposing of plant effluent one packer stated that the estimated cost was about 14¢ per 1,000 pounds live weight kill, which covers maintenance, operation and amortization of investment. Another packer stated that, although he did not wish to disclose the actual costs in this area, the costs were substantial.

However, it is possible that the advantage of locating near a river may actually turn into a disadvantage.

> In the third such order issued, Kansas City, Kansas, Kansas City, Missouri, and a long list of industrial firms have been ordered to stop discharging untreated wastes into the Missouri River or its tributaries by January 1, 1963, Arthur Flemming, Sec. of HEW announced last week. Similar orders were issued some time ago against St. Joseph, Mo., Sious City, Ia., and a number of meat processors and other firms in those cities. Among industrial establishments named in the latest order are Kansas City Stockyards Co., Kansas City, Mo., and Swift & Co., Kansas City, Kansas. Cost of the necessary municipal sewage treatment facilities for the Kansas City area was estimated at $32,500,000.[1]

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[1]The National Provisioner, July 9, 1960. p.15.

If the firms in the Kansas City area are forced to pay all or a large portion of the expense of constructing a sewage plant it would become a definite locational disadvantage for the firms already established in that area and it would present itself as a locational barrier to a firm contemplating that area as a plant site.

One meat packer interviewed went so far as to state:

> We have come to believe that the best thing for our company to do in establishing a slaughtering facility is to handle all arrangements for plant effluent entirely independently of any other existing facilities, municipal or otherwise.[1]

> The possibility of discharging the wastes into a municipal sewage system for treatment at the municipal sewage treatment plant should be thoroughly investigated before embarking upon the design of separate waste treatment facilities. It is important that meat plant officials discuss and reach agreements with both State water polution control authorities and appropriate municipal sewage treatment officials before making the final decision as to treatment and disposal of wastes.

> One factor to be considered in treatment of packinghouse wastes in conjunction with domestic sewage is the proper evaluation of charges for treatment.[2]

In its present form, the Federal Water Pollution Control Act does not forbid the discharge of untreated effluent from plants nor does it authorize the establishment by the Federal Government of any standards for waste discharges or receiving waters. Enforcement actions are undertaken when an appropriate request under section 8 of the Act; or when the Secretary of HEW has reason to believe on the basis of reports, surveys and studies that polution is occurring in one State which is endangering

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[1]Stated in a private letter in response to a questionnaire by Mr. I. J. Holton, Secretary, of the Geo. A. Hormel & Co., Austin, Minnesota. June 10, 1963.

[2]An Industrial Waste Guide to the Meat Industry, published by the U. S. Department of Health, Education, and Welfare, 1958.

the health or welfare of persons in another State. To date their have been twenty such enforcement actions, including four on the Missouri River.[1]

Therefore, a barrier to meat packing plant location presents itself in those areas where a new sewage disposal plant needs to be built to accommodate the increased amount of effluent due to a federal order to "cease and desist" dumping effluent into a river—when industry is forced to pay a disproportionate share, or an excessive amount—and when industry is forced to pay a disproportionate amount to use the existing municipal sewage system to dispose of its effluent. However, a locational advantage develops when a packer may dump his untreated effluent into a nearby stream without endangering the health and welfare of people farther down-stream. The possibility also exists that an inexpensive method of pre-treating effluent before disposing of it in a nearby river would be a locational advantage.

It appears, then, that it would be to a meat packer's advantage to fully investigate all of the sewage disposal possibilities in order to eliminate or reduce as much as possible this potential locational barrier to meat packing plant location.

STATE BARRIERS

An indicated earlier under Federal Barriers, the barriers to interregional trade and meat packing plant location do not stem, primarily,

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[1]Stated in a private letter from Mr. Murray Stein, Enforcement Branch Chief, Division of Water Supply and Pollution Control, May 14, 1963.

from the state requirements but come principally from the differences in the state requirements. For example, if one state requires that the meat packers pay all of the cost of meat inspection it will impose an additional economic burden compared to the packers located in a sister-state that has state-financed meat inspection because relative to the meat that was federally inspected—which is free of charge to the packers—the meat products of packer-financed inspection will tend to be higher.

Bond Requirements

There appears to be an increasing need for the requirement of bonds by meat packers to insure payment to producers. This barrier to meat packing companies presents itself in the form of the various state requirements for bonds to be purchased by meat packers. While the need for a uniform bonding requirement is great, the state-by-state approach is not the answer to protect livestock sellers because it is more costly and less effective than a federal law dealing in this area. Despite the fact that bills providing for packer bonding have been introduced in Congress at various times, no action has been taken to date.

The need for bonding requirements lies in the fact that buying customs have changed. Thirty years ago nearly all of the livestock was sold through public terminal stockyard purchases and the sellers were protected by the bonds carried by the market agency through which the livestock was sold. But at the present time an increasing proportion of the livestock bought has been sold directly to packers or dealers or through auction markets. It has been estimated that the amount of losses sustained in a number of instances in recent years by livestock sellers from the failure of a single packer has been in excess of $130,000! This is less than the cost of the

bonds needed to insure payment to livestock sellers for the entire meat packing industry.[1]

But because only nine states have bonding requirements, it has the effect of a local tax upon meat packing companies. The following are the states that have bonding requirements as of May, 1961: Colorado, $1,000; North Dakota, $5,000 bond from each packer with an additional $1,500 for each agent representing the packer; Georgia, bonds are based on the value of livestock purchased by packers. These bonds range from $2,000 to $50,000; Florida requires bonds of packers in the amounts of $5,000 and $10,000 of resident packers; Mississippi requires $10,000 bonds of resident packers; Washington requires $3,000 bonds; Ohio requires bonds of resident packers; Indiana requires bonds of resident packers; Nevada requires $5,000 bonds.[2]

Because of the "local tax" imposed upon meat packers in these nine states, other things being equal, the packers locating in those states would have a cost disadvantage equal to the cost of the bonds they were required to purchase. This "local tax," is a legal barrier to meat packing plant location that could be eliminated through federal action.

Inspection Costs

One of the major barriers to meat packing plant location rests with the variation of the method of payment of inspection costs among states. For this reason the meat packers of the states that do not have fully state financed programs of meat inspection are under an economic handicap. The conscientious packer not engaged in interstate commerce will want his product inspected to protect his customers—this forces him to pay for the inspection.

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[1] The National Provisioner, May 6, 1961. p. 21-22.

[2] As stated in a private letter by Gerald Engelman, Packers and Stockyards Division, February 13, 1963.

The inspection cost must either come from the packers' profits or else will necessitate a rise in his prices—both put the meat packer at a disadvantage relative to other firms whose inspection costs may be paid by the state or federal government.

Because the federal government pays the cost of inspection for packers that ship in inter-state commerce it puts a premium on size. Case studies have indicated that USDA grade and/or USDA inspection were considered by most people to be the most important factor that influenced the purchase of beef.[1] On the basis of this study it appears that smaller packers (those dealing in intra-state commerce only) have an inherent disadvantage because discriminating consumers prefer federally inspected meat to state inspected meat. Moreover, it has been contended[2] that the state inspected plants cannot afford to pay salaries for meat inspectors equal to those offered by competing agencies. Nor do these inspectors receive the benefits of retirement, sick and vacation leave, etc. Consequently, it is becoming increasingly more difficult to secure qualified inspectors for the job.

It has also been contended[2] that the non-federally inspected packers who must finance part or all of the cost of inspection are at a further disadvantage because they cannot compete with an ever-increasing number of licensed custom farm slaughterers who have relatively small investments in equipment and facilities and do not have meat inspection and plant maintenance to bear.

There is one more aspect to this meat inspection question that must be

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[1]Betty L. Woods and Martha C. Jenkins, Motivations in Consumer Purchases of Beef, Bulletin No. 565, Louisiana State and Agricultural and Mechanical College, Agricultural Experiment Station, April, 1963. p. 9.

[2]The National Provisioner, July 21, 1962. p. 28.

considered. The states that have a voluntary meat inspection program, as well as those states that have no provisions for a meat inspection program at all, put the consuming public at the mercy of the packers. Meat packers are human beings. And as human beings they want to make as large a profit as they can. It has been found that unscrupulous packers have used diseased or already dead animals for processing.[1] Moreover, there is nothing to prevent them from using portions of the carcass such as eyes, lungs, entrails, etc. as "filler" for their processed meats.[1]

United States Department of Agriculture representatives conducted a survey recently that included a cross section of the non-federally inspected meat packers in the country. The observations covered slaughtering and meat processing plants that varied in size of operation from small establishments employing one or two persons to large plants employing several. The USDA representatives visited these plants in every state except Alaska. The observations revealed that conditions and practices in many plants were wholly unacceptable under federal inspection standards.[1]

Some of the worst conditions observed by the USDA representatives included:

1. Allowing edible portions of carcasses to come in contact with manure, pus, and other sources of contamination during the dressing operations.

2. Allowing meat food products during preparation to become contaminated with filth from improperly cleaned equipment and facilities.

3. Use of chemical additives and preservatives that would not be permitted under federal inspection.

4. Failing to use procedures to detect or control parasites transmissible to man that would lead to diseases, such as trichinosis and cysticercosis.

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[1]The National Provisioner, "USDA Reports on State Inspection Study," April 13, 1963. p. 20.

5. Use of inspection and operating controls that were not sufficient to prevent possible adulteration of meat food products during their preparation with substances such as water, gum, cereals or sodium caseinate.

6. The use of false or deceptive labels and packaging.

7. Failing to supervise destruction of obviously diseased tissues and spoiled, putrid or filthy materials.

8. Working without any inspector or with unqualified inspectors, without adequate supervision.[1]

Obviously the need is great for a change from status quo in several states. While many plants visited by the representatives of the USDA were above reproach in every respect many of the plants need further improvements to protect the consuming public by meeting the minimum requirements established by the federal government. The comparison below reveals the major differences between federal law and the various laws of the 50 states concerning meat inspection.

[1]FEDERAL	STATE
1. Preslaughter inspection of every animal.	1. 17 states have ante mortem inspection
2. Examination of all carcasses and vicera.	2. 18 states have similar provisions.
3. Supervision of sanitation of plant and equipment at all times.	3. 25 states have varying sanitary requirements.
4. Mark of inspection on meat products.	4. 27 states require marking inspected products.
5. Reinspection of meats that may have deteriorated during handling.	5. 6 states provide for reinspection.
6. Examination of all meat during processing.	6. 16 states have somewhat similar provisions.
7. Prohibition of false or deceptive labels.	7. 16 states have somewhat similar provisions.
8. Criminal penalties for violations.	8. 28 states provide some penalties.

[1]The National Provisioner, loc. cit.

FEDERAL (Cont.)	STATE (Cont.)
9. Authority to withdraw or deny inspection for noncompliance.	9. 27 states—in varying degrees.
10. Under supervision unfit meats and meat products condemned and destroyed for food purposes.	10. 21 states include some provision for control of condemned meats.
11. Inspection financed by appropriated funds, except for overtime. Industry reimburses USDA for overtime.	11. 9 states appropriate funds for entire cost of inspection; 8 states require industry to pay entire cost; 17 states share cost with industry.

Not only does a barrier arise out of the variation of the inspection costs due to the fact that, other things being equal, a federally inspected plant does not have to pay inspection costs whereas the packer dealing solely in intra-state commerce in most states does, but that the knowledge of the unhealthy conditions existing in some meat plants by the consuming public may cause an unorganized partial boycott of meat products. Even if the abstinence from meat buying occurrs only to a limited degree a barrier is nevertheless presented because of the adverse economic consequences on the meat industry due to a lower volume of meat being sold than would otherwise be the case if all states had a meat inspection program comparable to the USDA's. From the case study referred to earlier[1] people have confidence in federally inspected meat—and it would be advantageous for intra-state packers if an equal amount of confidence was shared with the state meat inspection programs.

Other problems are involved in the determination of which agency should be given the authority to administer the state meat inspection program. In at least three states that now have no meat inspection programs--Ohio,

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[1] Woods and Jenkins, loc. cit.

Michigan and Wisconsin—the health and agricultural agencies have sponsored separate bills in the past with health officials urging packer-paid voluntary programs under their jurisdictions while agriculture officials were seeking a state-financed mandatory inspection. The inter-agency conflict over regulatory authority clouded the arguments for meat inspection in these states, and the public health issue of the necessity of the inspection got lost.

The meat packers apparently prefer the state agricultural agency be given the jurisdiction of meat inspection—as it is on the federal level. This will allow the same agency to detect the diseases at the slaughter house and trace the animals back to the point of origin for more effective disease control. A further advantage lies in the fact that state agricultural officials to keep them up-to-date with the latest developments at the federal level.

Additional barriers to meat packing plant location and interregional trade arise through the various laws and regulations of the states regarding the use of artificial coloring, tax inducements, grading, and policies dealing with trade promotions—trading stamps, coupons, etc. See Table 5.

The use of artificial coloring and additives on meat products permitted by states runs the gamut from no laws dealing in this area to absolute prohibition; but most of the states indicated that their regulation in this area were similar to, or the same as, USDA regulations. The barriers with regard to this subject lies in the fact that a plant producing in a state where no artificial coloring of meat can be used will tend to have a disadvantage selling in a state that allows artificial coloring, or has

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[1]Woods and Jenkins, op. cit. p. 5.

Table 5. State Meat Inspection.

State	Meat Inspection Program	Artificial Coloring Laws	Voluntary or Mandatory Inspection	Meat Shrinkage Allowance	Annual Cost of Inspection	Approximate per cent paid by State
Alabama	No					
Alaska	Yes	Same as USDA	Voluntary	No Allowance	$12,000	50%
Arizona	Yes	Same as USDA	Voluntary	No Allowance	$72,213	50%
Arkansas	Yes	Prohibited except for sausage casing	Voluntary	No laws in this area		
California	Yes	Prohibited in sausage and sausage casing	Mandatory[1]	Average of the package must equal stated wt.	$883,815	100%
Colorado	Yes	Prohibited	Voluntary			0%
Connecticut	Yes	Prohibited	Mandatory	Average of the package must equal stated wt.		0%
Delaware	No					
Florida	Yes	Prohibited on fresh meat	Mandatory	No allowance	$400,000	100%
Georgia	Yes	Allowed	Mandatory	No allowance		100%

[1]Inspection is mandatory in California counties having a population of 28,000 or more. Only two small slaughtering houses were exempt last year.

Table 5. (Cont.)

State	Meat Inspection Program	Artificial Coloring Laws	Voluntary or Mandatory Inspection	Meat Shrinkage Allowance	Annual Cost of Inspection	Approximate Per cent Paid by State
Hawaii	Yes	Allowed	Mandatory	No laws in this area	$150,000	70%
Idaho	Yes		Mandatory		$189,732	60%
Illinois	Yes	Same as USDA	Mandatory	For most products	$750,000	100%
Indiana	Yes	Casings only	Voluntary	No allowance	$ 20,000	0%
Iowa	Yes	Same as USDA	Voluntary	No allowance		0%
Kansas	Yes	Prohibited	Voluntary	Small tolerance allowed	Approximately $77,000	0%
Kentucky	No					
Louisiana	Yes	Same as USDA	Mandatory	Small tolerance allowed		Not available
Maine	No					
Maryland	No					
Massachusetts	Yes		Mandatory		$100,000	15%[1]
Michigan	No	Prohibited		No allowance		

[1]While the state of Massachusetts pays only 15 per cent of inspection costs, the towns pay the remaining 85 per cent.

Table 5. (Cont.)

State	Meat Inspection Program	Artificial Coloring Laws	Voluntary or Mandatory Inspection	Meat Shrinkage Allowance	Annual Cost of Inspection	Approximate Per cent Paid by State
Minnesota	No	Prohibited		No allowance		
Mississippi	Yes		Voluntary			0%
Missouri	No	Artificial coloring Permitted		Same as USDA		
Montana	Yes		Mandatory		$70,000	100%
Nebraska	No	Prohibited		No allowance		
Nevada	Yes	Same as USDA	Mandatory	No allowance		0%
New Hampshire	No					
New Jersey	Yes	Same as USDA		Same as USDA		
New Mexico	No	Same as USDA		Same as USDA		
New York	Yes	Artificial coloring permitted	Mandatory	No allowance		50%
North Carolina	Yes	Same as USDA	Mandatory for inter-county transportation	Same as USDA	$82,500	100%
North Dakota	Yes	No laws in this area	Mandatory	No laws in this area		Administrative costs only

Table 5. (Cont.)

State	Meat Inspection Program	Artificial Coloring Laws	Voluntary or Mandatory Inspection	Meat Shrinkage Allowance	Annual cost of Inspection	Approximate Per cent paid by state
Ohio	Yes		Voluntary 92-95% of meat sold is inspected	Small tolerance allowed		0%
Oklahoma	Yes		Voluntary		$125,000	80%
Oregon	Yes	Prohibited		Small tolerance allowed	$400,000	80%
Pennsylvania	Yes		Voluntary			0%
Rhode Island	Yes		Mandatory			100%
South Carolina	No					
South Dakota	No	No laws in this area		No laws in this area		
Tennessee	Yes	Allowed for casings only	Mandatory	No allowance		Divided between counties, cities and state on an equal basis
Texas	Yes		Voluntary		$90,000	0%
Utah	Yes	Same as USDA	Mandatory	Same as USDA	$50,000 plus per head fee charged	100%
Vermont	No	No restriction		No allowance		

Table 5. (Cont.)

State	Meat Inspection Program	Artificial Coloring Laws	Voluntary or Mandatory Inspection	Meat Shrinkage Allowance	Annual Cost of Inspection	Approximate Per cent Paid by state
Virginia	Yes	Same as USDA	Voluntary	Same as USDA	$250,000	80%
Washington	Yes	Prohibited	Mandatory	Small tolerance allowed		
West Virginia	Yes		Voluntary			0%
Wisconsin	No	Prohibited		Small tolerance allowed		
Wyoming	Yes		Mandatory		Not available	100%
Puerto Rico	Yes		Mandatory			100%
Virgin Islands	Yes		Mandatory			

Source: Partially abstracted from the National Provisioner, "What's the State of State Meat Inspection," Aug. 20, 1960, and partially gleaned out of private letters in response to a questionnaire sent to the Health Departments of the 50 states, Puerto Rico and the Virgin Islands. The portion taken from the National Provisioner has been updated.

no restriction in this area, because the artificially colored meat will appear better, or more presentable, than will the non-artificially colored meat. This, in turn, tends to cause consumers to choose the artificially colored meat because it "looks" better than the non-colored meat.[1] This gives the local packer a selling advantage not enjoyed by the packer producing in a state where artificial coloring is prohibited.

It is probable that, other things being equal, a packer will choose to locate in the state that allows the artificial coloring of meat products because he can sell his product in his home state and other states that permit artificial coloring and he can also sell in the states that do not allow artificial coloring by eliminating the coloring and additives—and be as an effective competitor as the packers producing in the non-coloring state. But because artificial coloring and additives are not allowed in some states—even though the meat is destined for out-of-state consumption—the packer producing in the state that restricts artificial coloring is at a selling disadvantage.

Virtually the same reasoning holds true for state regulations controlling meat shrinkage tolerances. Because some states have laws that are more strict than others concerning meat shrinkage allowances, the packer producing in the state that has less stringent tolerances—or no laws in this area at all—will have a cost advantage because he will not have to use full measure "plus a little more" to insure that he has met the requirements of the state, as is true of packers producing in states with strict tolerances, nor will his operating cost be as high because less time of his employees will be spent weighing his product, not to mention that both time and money will be saved when a processed meat product is slightly underweight because it will not

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[1] Woods and Jenkins, op. cit. p. 5.

have to be re-opened and re-packed.

For all of the above-mentioned reasons, then, the packer located in the state that allows no tolerance will have a cost disadvantage. Therefore, other things being equal, a packer would tend to locate in that state with lax weight tolerances to take advantage of lower costs of operation.

In regard to tax inducements and regulations affecting trade promotions, the same basic reasoning holds true. Other things being equal, a meat packer will tend to locate in that state that gives the greatest incentive, be it a waiver on taxes for a period of years, free plant site, etc. He will also tend to give consideration to those states that have legislation favorable to a meat packer that deal in the area of sales promotions.

Transportation Costs

Other barriers to interregional trade of meat packer's products lie in the area of transportation costs which are found in various licenses, size and weight limits, taxes and reciprocity problems which are governed by the state laws affecting transportation. Tables 6 and 7 indicate the status of the extent of the fees and licenses of the 50 states and Canadian Provinces as of July 1, 1962.

The chief difficulty encountered by truckers in interstate commerce is the variance in the tax structures of the states. All of the states have two types of taxes, the fuel tax and registration fees, but because of the great variety in their application by the states it makes it extremely difficult for the carriers to comply with the different tax requirements.[1] The "first structure" tax, or the registration fees vary from $22.50 in

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[1]Lord, op. cit. p. 22

Table 6. Summary of Size and Weight Limits and Reciprocity Authority (By Regions)

STATE	Reciprocity authority (Interstate or International Carriers)	Height	Length in Feet				Axle Load in lbs.	Tandem Axle 4' Apart	Gross Weight in Pounds		Highest Weight Possible
			Truck	Trailer or Semi-Trl.	T.S.T.	Other Comb.			3 Axle T.S.T.	4 or 5 Axle T.S.T.	
NORTHEASTERN STATES & CANADIAN PROVINCES											
Conn.	Full reciprocity except $10 P.U.C. plate (C)	12' 6"	50	50	50	N.P.	22,400 (N)	36,000	50,000 (N)	60,000 (N)	60,000 (N)
Del.	Full reciprocity	13' 6" (A)	40	40	55	60	20,000	36,000	Table	Table	Table 73,000 Max.
D. C.	Full reciprocity	12' 6"	40	40	50	50	22,000	38,000	Table	Table	Table 70,000 Max.
Me.	Full reciprocity except P.U.C. fees (C)	12' 6" (B)	55	N.R.	55	55	22,000	32,000	Table 51,800 Max.	Table 62,050 (W).	Table 70,550 Max.
Md.	Full reciprocity (C)	12' 6" (A)	55	55	55	55	22,400	40,000	850 (L+ 40)	850 (L + 40) 65,000 Max.	850 (L + 40) 65,000 Max.
Mass.	Full reciprocity (C)	N.S.	35	N.R.	50	N.P.	22,400	35,000	Table	Table 73,000 Max.	Table 70,000 Max.
N. B.	Full reciprocity except P.U.C. fees (C)	12' 6"	35	35	60	60	22,000	32,000	44,000 (V)	60,000 (4 ax.) 70,000 (5 ax.) (V)	70,000 (V)
N. H.	Full reciprocity (D)	13' 6"	35	N.R.	50	50	22,400	36,000 (E)	Table 52,800 Max.	Table 66,400 Max.	Table 66,400 Max.
N. J.	Full reciprocity	13' 6"	35	(FF)	50	50	22,400 (V)	32,000 (V)	Limited by axle (V)	Limited by axle (V)	73,280
N. Y.	Reciprocity on license. None on mileage tax	13' (A)	35	N.R.	50	50	22,400	36,000	34,000 + (L x 850)	34,000 + (L x 850) 65,000 Max.	34,000 + (L x 850) 65,000 Max.
N. S.	Full reciprocity except P.U.C. fees	13'	40	40	65	65	18,000	30,000	42,000	54,000 (4 ax.) 70,000 (5 ax.)	70,000
Ont.	None to States and limited to Provinces	13' 6"	33	N.S.	50 (KK)	50	18,000	32,000	46,000	60,000 (4 ax.) 74,000 (5 ax.)	84,000
Pa.	Full reciprocity	12' 6" (A)	35	40	50	50	22,400	36,000	50,000 (Q)	60,000 (Q)	62,000 (F) (Q)
P.E.I.	Full reciprocity except P.U.C. fees	14' 6"	35	35	85	85	18,000 (V)	30,000 (V)	44,000 (V)	54,000 (4 ax.) 70,000 (5 ax.)	70,000 (V)
Que.	Full reciprocity except P.U.C. fees	12' 6"	35	N.S.	50	50	18,000	32,000 (H)	46,000	60,000 (4 ax.) 70,000 (5 ax.)	70,000
R. I.	Full reciprocity	12' 6"	40	40	50	50	22,400	N.S.	50,000	60,000	88,000(G)
Vt.	Full reciprocity (H)(D)	12' 6"	50	N.R.	50	50	N.S.	N.S.	50,000 (T)	60,000 (T)	60,000(T)
SOUTHERN STATES											
Ala.	Full reciprocity except P.S.C. filing fee (C)	13' 6"	35	N.R.	50	N.P.	18,000 (U)	36,000	Table	Table	Table 64,650 Max.
Ark.	Full reciprocity (C)	13' 6"	35	N.R.	50	50	18,000 (N)	32,000	Limited by axle wt. (N)	Limited by axle wt. (N)	56,000 (N) (J)
Fla.	Full reciprocity except R.R.C. fee $1.	13' 6"	40 (K)	N.R. (FF)	55	55	20,000 (U)	40,000	Table (U)	Table (U)	Table (U) 66,450 Max.
Ga.	Full reciprocity (H) except P.S.C. fee $1 (C)	13' 6"	39.5	39.5	50	50	20,340	40,680	Limited by axle weight	Limited by axle weight	63,280 Max.
Ky.	Full reciprocity except certificate and permit fees (S)(C)	13' 6" (M)	35 (M)	N.R.	50 (M) (KK)	50 (M)	18,000 (V)	32,000 (M)	Limited by axle wt. (M)	Limited by axle wt. (M)	73,280 Max. (M)
La.	Full reciprocity	13'6"	35	N.R.	55	60	18,000	32,000	Limited by axle weight	Limited by axle weight	68,000 (J)
Miss.	Full reciprocity except P.S.C. fees (C)	13' 6"	35	N.S.	55	55	18,000	28,650 32,000(M)	Table	Table	Table 64,650 (M)
N. C.	Full reciprocity (C)	12' 6" (A)	35	N.R.	50	50	18,000 (P)	36,000	44,000 (P)	62,000 (P)	62,000 (P)
S. C.	Full reciprocity except P.S.C. fees (C)	13' 6" (A)	40 (K)	N.R.	55 (KK)	55	20,000 (R)	32,000 (R)	Table (R)	Table (R)	Table (R) 68,350 Max.
Tenn.	Full reciprocity (C)	12' 6" (A)	35	N.R.	50	50	18,000	32,000	Table	Table	Table 61,580 Max.
Texas	Full reciprocity except an intangible tax	13' 6"	35	N.R.	50	50	18,000	32,000	Table (V)	Table (V)	Table (V) 72,000 Max.
Va.	Full reciprocity except Corp. Comm. registration fee $1 (C)(S)	13' 6"	35	N.R.	50	50	18,000	32,000	Table	Table	Table 70,000 Max.
W. Va.	Full reciprocity except $3 P.U.C. Card (C)	12' 6" (A)	35 (V)	35 (V)	50	50	18,000 (V)	32,000 (V)	Table (V)	Table (V)	Table (T) (V) 60,800 Max.

Table 6. (Cont.)

STATE	Reciprocity authority (Interstate or International Carriers)	Height	Length in Feet: Truck	Trailer or Semi-Trl.	T.S.T.	Other Comb.	Axle Load in lbs.	Tandem Axle 4' Apart	Gross Weight in Pounds: 3 Axle T.S.T.	4 or 5 Axle T.S.T.	Highest Weight Possible
			MIDWESTERN STATES & CANADIAN PROVINCES								
Ill.	Full reciprocity except on C. C. fee (Y) (L)	13' 6"	42	42	55 (KK)	60	18,000	32,000	45,000	50,000 (W)	72,000 Max.
Ind.	Full reciprocity except P.S.C. Filing Fee	13' 6"	36	N.R.	50 (KK)	50	18,000 (X)	32,000	Limited by axle loads	Limited by axle loads	72,000 Max.
Iowa	Full reciprocity (Y) (C) (L)	13' 6"	35	N.R.	50	50	18,000 (Z)	32,000 (Z)	Table (Z)	Table (Z)	Table (Z) 77,634 Max.
Kans.	Full reciprocity (C) (Y)	13' 6"	35	N.S.	50	50	18,000	32,000	Table	Table	Table 73,280 Max.
Man.	Full reciprocity	13' 6"	40	N.S.	60	60	18,000	32,000	44,000	58,000 (M) 72,000 (M)	44,000 72,000 (M)
Mich.	Full reciprocity except P.U.C. fees (C) (Y)	13' 6"	35	40	55	55	18,000	26,000 (I)	Limited by axle loads	Limited by axle loads	Limited by axle loads
Minn.	Full reciprocity	13' 6"	40	40 (FF)	50	50	18,000	32,000 (O)	Table	Table	Table 77,500 Max.
Mo.	Full reciprocity (Y)	12' 6" (CC)	35	N.R.	50	50	18,000	32,000	Table	Table	Table 64,650 Max.
Neb.	Full reciprocity (Y)(L)	13' 6"	40	(FF)	60	60	18,000 (V)	32,000 (V)	Table (O)	Table (O)	Table (O) 71,146 Max.
N. D.	Reciprocity on vehicles under 24,000 lbs. (Y)	13' 6"	40 (K)	N.R.	60	60	18,000	32,000	750 (L + 40)	750 (L + 40)	750 (L + 40) 73,280 (GG)
Ohio	Full reciprocity except on mileage tax	13' 6"	35	40 (FF)	50	60	19,000	24,000 (AA)	38,000 + (L + 900)	38,000 + (L + 900)	38,000 + (L + 900) 79,000 Max.
Okla.	Full reciprocity except P.U.C. filing fee (C) (Y)	13' 6"	35	N.S.	50 (KK)	50	18,000	32,000	Table	Table	Table 73,280 Max.
S. D.	Full reciprocity (Y)(L)	13' 6"	35	N.R.	60	60	18,000	32,000	Table	Table	Table 73,280 Max.
Wisc.	Full reciprocity except P.S.C. filing fee (Y)(L)	13' 6"	35	35 (HH)	50	50	18,000 (BB)	32,000	Table	Table	Table 73,000 Max.
			WESTERN STATES & CANADIAN PROVINCES								
Alaska	Full reciprocity	12'6"	35	40	60	60	18,000	32,000	Table	Table	Table 76,800 Max.
Alb.	Full reciprocity	13' 6"	35	N.S.	60(M)	60(M)	18,000	32,000	42,000 (V)	56,000 (V) 62,000 (M)	62,000 (M) 72,000 (M) (V)
Ariz.	None	13' 6"	40	40	65	65	18,000	32,000	Table	Table	Table 76,800 Max.
B. C.	No reciprocal agreements	12' 6" 13' 6"(M)	35	35	50 60(M)	50 60(M)	18,000	32,000	Table	Table	Table 76,000(M)Max.
Calif.	Full reciprocity except Bd. of Equal. fees (Y)	13' 6"	35	40	60	65(M)	18,000	32,000	Table	Table	Table 76,800 Max.
Colo.	Reciprocity on registration; none on P.U.C. & mileage tax. (Y)	12'6" 13' 6"(M)	35	N.R.	60	65 (M)	18,000	36,000	800 (L+40)	800 (L+40)	800 (L+40) 75,200
Idaho	Authority for full reciprocity but agreements are for proration (Y)(L)	14'	35	N.R.	60	65	18,000	32,000	Table	Table	Table 76,800 Max.
Mont.	Full reciprocity except on grass operating revenue tax (Y)	13' 6"	35	N.R.	60	65 (OO)	18,000	32,000	Table	Table	Table 76,800 Max.
Nev.	Reciprocity on registration fees; none on P.S.C. fees or mileage tax (Y)	N.R.	N.R.	N.R.	N.R.	N.R.	18,000	32,000	Table	Table	Table 76,800 Max.
N.M.	Authority for full reciprocity; new agreements on proration (Y)	13' 6"	40	N.R.	65	65	21,600	34,320	Table	Table	Table 86,400 Max.
Ore.	Reciprocity on license fees; none on P.U.C. plates or mileage tax (Y)	12'6" (CC)	35	35 (CC)	50 (CC)	50 (CC)	18,000	32,000	Table	Table	Table 60,000 (T)
Sask.	Reciprocity to private carriers and movers	13'6"	35	N.R.	60	60	18,000	32,000	44,000	58,000 (4 ax.) 72,000 (5 ax.)	72,000
Utah	Heavy vehicles subject to mileage tax or permits	14'	45	45	60	65 (OO)	18,000	33,000	Table	Table	Table 79,900 Max.
Wash.	Reciprocity on registration fees; none on P.S.C. and gr. wt. fees (Y)	13'6"	35	40	60	65 (M)	18,000	32,000	Table	Table	Table (T) 72,000 Max.
Wyo.	Reciprocity on registration fees; none on mileage tax.	13'6"	40	N.R.	65	65	18,000	36,000	Table	Table	Table 73,950

Table 6. (Cont.)

(A) Automobile transporters allowed 13'6".

(B) Load may extend 1½' above maximum height.

(C) Have fuel purchase and reporting law.

(D) Requires fuel purchase reporting by vehicle owners registered in states with fuel tax reporting laws.

(E) 40,000 lbs. allowed on taxdem exles of single unit when both are drive axles.

(F) 62,000 lbs. allowed only on truck-full trailer combinations.

(G) Weight computed for 3 axle truck-3 axle trailer combinations.

(H) Vehicles from states not granting full reciprocity are assessed a permit and trip fee.

(I) On designated highways, one pair of tandem wxles permitted 32,000 lbs.

(J) Limit only on load carrying axles-Load on steering not considered in limits.

(K) Single units over 35 ft. must have 3 axles.

(L) Evidence of reciprocity required on vehicles.

(M) Allowed only on designated highways.

(N) Conn. 2% tolerance on axle and gross weight.

(O) 2 successive tandem axles, limited to 60,000 lbs.

(P) 1,000 lbs. tolerance allowed on any one axle; 5% tolerance on gross weight.

(Q) 3% tolerance allowed.

(R) 10% tolerance allowed on gross weight (administered also on axles).

(S) Trucks with 3 axles and all tractors assessed additional road tax of 2¢ per gal. on all fuel used.

(T) May secure permit for weight up to 73,280 in W. Va., no tolerance allowed; W. Va. Commission has designated Roads for 70,000 lbs. up to 76,000 in Oregon; up to 76,000 in Washington on certified routes. 52,800 on 3 axles, 66,400 on 4 or more axles allowed on Vt. State Highways only.

(U) 10% tolerance allowed.

(V) 5% tolerance allowed.

Table 6. (Cont.)

(W) Ill. - 5 axle T.S.T. - 72,000 lbs. Maine - 5 axle T.S.T. - 70,550 lbs.

(X) 22,400 lbs. axle permitted on roads designated by Highway Commission.

(Y) Have fleet reciprocity by apportioning license fees.

(Z) 8% tolerance on total gross weight or groups of axles; 3% on single or tandem axles.

(AA) 31,500 lbs. allowed on axles over 4 ft. apart.

(BB) 1,500 lbs. tolerance on single axle.

(CC) Ore. State Highway Commission may grant annual permits for height up to 13' 6"; simi length to 40'; T.S.T. length to 60'; other combination length to 65'. Mo. grants permits for height to 13'6".

(DD) Permit needed for 65'.

(FF) Minn. & Neb. - 40' on trailers, N.R. on semi-trailers; Ohio - 35' on trailers, 40' on semi-trailers; Fla. & N.J. - 35' on trailers, N.R. on semi-trailers.

(GG) Need approved on all equipment over 64,000 lbs.

(HH) Semi-trailer length measured from extreme rear of tractor chasis to rear of trailer.

(II) Que. - Floating axles 14,000 lbs. - tandem on trailers or semi-trailers 30,000 lbs.

(KK) 60' for auto transporters in Ill., Ind. S. C. and Ontario; 55' in KY.

N.R. - No restriction.

N.P. - Not permitted.

N.S. - Not specified

T.S.T. - Tractor semi-trailer.

Table 7. Tables for Allowable Loads (In 1,000 lbs.)

TABLES FOR ALLOWABLE LOADS (in 1,000 lbs.)

Distance between first & last axle (ft)	Ala., B.C., Mo., S.C., Tenn., W.Va.	Alaska	Ariz., Ore., Calif., Nev.	Dela.	D.C.	Fla.	Idaho	Iowa	Kansas
4	32.0	32.0	32.0	36.0	33.0	33.2	32.0	32.0	32.0
5	32.0	32.0	32.0	36.0	33.0	34.0	32.0	32.0	32.0
6	32.0	32.2	32.2	36.0	33.0	34.8	32.2	32.0	32.0
7	32.0	32.9	32.9	36.0	33.0	35.6	32.9	32.0	32.0
8	32.6	33.6	33.6	36.0	33.0	36.4	33.6	32.6	32.6
9	33.5	34.3	34.3	36.0	33.0	37.2	34.3	33.5	34.5
10	34.5	35.0	35.0	36.0	33.0	38.1	35.0	34.9	35.5
11	35.5	35.7	35.7	36.0	33.7	38.9	35.7	36.2	38.3
12	36.4	36.4	36.4	36.4	39.5	39.7	36.4	38.2	40.0
13	37.4	37.1	37.1	37.1	41.0	40.5	37.1	39.2	41.0
14	38.3	43.2	43.2	38.3	42.0	41.3	43.2	40.2	42.0
15	39.3	44.0	44.0	39.3	43.0	42.1	44.0	41.2	43.0
16	40.2	44.8	44.8	40.2	44.0	42.9	44.8	42.2	44.0
17	41.1	45.6	45.6	41.1	45.0	43.7	45.6	43.2	45.0
18	42.0	46.4	46.4	42.0	46.0	44.5	46.4	44.1	46.0
19	42.9	47.2	47.2	42.9	47.0	45.3	47.2	45.1	47.0
20	43.9	48.0	48.0	43.9	48.0	46.2	48.0	46.0	48.0
21	44.8	48.8	48.8	44.8	49.0	47.0	48.8	47.0	49.0
22	45.7	49.6	49.6	45.7	50.0	47.8	55.0	47.9	50.0
23	46.5	50.4	50.4	46.5	51.0	48.6	56.4	48.9	51.0
24	47.4	51.2	51.2	47.4	52.0	49.4	57.9	49.8	52.0
25	48.3	55.2	55.2	48.3	53.0	50.2	59.4	50.7	53.0
26	49.2	56.1	56.1	49.2	54.0	51.0	60.0	51.6	54.0
27	50.0	56.9	56.9	60.0	55.0	51.8	60.0	52.5	55.0
28	50.9	57.8	57.8	60.0	56.0	52.6	60.0	53.4	56.0
29	51.8	58.6	58.6	60.0	57.0	53.4	60.0	54.3	57.0
30	52.6	59.5	59.5	60.0	58.0	54.3	60.0	55.2	58.0
31	53.4	60.3	60.3	61.5	59.0	55.1	60.0	56.2	59.0
32	54.3	61.2	61.2	62.5	60.0	55.9	61.2	57.3	60.0
33	55.1	62.0	62.0	63.4	61.4	56.7	62.0	58.3	61.0
34	55.9	62.9	62.9	64.4	62.8	57.5	62.9	59.3	62.2
35	56.8	63.7	63.7	65.3	64.0	58.3	63.7	60.3	63.5
36	57.6	64.6	64.6	66.2	65.0	59.1	64.6	61.3	64.6
37	58.4	65.4	65.4	67.2	65.8	59.9	65.4	62.4	65.9
38	59.2	66.3	66.3	68.1	66.6	60.7	66.3	63.4	67.1
39	60.0	67.1	68.0	69.0	67.4	61.5	68.0	64.4	68.3
40	60.8	68.0	70.0	70.0	68.2	62.4	70.0	65.4	69.7
41	(A) 61.5	68.0	72.0	70.8	69.0	63.2	72.0	66.5	70.8
42	62.3	68.0	73.2	71.7	70.0	64.0	73.2	67.5	72.0
43	63.1	68.0	73.2	72.6		64.8	73.2	68.5	73.2
44	63.8	68.0	73.2	73.2		65.6	73.2	69.5	
45	(B) 64.6	68.0	73.2			66.4	73.2	70.5	
46	65.4	68.8	73.2				73.2	71.6	
47	66.1	69.6	73.2				73.2	72.6	
48	66.8	70.4	73.2				73.2		
49	67.6	71.2	73.2				73.2		
50	(C) 68.3	72.0	73.2				73.2		
51	69.0	72.8	73.2				73.2		
52	69.7	73.6	73.6				73.6		
53	70.5	74.4	74.4				74.4		
54	71.2	75.2	75.2				75.2		
55	71.9	76.0	76.0				76.0		
56	72.5	76.8	76.8				76.8		
57	73.2	76.8							

Distance between first & last axle (ft)	MAINE 3 axles	MAINE 4 axles	MAINE 5 or more axles	Mass.	Minn.	Miss.	Mont.	NEBRASKA 2 axles	NEBRASKA 3 axles	NEBRASKA 4 axles	NEBRASKA 5 axles	NEBRASKA 6 axles	N. H. 3 axles	N. H. 4 & 5 axles
4	32.0				32.0	32.0	32.0	32.0						
5	32.0				32.0	32.0	32.0	32.0						
6	32.0				32.0	32.0	32.0	32.0						
7	32.0			32.0	32.0	32.0	32.0	32.0						
8	32.6			33.0	33.0	32.6	33.6	32.0	39.0					
9	33.5			34.0	34.0	33.7	34.3		39.7					
10	34.5			35.0	35.0	34.9	35.0		40.5					
11	35.5			36.0	36.0	36.0	35.7		41.2					
12	36.4			37.0	37.0	37.2	36.4		42.0	46.0				
13	37.4			38.0	39.0	38.3	37.1		42.7	46.6				
14	38.3	45.7		39.0	41.0	39.5	43.2		43.5	47.3				
15	39.3	46.7		40.0	42.2	40.6	44.0		44.2	48.0				
16	40.2	47.5		41.0	43.4	41.7	44.8		45.0	48.6	53.0			
17	41.1	48.4		42.0	44.6	42.8	45.6		45.7	49.3	53.6			
18	42.0	49.3	51.1	43.0	45.8	43.9	46.4		46.5	50.0	54.2			
19	42.9	50.1	52.0	44.0	47.0	45.0	47.2		47.2	50.6	54.8			
20	43.9	51.0	53.0	45.0	48.2	46.1	48.0		48.0	51.3	55.5	60.0		
21	44.8	51.8	53.9	46.0	49.4	47.2	48.8		48.7	52.0	56.1	60.6		
22	45.7	52.7	54.9	47.0	50.6	48.3	49.6		49.5	52.6	56.7	61.2		
23	46.5	53.5	55.8	48.0	51.8	49.4	50.4		50.2	53.3	57.3	61.8		
24	47.4	54.4	56.8	49.0	53.0	50.4	51.2		51.0	54.0	58.0	62.4		
25	48.3	55.2	57.7	50.0	54.2	51.5	55.2		51.7	54.6	58.6	63.0	47.4	
26	49.2	56.1	58.7	51.0	55.4	52.5	56.1		52.5	55.3	59.2	63.6	48.3	
27	50.0	56.9	59.6	52.0	56.6	53.6	56.9		53.2	56.0	59.8	64.2	49.3	
28	50.9	57.8	60.6	53.0	57.8	54.6	57.8		54.0	56.6	60.5	64.8	50.4	48.3
29	51.8	58.6	61.5	54.0	59.0	55.6	58.6			57.3	61.1	65.4	51.5	49.3
30		59.5	62.5	55.0	60.0	56.7	59.5			58.0	61.7	66.0	52.8	50.4
31		60.3	63.4	56.0	61.0	57.7	60.3			58.6	62.3	66.6	52.8	51.5
32		61.2	64.4	57.0	62.0	58.7	61.2			59.3	63.0	67.2	52.8	52.3
33		62.0	65.3	58.0	63.0	59.7	62.0			60.0	63.6	67.8	52.8	54.3
34			66.3	59.0	64.0	60.7	62.9			62.2	64.2	68.4	52.8	56.0
35			67.2	60.0	65.0	61.7	63.7			62.2	64.8	69.0	52.8	58.0
36			68.2	61.7	66.0	62.7	64.6			62.2	65.5	69.6	52.8	60.0
37			69.1	63.4	67.0	63.6	65.4			62.6	66.1	70.2	52.8	62.0
38			70.1	65.1	68.0	64.6	66.3			63.3	66.7	70.8	52.8	64.4
39			70.5	66.8	69.0		68.0			64.0	67.3	71.1	52.8	66.4
40				68.5	70.0		70.0			64.6	68.0	71.1		
41				70.2	71.0		72.0			65.3	68.6	71.1		
42				71.9	72.0		73.2			66.0	69.2	71.1		
43				73.0	72.5		73.2			66.6	69.8	71.1		
44							73.2			67.3	70.5	71.1		
45							73.2			68.0	71.1	71.1		
46							73.2			68.6	71.1	71.1		
47							73.2			69.3	71.1	71.1		
48							73.2			70.0	71.1	71.1		
49							73.2			70.6	71.1	71.1		
50							73.2			71.1	71.1	71.1		
51							73.2							
52							73.6							
53							74.4							
54							75.2							
55							76.0							
56							76.4							
57							76.8							

Distance between first & last axle (ft)	N. M.	Okla.	S. D.	Texas	Utah	Va.	Wash.	WISCONSIN 2 Consec. Axles of 3 Axle Comb.	WISCONSIN 3 Consec. Axles of 4 Axle Comb.	WISCONSIN 4 Consec. Axles of 5 Axle Comb.	Wyo.
4	34.3	32.0	32.0	32.0	33.0	32.0	32.0	32.0			32.0
5	35.1	32.0	32.0	32.0	33.0	32.0	32.0	32.0			32.0
6	35.8	32.0	32.0	32.0	36.0	32.0	32.0	32.0			32.0
7	36.5	32.0	32.0	32.0	36.0	32.0	32.0	33.0	37.0		32.0
8	37.4	32.5	32.6	33.7	36.0	33.5	32.6	35.0	38.5		32.6
9	38.2	33.0	33.5	35.4	36.0	35.0	33.5	37.0	39.9		33.3
10	39.0	34.0	34.5	37.1	43.5	36.5	34.5	38.0	41.2	42.5	34.5
11	39.7	35.0	35.5	38.8	45.0	38.0	35.5	39.0	42.4	44.3	36.3
12	40.5	36.0	36.4	40.6	48.0	39.5	36.3		43.5	46.0	37.5
13	41.3	38.0	37.4	42.3	50.0	41.0	38.3		44.5	47.6	38.9
14	42.1	41.0	38.3	44.0	52.0	42.0	39.3		45.5	49.1	40.2
15	42.9	43.0	39.3	45.5	54.0	43.0	41.4		46.5	50.5	41.5
16	43.6	44.0	40.2	47.0	54.0	44.0	42.9		47.5	51.8	42.8
17	44.4	45.0	41.1	48.4	54.0	45.0	44.4		48.5	53.0	44.1
18	45.2	46.0	44.1	49.9	54.0	46.0	46.0		49.5	54.1	45.4
19	53.1	47.0	45.0	51.4	54.0	47.0	47.0		50.5	55.1	46.7
20	54.0	48.0	46.0	52.8	54.0	48.0	48.0		51.5	56.0	48.0
21	54.9	49.0	47.0	54.3	54.9	49.0	49.0		52.2	56.8	48.8
22	55.8	50.0	48.0	55.8	55.8	50.0	50.0		52.9	57.6	49.6
23	56.7	51.5	48.9	57.2	56.7	51.0	51.3		53.6	58.4	50.4
24	57.6	53.0	49.8	58.7	57.6	52.0	52.6		54.3	59.2	51.2
25	58.5	54.5	50.7	59.6	58.5	53.0	54.0		55.0	60.0	52.0
26	59.4	56.0	51.6	60.6	59.4	54.0	55.1		55.7	60.8	52.8
27	60.3	57.5	52.5	61.5	60.3	55.0	56.2		56.4	61.6	53.6
28	61.2	59.0	53.4	62.5	61.2	56.0	57.4		57.1	62.4	54.4
29	62.1	60.5	54.6	63.4	62.1	57.0	58.5		57.8	63.2	55.2
30	63.0	62.0	55.3	64.4	63.0	58.0	59.5		58.5	64.0	56.0
31	63.9	63.5	56.9	65.3	63.9	59.0	60.3				56.9
32	64.8	64.0	58.1	66.3	64.8	60.0	61.1				58.1
33	65.7	64.5	59.3	67.2	65.7	61.4	61.7				59.2
34	66.6	65.0	60.4	68.2	66.6	62.3	62.2				60.4
35	67.5	66.0	61.6	69.1	67.5	64.0	62.8				61.6
36	68.4	67.0	62.7	70.1	68.4	65.0	63.4				62.7
37	69.3	68.0	63.9	71.0	69.3	65.8	64.0				63.9
38	70.2	69.0	65.1	72.0	70.2	66.6	64.5				65.1
39	71.1	70.0	66.2	72.0	71.1	67.4	65.0				66.2
40	72.0	71.0	67.4	72.0	72.0	68.2	65.5				67.4
41	72.9	72.0	68.6	72.0	72.9	69.0	66.0				68.6
42	73.8	73.0	69.7	72.0	73.8	70.0	66.5				69.7
43	74.7	73.2	70.9	72.0	74.7		67.0				70.9
44	75.6		72.1	72.0	75.6		67.5				72.1
45	76.5		73.2	72.0	76.5		68.0				73.9
46	77.4		73.2	72.0	77.4		68.5				
47	78.3		73.2		78.3		69.0				
48	79.2		73.2		79.9		69.5				
49	80.1		73.2		79.9		70.0				
50	81.0		73.2		79.9		70.5				
51	81.9		73.2		79.9		71.0				
52	82.8		73.2		79.9		71.5				
53	83.7		73.2		79.9		72.0				
54	84.6		73.2		79.9						
55	85.5		73.2								
56	86.4		73.2								
57											

NOTES

(A) Maximum weight for Tennessee

(B) Maximum weight for Ala., Mo.

(C) Maximum weight for South Carolina

one state to $1,139.00 in another state for the same type of vehicle. The gas tax, or the "second structure" tax, varies among the states from 3¢ to 7¢. Another form of taxation, the "third structure" tax or "use" tax, has presented many new problems of its own.

An interview conducted by the USDA disclosed that small carriers found it difficult to keep informed as to the forms and amounts of taxes the various states were requiring. The carriers stated that the "use" tax itself was not so much of an economic handicap but the fines for non-compliance due to lack of knowledge or understanding of the various requirements presented a financial burden to them.[1]

Also in this connection, the small motor carriers stated that their size of business was limited because the operation of more than two trucks made it necessary to hire an accountant to fill out the large number of reports requested by the states. It was further charged by the motor carriers that the cost of collecting the tax exceeded the amount of the tax collected.

The size and weight limitations imposed by the states adds to the difficulty of the truckers in interstate commerce. Tables 6 and 7 give a comprehensive review of the specifications of the allowable limits for each state. As before, the principle difficulty stems from the variety of regulations in this area.

In general, the barriers to interregional trade in the area of transportation rest with the fact that not only is there a cost for transporting a meat packers' product into or through a state but that the charges are substantially varied in the amount. This added cost of transportation has

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[1]U.S. Department of Agriculture. Transportation and Facilities Research Division. Effects of State and Local Regulations on Interstate Movement of Agricultural Products by Highway. Marketing Research Report No. 496. July, 1961. p. 97.

the same effect as a tariff on the product which tends to either raise the price of the product or lessen the profit of the producer. The net result of the added cost of entering the state are as follows: (1) the meat packers located in a state have a cost advantage over meat products that are required to cross that state's boundaries because of the additional cost of entering the state, and (2) because of the great disparity in the amounts of the additional cost to enter a state the meat packers in the relatively higher entry-cost states have an even greater advantage because not only are "foreign" meat products proportionately higher than in other states, other things being equal, but the meat products of the packers in the higher entry-cost states are porportionately lower in the lower entry-cost states. In other words, the packers in the higher entry-cost states can compete relatively effectively in all states, whereas the packers in the low entry-cost states can compete relatively effectively only in other low entry-cost states. To this end, then, it is a locational advantage to produce in a high entry-cost state because of the relatively higher "tariff" for "importing" the product into that state. But nevertheless, when taken as a whole, the additional cost or "tariff" is a real and costly barrier to interregional trade of meat packers' products.

Of course the utopian solution to the local "tariff" or barrier to transportation can be found by gaining full and complete reciprocity between the states. The problem would not be solved to its full extent by having the federal government deal with this question through its interstate commerce powers because trucks used one week for interstate commerce may be used the following week for intra-state commerce.

Reciprocity is the granting of privileges by one state to vehicles or owners of vehicles when such vehicles are properly registered in another

state that grants similar privileges.[1] The reason most states do not grant reciprocity is because it is assumed it would reduce the revenue of the state. However, it is economically feasible to grant full reciprocity according to New Hampshire's Governor Blood after his state has granted reciprocity for two years:

> I believe that the result of the reciprocity bill, passed at the last session of the legislature, indicates that, although the state will lose approximately $200,000 from registration fees, there is undoubtedly other revenue which, in addition to the great benefit that it has rendered not only to our truckmen but to the truckmen of other states, will justify the continuation of this legislation.
>
> New Hampshire received additional benefits, increased revenue from fuel taxes paid by out-of-state users of the highways and the two years' trial period of reciprocity became law.[2]

It is the hope of all engaged in interstate commerce that other states will soon follow New Hampshire's standard of full reciprocity. When full reciprocity between the states occurs, a major barrier to interregional trade and meat packing plant location will be eliminated.

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[1] Harry E. Boot, Motor Truck Reciprocity, American Trucking Associations, Inc. p. 1.

[2] Ibid., p. 5.

SUMMARY AND CONCLUSIONS

It was the purpose of this study to discover and describe the legal and institutional barriers to interregional trade and meat packing plant location, as part of Project NCM 25. A search of the Kansas State University library and the State Legislative Library in Topeka, Kansas, was made in addition to questionnaires sent to both private industry and public offices of state and federal agencies.

Most of the authors writing in the field of locational economics agree that the dominant characteristics of plant location are: (1) materials used in production; (2) means of transportation; (3) nearness to markets; (4) quantity and quality of labor; (5) power and fuels; and, (6) the availability of desirable sites. A survey of national meat packing companies revealed that barriers to plant location and interregional trade may be roughly categorized into three classes: (1) economic and physical factors; (2) symptons of a bad business climate; and, (3) the lack of uniformity of the food laws and other differing regulations of the states. The federal farm programs were shown to effect changes in meat packing plant location because of the types of crops farmers were discouraged and encourage to raise.

The structure of the meat industry has changed between 1955 and 1960 with most sections of the United States showing a decrease in the number of meat packing plants. Possible barriers confront potentialy building meat packers due to an unawareness of long-run shifts in livestock production and meat consumption. Other general barriers confronted meat packers in the form of varied city ordinances, e.g. zoning regulations, and higher wage costs in certain areas of the United States due to the

activity of labor unions.

Federal barriers tend to uniformily affect the meat industry as a whole relative to other competitors in the meat industry. The forms of barriers imposed by the federal government are found in: (1) possible high costs involved in building and equipping a meat packing plant in order to obtain MID approval so that the meat products can be sold in interstate commerce; (2) federally controlled freight rates are not uniform and thereby cause transportation costs to be higher in one location than another; (3) the federal government has prohibited further vertical integration of some meat packers, thereby preventing them from achieving greater economies of scale that are enjoyed by the competitors of the meat industry; (4) smaller meat packers may be at a disadvantage because it is questionable if the USDA can effectively police price discrimination in the meat industry; (5) because the federal government can prevent meat packers from polluting streams with their effluent it may force some meat packers to build their own sewage facilities.

Barriers to meat packers imposed by states are derived primarily from the differences in the state requirements. The principle differences in the varying state requirements are embodied in: (1) bonds required of meat packers to insure payment to producers are found in only nine states; (2) a major difference among the states is found in: a) the per cent of the cost of meat inspection that is paid by the state; b) whether the inspection is voluntary or mandatory; c) the type and extent of food laws, tax inducements and laws regulating sales promotions in the states.

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LEGAL AND INSTITUTIONAL BARRIERS TO INTERREGIONAL TRADE AND MEAT PACKING PLANT LOCATION

by

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ABSTRACT

As part of Project NCM 25 the goal of this study was to find the legal and institutional barriers to interregional trade and meat packing plant location. The information used in this paper was obtained from: (1) the Kansas State University library; (2) the State Legislative Library in Topeka, Kansas; and, (3) letters and questionnaires sent to persons in private industry and state and federal agencies.

The management personnel of meat packing companies stated that there were several barriers in interregional trade and meat packing plant that can be classed into three categories: (1) economic and physical factors; (2) symptoms of a bad business climate; and, (3) the lack of uniformity of the food laws and other differing regulations of the states. The federal farm programs were also shown to effect changes in meat packing plant location because of the types of crops farmers were discouraged and encouraged to raise.

The structure of the meat industry had changed between 1955 and 1960 with most sections of the United States showing a decrease in the number of meat packing plants. Possible barriers confront potentially building meat packers due to an unawareness of long-run shifts in livestock production and meat consumption. Other general barriers confronted meat packers in the form of various city ordinances and higher wage costs in certain areas of the United States due to the activity of labor unions.

Federal enactments tend to uniformily affect the meat industry as a whole relative to other competitors of the meat industry. The forms of barriers imposed by the federal government are found in: (1) possible high costs involved in building and equipping a meat packing plant in order

to obtain Meat Inspection Division approval so that the meat products can be sold in interstate commerce; (2) federally controlled freight rates are not uniform and thereby cause transportation costs to be higher in one location than another; (3) the federal government has prohibited further vertical integration of some meat packers, thereby preventing them from achieving greater economies of scale that are enjoyed by the competitors of the meat industry; (4) smaller meat packers may be at a disadvantage because it is questionable if the USDA can effectively police price discrimination in the meat industry; (5) because the federal government can prevent meat packers from polluting streams with their effluent it may force some meat packers to build their own sewage facilities.

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