THE UNIVERSITY OF MINNESOTA

GRADUATE SCHOOL

Report

of

Committee on Thesis

The undersigned, acting as a Committee of the Graduate School, have read the accompanying thesis submitted by Mildred Lucile Hartsough for the degree of Master of Arts

They approve it as a thesis meeting the requirements of the Graduate School of the University of Minnesota, and recommend that it be accepted in partial fulfillment of the requirements for the degree of

N.S.B. Gras
Chairman

Solon J. Buck

John D. Black

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THE UNIVERSITY OF MINNESOTA

GRADUATE SCHOOL

Report

of

Committee on Examination

This is to certify that we the undersigned, as a committee of the Graduate School, have given Mildred Lucile Hartsough final oral examination for the degree of Master of Arts. We recommend that the degree of Master of Arts be conferred upon the candidate.

Minneapolis, Minnesota

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N S B Gras
Chairman

Geo. W. Dowrie

C W Alvord

A. B. White.

Wm Anderson

Alvin H. Hansen

# THE DEVELOPMENT OF THE TWIN CITIES AS A METROPOLITAN MARKET

A THESIS SUBMITTED TO THE FACULTY OF THE

GRADUATE SCHOOL OF THE

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BY

MILDRED LUCILE HARTSOUGH

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# PREFACE

Study of the development of metropolitan economy in the northwest was begun nearly two years ago. This narrow field of investigation has been supplemented, however, by attention to the broader aspects of metropolitan economy throughout the United States and in Europe. The results of the latter study do not appear in this thesis, but have aided indirectly in its preparation.

The material on which the thesis is based has come not only from printed sources, both primary and secondary, but from numerous reports, municipal, state, and federal, from manuscript materials found at the Minnesota Historical Society and in the libraries of the commercial organizations of the Twin Cities, and from interviews with business men familiar with the development and present situation of the Cities.

The whole study bears witness to the guidance and help of Professor N. S. B. Gras, without whose direction the work could not have been given its present form.

# CHAPTER I

## THE METROPOLITAN CONCEPT

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## THE METROPOLITAN CONCEPT

The primary interest of the student of economic history is the development of the economic life of man. He traces the central thread of man's effort to secure the largest possible economic return for his labor, as it weaves in and out, with ever-increasing complexity, from the simple life of primitive man to the intricate structure of modern economic life. The development of exchange of goods and services, the growth of industry, the increasing interdependence of men, these are the things which go to make up economic history. But the economic historian is no longer content merely to deal with the facts as he finds them, in more or less unrelated fashion. He has come to feel the necessity of grouping them according to some scheme, of finding some key to which the economic life of all men at all times is more or less closely related. This need is met by the working out of a series of stages which comprehends the development of all or most phases of economic life. Scholars have differed, however, in their choice of a central theme for these stages. Friedrich List, one of the earliest to work out a series of stages, emphasized the processes of production; Hildebrand set up three stages based on the development of a medium of exchange.[1] To later historians the theme that seems of most widespread significance is the development of marketing and of marketing organisation.[2] It was in Germany that scholars first became

1. Bücher: Industrial Evolution, pp. 85-88.

2. The first economist to appreciate the importance of marketing as the keynote of economic development was the German scholar Von Thünen, in his book called Der isolirte Staat, published in 1828. During the last few decades it has come to be more generally looked upon as the most fundamental factor in economic growth.

interested in working out a series of stages, and these scholars were primarily historical economists, rather than economic historians. The most eminent of these is Gustav Schmoller, who, in the last decades of the nineteenth century formulated his series of stages, which have been widely studied, and, in large part, generally accepted. They emphasize political regulation of economic affairs, however, rather than marketing development itself. It was Schmoller's belief that economic life, like social and political, was centered first around the tribe and the mark, but that the first important economic unit was the village, next the town, then the territory, and finally the state.[1]

Karl Bücher, whose book on "Industrial Evolution" sets forth a series of stages somewhat different from that of Schmoller, attempts to follow the development of marketing and marketing mechanism. The first stage of economic life, as Bücher sees it, was independent domestic, or household, economy, and he conceives of this stage as lasting clear through the period of the village, both free and manorial,[2] and only disappearing as the towns grew up. Out of town economy grew national economy. At the present time, Bücher's theory of an independent household economy has been pretty thoroughly exploded, and he himself has discarded it; but his concept of town and national economy is generally accepted. In general, then, students think now of economic history as divided into four stages,- tribal economy of some kind, antedating the village, then village, town and national economy, with perhaps the addition of a problematical fifth, world economy, which is in any case a development of the future.

When Schmoller and Bücher, and others who accept their stages, use the terms village economy, household economy, and town economy, they think of

1. Schmoller: <u>The Mercantile System</u>, pp. 1-3.
2. Bücher: <u>Industrial Evolution</u>, pp. 114-116.

economic life as being centered, in each stage, around the nucleus, be it household, village, or town. The nucleus is the concentrating point for an area which may be considerably wider than its boundaries. It is the place where exchange is carried on, and where, as industry develops, it is usually, although not necessarily, centered. In brief, it is the marketing center.[1]

Bücher's stage of independent household economy has been discarded, since investigation has made it apparent that it was based on a false assumption. He under-estimated the amount of exchange carried on even between primitive households. Some stage of economy there must have been, however, before man settled down into the village made up of permanent homes, and there is abundant evidence to prove that nearly every people, during long periods of time, are in a stage of economic development in which the village is the nucleus, with agriculture its main interest, and industry and exchange relatively little developed.

Following that, in western Europe, in the eleventh and more particularly the twelfth century, as exchange develops, some villages, because of favorable situation, become trading centers for more than their local areas, and towns develop. Commerce is the dominant interest of the town, although industry is often concentrated there as well. As the growing town widens its trading influence, it becomes the marketing center for other villages, which begin to send their products, agricultural or industrial (if industry is carried on in the village), to the town, where a relatively large and dependable market may be found. The town, on the other hand, is the chief source of supply for goods not produced locally, as it carries on most of the trade with outside districts. This type of economy is illustrated in English history between the twelfth and the sixteenth centuries, it lasted in Europe even longer, and parts of Russia today (those parts which have developed beyond village

1. Cf. Bücher: Industrial Evolution, p. 88.

economy) are illustrative of town economy.

When we come to national economy, we find no such clear-cut concept as in the case of village and town economy. To some, this term means merely political economy, but in this sense, it is of comparatively little interest to the student of economic history. To Bücher, it meant a national market;[1] Schmoller speaks of it also as a national market, but in his treatment of it makes it amount practically to national economic policy.

If we accept Bücher's use of the term as representing a national marketing organisation, just what do we mean by the concept? Bücher meant that as towns developed, and exchange grew in volume, some towns began to specialize in certain lines of production, exchange became indirect, instead of direct (that is, wholesale trade developed) and we finally reach a point where economic life is organized with the nation as a unit, instead of the town. The towns are still dominant, but instead of trade being carried on within each town, it is carried on largely between towns, the whole nation working together to form one economic unit. Or perhaps one town towers over all others, so that exchange is concentrated there, although industry is more or less widely decentralized. Outstanding examples of the latter development are Paris, the national center for France, London for England, and New York for the United States.

National economy, then, in the sense of a national market, means that the nation is the unit of economic life, districts within its boundaries specializing according to national advantage, trade going on between the towns of the different districts, and being concentrated, to a greater or less degree, in a national center. But a question immediately arises as to whether the nation is ever really the unit of economic life. Does the nation form the basis for marketing organization, so that towns within it carry on exchange

Bücher: <u>Industrial Evolution</u>, p. 88.

with one another, and the nation as a whole is self-contained? Rather is it true that, as soon as districts begin to specialize in their production, they carry on exchange with other districts, whether they be within the same nation, or outside it? National boundaries have never entirely confined trade, and economic forces do not operate within one nation, but are generally applicable. Consequently, if it is not economical for any given territory to vary production so as to satisfy all the wants of its people, they will be satisfied by exchange with other territories, whether that means international trade or not. National economy, in the sense of a national market, is hardly in accord with the facts of economic development.

It is true, however, that it has been the ambition of nations, intermittently from the sixteenth century on, to become economic units, to organize economic life within their borders so that trade and industry would be on a national basis. This ambition was borne out in the mercantilist policy, especially the mercantilism of the sixteenth century, which was aimed primarily to develop a self-sufficing, self-contained nation. In more modern and contemporary times, it is borne out both by the establishment of national customs systems, which are often aimed at hindering foreign trade, and stimulating development of all lines of production within the national boundaries, and by various other measures, such as subsidies, the establishment of special transportation rates, and bonuses on production, taken to develop and protect home industries, and make the nation more or less completely self-sufficing. National economy, then, in the sense of a national economic policy, has been, and is even now, very real. It does not, however, constitute a stage in economic development, although it has not been without influence in the history of almost every people.

If national economy cannot be said to follow town economy as an organization of society, something else must be set up in its place, for it is plainly evident that the town is no longer the basis of economic life in the most highly developed part of the world. If the nation is not the economic unit, what is the marketing nucleus which has succeeded the town? Just as the town grew out of a village, widening its sphere of influence, and enlarging its exchange function, so some towns have become magnified, and have organized the trade of a still larger area. And just as the town, in addition to the trade with the surrounding district, carried on exchange with other parts of the world, either within the nation or outside it,[1] so the enlarged town has both a local and a foreign trade (foreign in the sense that it is outside the area, whether with other parts of the same country, or with other countries).

This new economic unit may appropriately be called a metropolitan center, and the new type of economy to which it gives rise, metropolitan economy.[2] As the town established economic domination over surrounding villages, the metropolitan center dominates over other urban centers in its district, its area being larger accordingly than that of the town. The center is the nucleus of economic life, but the area is just as much an integral part of metropolitan economy, the area and the center being mutually dependent. The products of the tributary area find their most convenient market in the metropolitan center, while the economic activities of the latter are based on the needs of the area. Metropolitan economy may thus be described as an organization of the economic life of a large group of consumers and producers, mutually dependent, who work out this dependence through a marketing organization which finds its nucleus in the metropolitan center.

1. The towns of the Hanseatic League in the fourteenth and fifteenth centuries are outstanding examples of towns a large part of whose trade outside the local district was with foreign countries.

2. For the whole concept of metropolitan economy, I am indebted to Professor Gras, through whom I have become familiar with it both from his book, The Evolution of the English Corn Market, and from work under his direction at the University of Minnesota.

The metropolitan center is just as far beyond the town in its development as the town was beyond the village. The complexity of economic life is greatly increased as specialization of function proceeds, and the resulting interdependence of men increases. As Bücher says, exchange becomes indirect instead of direct. It is not on a national basis, however, as he thinks of it, but between economic centers which, whatever their political relations may be, find it profitable to trade with one another. The number of steps in exchange is greatly increased, and the volume of exchange, both the local and the foreign, is correspondingly multiplied.

But while the town was primarily a trading center, the metropolitan center is something more. Manufacturing grows in relative importance, and instead of being carried on largely in the household, as in town economy, it is centralized, and carried on in large units, so that greater specialization and more capital is involved. Capitalistic industry (the rural domestic and the factory system) is as characteristic a part of the metropolitan center as is the large trading establishment. Furthermore, the metropolitan center is the embodiment of the capitalistic spirit of modern economic life, capital on a large scale being applied to all processes of production, and a class of specialized middlemen developing, whose important function it is to concentrate in their hands the surplus funds of the community, and loan them out to those who need capital.

In its economic policy, the town was selfish and somewhat narrow; the metropolitan center is likewise selfish, but, as its interests are wider, so is its policy, and its vision is metropolitan in scope rather than local. But, as the metropolitan center is an institution of gradual growth, its policy varies in accordance with its development. When the town first begins to grow into the metropolitan center, its interests are primarily commercial, and it seeks to develop its trade, both with the surrounding district and with other centers. It is jealous of its commercial interests, and its chief ambition is to build them up. This period is marked by an increase in trading establishments, both of a wholesale and retail character, at the center, which strives to have all branches of trade represented, and is ambitious to improve its transportation facilities.

During this period, the line of demarcation between the town and the incipient metropolitan center is not always clear-cut. Usually the development is gradual, but sometimes an interruption of economic life serves to enhance the influence of the growing center. An economic crisis, for instance, temporarily restricts trade between different parts of the country, just when it is most vital that needs be satisfied with little loss of time. An incipient metropolitan center is thus brought into greater prominence as the concentrating point for its area of surplus stocks of goods and (what is more important) of credit. This brings the area into closer dependence upon the center, and hastens the development already under way.

The town may be said to have become a metropolitan center, when its influence extends over a wide area, including other towns as well as agricultural districts (that is, when its wholesale as well as its retail trade is well developed); when the goods produced in this area are in large measure marketed through the metropolitan center; and when the center in return distributes the goods needed in the area. Both concentration and radiation thus appear in the metropolitan trade; goods are distributed from the center, as well as sent to it; and this trade takes place not simply in one commodity, or two, but in most of the commodities which figure in the commerce of the area, particularly the necessities of life.

During this first phase of metropolitan economy, the center is trading largely in the raw materials produced in its area, and the manufactured commodities it secures by trade with the rural districts and with other centers. Such industries as are found in the metropolis produce goods only for local use, within the center itself. But as trade develops so that there is a larger market for manufactured goods, the industrial development of the center begins. Large-scale industries are built up, which produce goods for the tributary area, and for the trade of a wider scope as well. The industries which develop first are those favored by local resources; others are added later, but there is always specialization between centers, and a large amount of interdependence.

The metropolitan center now shows an interest in its developing industries. It offers encouragement to new industrial enterprises, and it encourages buying from home industries rather than trading with other centers. The commercial function may now begin to be decentralized, certain towns in the area doing some wholesaling for their local districts, securing most of their supplies through the center, and constituting what may be called subsidiary commercial centers. The metropolitan center may during this period be said to be in the industrial phase of its development.

There are limitations to the industrial growth of the center, however. As it becomes more and more highly developed, the expense of setting up and maintaining manufacturing establishments increases, until finally the advantages of being near the marketing center are overcome by the additional land and labor costs. Then industry, as well as commerce, begins to be decentralized, seeking locations within the area where operating costs will be lower, and marketing will not be too greatly hindered. Smaller industrial centers, as well as commercial centers, appear within the area.

This development does not mean that the importance of the center is reduced; it does indicate, however, the progress of specialization of function as the metropolitan district becomes more highly developed. The position of the center as the nucleus of the economic life of the district is no less important than before, but its function has become more highly specialized. It is now in reality in a third phase of its development. With the increase in size and importance of the commercial and industrial establishments of the center, and the general development of the area, financial needs have become more and more important. And the function of satisfying this need has been centralized, just as have the other functions. In fact, centralisation continues to increase, rather than decrease, with respect to this function, as time goes on. Thus, upon the metropolitan center falls the task of financing, to a large extent, all the enterprises of the area, not only those within the center itself. There are the large commercial banks, the investment banks, the bond and mortgage houses, the brokers, the exchanges where stocks and bonds are sold. Through these various agencies, the needs for capital and credit are met, and the whole area comes to depend more and more upon the center, as the money market becomes more centralized.

Of course, the center is not entirely independent of other districts; for its supplies of capital it frequently draws on other metropolitan centers. Its dependence in this regard, however, is substantially the same as its drawing on other markets for the wholesaler's supplies which it distributes to the area, and, as with regard to these wholesale stocks, the metropolitan center acts as the concentrating and distributing point for the area. That, after all, is the real test of its position as a marketing center. In time, some of the more important towns in the area develop rather important banking functions, some of the smaller banks in the district keep correspondent accounts there, and the subsidiary center acts as a medium, in some respects, between its small district and the metropolitan center. Usually this function is taken on only by towns which have large commercial or industrial interests, and the metropolitan center always remains the main source for supplies of credit and capital.

The metropolitan center and its tributary area are inseparably bound up with one another; the development of metropolitan economy means not only the growth of the metropolitan center, but the development of the economic life of the whole area. As this development is carried to a higher stage, the activities of the area become more varied, and at the same time there is a tendency toward specialization. This simply means that agriculture, which was at first the most important activity of the area, yields first place to commercial and industrial interests; but those branches of production are emphasized for which the district is best fitted, and the surplus thus arising is exchanged for the products of other districts.

The metropolitan group is primarily economic, but it naturally has social and cultural interests as well. And the development of metropolitan economy is not a story of economic growth alone, but the unfolding of a civilization which is as distinct as the town civilization which preceded it. In fact, with the development of metropolitan economy comes a conflict between town and metropolitan civilization, just as earlier town civilization superimposed itself on village life, after centuries of growth.

While the metropolitan center is first developing, cultural interests are relatively unimportant, but as life becomes more highly developed, interest in the material side of life becomes less absorbing. Media for the circulation of news develop early, because so closely connected with economic life. These agencies are usually concentrated at the metropolitan center, which is best fitted to furnish the news of the district, of primary interest to the members of the group, and at the same time is most closely in touch with the outside world.

Later, more purely cultural interests arise, and art galleries, museums, libraries, and colleges and universities are established. These institutions tend to be concentrated in the center, where they will serve the largest proportion of the metropolitan group, and where, also, the funds needed to support such undertakings are most easily secured. There are notable exceptions to this tendency toward the concentration of highly cultural agencies, but, on the whole,[1] the cultural as well as the economic life of the area finds its nucleus in the metropolitan center.

Metropolitan economy, as a stage in economic development, can be built up only on a foundation of the facts of economic history. Thus far, these facts have been subordinated in an attempt to give the concept as clear and sharp an outline as possible. But they must be searched out in order to form the basis of any generalizations. A study of economic development indicates that wherever town economy becomes highly developed, there is a tendency to progress further into the metropolitan stage. In the ancient world, there were a very few outstanding centers which were more than political centers or merely trading towns, and which may constitute early examples of metropolitan economy.[2]

Of more interest for the present, however, is the early modern period, when town economy, dominant in western Europe, began to give way to another civilization. The earliest example of this development is found in England, where London, beginning in the sixteenth century, increased not only her foreign trade, but her marketing influence in the country round about her as well,[3] so that she earned the right to be termed a metropolitan center. In fact, her position came to approach that of a national center. Other towns

1. Territorial and national capitals are the seats of institutions, scientific and artistic, but generally do not grow as rapidly as the metropolitan institutions, unless highly subsidized.

2. Alexandria was the most important of these ancient towns; Babylon and Carthage had held somewhat similar positions.

3. See Gras: <u>Evolution of the English Corn Market</u>, pp. 104-109.

increased in importance, however, as the commercial and industrial expansion of the country went on; and there is today at least one other metropolitan area in England, - that of Manchester - Liverpool. On the east coast, a number of cities compete for leadership, no one of them assuming dominance as yet.[1]

On the continent, development came somewhat later than in England. In the seventeenth and eighteenth centuries, Paris became the chief marketing center for northern France, the nucleus not only of an important trade, but for a group of industries engaged particularly in the manufacture of articles of luxury. Two other centers have arisen, not so highly developed as Paris, but they may be called metropolitan centers. Bordeaux, in the southwest, is the center of the wine trade; Lyons, in the west, is the chief center for the silk industry. Since the recent war, which resulted in giving France a considerable industrial district, and, even more important economically, large coal deposits, there is a possibility that concentration of the iron and steel industry of eastern France may eventually give rise to a metropolitan center, perhaps at Nancy.

Germany, being less favorably situated with regard to modern trade routes, stayed much later in town economy than France and England. Furthermore, when concentration might have begun on a large scale, it was hindered by political boundaries. Berlin is an important center; so are some of the ports on the north coast, such as Hamburg and Bremen. The greatest concentration would naturally have taken place along the Rhine, however, and here the fact that the mouth of the Rhine is outside Germany's borders has played an important part. Considerable concentration has taken place at the mouth of the river in spite of this; and some important centers, such as Mannheim and Leipsic,

1. Hull, Leeds, Newcastle, and Berwick are all important centers, their foreign trade based largely on the commerce with the northern European countries. One of them will probably assume leadership ultimately.

have developed within Germany, but there is no outstanding center, such as might have been expected to develop.

The development of a metropolitam center is not simply the story of a widening influence over surrounding territory; it is also frequently the story of conflicts with other centers for control over that area. Thus the settlement and exploitation of North America in the seventeenth and eighteenth centuries, which has been recognized as in considerable measure a matter of economic rivalry between France and England, was in reality largely a struggle between the rival centers of Paris and London, which were both anxious to reap the benefits of trade with this newly discovered rich field. In this struggle, which, it is true, did become a matter of national policy between the two countries concerned, London was victorious; and her economic control over America thus established, did not end until well into the nineteenth century.

After the American Revolution, however, it may well be questioned whether the newly-established nation was in the metropolitan area of London. Most of its foreign trade was still carried on with London, it is true, but it may rather be said that economic life was organized around the principal towns, such as Boston, New York, Philadelphia, Charleston, and Savannah, which traded with one another and with the outside world, especially London. The dependence upon London as the chief center for foreign trade became less marked, as manufacturing became more firmly established in the new country, and commerce with other countries developed.

By the second quarter of the nineteenth century, expansion into the west had begun, and some of the towns along the Atlantic coast began to show potentialities of becoming something more than local centers. New York was the first to establish a strong hold on this western trade, although Boston, Philadelphia, and Baltimore were just as ambitious. At the same time, the local areas around each of these centers were developing rapidly, and concentration was beginning to take place. Thus metropolitan economy was established in the United States, the development coming much more rapidly than it had in Europe, because the country was so new, and had such great natural resources.

There was sharp conflict for several decades between these growing centers, especially between Boston, New York, and Philadelphia, over local trading areas, as well as the western trade, and this clash of interests is shown in the eagerness of each to secure transportation facilities into the surrounding territory; and means of communication with the Great Lakes or Mississippi River systems, over which the growing western traffic was being transported. Each managed to carve out a local area for itself, though there was naturally considerable overlapping; but New York dominated the western trade, by virtue of the Erie Canal, and later the New York Central and Erie railroads.

The west, which thus played an important part in the establishment of the first metropolitan centers in the United States, was not long to remain tributary to the eastern centers. A number of towns[1] had early sprung up to carry on the trade with the east, and as the west became more highly developed, some of them gave promise of becoming independent. Among the most important of these were Chicago and St.Louis, and by the decade beginning in 1850, these two centers were rivals for control of the western trade, both showing great promise for the future. When railroads began to build into this western country, Chicago took advantage of her opportunity to gain control over the traffic of the Mississippi Valley, and made herself the center of a network of railroads which drew trade east and west, instead of north and south.

The northwest, when its development began between 1830 and 1840, thus sought an outlet for its products and a source of supply for the goods it

1. Among these towns were Cincinnati, Pittsburgh, Louisville, Chicago, and St.Louis.

needed both at St.Louis and at Chicago. When railroad development began, however, St.Louis became of less relative importance, while Chicago became the all-important center.[1] The northwest then came to play somewhat the same part with relation to Chicago that the middle west had once played with relation to the east, especially New York. The towns which grew up there looked mainly to Chicago for supplies, and the first railroads giving communication with the east ran through Chicago.[2] The same development was to take place in the northwest, however, that had earlier taken place in the middle west, the same forces being at work. As the district became more fully settled, and its commercial needs increased, Chicago was too far away to serve the area conveniently, and smaller centers of trade developed, as they had earlier in the middle west.

One town, because of its favorable situation on the Mississippi River, early assumed leadership as a trading center for the northwest. This was St.Paul, which gained its first importance as a fur trading post, and later, because nevigation on the Mississippi was interrupted there by rapids and falls, became the chief landing point for supplies for the whole northwest.[3] Further development was natural, and it was not long until St.Paul came to be more than a local trading center. Its development as a commercial metropolis started between 1855 and 1860, when its merchants began to furnish supplies to other towns of the district.[4] Thus the same economic needs that had given rise to metropolitan centers at Chicago and St.Louis were to bring about the

1. See below, pp. 81-82.

2. See below, p. 77.

3. See below, p. 76.

4. This came about partially as a result of the panic of 1857. (See above, p. 8 and below, p. 33.

growth of another center to serve the northwest.[1]

The development of a metropolitan center in the northwest was to take a somewhat unusual turn, however. While the expansion of the commercial interests of St.Paul went on, industrial growth began at St.Anthony's Falls, a few miles away, where ample power offered an incentive to the lumbering, and a few years later, the flour-milling industries which were soon established there.[2] The two centers were so close together that growth was to make them into an economic unit, but during the early years of development, the commercial interests were concentrated at St.Paul, the industrial at Minneapolis.[3] This distinction is now of much less importance than formerly; but the existence of two cities, rather than one, has been of no little influence in the development of the metropolitan center. Other twin cities are by no means unknown in the United States,[4] but rarely are they of such equal importance, and rarely do they perform different functions, as St.Paul and Minneapolis did in the earlier years of their history.

As the commercial and industrial interests of St.Paul and Minneapolis grew with the development of the northwest, the Twin Cities became ambitious to shake off their dependence on Chicago, at the same time they were drawing into closer relations with the northwest. The development of their

1. In connection with this point, it is of interest to note the remark of one of the early writers on the development of the northwest: "The conditions - the necessities of the people - which have made and limited trade centers as they exist today, confine them to a local territory about five hundred miles in extent, as instance the following: classing Philadelphia, Baltimore and Boston with New York, we have New York to Buffalo and Pittsburg, Pittsburg and Buffalo to Chicago, Chicago to Kansas City, Omaha, St.Paul and Minneapolis, Kansas City and Omaha to Denver, Denver to Ogden, Ogden to Helena, each equi-distant about five hundred miles. The single exception is St.Paul and Minneapolis to Helena." (Barton: <u>Resources of Minnesota</u>, p. 37.)

2. See below, pp. 38, 42.

3. See below, p. 50.

4. Among the most familiar examples are Kansas City, Kansas, and Kansas City, Missouri; St.Louis and East St.Louis; Duluth and Superior.

transportation facilities, both into their tributary area and with eastern centers, was largely instrumental in enabling them to do this, and, by the decade beginning in 1880, they may be said to have established themselves as the nucleus of the economic life of the northwest.

The most outstanding characteristic of the Twin City metropolitan area is its newness, and because of that fact, its story cannot be made as complete as could that of a center in the more highly-developed portion of the country. The Twin Cities are in fact just passing into the third phase of metropolitan economy - the financial phase - and the measure of financial concentration in the center is even now less marked than the commercial and industrial concentration there.

Nevertheless, the Twin Cities are in a real sense the metropolitan center for the northwest. They are the market for most of the products of the territory, especially the grain, the live-stock, and the produce. Their wholesale houses in all lines distribute most of the goods needed by the area. They are coming more and more to supply the financial requirements of the district, especially since the establishment of the Federal Reserve bank at Minneapolis in 1914.

In addition to these usual services which the Cities perform for their area, they have developed one function which is not ordinarily so centralized. The labor agencies of the Twin Cities have multiplied and at the same time have become localized, until at the present, one section of the Minneapolis business district is the concentrating point for most of the surplus labor of the northwest, and the source of supply for many of the lumbermen, miners, agricultural laborers, and other groups of workers needed in the area. This function, while not so fundamental as some of the others performed by the Twin Cities, is a real service, and an indication of the concentration of economic life in the metropolitan center.

The Twin Cities are more than an economic center, however. As the cultural phase of the life of the northwest becomes more prominent, the metropolitan center assumes some activities which are not directly connected with any of the processes of production. The newspapers of the Twin Cities have assumed more than local importance, having taken on a metropolitan aspect, and being circulated not only in the center but throughout the area as well.[1] Several periodicals connected with commerce and industry in either a general or a more narrowly specialized sense, are published at the Twin Cities in the interests of the whole northwest.[2] The art galleries, museums, and libraries in the Twin Cities are the most considerable to be found in the northwest;[3] in fact, this district being so new, there are few collections of this sort outside the center. Students from the whole area attend the educational institutions to be found in the Twin Cities, which include schools for higher general education, professional training, and the teaching of music and art.[4]

The area which thus looks to the Twin Cities as the nucleus for most phases of its life, cultural as well as economic, is an extensive but not a highly developed district. Since its newness is its most outstanding characteristic, the functions performed by the center do not as yet show a great deal of evidence of decentralization,[5] so that, although some subsidiary

1. The most important of these newspapers are the St.Paul Dispatch and Pioneer Press, the Minneapolis Tribune, and the Minneapolis Journal.

2. Among the best-known of these publications are the Commercial West, the Northwestern Miller, and the Mississippi Valley Lumberman.

3. These collections include the city libraries in Minneapolis and St.Paul, the library and art gallery of James J. Hill, the Walker Art Gallery, the Minneapolis Institute of Arts, and the Minnesota Historical Society library and museum.

4. In this connection should be mentioned the University of Minnesota, and a number of smaller colleges, the William Hood Dunwoody Institute for technical training, the Minneapolis School of Music, Oratory, and Dramatic Art, the McPhail School of Music and Dramatic Art, the St.Paul Institute of Science and Letters, and the Society of Fine Arts in Minneapolis.

5. See below, p. 133.

centers have developed, the center carries on its relations directly with a large part of the area. It is possible that, as development is carried further, particularly in the west, the Twin Cities may come into conflict with some other center which will attempt to establish itself and carve out an area overlapping that of the Twin Cities. Several centers have, in fact, already developed ambitions in that direction,[1] but none have appeared as yet to contest seriously the control of the Twin Cities over Minnesota, North Dakota, South Dakota, and Montana.

1. Denver, Colorado, had ambitions to become a metropolitan center; Spokane, Washington, now shows some promise of some day becoming one. Either one of them, in so doing, would naturally carve out an area which would restrict that of the Twin Cities at the present time.

# C H A P T E R  I I

## SAINT PAUL AS A COMMERCIAL CENTER

# CHAPTER II

## SAINT PAUL AS A COMMERCIAL CENTER

The year 1819 may be taken as the opening date for the history of the Twin Cities. The northwest country had been explored by white men at an earlier date, of course; but the first step toward the establishment of a permanent settlement near the Falls of St.Anthony was made in that year, when an expedition was sent by the national government to set up a military post in what is now Minnesota. A tract of land had been bought for this purpose in 1805 by Zebulon Pike, when he came up from St.Louis to explore the headwaters of the Mississippi.[1]

The expedition reached the present site of Mendota, at the junction of the Minnesota and Mississippi Rivers, August 23, 1819,[2] and made a temporary stop there; but the permanent fort was built in a commanding position, on a bluff a little above the junction. Logs for this fort were cut on Rum River, some distance north, and brought down to St.Anthony's Falls, where a rude mill converted them into lumber. The fort was finished in 1822.[3]

With the exception of the military reservation at Fort Snelling, and another tract at the junction of the St.Croix and Mississippi Rivers, also bought by Pike in 1805, all the land in this district belonged to the Indians, and remained in their possession for some years.[4] Settlers came to the Fort, however, soon after it was established, and became squatters on

1. Robinson: The Development of Agriculture in Minnesota, p. 28.

2. Folwell: Minnesota, p. 55.

3. Ibid., p. 56.

4. The first cession was made in 1838, and included all the territory in their possession east of the Mississippi River. (Williams: History of St.Paul, p. 57.

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the reservation. These men came from Lord Selkirk's settlement, near the present site of Winnipeg, Manitoba, having found that location unsatisfactory because of failures of crops and troubles between the Hudson's Bay Company and the Northwest Company, rival fur companies in that district.[1] They were allowed to establish farms in the neighborhood of the Fort, and lived there for some years. Finally, in 1838, they were ordered to move across to the eastern side of the Mississippi, and some of them then made permanent homes, outside the military reservation. One of them, Pierre Parrant, is generally conceded to have been the first settler in St.Paul, as his home became the nucleus of a French village, which was later named St.Paul.[2]

Before this, however, a settlement of white people had grown up at Mendota, just south of the junction of the Minnesota and Mississippi Rivers. It was on land belonging to the Indians, of course, and was, at first, an unimportant little village of French and half-breeds, who had settled there probably because it was near the Fort; but in 1834, it became the northwestern headquarters of the American Fur Company, a powerful company with chief offices at New York. It then became an important trading center, for, during nearly ten years, it was the only source of supplies for the district, if we except what could be secured from the military post at Fort Snelling.

It can easily be judged from this fact that the trade in furs was an important one to the northwest. It was, in fact, almost the only trade at this time, for there was little agriculture carried on, except by the squatters earlier referred to, and they did not produce enough to make the district self-sufficing.[3]

1. See Folwell: Minnesota, pp. 78-79.

2. A fuller account of the founding of St.Paul may be found in Folwell: Minnesota, pp. 81-83; Carney: Minnesota, the Star of the North, pp. 102-104; or Williams: History of St.Paul, p. 64 and following.

3. Folwell: Minnesota, p. 84.

Most of the white men in the northwest, with the exception of the soldiers at the garrison, were, like the Indians, engaged in trapping and the fur trade. Furs were thus the most valuable product of the northwest; they were also the most generally acceptable medium of exchange. It was the practise of both white men and Indians to bring them into the fur store, and buy with them the necessary food and supplies.

The most important, though by no means the only, source of furs was the Red River district. In 1844, Normann W. Kittson, who had for some years been engaged in the fur trade near Fort Snelling, became a partner in the American Fur Company. He then established his headquarters at Pembina, a point on the Red River near the Canadian boundary line. Furs were collected here from the Red River district, and sent to the American Fur Company store at Mendota.[1] A large fur trade thus grew up between the Red River and Mendota, and regular cart trains were established to make the trips. Well-marked trails were soon established, the most usual one being across country from the Red River to the Sauk River, thence following that river to the Mississippi and south to Mendota.[2] In 1844, the first year of this trade, there were six of these Red River carts which made the trip from Pembina to Mendota.[3] By 1847, the number of carts for the year had increased to one hundred and twenty-five.[4]

Meanwhile settlement had been begun at St.Paul, and growth proceeded rather slowly. Most of the permanent settlers there were engaged in agriculture; the rest were interested in the sale of liquor to the soldiers,

1. Hennessy: Past and Present of St.Paul, pp. 77-78; Williams: History of St.Paul, p. 48.

2. Williams: History of St.Paul, p. 160.

3. Ibid., p. 304.

4. Ibid., pp. 60, 304-307.

the Indians, and the fur traders. The first steamboat landed at St.Paul in 1839;[1] but Mendota remained for some time the main landing place. It is not made clear, by the numerous writers who have treated the subject, how St.Paul first attained leadership. The probable explanation is, however, connected with matters of steamboat navigation. St.Paul had a very satisfactory landing-place for steamboats, the banks being high, without being too precipitous. At Mendota, on the other hand, the land immediately fronting on the river was flat, and liable to inundation in the spring. Moreover, the river at St.Paul is deep enough to admit fairly large boats at all seasons; at Mendota, the channel is more shallow.[2]

These facts probably explain St.Paul's early popularity as a landing-place. After St.Anthony was established at the Falls,[3] the importance of St.Paul's position was naturally enhanced. Rapids in the river between Mendota and St.Anthony's Falls prevented steamboat navigation above the former place; consequently, goods had to be carried overland to St.Anthony. This could be done more satisfactorily from St.Paul than from Mendota, for St.Paul and St.Anthony were both on the east side of the river, while Mendota was on the west. Moreover, due to the bend in the Mississippi at this point, it is no farther overland from St.Paul to St.Anthony than from Mendota.

Moreover, the growth of Stillwater,[4] and of other settlements on the St.Croix River, which took place relatively early in the development of the district, was an important factor in the increasing influence of St.Paul. Stillwater was, for a time, the largest town in what is now Minnesota; and

1. Williams: <u>History of St.Paul</u>, p. 83.

2. <u>Minn. Hist. Soc. Coll.</u>, vol. II, p. 41.

3. The first claim there was staked out in 1838, immediatelyafter the first cession of Indian lands. (Williams: <u>History of St.Paul</u>, p. 68)

4. First settled in 1843. (Folwell: <u>Minnesota</u>, p. 81.) See below, p. 30.

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most of the trade with this center was through St.Paul, due to St.Paul's position, and the fact that it was more satisfactory to bring goods to St.Paul and thence overland the eighteen miles to Stillwater, rather than up the St.Croix River to Stillwater.

The results of this favorable situation were soon apparent, as the Mississippi River was the most important means of communication between the northwest and the east. St.Paul soon became, to all intents and purposes, the head of navigation, though boats sometimes went on to Mendota and Fort Snelling; in 1846, it was the only point above Prairie du Chien where boats landed with any regularity.[1] It was natural that the development of such a place would be fairly rapid, as it was. Soon, in place of a scattered village, with agriculture the main pursuit of its inhabitants, appeared a trading town, with real estate increasing rapidly in value,[2] and new commercial enterprises being established in numbers.

The first store in St.Paul was established in 1842 by Henry Jackson, who came up the river from Galena with a stock of goods, and built a cabin, which he used for both home and store.[3] The following year, two more stores were opened up;[4] and by 1846, there were at least five stores in the town. There was no hotel until the following year, but Henry Jackson (the same Jackson who established the first store) received and entertained travellers. In this same year, 1846, he also received a commission as post-master.[5]

1. Folwell: Minnesota, p. 153. See below, p. 76 for figures of boat arrivals.

2. See Minnesota in Three Centuries, vol. II, pp. 98-99.

3. Williams: History of St.Paul, pp. 117-118.

4. Minn. Hist. Soc. Coll., vol. IX, p. 164.

5. Williams: History of St.Paul, p. 154.

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St.Paul had thus become the most important trading post for the northwest, and, in 1849, in response to this situation, the headquarters of the American Fur Company were transferred from Mendota to St.Paul,[1] and the fur trade, with its attendant trade in food, ammunition, and supplies, was thereafter centered in the latter place. During this year, another event took place which meant growth and increasing importance for St.Paul. Minnesota Territory was organized, and citizens of St.Paul succeeded in having that city named as territorial capital.[2] This sudden accession to political importance meant, of course, an increase in economic importance, and justified the action of some citizens, who had, in 1847, surveyed the town site, and laid the main business part out into lots.[3]

The trading influence of St.Paul at this time was wide-spread. The trade in furs increased in value and amount, especially after 1850,[4] and other companies, smaller than the American Fur Company, were formed to engage in it. The trade with the Indians was especially important. All the fur trade with the Sioux and Dakotah Indians was centered in St.Paul. There was also a profitable cash trade with them, for they were free spenders of the periodic remittances received from the national government in payment for the cession of their lands.[5]

It is possible to secure a fairly complete description of St.Paul as it appeared in 1849. In the first issue of the Minnesota Pioneer, April 28, 1849, the editor, Mr. Goodhue, says: "Saint Paul, at the head of river communication, must necessarily supply the trade of all the vast regions north

1. Hennessy: Past and Present of St.Paul, pp. 77-78.

2. Williams: History of St.Paul, pp. 181-182, 204-205; West: Ancestry, Life and Times of H. H. Sibley, pp. 121-122.

3. Williams: History of St.Paul, pp. 170-171.

4. Hennessy: Past and Present of St.Paul, pp. 77-78.

5. In 1853, this Indian trade was valued at about $24,000. (Ibid., p. 157.)

of it to the rich plains of the Selkirk Settlement, and west to the Rocky Mountains, and east to the basin of the great Lakes, and is destined to be the focus of an immense business, rapidly increasing with the growth and settlement of the new regions lying within the natural circumference of its trade........Is it strange, then, that Saint Paul is beginning to be regarded as the Saint Louis of the North?"[1] Another description of St.Paul in 1849[2] notes that there were just one hundred and forty-two buildings in St.Paul on June 13. Included were "three hotels......, a state house, four warehouses, ten stores, several groceries, three boarding houses, two printing offices, two drug stores, one fruit and tobacco store, one or two blacksmith's shops, one wagon shop, one tin shop, one or two baker's shops, one furniture room, a billiard and bowling saloon, [and] one schoolhouse." The total mercantile business of St.Paul for 1849 was estimated at $131,000, of which $60,000 was judged to be in groceries.[3]

Settlement of the northwest took place mainly along the river valleys, as the rivers were the most important agencies of transportation. Beginning in 1850, a trade developed along the Minnesota River,[4] and an even more important one grew up on the Red River.[5] It was not only the American northwest which depended for supplies on St.Paul. Mention has already been made of the settlement which had grown up in Canada, near the present site of Winnipeg. This settlement could not be reached by a direct overland route from the east, because of forests and marshes. Moreover, the Great Lakes had

1. Williams: History of St.Paul, pp. 211-212.

2. E. S. Seymour: Sketches of Minnesota, the New England of the West. (Ibid., pp. 214, 224.)

3. Ibid., p. 245.

4. Ibid., p. 265.

5. Pyle: Life of J. J. Hill, vol. I, pp. 70-71; Williams: History of St.Paul, pp. 304-308. See below, p. 76.

not yet become important carriers of freight; and the Hudson's Bay route was impassable during a large part of the year. As a result, a large part of the supplies for the Canadian northwest came to St.Paul by a rail and river route, thence to the Red River and north by a well-travelled route.[1] In 1858, the cart-trains on this route consisted of as many as six hundred carts.[2] They brought furs from the Red River district to pay for the goods which they took back; and the value of this trade to St.Paul was considerable. In 1850, the goods were valued at $10,000, and the furs at perhaps $15,000. By 1855, the furs were valued at $40,000, and by 1860, this figure had risen to $186,000.[3] The goods taken back in return for the furs must have been about equal in value to the furs.

Examination of the account-books of early stores in St.Paul will prove the important service they rendered in furnishing supplies to the smaller settlements of the territory.[4] In response to this demand, the number and variety of mercantile establishments increased rapidly,[5] and all economic

1. Pyle: Life of J. J. Hill, vol. I, pp. 70-72. See also above, p. 76.

2. Pyle: Life of J. J. Hill, vol. I, p. 71.

3. Williams: History of St.Paul, pp. 304-307; Hennessy: Past and Present of St.Paul, p. 78.

4. The Account-book of W. Hartshorn and Company, St.Paul, for 1847-1848 (in the Manuscript Room of the Minnesota Historical Society) shows a total of eighty-eight accounts, eight of them with men or firms outside of St.Paul. One was with William H. Forbs at St.Peters; one with "Little Rock Trading Post"; one with "Mouth St.Croix Trading Post"; one with Perkins and Company at St.Croix Falls; one with E. Russell, at St.Anthony; one with St.Anthony Falls Company; one with Wilkason at Stillwater; and one with Wah Co Ta, Red Wing Chief.

5. According to Hennessy: Past and Present of St.Paul, the business directory for St.Paul in 1854 shows eight general stores in St.Paul, four boot and shoe dealers, nine dry goods stores, three dealers in books and periodicals, two fur houses, three druggists, three hardware concerns, one hatter, one lumber dealer, one furniture house, nine groceries, two dealers in glass and paints, three stove dealers, one clothier, one china shop, one cigar store, three leather dealers, one haberdashery, one confectionery shop, four jewelry shops, and two millinery shops.

activity was centered on the levee, where boats landed daily from Galena and points further south, bringing passengers, and, what was more important, freight.[1]

These boats, in return for the goods which they brought to St.Paul, took away the furs which came in such volume, particularly from the Red River. It may seem surprising that the manufacture of fur goods did not develop during this period at St.Paul, but the industry seems not to have gotten a footing, at least until after 1870. Instead, the furs were sent out to St.Louis or to New York to be made up.[2] The explanation of this lies partly in the fact that St.Paul was still a commercial town, with neither capital nor specialized workers to engage in fur manufacturing. Moreover, the companies which handled a large part of the fur trade of the district had headquarters in New York and St.Louis,[3] and this fact may have had its influence. At any rate, St.Paul seems never to have attempted to make of herself an independent fur center, although, about 1870, the manufacture of coats from buffalo skins took on considerable importance.[4] Later, of course, St.Paul did attain an important position in the manufacture of high-grade furs, and holds that position today.

Furs were destined not to be for long the exclusive product of St.Paul's trading territory. It was for some time the view of most people that the northwest would never be an important agricultural district; but the value of the lumber, to be found especially in northern Minnesota, was early appreciated. Agitation therefore began for the purchase of this land from the Indians, and,

1. Pyle: Life of J. J. Hill, vol. I, pp. 27-28.

2. West: Ancestry, Life, and Times of H. H. Sibley, p. 90.

3. The American Fur Company, at New York, and the Pierre Choteau, Jr., and Company, which carried on a considerable trade, especially with the Indians, at New York and St.Louis.

4. See an article on "St.Paul as a Fur Center", in the file of the jobbing and wholesaling section of the St.Paul Association of Public and Business Affairs.

in 1837, deals were made with the Chippewas and the Sioux for a large part of the land in Minnesota and Wisconsin.[1] Speculators and lumber men immediately staked out claims in the pine forests, the first ones in the St.Croix Valley, and mills began to appear. The first mill was set up at Marine, in 1839,[2] the machinery being brought from St.Louis.[3]

In 1844, the first mill at Stillwater began operation, and development there was so rapid that for a time it was thought that Stillwater would be the most important town in the territory. By 1854, there were six mills in and around this one city.[4] Then log-rafting down the Mississippi was begun, and mills were set up at more southern points, such as Red.Wing, Winona, Wabasha; and even Dubuque and Galena mills were supplied with logs from the seemingly inexhaustible supply of northern Minnesota.

Logging in the St.Croix Valley was thus well established before any saw-mills were set up at St.Anthony's Falls. It had been early discerned that the waterpower at the Falls was a very desirable source of power, but claims could not be staked out until the military reservation was restricted. In 1847, the east side of the river was thrown open to settlement, and claims were immediately staked. In 1848, the first sawmill was set up, and was supplied from the pine forests on the upper Mississippi,[5] though this timber had to be bought from the Indians, who still held this land. The industry developed very rapidly at St.Anthony,[6] which had, of course, a far better location for such an

1. Carney: Minnesota, the Star of the North, pp. 104-107.

2. Ibid., p. 107.

3. Cheyney: Development of the Lumber Industry in Minnesota, (Journal of Geography, XIV, 1916, pp. 189-195).

4. Ibid., p. 190.

5. Ibid., p. 191.

6. In 1849, one and one-half million feet of timber were cut; in 1851, nine million feet; and in 1857, forty-four million feet. (Ibid., p. 191.)

industry than any other town in the territory; and this place soon became the chief center of the lumber industry in the northwest.[1]

St.Paul, of course, shared in this remarkable development. Much of the lumber that went south was handled through St.Paul, and lumber soon came to form an important item of export to Dubuque, Galena, and St.Louis. It is true that, as in the case of the fur trade, St.Paul did not become an important center of manufacture, but was the channel through which the product reached the outside world. The reason in this case, however, is plain, for St.Paul lacked the water power which was essential to the development of lumber manufacturing. The industry was consequently centralized in St.Anthony, rather than in St.Paul.

Both cities shared in the profits from the lumber trade, however. Practically all the outfitting for the loggers was done in St.Anthony and St.Paul, most of it in St.Paul, and lumber became so important an item in trade that it is said to have become the medium of exchange, merchants in St.Paul and St.Anthony supplying loggers and lumber mills, and accepting logs in payment.[2]

The country was now beginning to wake up to the value of the northwest territory. About 1855, a boom began, which lasted until the panic of 1857. Settlers came in large numbers, real estate rose rapidly in value, the levees were crowded with freight, and stores were kept busy outfitting the newcomers.[3] Agriculture was just beginning to assume an important place in the economy of the northwest, and although the country was but little more than self-sufficing as yet, agricultural products began to figure among exports.[4] Several towns

1. See below, pp. 38-41, for the development of the lumber industry in Minneapolis and St.Anthony.

2. Cheyney: Development of the Lumber Industry in Minnesota; in <u>Journal of Geography</u>, XIV, 1916, pp. 190-191.

3. Hennessy: <u>Past and Present of St.Paul</u>, pp. 83-84; Pyle: <u>Life of J. J. Hill</u>, vol. I, pp. 27-28.

4. Pyle: <u>Life of J. J. Hill</u>, vol. I, p. 28.

had been started in the territory,[1] and, though none of them were as important as St.Paul, they each had their little stores, which secured their stocks largely from eastern wholesalers and jobbers. St.Paul was not as yet a wholesale market.[2] St.Paul stores carried out-of-town accounts, to be sure, but they were retail accounts. The stores lacked the necessary capital to begin competition with large eastern jobbers.[3]

Such was the situation at the time of the panic of 1857. This panic checked the rapid development that had been going on in the northwest; for this development had been, to some extent, artificial. The boom was at an end, land values depreciated greatly, trade was cut down, and it was some time before the community recovered from the depression. In spite of this, or perhaps because of it, the panic did, in the minds of some observers, constitute an important event in the development of St.Paul as a commercial center. Up to this time, St.Paul was an important trading town, and no more; it had not as yet assumed the aspects of a commercial metropolis. It was in this period between 1855 and 1860 that it became a wholesale center. Those who consider that the panic of 1857 was the chief causal element in this change[4] give a fairly plausible explanation that is not disproved by any facts at hand.

It had been the practise for stores in the smaller towns of the district to order their goods on credit from jobbing houses in the east. Money was scarce, as was natural in a new country, and these small stores had demanded a relatively large amount of credit. In the face of the curtailment of credit

1. According to H. H. Sibley (Minn. Hist. Soc. Coll., vol. I, p. 41.) the following were the towns established by 1850 in what is now Minnesota: St.Paul (1200 or 1300 inhabitants), Stillwater (second to St.Paul in size), St.Anthony's Falls, Marine Mills, Sauk Rapids, Mendota, Point Douglas, and Pembina.

2. See above, p. 28, note 4.

3. See Hennessy: Past and Present of St.Paul, p. 158.

4. See Ibid., p. 158; Williams, History of St.Paul, p. 394. Hudson, A Half Century of Minneapolis, p. 426, upholds the same view for Minneapolis.

and the money shortage attendant upon the panic, it is said that eastern jobbers in many cases cut off these smaller and less profitable accounts. Several merchants in the northwest then found it impossible to secure goods on credit from the east, and were forced to come to the larger stores in St.Paul, whose credit with eastern houses was still good. Here these merchants bought for cash, in small quantities. Naturally, it was not long until St.Paul merchants saw the possibilities of this trade, and, in a short time, several houses were doing wholesaling as well as retailing.

Whether this explanation is entirely correct or not, it is certain that St.Paul's wholesale trade began at about this time. In 1855, there was at least one grocery house which carried on some wholesaling, but this house was said to have been put out of business in the panic of 1857.[1] In 1858, Minnesota was admitted to the Union, and development on a firmer basis continued even during the Civil War. By 1865, two dry-goods houses, four grocery firms, and three crockery houses in St.Paul were carrying on a wholesale business, and the value of the wholesale trade in that year has been estimated at $7,500,000.[2]

With the end of the war, a period of conspicuous expansion began in the northwest. Immigration increased, real estate rose in value, and railroad development was rapid.[3] The possibilities of the northwest as an agricultural district were beginning to be realized. The first wheat had been exported in 1857,[4] but this trade did not become important until after the Civil War. Then, with the settlement of the prairies, shipments of grain began to assume

1. Hennessy: Past and Present of St.Paul, p. 158.

2. Ibid., p. 158.

3. Williams: History of St.Paul, pp. 420-421. See below, p. 80, for railroad development.

4. Pyle: Life of J. J. Hill, vol. I, p. 42.

an important place in St.Paul's trade. In 1874, grain, flour, and lumber (trade in which has already been mentioned)[1] were the most important items in St.Paul's shipments to the east.[2]

It was in the decade between 1870 and 1880 that St.Paul began to be something more than a commercial metropolis. Until this time, manufacturing had been of a local nature, and relatively unimportant. During this decade, however, the value of manufactures increased more than seven-fold, from $1,611,378 in 1870 to $12,212,148 in 1880. The number of establishments likewise increased from 88 to 667.[3] Although large-scale industry did not develop to any considerable extent during this period,[4] some lines were already marked as leaders. In 1877, the seven prominent lines, ranked in order according to the value of their product, were: boots and shoes, flour, agricultural implements, pork-packing, clothing, newspapers, alcoholic beverages.

The early development of the manufacture of boots and shoes at St.Paul is a natural one. Boots and shoes, especially of the heavier kinds, were in great demand, and centralization is less necessary to this kind of manufacture than to most. Less capital, and less specialized labor is needed than in most lines of manufacturing; consequently the industry is more decentralized,

1. See above, p. 31.

2. See Minnesota Railroad Commissioner's Report, 1874-5, for shipments from St.Paul over various railroad lines.

3. Internal Commerce of the United States, 1887, p. 33; Barton, City of St.Paul, p. 16. The U. S. Census, 1880, vol. XIX, p. 702, gives the value of manufactured products at St.Paul as $10,286,363.

4. In 1877, the total value of manufactures being almost $5,000,000, only one line had a product of over $500,000, and the seven lines having a value of products of over $200,000 together comprised only a little more than half the total value of manufactures. (Figures from Stranger's Guide and Reference Book to St.Paul, 1877, pp. 15-16)

and develops rather early among the industries of a new district. In the case of the other leading manufactures at St.Paul, either the raw materials were close at hand (as in the case of flour manufacturing and the brewing industry), or the demand for the products was so universal (as in agricultural implements and clothing) as to explain the early development of the industry.

The great increase in manufacturing at St.Paul between 1870 and 1880 was accompanied by a corresponding increase in the volume of the jobbing and wholesaling trade. In 1877, the value of the wholesale trade for the year was placed at $27,815,072,[1] including grain. By 1881, jobbing for the year was valued at $46,555,999. By this time, however, St.Paul no longer had an exclusive claim to the trade of the district. The towns at St.Anthony's Falls had been growing rapidly ever since the development of the lumber industry.[2] Even before 1860, they had begun to attract some trade, but, until railroad transportation became important, St.Paul had the advantage. In the decade beginning 1870, this situation changed,[3] and it is at this time that we find St.Paul beginning to specialize along certain lines of trade, for which Minneapolis[4] did not make so strong a bid. Among those lines which showed up as important in 1877,[5] and which retained that position, are groceries, dry goods, boots and shoes, and the commission business.

1. Stranger's Guide and Reference Book to St.Paul, p. 13.

2. See above, p. 30, and below, p.37 ff., for development of St.Anthony and Minneapolis.

4. St.Anthony and Minneapolis were united in 1872; even before that, Minneapolis had been the more important of the two.

5. Figures for wholesale trade of St.Paul in 1877, in all lines in which aggregate sales exceeded $1,000,000 (Stranger's Guide and Reference Book to St.Paul, p. 12):

| | |
|---|---|
| Agricultural implements | $1,027,000 |
| Boots and shoes | 1,450,000 |
| Commission merchants | 1,671,000 |
| Dry goods | 4,175,000 |
| Grain | 3,751,000 |
| Groceries | 4,400,000 |

3. See below, pp. 79-80.

By 1880, the foundations of St.Paul's later development were well laid. From a small trading town, she had become a prosperous commercial metropolis. Then her economic life had been further rounded out by the addition of some of the more fundamental lines of manufacture. Finally, in response to the growing importance of the twin city, she had begun to specialize in those lines of trade which she was best fitted to handle. Her development was by no means complete, but its direction was indicated. The years which followed were filled with the working out of this development, and with the formation of an economic union with Minneapolis which was to make out of the twin cities one metropolitan center.

# C H A P T E R   I I I

## DEVELOPMENT OF AN INDUSTRIAL CENTER AT ST.ANTHONY-MINNEAPOLIS, CHIEFLY TO 1880.

## CHAPTER III

## DEVELOPMENT OF AN INDUSTRIAL CENTER AT ST.ANTHONY-MINNEAPOLIS, CHIEFLY TO 1880.

The possibilities of the motive power available at St.Anthony's Falls were early realized, but not immediately made commercially profitable. In 1821, when it became necessary to saw into lumber the logs brought from Rum River to build Fort Snelling,[1] the mill to do the work was built at St.Anthony's Falls.[2] Colonel Snelling also made an early experiment in the growing of grain on the prairies near the Fort, and, in 1823, a grist mill was erected at the Falls to grind this grain, part of which was wheat for flour, part of it corn and oats to serve as winter food for the cattle kept by the garrison.[3] The articles needed for the mill, including a pair of buhr millstones, plaster of paris, and two dozen sickles, were all brought up from St.Louis.[4] This mill was kept in rather irregular operation by the government until 1849, when it was leased to private parties.[5]

The land on which these mills were built was within the limits of the military reservation,[6] and none of the land adjacent to the Falls was open to settlement for some years. As early as 1836, a claim was staked out on the east side of the river, but it had no value.[7] It was known, however, that the military reservation would sometime be restricted, and, after the cession by the Chippewas and Dakotas of all their lands east of the Mississippi River,

1. See p. 21.
2. Folwell: Minnesota, p. 56.
3. Kuhlmann: The Development of Flour Milling in Minneapolis, p. 7.
4. Minnesota in Three Centuries, vol. II, p. 49.
5. Kuhlmann: The Development of Flour Milling in Minneapolis, p. 9.
6. Hudson: A Half Century of Minneapolis, p. 25.
7. Ibid., p. 26.

squatters' claims "gave promise of being effective".[1] As soon as the news of ratification of these treaties reached Fort Snelling, in 1838, several men, including Norman Kittson and Franklin Steele, made haste to stake out claims at St.Anthony's Falls.[2]

Franklin Steele secured the most desirable claim, and, though the government did not open the land for legal entry for some years, he realized its value, and maintained his hold. He had at first wished to utilize the water power to run grist mills, but by 1847, when he was able to secure title to the land, he had decided that it was wiser to build saw-mills, and he immediately began the improvement of the water power for that purpose.[3] In 1848, the first commercial saw-mill at St.Anthony's Falls began operation.[4]

The lumber industry thus got its start, and was for some years the basis of the rapid growth of the settlement at the Falls, which was named St.Anthony. The logs to supply the mills at that point were, for the most part, cut in the Upper Mississippi pine forests, and at first had to be bought from the Indians, who still owned this land.[5] Development of the industry was very rapid, for there were many who realized what rich profits could be secured from the great pine forests to the north of the Falls. Several more mills were erected in St.Anthony in 1849,[6] and the cut of timber in northern Minnesota increased from 1,500,000 feet in 1849 to 9,000,000 feet in 1851, and 44,000,000 in 1857.[7]

1. Hudson: A Half Century of Minneapolis, p. 26.

2. Williams: History of St.Paul, p. 68.

3. Hudson: A Half Century of Minneapolis, p. 28.

4. See p. 30.

5. Cheyney: Development of the Lumber Industry in Minnesota (Journal of Geography, XIV, 1916, pp. 189-190.)

6. Hudson: A Half Century of Minneapolis, p. 297.

7. Cheyney: Development of the Lumber Industry in Minnesota (Journal of Geography, XIV, 1916, pp. 190-191)

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Of course this lumber did not all find a local market. Settlement in Minnesota Territory[1] was but little developed, and the local demand was slight, though it increased rapidly as immigration into the Territory increased.[2] Most of the lumber during the early period was rafted down the Mississippi River to points in Iowa and Illinois, whence it was shipped over the railroad to interior points.[3] Much of this lumber was marketed through St.Paul,[4] which had an important position as a commercial medium with the east, but St.Anthony's business developed fairly rapidly, and, in 1855, it had eighteen dry goods and grocery stores, which claimed an annual trade valued at $450,000; a sash and blind factory; two saddle and harness manufactories; three jewelry stores; three cabinet makers; three boot and shoe stores; one plow manufactory; two flour mills; eight saw mills; three carriage makers; as well as other business enterprises.[5] This list indicates the predominance which manufactures had assumed in St.Anthony, as compared to the trade of St.Paul.

Meanwhile, settlement had been begun on the west side of the river, the military reservation having been once more restricted, in 1852, to allow this.[6] In 1855, the year which saw the beginning of the first "boom" in St.Paul,[7] Minneapolis also had a rapid growth. The town plat was surveyed, several stores and shops, and many houses were built;[8] and, in fact, Minneapolis, as

1. The Territory was organized in 1849.

2. The first retail lumber yard in Minneapolis was opened in 1854. (Hudson: A Half Century of Minneapolis, p. 297)

3. The Rock Island and Pacific Railroad reached the Mississippi River in 1854. (See below, p. 77.)

4. See above, p. 31.

5. Emerson: Rise and Progress of Minnesota Territory, pp. 23-24.

6. Carney: Minnesota, the Star of the North, p. 108.

7. See above, p. 31.

8. Folwell: Minnesota, p. 131.

the new town was called, soon outstripped St.Anthony. The two places were essentially one, however, and, in 1872, they were united.[1]

In 1856, the St.Anthony Falls Water Power Company, and the Minneapolis Mill Company were chartered by the territorial legislature, and were given control of the water power at St.Anthony's Falls.[2] They constructed new dams across the river, and, in 1858, the first sawmill was built on the west side dam. It was not long until all the space, on both sides of the river, was occupied.[3] In fact, after 1865, it was necessary to begin the use of steam for power, and the mills began to move away from the Falls.[4]

The production of lumber by Minneapolis mills increased steadily, with very few setbacks, from its beginning in 1848. By 1870, the output of Minneapolis mills was 118,233,100 feet;[5] in 1880, it had increased to 195,452,200 feet;[5] in 1890, it was 343,573,762 feet; in 1899, it reached its height at 594,373,000 feet.[6] In 1900 Minneapolis was one of the first lumber-producing cities in the United States. By this time, however, the timber that would naturally be brought to Minneapolis to be manufactured into lumber was becoming exhausted, while other new districts were being opened up, and the lumber industry was developing in other centers in the state.[7] After 1899, there was a steady decrease in the lumber output of Minneapolis until, in 1905, it amounted to only 362,166,000 feet. Nevertheless, even in 1910,

1. Folwell: <u>Minnesota</u>, p. 131.
2. Hudson: <u>A Half Century of Minneapolis</u>, p. 297.
3. <u>Ibid</u>., pp. 297-298.
4. <u>Ibid</u>., p. 298.
5. <u>Minneapolis Chamber of Commerce and Board of Trade Report</u>, 1882, p. 27.
6. Hudson: <u>A Half Century of Minneapolis</u>, p. 302.
7. See below, p. 69.

the United States census gave Minneapolis third rank as a lumber-producing point.[1] In the fall of 1919 the last lumber mill in Minneapolis closed down. The place of Minneapolis is now (1921) taken by northern Minnesota towns, such as Bemidji, Cloquet, Virginia, and International Falls.

The lumber trade, however, as distinct from the manufacture of lumber, continued to be centralized at Minneapolis. An increasing proportion of the lumber shipped from Minneapolis was lumber that had been manufactured elsewhere, and then shipped into Minneapolis.[2] The jobbing of lumber from Minneapolis increased in importance, and line yard lumber companies began to be centered there.[3]

Many years before the production of lumber at Minneapolis had reached its height, another industry had developed there which was to far outstrip the lumber industry in importance. The cutting of lumber was a profitable enterprise, but it did not go far toward making the district self-sufficing, and

1. U. S. Census, 1910, vol. VIII, p. 91.

2. Table showing receipts and shipments of lumber into and from Minneapolis, 1880-1907 (not including the product of outside mills handled through Minneapolis branch offices or local jobbers or brokers). (Hudson: A Half Century of Minneapolis, p. 302):

| | Receipts, feet | Shipments, feet |
|---|---|---|
| 1880 | 20,400,000 | 167,840,000 |
| 1885 | 61,619,000 | 139,450,000 |
| 1890 | 117,510,000 | 300,495,000 |
| 1895 | 81,150,000 | 364,635,000 |
| 1900 | 85,380,000 | 398,970,000 |
| 1905 | 157,890,000 | 319,635,000 |
| 1906 | 190,725,000 | 301,365,000 |
| 1907 | 173,775,000 | 272,505,000 |

3. Hudson: A Half Century of Minneapolis, p. 302; The Flour City - Minneapolis, Minnesota (1885), p. 47. In 1913, 25 lumber concerns did their banking in Minneapolis, 54 line yard companies had headquarters in Minneapolis, and 1294 retail yards were owned and financed there. (Minneapolis, Financial Center and Gateway of the Northwest, p. 26.)

accordingly, an early start was made in agriculture. Colonel Snelling's[1] early attempts at grain-growing were not especially successful, probably due to the use of a variety of wheat not suited to this climate.[2] The families from Lord Selkirk's settlement, who came to the military reservation and established farms,[3] must have raised some grain, but, until 1850, practically all the flour needed in this district, together with many other supplies, seems to have been brought up the Mississippi River.[4] After 1850, however, the increase of population in the district stimulated grain-growing and grain-grinding, and several mills were built to satisfy this need. They were mainly in the southeastern part of the Territory, however, for it was this district which was first opened to settlement,[5] and in which farming was first established. Towns in the southern part of the territory, along the Mississippi River, became important wheat markets, grain being hauled to them by wagon,[6] and shipped thence to Rock Island, or to La Crosse, en route for Chicago.[7] Hastings, Red Wing, Lake City, Wabasha, and Winona, were all early wheat markets of importance.

During this period, the only wheat that was sent to the Falls was what was demanded by the mills there. Until 1849, the only grain ground there was ground by the soldiers at the old government mill. In that year, this mill was leased to a private individual, who began to do custom grinding.[8] The

1. See above, p. 37.

2. Kuhlmann: <u>The Development of Flour Milling in Minneapolis</u>, p. 9.

3. See above, p. 22.

4. Stevens: <u>Personal Recollections</u>, pp. 47-48.

5. The first cession of Indian land was of that territory east of the Mississippi River.

6. There were as yet no railroads over which grain could be hauled. (See below, p. 79.

7. <u>Commercial West</u>, July 20, 1901, pp. 17-19.

8. Kuhlmann: <u>The Development of Flour Milling in Minneapolis</u>, p. 9.

first merchant mill at the Falls was built in 1854, and, though not large, had to call on the southern part of the territory, and, to some extent, on Iowa and Wisconsin, for part of its wheat supply.[1] Milling developed fairly rapidly, however, and, as early as 1858, a shipment of flour was made to Boston.[2]

Even the interruption of economic life caused by the Civil War did not put a stop to the development of milling at the Falls; and, after the war, the rapid expansion of western wheat districts, with the resulting improvements in the means of transportation, ushered in a period of rapid development.[3] In 1866, there were eight mills at the Falls, producing 172,000 barrels of flour;[4] in 1870, there were twelve mills, producing nearly 250,000 barrels.[5] In this year, several hundred thousand barrels of flour were shipped east from Minnesota.[6] There were, at this time, two grain elevators in Minneapolis, with a capacity of 215,000 bushels.[7] In 1867, the Minneapolis Millers' Association was organized, to buy wheat for all the mills. The purpose of the Association was to prevent "dangerous competition", and it practically controlled all wheat shipments into Minneapolis. It was probably due, in part at least, to the existence of this Association that the grain commission business did not develop very rapidly during this early period. The association sent out agents who bought directly from the farmers, and, even in

1. Kuhlmann: <u>The Development of Flour Milling in Minneapolis</u>, p. 22; Hudson: <u>A Half Century of Minneapolis</u>, pp. 327, 353.

2. Hudson: <u>A Half Century of Minneapolis</u>, p. 327.

3. See below, p. 79.

4. Hudson: <u>A Half Century of Minneapolis</u>, p. 328.

5. Kuhlmann: <u>The Development of Flour Milling in Minneapolis</u>, p. 30.

6. Rogers: History of Flour Manufacture in Minnesota; <u>Minn. Hist. Soc. Coll.</u>, vol. X, pt. 1, p. 52.

7. <u>Commercial West</u>, July 20, 1901, p. 19.

1871, there were only nine firms in the city classified as grain dealers; even they did not all deal exclusively in grain.[1]

It was probably due, in large part, to the slow growth of the grain trade at Minneapolis that there was practically no development of means for the storing of grain until 1880. When grain first began to come to Minneapolis, the millers who bought it provided storage. But as the volume of wheat produced in the district increased, shipping by railroads increased in importance, it became the practise to send the grain to the city as soon as it was harvested, and the mills were unable to provide storage for so large a volume of grain. In response to the need that thus grew up, two elevators were built, in 1867 and 1868, having a total capacity of 215,000 bushels of grain.[2] With the exception of the small amount of wheat cared for by these two elevators, the mills stored all the grain that came to Minneapolis until 1879. From that year on, elevator capacity increased rapidly.

The decade between 1870 and 1880 was a very important one for the development of the grain trade and flour manufacturing at Minneapolis. It was marked, first, by a rapid increase in the amount of wheat grown in the northwest.[3] Corresponding to this was a rapid growth in wheat receipts at Minneapolis,[4] so that Minneapolis became one of the most important primary wheat markets in the country.[5]

1. Hudson: A Half Century of Minneapolis, p. 353.

2. In 1867, the Union Elevator Company built an elevator having a capacity of 130,000 bushels. In 1868, the Pacific Elevator, with a capacity of 85,000 bushels, was erected. (Ibid., p. 356; Commercial West, July 20, 1901, p. 19.)

3. The production of wheat in Minnesota alone increased from 18,000,000 bushels in 1870 to 34,000,000 bushels in 1880 (Rogers: History of Flour Manufacture in Minnesota; Minn. Hist. Soc. Coll., vol. X, pt. 1, p. 47).

4. Between 1876 and 1880, wheat receipts more than doubled, increasing from 5,037,575 bushels in the former year to 10,264,000 in the latter (Minneapolis Chamber of Commerce and Board of Trade Report, 1883, p. 52.)

5. 1879, Minneapolis appeared among the ten greatest primary wheat markets of the country. (Hudson: A Half Century of Minneapolis, p. 354.)

These increased wheat receipts were almost all consumed by Minneapolis mills, as has been stated.[1] This would not have been practicable, had it not been for improvements in the milling processes, which began about 1870. Before this, the flour that was made from spring wheat was of an inferior quality, because dark and "specky" in appearance. Consequently, although it made fine bread, it did not sell as readily as did the whiter flour made from winter wheat.[2] Due to climatic conditions, however, spring wheat was best suited to the northwest. It became essential, therefore, to improve the quality of the spring wheat flour, so as to make it more readily saleable in the east.

As a result of these forces, the "new process" milling developed.[3] Two processes were involved; first, a "middling purifier" to increase the amount of flour made from a given volume of spring wheat, and, what was more important, to improve its quality.[4] The other improvement was the use of several sets of rollers, instead of the old millstones, to reduce the grain to flour gradually, reducing waste and making a more satisfactory product.[5] These changes meant a revolution in flour manufacturing, and, by the time they were put into general use in Minneapolis, that is, by 1878 or 1879, the position of that city as a flour manufacturing center was materially changed.

The effect of these changes was, in fact, to make Minneapolis the

1. See above, p. 43. Even in 1880, when over 10,000,000 bushels of wheat were received at Minneapolis, only 133,600 bushels were shipped out. (<u>Minneapolis Chamber of Commerce and Board of Trade Report</u>, 1882, pp. 52-56.)

2. Kuhlmann: <u>The Development of Flour Milling at Minneapolis</u>, p. 42.

3. For a complete discussion of the revolution in milling processes, 1870-80, see <u>ibid</u>., pp. 32-65.

4. Folwell: <u>Minnesota</u>, pp. 274-275.

5. Rogers: History of Flour Manufacture in Minnesota; <u>Minn. Hist. Soc. Coll.</u>, vol. X, pt. 1, pp. 49-50.

"Flour City" of the United States. As early as 1870, with an output of 193,000 barrels of flour, she was an important center; by 1880, with a product of 2,051,840 barrels for the calendar year, she was second in importance in the United States, only St.Louis, with an output of 2,077,625 barrels, exceeding her.[1] By 1885, she had far overcome even this lead. This very rapid increase in output was made economically possible only because spring wheat flour had become the most popular flour on the market, at least for use in bread. Bakers in the east no longer discriminated against it; on the contrary, they were now willing to pay a premium for it in preference to winter wheat flour.

It was not only eastern bakers who now wanted spring wheat flour; a large export demand grew up as well. The first shipments of flour for foreign consumption made directly from Minneapolis, left the city in 1878, 109,183 barrels being sent to England.[2] This export trade developed rapidly, and, by 1880, amounted to over one-third of the entire output of Minneapolis mills.[3] The increase in export trade continued until about 1885, after which it was not so marked.

Thus, by 1880, Minneapolis's position as a flour manufacturing center was assured. She was also an important primary wheat market, for, in that year, over 10,000,000 bushels of wheat were received. She was not an important shipping point for wheat, however, only 133,600 bushels of wheat being shipped out. Her trade in grain was still restricted by the activities of the Minneapolis Millers' Association, which bought practically

1. St.Louis Trade and Commerce Report, 1886, pp. 118-119.

2. Minneapolis Chamber of Commerce and Board of Trade Report, 1883, p. 58.

3. Ibid., p. 59. In 1879, exports amounted to 442,598 barrels; in 1880, to 769,442 barrels, the total output of flour in the latter year being 1,531,786 barrels.

all of the grain wanted by the millers direct from the farmers, and rendered the grain commission business unimportant and unprofitable.[1] This condition could not long continue, however, as the millers in other centers were demanding the spring wheat of the northwest, which found its natural market at Minneapolis. The result was the establishment, about two years later, of the Minneapolis Chamber of Commerce, which immediately brought the grain trade into prominence.[2]

The lumber industry and flour manufacturing, as already outlined, were, of course, the dominant factors in the early development of Minneapolis. They did not, however, exclude other industries. The manufacture of wood products was naturally an early one to develop in a lumber center. The first furniture factory was established in the same year that the first merchant mill was built at the Falls - 1854.[3] Another industry which was early established here, although it didn't become very important relatively, was the manufacture of woolen goods. It is somewhat surprising that evidence points to the existence of two woolen mills here as early as 1865.[4] In 1866, the Minneapolis Board of Trade published figures for manufacturing according to which the woolen industry ranked fourth in value of product, lumbering, flour milling, and the metal industries ranking as the first three.[5]

1. See above, p. 43.

2. See below, p. 56.

3. Hudson: A Half Century of Minneapolis, p. 385.

4. Ibid., p. 386; Bishop: History of American Manufactures, vol. III, p. 558.

5. The number of sheep in Minnesota increased from 13,044 in 1860 to 132,343 in 1870, and the amount of wool increased from 20,388 pounds in the former year to 401,185 pounds in the latter, while population increased only from 172,023 to 439,706. (Robinson: The Development of Agriculture in Minnesota, pp. 102-103.)

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The metal industries were early established at St.Anthony's Falls, however, and soon came to rank next to lumbering and flour milling. The first iron-working shop was established as early as 1855, and the manufacturing of agricultural implements began in 1860, with the plough manufacturing establishment of S. T. Ferguson.[1] By 1866, the metal industries ranked third in Minneapolis and St.Anthony, according to value of product, with an output worth $211,450, as compared with a total value of manufactured products of $831,650 (exclusive of flour and lumber).[2] About ten years later (1878), the total value of the manufactured products of Minneapolis, exclusive of flour and lumber, was $5,469,525. Of this, $702,500 was the value of farm implements, and $1,150,325 was the value of other iron products.[3] Together, they formed more than one-third of the total. The national census for 1880 also places foundry and machine shop products next in importance to flour and lumber in Minneapolis.

Thus, by 1880, the industrial importance of Minneapolis was as firmly established as was the commercial importance of St.Paul. In truth, Minneapolis would have been unable to concentrate to such an extent on manufacturing if a commercial center had not existed near by. For a newly developing district needs trade with older districts; often it needs this trade worse than it needs manufactures of its own. As a result of this specialization of function, however, (which, to be sure, disappeared later in considerable degree)[4] Minneapolis's development was not the usual one, with emphasis first on trade, then on industry, and finally on finance.[5] From

1. Hudson: A Half Century of Minneapolis, p. 386.

2. Ibid., p. 388.

3. Minnesota Commissioner of Statistics, 1878, p. 225.

4. See below, pp. 51, 61.

5. See above, p. 8 f.f.

the beginning of her development, industry was the dominant characteristic of her economic life.

It is not to be assumed, however, that commerce did not develop in Minneapolis. It is true, as one of the writers of Minneapolis's early history has said,[1] that, during the first few decades of her life, it was not expected that she would ever be an important trading center; industry was expected to be her only interest. Some retail trade did develop at an early date, of course,[2] but all commercial relations with the northwest district were carried on from St.Paul. It was St.Paul stores which established commercial relations with large eastern houses, and it was these St.Paul stores to which settlers in the whole northwest were accustomed to look for supplies.[3] It is claimed that there was some wholesaling done in Minneapolis before 1860,[4] but it was certainly not important until after the Civil War. A number of retail hardware and grocery houses which had been established in Minneapolis between 1855 and 1861 gradually added wholesaling to their activities, and later became wholesale houses exclusively.[5] The development of wholesaling was much more rapid after 1870, and the period up to 1880 saw the establishment of a number of exclusively wholesale houses.[6] By 1878, the wholesale trade of Minneapolis

1. Hudson: A Half Century of Minneapolis, p. 426.

2. See above, p. 39.

3. See above, pp. 26-29.

4. Hudson: A Half Century of Minneapolis, p. 426.

5. Ibid., pp. 427-428. Examples are the Janney, Semple, Hill Hardware Company, the W. B. and W. G. Jordan Grocery Company, and the Dunham and Johnson Grocery Company, from which later developed the Green and De Laittre and the John C. Johnson grocery houses.

6. In 1870, Stevens, Morse, and Newell, wholesale grocers, were established; 1874, Wyman and Mullen, wholesale dry goods; 1877, William J. Dean, agricultural implements. (Ibid., pp. 428-430.)

was estimated at $10,211,000.[1] This includes the sales of produce and commission men, and so probably takes in sales of grain on commission in Minneapolis.[2]

It was to be expected that wholesaling should develop at Minneapolis, as sales of agricultural produce became more important there. Some wholesaling, too, developed naturally as a result of the manufacturing carried on. Commerce, however, was still unimportant as compared with manufacturing, or as compared with the wholesale trade of St.Paul.[3]

1. Figures from the <u>Minnesota Commissioner of Statistics, Annual Report,</u> 1878, give these figures for wholesale trade in Minneapolis in 1878 (p. 221):

| Line handled | Number of firms | Amount of sales |
|---|---|---|
| Groceries, fruits and cigars | 12 | $ 3,500,500 |
| Dry goods, notions, clothing | 3 | 1,975,500 |
| Queensware and drugs | 6 | 510,000 |
| Hardware and stoves | 6 | 810,000 |
| Wines and liquors | 7 | 505,000 |
| Boots, shoes, leather, and harness | 9 | 710,000 |
| Agricultural implements, and vehicles | 9 | 825,000 |
| Produce and commission | 11 | 1,375,000 |
| Total: | 63 | 10,211,000 |

2. At this time, commission men frequently handled both grain and produce, as sales of grain on commission were slight in volume. (See above, p. Moreover, the figure given by the Minnesota Commissioner of Statistics is too large for sales of produce exclusive of grain at this date.

3. In 1878, the wholesale trade of Minneapolis was valued at $10,211,000; manufactures, including flour and lumber, at $14,556,625 (this figure is from the Minneapolis Board of Trade Report for 1878, p. 69, and includes miscellaneous manufactures valued at $5,696,625, while the Commissioner of Statistics values miscellaneous manufactures for that year at only $5,469,525). St.Paul's wholesale trade in the same year amounted to $31,939,500; and her manufactures to $6,150,900. (<u>Minnesota Commissioner of Statistics, Annual Report,</u> 1878, pp. 214, 215, 221.)

# C H A P T E R   I V

## THE DEVELOPMENT OF THE TWIN CITIES AS A METROPOLITAN CENTER SINCE 1880.

# C H A P T E R  I V

## THE DEVELOPMENT OF THE TWIN CITIES AS A METROPOLITAN CENTER SINCE 1880.

The year 1880 opens a period of development which made of the Twin Cities an economic unit and a metropolitan center. It was a period which saw a more rapid development of Minneapolis than of St.Paul,[1] largely because of the position of the former city as a center of the wheat district of the northwest; it meant also, however, a rounding out of the economic functions of both cities, and their development into the nucleus of the economic life of the northwest,- commercial, industrial, and financial.

It has been brought out that at the beginning of the period, St.Paul's trade was much more important than that of Minneapolis.[2] It was at just about this time that Minneapolis began to overcome this lead, and by 1890, her commercial interests were as great as those of St.Paul.[3] This does not mean, however, that St.Paul's jobbing trade did not grow during this period. In 1878, it was estimated at $31,939,500, by[4] 1883, it had more than doubled, being placed, in that year, at $72,048,771.[5] In 1887, it first passed $100,000,000, and, in 1892, it was valued at $133,000,000.[6]

This remarkable increase is an indication of the development that was going on in the northwest. The rapid increase in railroad mileage in the period just preceding 1875 was now showing results. The northwest was being settled rapidly, and a greatly increased demand for goods was the natural

1. Minneapolis, Financial Center and Gateway of the Northwest, p. 8.

2. See above, p. 50, Note 3.

3. In 1889, Minneapolis's jobbing trade was reckoned at $111,000,000; St.Paul's at $109,000,000. (Johnson: Another Tale of Two Cities, p. 144.)

4. See above, p. 50, Note 3.

5. Barton: City of St.Paul, p. 14.

6. The Land of Promise, p. 66.

result. In 1880, there were in Minnesota thirteen incorporated places of 2500 or more inhabitants; in 1890, this number had increased by ten.[1] In the whole northwest (including Minnesota, North and South Dakota, and Montana) there were in 1880 thirty-nine incorporated places of over 1000 population, excluding Minneapolis and St.Paul. In 1890, there were ninety-four such places.[2]

The rural population of the district had, of course, increased proportionately, but the number of incorporated places is significant, because it was the retailers in these places who looked to the jobbers in St.Paul and Minneapolis for supplies. There was no question now of their getting stocks directly from Chicago houses, and other centers farther east, for the jobbing houses of the Twin Cities were large, and carried complete stocks of goods, all lines being fairly well represented.

The growth of jobbing in Minneapolis was even greater than that of St.Paul, as has been said. In 1878, her wholesale trade had amounted to \$10,406,250.[3] During the succeeding five years it more than quadrupled, being valued, in 1883, at \$48,138,000.[4] There were in that year seventy firms engaged in the jobbing business, and the number was increasing, as well as the volume of business handled by each firm. The decade between 1880 and 1890 was especially important because of the establishment of houses for all the lines of jobbing trade;[5] but it was also marked by considerable specialization, which had taken place in St.Paul at an even earlier date.[6]

1. Robinson: The Development of Agriculture in Minnesota, pp. 85, 115.
2. U. S. Census, 1890, vol. I, part 1, pp. 378-392.
3. See above, p. 50, Note 3.
4. Minneapolis Chamber of Commerce and Board of Trade Report, 1883, p. 103.
5. Hudson: A Half Century of Minneapolis, p. 433.
6. See above, p. 35.

By 1883, the most important items in the jobbing trade of Minneapolis were groceries, agricultural implements, dry goods, hardware, leather and wool products, and wines, liquors, and cigars, in the order named.[1] This, of course, excludes the trade in lumber and grain, which was on a large scale, but is not included here, because taken up elsewhere.[2]

Since 1890, the growth of jobbing in St.Paul and Minneapolis has been steady, the main developments being the establishment of larger houses, and a greater degree of specialization. Representatives and branches of large eastern houses were established here, with the recognition of the east that the Twin Cities were an economic center of considerable importance. In 1892, Hume and Albrecht, wholesalers in leather and shoe store supplies, were established in Minneapolis, representing several eastern shoe manufacturers.[3] Somewhat earlier, between 1880 and 1890, branches of the

1. The following table, from the <u>Minneapolis Chamber of Commerce and Board of Trade Report</u>, 1883, p. 103, includes all items valued at over $1,000,000:

| | |
|---|---|
| Groceries, staple, fancy fruits | $12,271,000 |
| Dry goods, clothing, hats and caps | 6,072,000 |
| Wines, liquors, cigars, etc. | 3,181,000 |
| Drugs, oils, paints, and queensware | 2,010,000 |
| Hardware | 4,821,000 |
| Boots, shoes, harness, hides, and wool | 4,431,000 |
| Confectionery, crackers, and fruit | 2,137,000 |
| Paper, books, and stationery | 1,010,000 |
| Agricultural implements | 9,370,000 |
| Furniture, carpets, etc. | 1,218,000 |

2. See below, p. 55 and following.

3. The Railway Publishing Company: <u>Minneapolis, Minnesota</u>, p. 21.

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Deere-Webber Company, and the J. I. Case Implement Company were established[1] there, making material additions to the jobbing of agricultural implements in Minneapolis. In 1901, the Grimsrud Shoe Company was established, as distributors for five eastern shoe factories.[2] Perhaps the most notable example of this development was the establishment, in 1906, of a branch of Butler Brothers,[3] wholesalers of general merchandise, with branches in most of the leading distributing centers of the country.

The Twin Cities are now an important fruit and produce center, though this branch of the wholesale trade didn't become important until about 1880. Even at that time, most commission merchants handled both grain and produce. In 1884, the Minneapolis Produce Exchange was organized,[4] and, in 1916, the city claimed to be one of the two or three largest fruit distributing centers in the United States.[5] St.Paul is also an important fruit center, and makes the claim of being the chief egg market west of Chicago,[6] and one of the most important markets for dairy products in the United States.[7] The produce handled in the Twin Cities is grown largely in Wisconsin, Minnesota, North Dakota, and South Dakota. The fruit is distributed for the most part in this same area; also to some extent in northern Iowa and Montana.

1. Hudson: A Half Century of Minneapolis, p. 432.

2. The Railway Publishing Company: Minneapolis, Minnesota, p. 21.

3. Hudson: A Half Century of Minneapolis, p. 434.

4. Ibid., pp. 432-433.

5. Minneapolis, Market of the Northwest, pp. 103-105.

6. St.Paul Association of Public and Business Affairs, file in the division on jobbing and wholesaling.

7. St.Paul Association of Public and Business Affairs: St.Paul (pamphlet)

For the Twin City jobbing trade as a whole, the area is substantially similar. In 1887, to be sure, it was asserted that the trading area of the Twin Cities included the northern half of Wisconsin, Minnesota, northern Iowa, Dakota, Wyoming, Montana, Idaho, Oregon, Washington Territory, and the northwestern part of the Dominion of Canada;[1] and in 1913, the Civic and Commerce Association of Minneapolis made the statement that Twin City jobbers were active in all the territory north of a line drawn from the Sault Sainte Marie Canal to Los Angeles.[2] This large section, however, is, of course, not to be considered the tributary area of Twin City jobbers. It is probable that in former years, the Twin City jobbers had more control over trade with the west than they have at the present time, since distributing centers have now developed, and handle most of the trade of that district. The area that is really tributary to the Twin Cities is Minnesota, North and South Dakota, and Montana, although there is a great deal of trade carried on in western and nothern Wisconsin, northern Michigan, and northern Iowa.[3]

In Minneapolis, there is an important trade in two commodities that has not been dealt with as a part of the jobbing trade of the city,-the trade in lumber and in grain. The lumber trade was originally a part of the lumber industry in the city, but has gradually become divorced from it.[4] Since about 1900, when the manufacture of lumber began to pass to other centers of the state, the centralization of the lumber business at Minneapolis has become more marked. The facilities for the sale of lumber, and the means for financing the business, were most accessible in Minneapolis, and the mills in

1. The Flour City - Minneapolis, Minnesota, pp. 56-61.
2. Minneapolis, Financial Center and Gateway of the Northwest, p. 25.
3. See below, p. 127.
4. See above, p. 40.

other parts of the state maintain offices here, through which they sell their product. One proof of this is the fact that lumbermen's associations consider Minneapolis as their headquarters,[1] and another is the existence of numerous line yard companies with headquarters at Minneapolis.[2]

The grain trade is, of course, closely allied to the milling industry, more so at Minneapolis than at many grain centers, because so large a proportion of the grain that comes to the city is retained for manufacture. Nevertheless, it is to be considered as in some measure distinct, especially since the establishment of the Chamber of Commerce in 1881. Prior to that time, wheat used by Minneapolis mills was purchased in the country by them, through the Millers' Association, and there was comparatively little grain trade in Minneapolis.[3] In 1880, the receipts of wheat at Minneapolis were over 10,000,000 bushels, but the shipments were only 133,600 bushels.[4] In 1882, after the Chamber of Commerce had been organized, the receipts of wheat had increased to 18,927,500 bushels, while shipments had jumped to 2,105,000 bushels. From this time on, the trade in wheat became constantly more important at Minneapolis, for millers in other parts of the country were anxious to get the spring wheat which grew in the northwest and sought Minneapolis as its natural market.

In 1879, Minneapolis was ninth among primary wheat markets of the country; in 1881, it held third place;[5] and in 1885, it took first place, its

1. In 1908, the Northern Pine Manufacturers' Association, the Northwestern Lumbermen's Association, the Northwestern Hardwood Lumbermen's Association, and the Northwestern Cedarmen's Association all had Minneapolis as their headquarters. (Hudson: A Half Century of Minneapolis, p. 303.)

2. In 1913, there were fifty-four such companies. (Minneapolis, Financial Center and Gateway of the Northwest, p. 26)

3. See above, p. 43.

4. Minneapolis Chamber of Commerce and Board of Trade Report, 1883, p. 52.

5. Hudson: A Half Century of Minneapolis, pp. 354-355.

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3. See above, p. 43.

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5. Hudson: A Half Century of Minneapolis, pp. 354-355.

receipts being 32,000,000 bushels, while New York, which held second place, received 24,000,000 bushels.[1] Since that year, Minneapolis has maintained its position as chief primary wheat market in the United States. Between 1885 and the present, the growth in wheat receipts has been steady, with few and minor setbacks, due to crop conditions.[2] In 1912, the receipts for the first time reached 100,000,000 bushels, and have remained above that point since. Shipments have also increased, and their proportion to receipts has risen from a little more than ten per cent in 1880 to about thirty per cent in 1916. They exceeded 20,000,000 bushels for the first time in 1905, and reached 50,000,000 bushels in 1915, although this was an abnormally good year.

The position of Minneapolis as the center for the wheat district of the northwest has been established mainly since 1880, as before that time, most of the wheat not desired by Minneapolis millers went directly to points further east.[3] After the grain trade at Minneapolis became important, however, an increasing proportion of this grain went to that center. In 1892, it was estimated that only one-third of the grain passing through terminal points in Minnesota came from within the state. Minneapolis was then said to be the market for practically all the grain of Minnesota, North and South Dakota; for large quantities of grain from Wisconsin, Iowa, Kansas, and Nebraska; and for some grain from Montana and Washington.[4] Between 1890 and 1896, Minneapolis received a constantly increasing proportion of the grain crop of the northwest, while Duluth, Superior, and Chicago received a smaller proportion.[5]

1. Minneapolis Chamber of Commerce, 1881-1903, p. 9.
2. See Appendix, Table I, for annual receipts and shipments of wheat.
3. Report of the Industrial Commission, vol. X, p. CCXVI.
4. Railroad and Warehouse Commission Report, 1892, p. 61.
5. Mpls. Ch. of Comm. Rept., 1896, pp. 17-18.

Up to 1885, there was no law providing standardized methods of grading and inspecting wheat. The buyers thus had control over the weight and grade, as well as the price, of the grain they bought.[1] In 1885, the state weighing and inspection law was passed, establishing the office of state grain inspector, making weighing and inspection of grain uniform throughout the state, and establishing state officers to inspect and grade grain at terminal points, reducing charges for inspection and weighing, and putting the whole process of the marketing of grain on a more equitable and uniform basis. A board of appeals was created, to which cases were taken when there was any question of improper grading. Putting this work into the hands of state officials has meant much greater satisfaction and a better feeling between buyers and sellers.

The grain commission business became important soon after the establishment of the Chamber of Commerce, as Minneapolis mills dropped the custom of buying their own grain in the country, and millers in other centers developed the practise of buying spring wheat in Minneapolis. From about 1880 on, the growth of the commission business was rapid,[2] and, at the present time, most of the grain sold in the Chamber of Commerce is sold through commission men.

It was to be expected that, with the development of the grain trade at Minneapolis, would go an increase in elevator capacity. Until 1879, the elevator capacity of the city had amounted to only 215,000 bushels.[3] Beginning with that year, the increase in capacity was very rapid. By 1886, the elevator capacity of the city was 12,515,000 bushels, and by 1900, it was

1. Railroad and Warehouse Commission Report, 1889, pp. 84-85.

2. Minneapolis Chamber of Commerce and Board of Trade Report, 1883, pp. 33-34; Hudson: A Half Century of Minneapolis, p. 356.

3. See above, p. 44.

nearly 30,000,000 bushels.[1] In 1918, Minneapolis had an elevator capacity of 54,900,000 bushels, being second only to Chicago, which had a capacity of 57,305,000 bushels.[2]

With this rapid growth of storage capacity for grain went the development of the line elevator business. Even before 1880, companies owning several elevators in the wheat district, began to establish their headquarters at Minneapolis.[3] Sometimes these lines of elevators were owned by the railroads over which their grain was shipped, but in most cases, this practise was soon given up.[4] The line elevators, however, increased in importance until their presence threatened to prove harmful to the shippers of grain. For it was claimed that they secured undue privileges from the railroads, and that they used unfair methods of competition with other elevators.[5] This was probably true to some extent, but it is also true that they stimulated the opening up of new wheat districts, by establishing elevators at rather remote points, and operating on a smaller margin of profit than an independent elevator could afford to do.

Until 1900, the line elevator companies had a dominant position in the grain trade of the northwest; but from that time on, their importance was reduced by the establishment, in increasing numbers of independent, and, more especially, of farmers' elevators, which carried on a sharp competition with the line elevators. In 1900, there were forty firms in Minneapolis handling lines of elevators,[6] but after that date, and especially after 1905, the

1. <u>Commercial West</u>, July 20, 1901, p. 19. In 1899, the capacity was placed at 27,485,000 bushels.

2. <u>Mpls</u>. <u>Ch</u>. <u>of Comm. Rept</u>., 1918, p. 155.

3. <u>Commercial West</u>, July 20, 1901, pp. 21-22.

4. <u>Report of the Industrial Commission</u>, vol. X, pp. XLVIII-XLIX.

5. <u>Ibid</u>., vol. X, pp. XLVIII-XLIX.

6. <u>Commercial West</u>, July 20, 1901, p. 22.

number of line elevators began to decrease, while the number of farmers' elevators was on the increase.[1] Their proportion of grain handled seems also to be on the decrease, while the proportion handled by farmers' elevators is increasing.[2]

Wheat is, of course, the most important grain marketed at Minneapolis, but the coarse grains have also assumed a position of importance in more recent years. Before 1890, the receipts of corn and oats at Minneapolis were fairly large, but came, for the most part, not from Minnesota and the Dakotas, but were sent up from Iowa, Nebraska, and Kansas.[3] The northwest was as yet a one-crop district, not raising enough of the coarse grains for its own use, and Minneapolis was a distributing point for such of these grains as were brought in from other districts. After 1890, increasing quantities of coarse grains were raised in the northwest, and Minneapolis also began to secure some of the grain which had formerly gone to the Chicago market.[4] Shipments of flax to Minneapolis began in 1881, and by 1900, Minneapolis was one of the most important flax markets in the country.[5] By 1905, Minneapolis was an important barley and rye center, chiefly because of increased production of these grains in her tributary district. Receipts of oats and corn at Chicago remain much larger than at Minneapolis, and Chicago is a more important center for all grains, but Minneapolis is establishing a right to be called an important grain, rather than merely an important wheat market.[6]

1. Harris: Methods of Marketing the Grain Crops. (In American Produce Exchange Markets, p. 40.)

2. Farmers' Cooperation in Minnesota, p. 23.

3. Minneapolis Chamber of Commerce and Board of Trade Report, 1883, p. 33.

4. Minnesota Railroad and Warehouse Commission Report, 1890, pt. 4, 1896, p. 50.

5. Mpls. Ch. of Comm. Rept., 1900, p. 10.

6. See Appendix, Table III. During 1917, receipts of coarse grain at Minneapolis were nearly one-fourth larger than receipts of wheat. (McHugh: Modern Grain Exchanges, p. 14)

The rapid growth in the various branches of trade which has just been sketched indicates the development of the Twin Cities from towns of only local importance to a center of metropolitan magnitude. A similar proof is offered in the growth of manufacturing in both cities, which parallels that of commerce. St.Paul, it is true, was primarily a trading center, and that has remained her dominant interest. Yet manufacturing, which became important first between 1870 and 1880,[1] has played an increasingly important part in her economic life. According to the United States Census for 1910, the manufactures produced in St.Paul in 1899 had a value of $30,056,079,[2] and this figure is considerably lower than local estimates.[3] The Census figures for 1909 were nearly double those for 1899,[4] and, in 1914, the total was placed at $68,682,000.[5]

A noticeable feature in the development of manufactures at St.Paul is the change in importance of the different lines of manufacture. In 1877, the seven most important items, ranked in the order of value of their product were boots and shoes, flour, agricultural implements, pork packing, clothing, newspapers, and alcoholic beverages.[6] By 1880, this order had materially changed, the United States Census for that year ranking the branches of industry as follows: clothing, carpentering; boots and shoes; masonry, brick, and stone; flour and grist-mill products; printing and publishing; and house-furnishing goods.[7] In 1886, a local publication ranked the industries in a somewhat different order: contractors; clothing; printing and publishing; slaughtering;

1. See above, p. 34.

2. U. S. Census, 1910, vol. IX, p. 594.

3. In 1887, the value of manufactured products at St.Paul was placed at $37,251,600 in Barton: City of St.Paul, p. 14. Part of this difference is due to the omission, in the Census, of figures for South St.Paul, which could not be given without disclosing statistics of individual houses.

4. U. S. Census, 1910, vol. IX, p. 594.

5. U. S. Census of Manufactures, 1914, vol. I, p. 743.

6. See above, p. 34.

7. U. S. Census, 1880, vol. XIX, p. 702. This of course omits slaughtering and meat-packing, as all Census figures do, though that intustry would probably have assumed an important place, even at that date.

boots and shoes; cigars, machinery, foundries, and boilers; and marble and stone cutting.[1] This gives slaughtering and meat-packing its proper place, while it is omitted entirely in all Census figures, because publication would disclose figures of individual establishments. After 1900, meat-packing unquestionably took first place among manufactures; and, by 1909, the industries of the city ranked as follows: meat-packing, printing and publishing, foundry and machine shop products, boots and shoes, railroad repair shops, fur goods, and dairy products - butter, cheese, and condensed milk.[2] Since that time there has been no important change, except the increase in the relative importance of the manufacture of dairy products.[3]

A number of important changes are indicated by this cursory survey of St.Paul's manufactures. The manufacture of flour, which before 1880 was an important industry, has now practically ceased to be counted among St.Paul's manufactures.[4] The decline is due largely to the westward movement of the wheat-producing area, which deprived St.Paul mills of their local supply, and made Minneapolis the natural market. Another partial explanation is that, after the development of the large mills at Minneapolis, the smaller mills of St.Paul could no longer compete in the local market. The boot and shoe industry has fallen from first place to fourth, showing a considerable relative, though not an absolute, decline. The explanation is partly that the industry has to some extent moved out to smaller centers in the district; and partly that the boots and shoes manufactured at St.Paul have always been mainly for

1. Barton: <u>City of St.Paul</u>, p. 17.

2. St.Paul Association of Public and Business Affairs: <u>St.Paul, an Economic Center</u>; Appendix, Table 4.

3. In 1919, the manufacture of butter, cheese, and condensed milk took third place among the industries of St.Paul. (<u>Ibid</u>.)

4. There are now (1921) five mills in St.Paul, the largest of which has a daily capacity of 2500 barrels. The total daily capacity is between 5000 and 6000 barrels.

the market within the area,[1] while, since 1880, other industries have arisen in the city which appeal to a wider market. The manufacture of clothing has also declined in relative importance, due to substantially the same causes. The manufacture of agricultural implements no longer holds the important place it formerly did, partly due to the development of this industry at Minneapolis; but the metal industries are still an important part of St.Paul's manufacturing.

Other industries have taken the place of those which have declined in importance. Printing and publishing have assumed an important place, as is natural in a highly-developed economic center. The book-publishing business is not especially important, but the publication of newspapers and periodicals, especially trade journals and farm papers, and job printing of various sorts have become an important branch of industry. Though rather far down the list, fur goods rank among the leading articles of manufacture. This industry was not established until about 1870,[2] but it has increased, rather than declined, in importance since that time, and in 1913, was said to rank in value of product next to that of New York.[3] St.Paul is the distributing center, and, to a large extent, the manufacturing center also, for fur goods in the northwest.

A surprising increase has taken place in the production of butter, cheese, and condensed milk, which advanced from seventh place among the city's industries in 1909 to third place in 1914.[4] This increase in dairy products

1. The boots and shoes manufactured in St.Paul furnish an important part of the supply for this market, however, for St.Paul is the most important shoe-manufacturing center in the northwest, the output being about 3,000,000 pairs annually. (Everly: St.Paul; <u>Journal of Geography</u>, XIV, 1916, p. 228.

2. See above, p. 29.

3. St.Paul Association of Public and Business Affairs, file in the jobbing and wholesaling section.

4. In the former year, the value of products in this branch of manufacture was $2,120,000; in the latter year, $18,000,000. (See Appendix, Table V.)

corresponds to the development of diversified agriculture in the northwest, which is growing more important each year. The production of butter and cheese is considerable throughout the state, but is concentrated, to a considerable extent, at St.Paul, as the figures indicate.[1]

Among other industries which are important, although they cannot be classed among the most prominent branches of manufacture, are the manufacture of millinery and of cigars. St.Paul is an important distributing center for both these commodities, and manufacturing takes a position secondary to distribution; nevertheless, the volume of output in both branches of industry is considerable.[2]

Most of these industries are, at the present time, unimportant as compared with the slaughtering and meat-packing industry, which really began only between 1880 and 1890, for, although it existed previous to that, it was of a strictly local nature. The development of the industry on a large scale at St.Paul has been part of a country-wide change - the establishment and development of the industry in centers west of Chicago, such as Omaha, Kansas City, and East St.Louis, which are nearer to the present sources of raw materials. It is especially indicative of the change in the type of agriculture practised in the northwest, the decrease in the relative importance of wheat, and the growing emphasis of farmers on live stock as a source of income. This increasing importance of live stock in the agricultural district tributary to the Twin Cities accounted for the establishment of meat-packing on a large scale in St.Paul; it is also responsible for bringing St.Paul up from seventh rank among live-stock markets of the country in 1915[3] and fifth

1. St.Paul is asserted to be the second largest butter-producing center in the United States. (Everly: St.Paul, Journal of Geography, XIV, 1916, p. 228.)

2. Ibid., p. 229; St.Paul Association of Public and Business Affairs. St.Paul, an Economic Center, and the file in the division of jobbing and wholesaling.

3. Weld and Price: The South St.Paul Live Stock Market, p. 2.

rank in 1916,[1], which position it still holds, though it is expected that the opening of the Armour plant late in 1919 will soon give St.Paul a higher rank.

The meat-packing industry in the Twin Cities is strictly localized in South St.Paul, an industrial suburb of St.Paul. The Union Stockyards Company, which opened for business in 1888, owns almost all the land and buildings employed in the livestock industry there, and a majority of its stock is owned by Swift and Company. The industry is carried on almost wholly by a plant of the Swift Packing Company, and one of the Armour Company, although there is a cooperative packing plant in South St.Paul, and the Equity Cooperative Exchange arranged in 1916 to handle shipments of live stock consigned to it at that center.[2]

Figures for the value of products of the meat-packing industry at South St.Paul are given for the years 1909, 1914, and 1919 by the St.Paul Association of Public and Business Affairs.[3] The rate of growth indicated is much more rapid than that in other industries, and meat-packing forms a very considerable part of the total value of manufactures for St.Paul.[4]

For the continuous growth in the volume of business done at South St.Paul, however, almost the only satisfactory measure is in the figures published by the Union Stockyards Company in its annual report. The United States Census publishes no figures for the industry at that center, for to do so would disclose figures for individual establishments. The reports of the Union Stockyards Company give figures for the receipts and shipments of livestock at South St.Paul from 1888 on.[5] The increase in receipts has been most noticeable

1. _Report of the Federal Trade Commission on the Meat-Packing Industry_, pt. III, p. 15.
2. St.Paul Association of Public and Business Affairs: _St.Paul_.

3. See Appendix, Table V.

4. In 1919, the value of products in the meat-packing industry was $75,000,000, compared with a total of $215,000,000 for all industries. (_Ibid_.)

5. See Appendix, Table VI, for a recapitulation of these figures.

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in figures for cattle and calves, which increased from 31,514 and 2,210, respectively, in 1888, to 1,170,244 and 320,682 in 1919. The carload receipts of all livestock increased from 5,831 in the former year to 81,440 in the latter.[1] Of course, not all the live stock which comes to South St.Paul is bought by the meat packers there. A large part of it goes on to eastern centers,[2] and a considerable number of cattle are sent out to surrounding districts for fattening. In 1915, South St.Paul packers bought 30.5% of the total receipts of cattle, 76.5% of the calves, 66.5% of the hogs, and 30% of the sheep.[3]

Most of the livestock marketed at South St.Paul comes from Minnesota, North and South Dakota, and Montana. In 1907, North Dakota and Montana ranked next to Minnesota, and far ahead of any other state, as sources for live stock marketed at South St.Paul. In 1914, they still held that position, but Wisconsin and South Dakota were much more important relatively.[4] That does not indicate, however, that most of the livestock sent from these states is marketed at South St.Paul. Montana sends much of its livestock to Chicago, and South Dakota and Wisconsin certainly send a large part of their livestock to other markets.

The history of manufacturing in St.Paul, of which the main outlines have just been indicated, typifies the rapid growth of the Twin Cities. Not only has the value of manufactured products been multiplied many times over since

1. See Appendix, Table VI.
2. Most of the hogs and sheep that are sent on go to Chicago.
3. Weld and Price: <u>The South St.Paul Live Stock Market</u>, p. 28.
4. See following page.

Note 4. (See preceding page)

Tables from St.Paul Union Stockyards Company's reports for 1907 and 1914 (back cover), indicating origins of live stock receipts at South St.Paul in 1907 and 1914.

| From points in | Cattle and Calves | Hogs | Sheep | Horses | Carloads |
|---|---|---|---|---|---|
| | | **1 9 0 7** | | | |
| Minnesota | 170,509 | 638,538 | 90,050 | 1,162 | 13,480 |
| Wisconsin | 25,308 | 70,772 | 26,308 | 158 | 1,848 |
| Iowa | 1,324 | 1,730 | 1,257 | 428 | 114 |
| Far South (a) | 2,592 | ---- | 974 | 197 | 128 |
| South Dakota | 50,174 | 85,875 | 17,343 | 300 | 3,250 |
| North Dakota | 139,108 | 69,545 | 151,981 | 6,462 | 6,859 |
| Montana | 120,523 | 317 | 244,718 | 5,017 | 6,479 |
| Far West (b) | 2,918 | ---- | 33,761 | 716 | 277 |
| Manitoba and N. W. Territory | 4,331 | ---- | ---- | ---- | 238 |
| Returned | 2,824 | ---- | 1,438 | 117 | 103 |
| | 519,611 | 866,777 | 567,830 | 14,557 | 32,776 |
| | | **1 9 1 4** | | | |
| Minnesota | 344,817 | 972,990 | 150,860 | 1,264 | 24,933 |
| Wisconsin | 52,078 | 136,956 | 30,107 | 47 | 3,671 |
| Iowa | 1,227 | 1,717 | 207 | 1,167 | 137 |
| Far South (a) | 3,819 | ---- | 707 | 428 | 117 |
| South Dakota | 19,944 | 104,990 | 10,992 | 637 | 2,353 |
| North Dakota | 88,165 | 315,985 | 58,971 | 880 | 7,823 |
| Montana | 34,824 | 9,589 | 513,554 | 978 | 3,810 |
| Far West (b) | --- | ---- | 28,360 | 283 | 2,232 |
| Returned | 1,666 | ---- | 584 | --- | 43 |
| | 585,163 | 1,589,630 | 794,739 | 5,683 | 45,232 |

(a) Far South includes Nebraska, Missouri, and Illinois.
(b) Far West includes Idaho, Oregon, and Washington.

1880,[1] but many products have changed their relative positions, and some of the products which are now most important were in 1880 well down the list. Manufacturing has also assumed a more important position relative to jobbing and wholesaling.

The growth of industry at Minneapolis since 1880 has likewise been great, though perhaps not so conspicuous as that at St.Paul, since manufacturing had been firmly established in Minneapolis before 1880.[2] The most apparent developments since that date have been the increase in large-scale production, adding greatly to the total volume of the manufactures of the city, and the increase in volume of miscellaneous manufactures. According to the United States Census, the value of manufactured products increased from less than $30,000,000 in 1880, to $94,407,774 in 1899,[3] and, by 1914, had reached the figure of $187,854,000.[4]

A large part of this increase is due to the constantly growing production of flour at Minneapolis. Even in 1910, flour and grist-mill products constituted nearly one-half the total value of the manufactured products of the city,[5] and they were far in advance of any other single manufactured article. In 1880, the flour output of Minneapolis mills first exceeded 2,000,000 barrels,[6] and in 1881, with an output of 3,142,972 barrels,[7] she passed

1. Including slaughtering and meat-packing, the value of manufactured products in St.Paul has increased from $12,212,148 in 1880 (see above, p. ) to $215,000,000 in 1919 (see Appendix, Table V).

2. The U. S. Census, 1880, values the manufactured products of Minneapolis at $29,973,476 (Vol. XIX, p. 695).

3. U. S. Census, 1910, vol. IX, p. 594.

4. U. S. Census of Manufactures, 1914, vol. I, p. 742.

5. U. S. Census, 1910, vol. IX, p. 594.

6. See above, p. 46.

7. Mpls. Ch. of Comm. Rept., 1893, p. 190.

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St.Louis,[1] and thus became the leading flour-producing center in the country. Since that time, her output has increased steadily, reaching 10,000,000 barrels first in 1895, 15,000,000 barrels in 1900, and amounting to 17,500,890 barrels in 1919.[2] Since 1881, her position as chief flour-producing center has not been seriously threatened by any other city in the country.[3]

In 1880, the sawing of lumber ranked second among the industries of Minneapolis. This position it maintained until after 1900, when the sawing of lumber at Minneapolis began to decrease,[4] while other towns in northern Minnesota became the chief lumber centers of the state.[5] The lumber industry consequently no longer ranks among the most important at Minneapolis.

The total value of products manufactured at Minneapolis in 1878 has been estimated at $14,556,625, of which flour and lumber composed a total of $8,860,000, and miscellaneous manufactures only $5,696,625.[6] This great preponderance of the two leading industries did not long continue, however, and, as early as 1882, the report of the Minneapolis Chamber of Commerce and Board of Trade contained a statement that "the day is near at hand when the grand aggregate of our miscellaneous manufactures will exceed in amount the production of both flour and lumber combined."[7] It was, however, some time

1. St.Louis showed a decrease in output from the preceding year, and produced only 1,718,429 barrels of flour. (St.Louis Trade and Commerce Report, 1881, p. 54.)

2. Mpls. Ch. of Comm. Rept., 1919, p. 155.

3. In 1919, her nearest rival was Buffalo, New York, producing 5,945,643 barrels. (Ibid., p. 192)

4. See above, p. 40.

5. See above, p. 40.

6. See above, p. 50, Note 3.

7. Minneapolis Chamber of Commerce and Board of Trade Report, 1882, p. 24.

before this took place, due to the great increase in the production of flour; but later, as the amount of lumber sawed at Minneapolis decreased, the miscellaneous manufactures assumed a more important position, and in 1910, according to the United States Census, flour comprised something less than fifty per cent of the total value of manufactured products for the city.[1]

Among the miscellaneous manufactures, the metal industries have assumed an important place almost from the beginning.[2] In 1883, agricultural implements were valued at $2,110,000, and "machinery, including railroad work" at $6,611,000. With the exception of "builders' goods", none of the other miscellaneous manufactures reached $2,000,000 in value of products.[3] Since that time, a number of large-scale establishments in that branch of industry have been established in Minneapolis, such as the Minneapolis Threshing Machine Company and the Minneapolis Steel and Machinery Company, organized in 1902,[4] and these have added greatly to the importance of this industry in Minneapolis.

An industry of more recent development which has assumed great importance in Minneapolis, is the manufacture of linseed oil and oil cake. This industry began in Minnesota before 1875, with the establishment of linseed oil works in Blue Earth County. Flax culture then became important in the south-western counties, and, in 1874, over fifty per cent of the flax acreage of the state was in these counties.[5] Figures for the receipts of flax at Minneapolis are not given by the Minneapolis Chamber of Commerce and Board of Trade reports

1. U. S. Census, 1910, vol. IX, p. 594.
2. See above, p. 48.
3. Minneapolis Chamber of Commerce and Board of Trade Report, 1883, p. 102.
4. Hudson: A Half Century of Minneapolis, pp. 389-390.
5. Minnesota Commissioner of Statistics, 1875, p. 34.

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for any date previous to 1881. In that year, receipts amounted to 165,850 bushels.[1] From that time on, they increased steadily, reaching 1,000,000 bushels in 1891, 5,000,000 bushels in 1900, 10,000,000 in 1906. Since 1913, receipts have not exceeded 10,000,000 bushels per year, and, in 1919, they amounted to 6,898,130 bushels.[2]

Not all of the flax received at Minneapolis is consumed in the linseed oil industry; in fact, the development of the industry has hardly kept pace with the increase in receipts of flax.[3] Nevertheless, the linseed oil industry, since its establishment shortly after 1880,[4] has increased until, in 1919, it was claimed that Minneapolis was the largest manufacturing center for this commodity in the world.[5] In 1913, 216,222,794 pounds of linseed oil, and 432,445,590 pounds of oil cake, were manufactured in Minneapolis.[6] There were, in 1919, six linseed mills at Minneapolis, having a total crushing capacity of 14,800,000 bushels of flax annually, capable of producing 753,000 barrels of oil and 291,000 tons of oil cake.[7] This is said to be a larger capacity than exists in any other city of the United States.

In 1916, the importance of Minneapolis as an industrial center was recognized by the establishment in southeast Minneapolis of an industrial

1. Minneapolis Chamber of Commerce and Board of Trade Report, 1883, p. 56.

2. Mpls. Ch. of Comm. Rept., 1919, p. 30; see also Appendix, Table II.

3. The increase in shipments away from Minneapolis has tended to be more rapid than the increase in receipts at that point. (See Appendix, Table II.)

4. In 1882, the Minnesota Linseed Oil Company was manufacturing linseed oil, house paints, and oil cake in Minneapolis. (Minneapolis Chamber of Commerce and Board of Trade Report, 1882, p. 103.)

5. Huff: Minneapolis; Journal of Geography, XIV, 1916, p. 223.

6. Minneapolis, Financial Center and Gateway of the Northwest, pp. 12-13.

7. Mpls. Ch. of Comm. Rept., 1919, p. 166.

district two hundred acres in extent.[1] This district is under the general control of the Minneapolis Industries Association, and it is the aim of the Association to further the centralization of industry in this district. It is furnished with good railroad facilities, having a central freight station for the nine railroads serving it, the city has improved the streets and sewer connections, and sites are sold at prices which do not much more than cover the cost of development.[2] The success of the district is justifying the money that has been expended upon it, and a number of new industrial establishments are now (1921) in process of construction there.

It is claimed that one of the motives for the establishment of this industrial district by Minneapolis was to prevent the loss of manufacturing establishments, which were beginning to forsake the city proper for the Midway district, where the necessary capital investment was smaller. The Midway district is the less closely settled territory lying between Minneapolis and St.Paul proper. Building costs are comparatively low there, and transportation facilities have been good since the establishment, in 1881, of the Minnesota Transfer, a corporation organized by the railroads serving the Twin Cities,[3] which owns about two hundred acres of land in Midway, and enough trackage, switches, and locomotives to furnish a sort of clearing house for all of the freight either passing through the cities or originating there.[4]

The Midway district thus offers a good location for many manufacturing establishments. Its industries are rather varied, and it carries on, of course, a considerable jobbing trade. Its business justified the establishment,

1. Minneapolis Tribune, Dec. 16, 1919.

2. Minneapolis Journal, Aug. 29, 1916.

3. In 1910, nine railroad companies belonged to the corporation. (Castle: History of St.Paul and Vicinity, vol. II, p. 620.)

4. Ibid., pp. 620-621; Barton: City of St.Paul, p. 12.

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before 1910, of the Midway Commercial Club, which in that year had about 100 members;[1] and at the present time (1921) has 1406.

The development of the Midway industrial district is indicative of the fact that the industries of the Twin Cities are now becoming more or less unified; the cities have, in fact, become one metropolitan center. In 1910, the United States Census began the practise of dealing with the largest cities of the country as metropolitan districts, the district including the area within ten miles of city boundaries, having a population of more than 150 per square mile.[2] Minneapolis-St.Paul was considered as one district in that classification, and, in 1910, ranked eleventh in order of population among the twenty-five metropolitan districts treated. The Census has also dealt with certain cities as comprising industrial districts, and in this classification also, St.Paul and Minneapolis are dealt with as one center.[3] In 1905, there were thirteen of these districts,[4] among which Minneapolis-St.Paul ranked lowest in population, and eleventh in value of products. The rate of increase, however, in the number of manufacturing establishments and the amount of capital invested has been relatively rapid;[5] and this district promises to assume a more important position in the near future.

1. Castle: History of St.Paul and Vicinity, vol. II, pp. 621-622.

2. Abstract of the U. S. Census of 1910, p. 62.

3. The industrial district of Minneapolis-St.Paul is 155 square miles in extent, and includes townships Brooklyn, Crystal Lake, Edina, Richfield, Robbinsdale, St.Anthony, St.Louis Park, West Minneapolis, New Canada, and Rose. (Bulletin of the Census, 101, p. 67.

4. New York was in the first class; Chicago, Philadelphia, and Boston in the second class; and St.Louis, Pittsburgh-Allegheny, Baltimore, Cincinnati, San Francisco, Cleveland, Buffalo, and Minneapolis-St.Paul in the third class. (Ibid., p. 10)

5. Ibid., p. 10.

# C H A P T E R V

## TRANSPORTATION AND RATES

# CHAPTER V

## TRANSPORTATION AND RATES

One of the fundamental problems in the development of a marketing center is its situation in regard to transportation facilities and freight rates. A favorable geographical location with regard to hinterland is, of course, the first essential, but even this advantage may be nullified by the failure on the part of transportation agencies to make the most of this location. Rates in themselves are not so important as the relationship between rates to different and competing centers. The adjustment of this relationship will largely determine which of the centers will be predominant in the area for which they compete.

A number of potential metropolitan centers had developed in this country before the advent of railroads, just before the middle of the nineteenth century. In this development, the determining factors were situation as to dependent territory, and the possibility of water navigation.[1] It was these factors which first cooperated to establish a marketing center at the Twin Cities. When Ft.Snelling was first located near the Falls of St.Anthony, in 1820, communication with the outside world was largely down the Mississippi River, and thence across to Lake Michigan. The men who established the Fort came up the Mississippi, and mail was first carried up the river from Ft.Crawford (now Prairie du Chien, Wis.). By 1823, steamboat service was established on the river.[2]

Later on, when the more or less unwelcome settlers first established

1. See Phillips: A History of Transportation in the Eastern Cotton Belt to 1860, on development of cities in the district of which he writes.

2. Williams: History of St.Paul, p. 43; Folwell: Minnesota, p. 73.

themselves at Ft.Snelling, in 1821, and later moved across the river, onto land now in St.Paul, this little settlement became the center of what trading there was in this territory. There was no steamboat navigation north of it on the river, and no settlement between it and Ft.Crawford, so that it was the only available center for trade. The first steamboat came up from St.Louis in 1823, and a regular packet line was finally established in 1847.[1] Meanwhile, from the territory beyond the settlement at the Fort, an early trade in furs developed, and the trappers sent their furs down to St.Paul, and bought their supplies there.[2] This trade was carried on in birch-bark canoes, up and down the Mississippi and Minnesota rivers, with St.Paul and the Fort as the point of destination.

As early settlement was almost solely along the navigable rivers, settlement took place up the Mississippi and Minnesota rivers, and there was also a very considerable development along the Red River. Lord Selkirk's settlement, in Canadian territory, near what is now Winnipeg, and from which had come the first settlers at the Fort, depended, as did the Red River settlement, on St.Paul as a market and source of supply.[3] Goods came to St.Paul sometimes via the St.Lawrence and Great Lakes to Chicago or Milwaukee, and thence over established routes to St.Paul; sometimes they came up the Mississippi from St.Louis.[4]

By 1846, a very considerable trade had grown up between St.Paul and the

1. Williams: History of St.Paul, p. 44.

2. Ibid., p. 160.

3. There was no trade route to the east from this part of Canada, so that the settlers in this northwest district looked to St.Paul for the goods they required. (Williams: History of St.Paul, p. 160; Pyle: Life of J. J. Hill, vol. 1, p. 68 and following, and 96.)

4. Williams: History of St.Paul, pp. 173-174; Robinson: Wealth of Minnesota, (Journal of Geography, XIV, 1916, p. 242).

Red River settlements, especially with Pembina, near the Canadian border. Goods were carried from Pembina up the Red River as far as boats could transport them, and were then taken in ox-carts for the rest of the journey to St.Paul. In 1847, 125 ox-carts came on these trading trips, their burden consisting mainly of furs and buffalo-skins. On the return trip, they took the various supplies needed by the settlers.[1] In this same year, 1847, a line of river packets began to make regular trips from St.Louis to St.Paul.[2] It was estimated that in this year, about 47 boats arrived at St.Paul and the Fort.[3] Boats also made trips from Galena and Dubuque to St.Paul, carrying goods from Chicago. St.Paul was at this time the only point above Prairie du Chien where boats ever landed with any regularity.[4]

The dependence of this territory on one of the Twin Cities was thus established from the time that settlement of the Northwest began. St.Paul was, in turn, dependent on Lake Michigan ports and St.Louis for most of the supplies which it distributed.[5] Not until 1855 did stage-coaches begin to run from St.Paul to Superior, though there was some communication with the Head-of-the-Lakes earlier than that.[6]

River transportation was not entirely satisfactory to the early settlers, because during the winter months, ice made it impossible. Agitation for railroads in this territory therefore began soon after the period of railroad building opened - the decade beginning 1830. By 1853, it was realized that

1. Carney: Minnesota, pp. 124-5; Williams: History of St.Paul, p. 160.

2. Hudson: A Half-Century of Minneapolis, p. 462.

3. This estimate is by Philander Prescott, who kept a record at Ft.Snelling. (Williams: History of St.Paul, p. 173).

4. Williams: History of St.Paul, p. 153.

5. See above, p. 75.

6. Carney: Minnesota, p. 125.

proper transportation depended upon the building of railroads; and Minnesota territory tried to secure land-grants for railroads from Congress as early as 1854.[1] That same year, a railroad was incorporated, without writing for a land-grant, and was given in fee simple any land granted in the future by the Federal government.[2]

Another event of the same year, 1854, was the completion to the Mississippi River of the Rock Island and Pacific Railroad, the event being celebrated by an excursion from Chicago to Ft.Snelling and St.Paul, and "a public reception and speech-making in which former President Fillmore and George Bancroft, the historian, took part."[3] This road greatly facilitated trade with the east, and brought in many new settlers, but left the problem of the district west of St.Paul even more acute than ever.

In 1857, the much-looked-for land grants were made, and during the whole decade, 1850-1860, the territorial legislature was kept busy granting railroad incorporation charters.[4] The early railroads were planned to take care of the trade that was already established - that with the upper Mississippi and Red River valleys. By this time, agriculture was being established in these fertile valleys, and there was grain to market which naturally went to St.Paul.

The Federal land grants had not solved the railroad problem, as the settlers in Minnesota territory had hoped would be the case. The panic of 1857 was a set-back to the companies already incorporated, and they were unable to go on, although the charters they had received from the territorial government were exceedingly liberal. There were four companies which received

1. Saby: Railroad Legislation in Minnesota, 1849-75; Minn. Hist. Soc. Coll., vol. XV, pp. 4-5.

2. Ibid., p. 5.

3. Robinson: The Development of Agriculture in Minnesota, p. 36.

4. Folwell: Minnesota, p. 109.

these early charters and grants. The Minnesota and Pacific was to build a main line from Stillwater through St.Anthony to Breckenridge, and a branch from St.Anthony to St.Vincent. The Transit Railroad Company was to build from Winona through St.Peter to the Big Sioux River. The Root River and Southern Minnesota River Railroad Company planned two lines: one from La Crescent to a junction with the Transit Company at Rochester, and one up the Minnesota River to Mankato and the mouth of the Big Sioux. The Minneapolis & Cedar Valley Railroad Company planned a line from Minneapolis through Mendota and Faribault to the northern border of Iowa.[1]

When development stopped in 1857, the territory made every effort to assist in the opening up of the country. State railroad bonds to the amount of $2,275,000 were issued, and when the railroad companies defaulted on their original charters, they received them again in re-grants from the territorial government, which knew the eagerness of the settlers for the establishment of railroad transportation.[2] Between the time of the organization of Minnesota territory in 1849, and its admission as a state in 1858, about twenty-five railroad companies were chartered.[3] They were designed to further communication both with surrounding territory and eastern centers. Several of these lines were to run between the Twin Cities and Lake Superior, a number of them were to open up the western territory (two at least were planned to run all the way to the Pacific Coast), at least one was to make a connection with Chicago, and a number were planned to connect St.Paul and St.Anthony with points in Minnesota and Wisconsin. If these early charters show nothing else, they certainly demonstrate an appreciation of the possibilities of St.Paul and

1. Folwell: Minnesota, pp. 161-162.

2. See Sabry: Railroad Legislation in Minnesota, 1849-75, for a discussion of early attempts to further railroad building in this section.

3. Minnesota Railroad Commission Report, 1871, pp. 5-7.

St.Anthony, and prove the eagerness of the people, through the territorial legislature, to secure proper marketing facilities.

The first railroad opened for business in the state was a ten-mile line from St.Anthony to St.Paul, and its main traffic was flour brought from the mills of St.Anthony to the levees at St.Paul for shipment. This line was built with capital secured from the east, and was opened for business in 1862. It has since become a part of the Great Northern line.[1]

The Winona & St.Peter was also organized, and began construction westward from Winona. By 1863, ten miles of road had been completed on this line, and it was slowly carried on to St.Charles.[2] Although the St.Paul & Pacific, which had built the line from St.Paul to St.Anthony, was continuing its work as rapidly as possible, and did build as far as Anoka,[3] progress was not rapid enough to suit the people, who felt especially that a road through to Lake Superior was needed immediately, to open up a short route to the Great Lakes and cheap water transportation.

Aside from these small beginnings, the people of the northwestern territory had to wait until after the Civil War for the railroads for which they so keenly felt the need. In 1865, there were only about 200 miles of railroad in the state,[4] When development was again started, after the war, however, it went on with great rapidity. This period saw a great increase in railroad mileage throughout the United States, but more especially in this western country. The demand for wheat was greatly increased, and much of the suitable land not previously opened to agriculture was in the district that looked to

1. Carney: Minnesota, p. 184.

2. Saby: Railroad Legislation in Minnesota; Minn. Hist. Soc. Coll., vol. XV, p. 54.

3. Hudson: A Half-Century of Minneapolis, p. 464.

4. Minnesota Railroad and Warehouse Commission Report, 1901, p. 61.

the cities at St.Anthony's Falls for a market. This not only made the need for railroads very much greater; it also simplified the problem of securing them, for, as the waste land was rapidly transformed into farms, the railroads could support themselves by their charges on agricultural produce. It was the period between 1864 and 1874 that saw the most rapid and significant increase in railroad mileage in Minnesota. From 100 to 400 miles were added each year.[1]

As yet, however, Minnesota was mainly dependent on the rivers. In 1858, there were 1090 boat arrivals at St.Paul.[2] There were packet lines down the Mississippi River, many of them going to St.Louis, which was an important base of supplies and market for Minnesota products; and many of them making connections with the railroad lines in Illinois which terminated at the Mississippi River. J. J. Hill was for a period agent for one of the most important of these lines - the Dunleith Packet Line, which made the trip between Dubuque and Prairie du Chien and St.Paul. He handled a large part of the freight that came through St.Paul, both east-bound and west-bound, and estimated, about 1865, that 48,000 tons of freight were shipped from St.Paul by river in one year. The railroad rate on these goods to La Crosse was $20.00 per ton; the river rate, $10.00. It was hoped to get a railroad from St.Paul to Chicago direct; such a line could be expected to reduce these rates by half.[3] This road was being planned in 1865, but was not yet complete.

Steamboat service had also been established on the Red River, and J. J. Hill was also interested in this branch of transportation. Ox-carts still carried goods between St.Paul and the river, mainly by the Sauk River route, but

1. Minnesota Railroad & Warehouse Commission Report, 1901, p. 61, for railroad mileage in Minnesota each year from 1862 to 1901.

2. Robinson: Wealth of Minnesota, Journal of Geography, XIV, 1916, p. 242.

3. Pyle: Life of J. J. Hill, vol. I, p. 55.

there were steamboats running between Pembina and whatever point was made the head of navigation for the year on the Red River.[1] There had been steamboat service since about 1851 on the Mississippi above the Falls, to satisfy the needs of the farmers in the northern valley.[2]

At least two roads had been built from Milwaukee to the Mississippi River, the Milwaukee & Mississippi, completed to Prairie du Chien in 1857, and the Milwaukee & La Crosse, which reached the river in 1858. In 1862, construction had been begun on a railroad west from Winona,[3] and a road was started opposite La Crosse. In 1866, a railroad line built south from Mendota crossed the Winona Road at Owatonna. Finally, in 1867, the all-rail route to the Lakes was completed, when the Milwaukee & St.Paul Company completed the Minnesota Central (the road running south from Mendota) to McGregor, Iowa, and then constructed a pontoon bridge to connect with the Milwaukee & Mississippi road at Prairie du Chien.[4] St.Paul thus became an all-year market, and no longer were the packet lines on the Mississippi, running to St.Louis and connecting with the railroad lines from Milwaukee and Chicago to the river, the only means of trading with the east.

From this time on, the Twin Cities came to look less on St.Louis as a source of supply and market for their goods, and more on Chicago and Milwaukee. In the earlier period, when transportation was largely on the waterways, St.Paul had looked to St.Louis nearly, if not quite, as much as to Lake Michigan ports, because transportation down the river was comparatively simple,

1. Pyle: Life of J. J. Hill, vol. I, p. 73.
2. Carney: Minnesota, p. 125; Hudson: A Half Century of Minneapolis, p. 463.
3. See p. 79.
4. Robinson: The Development of Agriculture in Minnesota, p. 36.

## Railroads in Operation in Minnesota in 1869

(From Robinson: <u>The Development of Agriculture in Minnesota</u>)


Figure 34. Railroads in operation, January 1, 1869. (Data from Report of the Railroad Commissioner, 1871, p. 40; 1873, map; 1879, p. 15; *Minn. Statistics,* 1869, p. 116-121; 1870, p. 162-168)

while cartage from the river across to Lake Michigan was slow and costly.[1] One of the first railroads to reach the Mississippi had its western terminus at St.Louis,[2] and, for a time, St.Louis was a formidable rival of Chicago for St.Paul's trade with the outer world, both outbound and inbound.

With the building of an all-rail line to Lake Michigan, however, St.Paul began to depend on this more direct communication with the east, especially since transportation down the Mississippi was impossible during the winter months. The establishment of rail communication in the east marked a significant change in the direction of trade from the northwest. Traffic began to go east and west, because of the shorter distance to the Atlantic coast, rather than north and south, and St.Louis could no longer rival Chicago as a starting place and point of destination for St.Paul traffic.[3]

Connections between St.Paul and the east became more numerous from 1865 on, in response to the growing need for transportation of agricultural produce. For a number of years, there had been a great desire to secure railroad connections with the head of Lake Superior, as this would open a cheaper outlet for grain.[4] The road to Lake Superior had been begun about 1864, and, with the aid of generous federal land grants, was finally completed in 1870 - the Lake Superior & Mississippi Railway. This road immediately lowered freight

1. The pair of buhr millstones, and the plaster of paris for the first grist-mill in Minnesota, built by the soldiers at the Fort in 1823, as well as two dozen sickles to cut the grain raised by the soldiers, were brought up from St.Louis. (Holcombe: Minnesota in Three Centuries, 1655-1908, vol. II, pp. 48-50).

2. The Ohio & Mississippi, from St.Louis to Cincinnati, completed in 1857. See St.Louis Trade & Commerce Statement, 1886, p. 89.

3. Ibid., 1886, pp. 53-54. A few points in regard to this development may be found in Reavis: St.Louis, vol. I, pp. XI-XV, and 137-8.

4. Practically all the grain traffic from the Middle West and Northwest at this time was through the Erie Canal to New York, a much cheaper route than over the railroads. In 1869, the average charge per ton mile by rail was estimated to be 29.8 mills; by canal, 11.4; 2.9 on rivers; 2.5 by sea. (Robinson: The Development of Agriculture in Minnesota, p. 61).

rates to the east.[1] Another road, the Minneapolis & Duluth, was opened in 1871, but was leased to the Lake Superior & Mississippi Railroad.

In 1871, direct rail connection was established between St.Paul and Chicago, via Tomah, Wisconsin. In this year, also, the river division of the Chicago, Milwaukee, & St.Paul was built to Winona, shortening the distance to Chicago. In 1872, a new route to Chicago was opened, by way of La Crescent and La Crosse.[2] The railroad connections of the Northwest with the east were thus fairly well established. These routes to Chicago, Milwaukee, and Duluth satisfied immediate needs, and 1872 practically marked the close of this period of road-building.

Meanwhile, the roads to the west and south, to open up the territory which depended on St.Paul and Minneapolis, had not been neglected. This development took place during approximately the same period that roads were being built to the east, the period between the end of the Civil War and 1875, when the Northwest so rapidly became an important agricultural section.

The St.Paul & Pacific, which had been built from St.Paul to Anoka,[3] slowly continued up the Mississippi River, toward Sauk Rapids, and another line was pushed west from Minneapolis by the same company. By 1867, the river line had reached St.Cloud, and the other line reached Breckenridge, on the state boundary, in 1871.[4] This line is now a part of the Great Northern.[5] In the same year, the Northern Pacific, which had been building west from Duluth,[6] reached Moorhead, the head of navigation on the Red River.[7]

1. Minnesota Railroad Commission Report, 1871, p. 31.

2. Robinson: The Development of Agriculture in Minnesota, p. 36.

3. See above, p. 79.

4. Robinson: The Development of Agriculture in Minnesota, p. 38; Folwell: Minnesota, p. 271.

5. Folwell: Minnesota, p. 271.
6. Its charter was granted in 1864.
7. Robinson: The Development of Agriculture in Minnesota, p. 76.

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For several years, the Red River ox-carts, once such a necessary part of transportation from the Red River, had been carrying goods only to the terminus of the St.Paul & Pacific, on the Mississippi, and now that a railroad met the steamboats on the Red River, these carts disappeared.[1]

In 1872, the Minnesota Valley Railroad (now a part of the Chicago, St.Paul, Minneapolis & Omaha) reached Sioux City, and the line west from Winona reached the western boundary of the state.[2] The Southern Minnesota was built to Blue Earth, almost to the southern boundary of the state.[3]

In the Railroad and Warehouse Commission Report for 1872-3 may be found a list of all railroads already built, or in the process of building. Those which seem to have for their primary purpose the opening up of trade territory were the St.Paul & Pacific, the Winona & St.Peter (which was then completed nearly to the Dakota boundary); the St.Paul & Sioux City Railroad; the Minneapolis & St.Louis (joining the St.Paul and Sioux City near Carver); the Minnesota Central (built to the state line near Austin, and being operated by the Milwaukee & St.Paul); and the St.Paul, Stillwater, & Taylors' Falls, (built to Hudson via Stillwater).[4]

In 1874, the Railroad Commission expressed eagerness to see the completion of the St.Paul & Pacific to the International boundary. Comparatively little of this line remained to be finished, and, as the Canadian Pacific was expected to build a railroad down to meet this line at the border, it was felt that making of the connection would open up the Red River, and greatly aid in the development of northwestern Minnesota.[5]

1. Robinson: <u>The Development of Agriculture in Minnesota</u>, p. 34.
2. <u>Ibid.</u>, p. 76.
3. Folwell: <u>Minnesota</u>, p. 271.
4. <u>Minnesota Railroad Commission Report</u>, 1872-3, pp. 5-22.
5. <u>Ibid.</u>, 1874, pp. 9-10.

The framework of lines was by this time constructed to the west of the cities, as well as to the east. There were extensions to be made to many lines, which would lead especially into Dakota territory, as well as to the south, but the development that had already taken place determined that the cities were to be the most important railroad center in the Northwest west of Chicago. The year 1879 saw important additions to the St.Paul, Minneapolis, & Manitoba (the old St.Paul & Pacific); to the St.Paul & Sioux City; to the Minnesota & Black Hills road (one of the new roads into Dakota territory); and to one or two other roads leading into Dakota.[1] After this time, the most important increases in railroad mileage were due to branches and extensions of lines already begun. By June 30, 1879, there were 2941 miles of railroad in Minnesota,[2] and the increases from year to year were moderate in comparison to what had already taken place.[3]

By 1875, the dependence of Minnesota on steamboats had practically ceased,[4] and the railroads became the most important factor in development. Even before this time, the rate problem had assumed importance. In fact, as soon as railroad construction had gone far enough to show the evils of rate discrimination, railroad rates became an issue, both between lines and between localities. In the Northwest, this took place by 1870.

There are several factors which help to fix railroad rates. The first one to operate was, of course, water competition. Rates via water were only about half as high as over the railroads in the early period of development.[5] When railroads were first built to the Mississippi River, they came into

1. Minnesota Railroad and Warehouse Commission Report, 1879, pp. 1-2.

2. Ibid., 1901, p. 61.

3. See following page.

4. Robinson: Wealth of Minnesota, Journal of Geography, XIV, 1916, p. 242.

5. See note 4, p.

Railroads in Operation in Minnesota in 1879

(From Robinson: The Development of Agriculture in Minnesota)

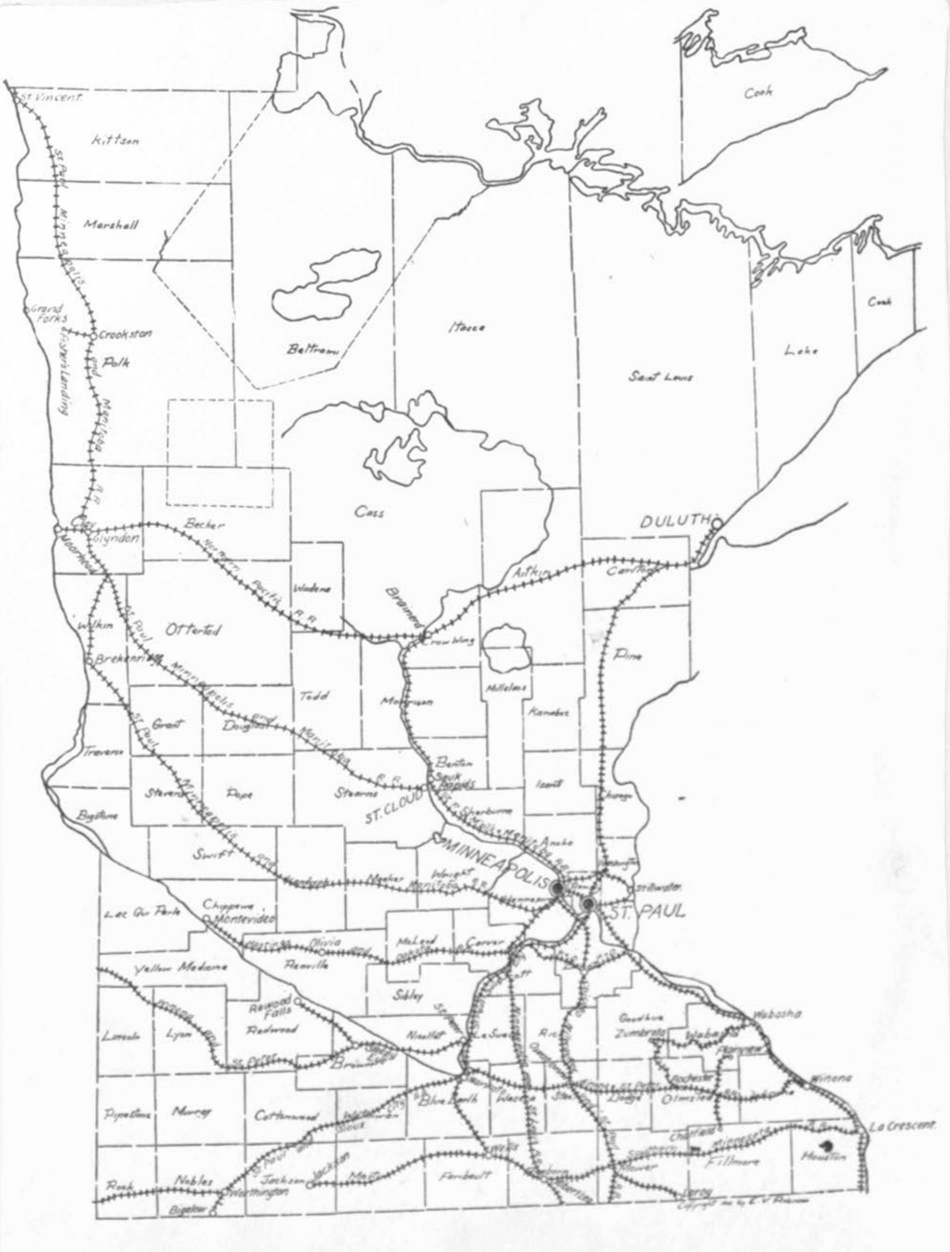


Figure 35. Railroads in operation, June 30, 1879. (Data from Report of Railroad Commissioner, 1873, map; 1879, p. 9)

Note 3. (See preceding page)

Miles of railroad in Minnesota, 1862-1904. (Figures for 1862-1901 from <u>Minnesota Railroad and Warehouse Commission Report</u>, 1901, p. 61. Figures for 1902, 1903, 1904, from later reports. Corrections from <u>Minnesota Commissioner of Statistics</u>, 1872, p. 103.):

| | | | |
|---|---|---|---|
| 1862 | 10 | 1883 | 3767.95 |
| 1863 | 57 (56½) | 1884 | 3908.98 |
| 1864 | 100 | 1885 | 4226.42 |
| 1865 | 210 | 1886 | 4368.36 |
| 1866 | 315 | 1887 | 4871.04 |
| 1867 | 429 | 1888 | 5042.74 |
| 1868 | 560 | 1889 | 5303.07 |
| 1869 | 766 (770) | 1890 | 5409.11 |
| 1870 | 1092.50 | 1891 | 5527.55 |
| 1871 | 1500.25 (1550) | 1892 | 5615.77 |
| 1872 | 1900 (1906) | 1893 | 5863.89 |
| 1873 | 1907.25 | 1894 | 5912.43 |
| 1874 | 1947.25 | 1895 | 5990.78 |
| 1875 | 1957.25 | 1896 | 5991.31 |
| 1876 | 1986.75 | 1897 | 6086.35 |
| 1877 | 2198.50 | 1898 | 6062.69 |
| 1878 | 2549.28 | 1899 | 6338.37 |
| 1879 | 2941.33 | 1900 | 6794.68 |
| 1880 | 3099.32 | 1901 | 6993.63 |
| 1881 | 3217.26 | 1902 | 7068.68 |
| 1882 | 3332.93 | 1903 | 7250.01 |
| | 1904 | 7467.21 | |

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competition with the steamboat lines from St.Louis for the carrying trade of the Northwest. Railroad rates were high in the early period, partly because the railroads had not as yet developed a large enough carrying trade to lower operating expenses, and partly because railroad building and operating was much more expensive then than later. Because of the cheap rates available for water transportation, however, the railroads were forced to lower their charges as rapidly as possible, and this made for a much more rapid reduction in rates than would otherwise have taken place.

Another cause which worked a great lowering of freight rates was competition between lines. In the east, this is exemplified by competition between the railroads leading to New York, Baltimore, and Philadelphia, and between these railroad lines and the Erie Canal.[1] The competition between these rival routes from the primary grain centers to the Atlantic coast was one of the chief factors in lowering grain rates to the east. The railroads had to lower their rates to secure a share of the grain traffic,[2] and the canal lowered its rates to maintain its old proportion. West of Chicago, the same factor operated in the competition between lines to Chicago and to Milwaukee, and between lines to Lake Michigan ports and to Lake Superior ports. Later, in 1885, was completed the Canadian Pacific Railway, with which the St.Paul, Minneapolis, & Manitoba had made connections at St.Vincent in 1878 and 1879,[3] and the competition with this outside line was an important factor in fixing rates. Finally, in 1888, when the road was built from the Twin Cities to Sault Ste. Marie, another fierce rate war was engendered between this line and the lines to Chicago.

1. Ripley: Railroads, Rates, and Regulation, pp. 22-23.

2. In 1864, the published all-rail rates for grain from Chicago to New York were $1 per hundredweight; in 1884, it was $.15 per hundredweight. (Report of Industrial Commission, 1900, vol. VI, p. 111.

3. Pyle: Life of J. J. Hill, vol. I, pp. 256, 272-273, 280-283, 326.

The third important factor in lowering freight rates was competition between localities. In the Northwest, the rivalry was to some extent between Chicago and St.Louis.[1] Later, when the Northern Pacific was built west from Duluth, the Lake Superior & Mississippi was built from St.Paul to Duluth, and finally, the Duluth, South Shore, & Atlantic made connections with the eastern railroads,[2] Duluth began to clamor for the same rates to and from the east that Chicago received.

More especially was there competition between Chicago and the Twin Cities. When the cities were first connected with Chicago by rail, trade was so greatly facilitated that the cities did not complain of rates, but it was not very long before they felt their dependence on Chicago, and resented it. The road to Duluth was the first thing that helped to lower rates from the Twin Cities to the east,[3] and for a long time was considered the chief factor in the fixing of rates. Later, the building of other roads to Chicago had the same effect. The connection between the St.Paul, Minneapolis, & Manitoba (now the Great Northern) and the Canadian Pacific also did much to establish the independence of the Twin Cities, for the Canadian Pacific frequently cut rates to get a larger share of the Northwest traffic.[4]

In 1874, Chicago became the 100 point in rates from the east, rates to other centers being fixed as a certain percentage of the Chicago rates, on the basis of mileage.[5] Later, when Duluth became an important shipping point, adjustments had to be made on rates to the east through these two points.

1. See above, p. 82.

2. This was in 1888. (Meyer: Government Regulation of Railway Rates, p. 244)

3. See below, p. 90.

4. Interstate Commerce Commission Annual Report, 1889, p. 60.

5. For instance, the rate from Chicago to St.Paul was fixed at 75% of the rate from Chicago to Omaha. (McPherson: Railroad Freight Rates, p. 82)

Railroad development had not gone very far in the Northwest when it was realized that the state had to have some control over railroad rates. As a result, the Railroad Commission was established in 1871, and was immediately given rather broad powers in connection with the fixing of just rates. A state law was passed in 1871, to regulate rates for passenger and freight traffic on Minnesota railroads. When a number of the roads refused to obey the law, they felt the power of this newly created body to which fell the duty of enforcing the law.

Naturally, these factors cooperated to bring about a great decline in freight rates in the Northwest. In 1859, 114 barrels of flour were sent from St.Anthony via La Crosse and Prairie du Chien to Boston, the freight rate being $2.25 per hundredweight.[1] Today, the rate on flour from Minneapolis to New York is 34.5 cents per hundredweight, all-rail, or 32.5 cents, rail-lake-rail.

In 1865, the railroad rate from St.Paul to La Crosse was $20.00 per ton; the river rate, $10.00.[2] In 1868, the rate on wheat from St.Paul to Milwaukee or Chicago was about 30 cents per bushel.[3] The first year that the Lake Superior & Mississippi Railroad operated, its traffic in grain was heavy, and its transportation charges were less than those on other lines. Its rate on wheat, St.Paul to Duluth, was only 10 cents per bushel; on flour, the rate was 35 to 40 cents per barrel, and on other agricultural products, 18 to 30 cents per hundredweight. The Milwaukee & St.Paul, which had formerly had a monopoly of traffic from the Twin Cities, had more than doubled its rates since

1. Robinson: <u>The Development of Agriculture in Minnesota</u>, p. 76.

2. See above, p. 80.

3. Robinson: <u>The Development of Agriculture in Minnesota</u>, p. 61.

1862.[1] It was estimated that shipping wheat over this new line saved about five cents per bushel, and of course a reduction had to be made by competing lines.[2]

In 1871, the average rates per ton mile on the Lake Superior & Mississippi road were: 1st class, 25.85 cents; 2nd class, 21.67 cents; 3rd class, 18.48 cents; 4th class, 17.40 cents; 5th class, 9.77 cents.[3] All the railroads charged very much less on through freight than on that carried shorter distances. On the Minnesota Central, owned and operated by the Milwaukee & St.Paul Railroad Company, the highest rate per ton mile for the shortest distance freight was carried was 40 cents, first class. The highest rate per ton mile on freight carried the whole length of the main road in Minnesota was 10 cents, and for through freight, rate was 7 cents per ton mile, first class. The Hastings & Dakota, running from Hastings to Big Stone Lake, charged the same rates as the Minnesota Central, except in the case of freight going the whole length of the main road in Minnesota, on which the rate was higher.[4] The same was true of the St.Paul & Chicago, running from St.Paul to Winona and the Iowa state line, except that its rate on the main line in Minnesota was even higher.[5] The Winona & St.Peter had a somewhat lower schedule of rates, the average wheat rate on its line being 3-8/10 cents per ton mile. Rates on wheat varied from about 2½ cents to over 6½ cents per ton mile, the rates on flour being practically the same as those on wheat.[6]

1. Shippee: Railroad between the Mississippi and Lake Superior; Mississippi Valley Historical Review, vol. V, p. 122.

2. Minnesota Railroad Commission Report, 1871, p. 31.

3. Ibid., Appendix, p. 44.

4. 18 cents, first class.

5. 19 cents per ton mile, first class.

6. Minnesota Railroad Commission Report, 1871, appendix, pp. 57, 67, 73, 81.

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It was at about this time that competition between the roads from local grain-producing areas and the primary markets, and these primary markets and the Atlantic coast became the most important factor in reducing railroad charges on grain.[1] A great reduction in rates from local points to the primary markets took place up to 1890, due partly to decreasing expenses in operation, partly to competition between roads, and partly to the activity of the state railroad commission. After 1890, the reduction in rates was less marked.[2]

As the railroads developed, Baltimore and Philadelphia tried to secure their share of the grain traffic in competition with the Erie Canal. In 1870, about three years after rail connection had been established between St.Paul and Chicago, the Pennsylvania Railroad reached Chicago; and in 1874, the Baltimore, Pittsburgh, and Chicago Railway was finished.[3] These roads made rates in competition with those offered by the Erie Canal, so that, until

1. Meyers: Government Regulation of Railway Rates, p. 231.

2. Freight rates to Minneapolis and Duluth from western points, in cents per hundredweight. (Report of Industrial Commission, 1900, vol. VI, p. 93; tables taken from Proceedings, Tri-State Grain Growers, Fargo, N. D., Jan., 1900, p. 196).

| From | To Minneapolis: Various dates Year | Various dates Rate | Sept. 1, 1891. | Oct. 9, 1895. | July 21, 1898. | To Duluth: Various dates Year | Various dates Rate | Sept. 1, 1891. | Oct. 9, 1895. | July 21, 1898. |
|---|---|---|---|---|---|---|---|---|---|---|
| Morris | 1873 | 28 | 12 | 12 | 12 | 1873 | 28 | 15 | 15 | 14½ |
| Breckenridge | 1872 | 35 | 14 | 14 | 13 | 1872 | 35 | 15 | 15 | 14½ |
| Crookston | 1880 | 27 | 16½ | 16½ | 14 | 1880 | 27 | 16½ | 16½ | 14 |
| St.Vincent | 1880 | 35 | 18 | 18 | 16 | 1880 | 35 | 18 | 18 | 16 |
| Moorhead | 1881 | 25 | 15½ | 15½ | 14½ | 1881 | 25 | 15½ | 15½ | 14½ |
| Fargo | 1881 | 25 | 15½ | 15½ | 14½ | 1881 | 25 | 15½ | 15½ | 14½ |
| Glyndon | 1881 | 25 | 15½ | 15½ | 14 | 1881 | 25 | 15½ | 15½ | 14 |
| Fergus Falls | 1881 | 23 | 14 | 14 | 13 | 1881 | 23 | 14½ | 14½ | 14 |

3. Meyers: Government Regulation of Railway Rates, p. 220.

about 1880, through rates from Chicago, Duluth, and the Twin Cities fell rapidly. This held true especially of grain, but also of rates on merchandise.

After about 1870, rates between St.Paul and Chicago fluctuated greatly, due to the attempt of all-rail lines through Chicago to meet competition with rail-lake-rail rates from St.Paul through Duluth. The lines between St.Paul and Chicago tried to prevent the development of a grain traffic over the Lake Superior & Mississippi Railway, when it was established in 1870. A rate war was immediately begun, and this did almost as much to lower through grain rates from the Northwest as did the rate wars between the Erie Canal and the railroads farther east.

Lines between St.Paul and St.Louis also competed with lines from Chicago to the Twin Cities, and claimed that the two rates ought to be the same, because of water competition between St.Paul and St.Louis.[1] This was one of the last echoes of the old struggle on the part of St.Louis to maintain its trade relations with the Twin Cities, and had not the force it might have possessed, because traffic had already largely left the north-and-south route.

In 1871, the rates charged by different railroads in Minnesota varied from $1\frac{1}{4}$ cents per ton mile to 5-1/3 cents,[2] and there was complaint in the first report of the railroad commissioner of discrimination between localities on the Winona & St.Peter road.[3] This road was charging 6 cents per ton mile from Rochester to Winona, but from Owatonna to Winona (there being competition on this line of road) the rate was 2.1 cents per ton mile.[4] The Railroad

1. McPherson: Railroad Freight Rates, p. 82.
2. Minnesota Railroad and Warehouse Commission Report, 1904, p. 21.
3. Ibid., 1871, pp. 17-20.
4. Ibid., 1871, pp. 17-18.

Commissioner well realized even at this time the importance of favorable rates in the development of the West, and was constantly active in securing equal and reasonable rates, both to and from the Twin Cities.

The St.Paul, Minneapolis, and Manitoba railroad (now a part of the Great Northern) was an important line into subsidiary territory, but depended on roads from St.Paul to Chicago for an outlet to the east. Being dissatisfied with the rates that could be secured, it attempted to make use of the water competition with which the Twin Cities often threatened eastern lines that refused to give favorable rates. The experiment of shipping grain to New Orleans was made, but, since it was unsuccessful, J. J. Hill, who was managing the line, moved the head of the road to Duluth, and in 1888, established a steamship line over Lake Superior, thus becoming independent of the lines to Chicago.[1] In the same year, the Duluth, South Shore, & Atlantic made connections with the Michigan Central, Canadian Pacific, and Grand Rapids & Indiana Railroad, thus securing an all-rail rate to the east.[2] Duluth was now in a position to demand that rates on merchandise from the east to Duluth be as low as those to Chicago, and lower than those to the Twin Cities. The demand was made, and, in spite of opposition from the Twin Cities and Chicago, it was granted.[3] This made Duluth a rival of St.Paul and Minneapolis in the distribution of merchandise. At the same time, wheat could be handled via Duluth 2½ cents cheaper than via Chicago, making Duluth a grain center.[4]

While Duluth was thus establishing its position, the Twin Cities were

1. Meyer: Government Regulation of Railway Rates, p. 244.

2. Ibid., p. 244.

3. Ibid., pp. 244-245.

4. McPherson: Railroad Freight Rates, p. 120.

freeing themselves of dependence on Chicago by building the Minneapolis, St.Paul, and Sault Ste.Marie railroad.[1] This line developed a very large trade in wheat and flour, taking almost all of it from Chicago lines by giving lower through rates. Of course the Chicago roads retaliated, making very low rates on outgoing grain,[2] and again the rates on grain and grain products sharply declined.[3]

Up to the time that the Soo line (as the Minneapolis, St.Paul, and Sault Ste.Marie is known) entered the competition for the traffic of the Twin Cities, the all-rail rate to the Head-of-the-Lakes and the Twin Cities was $1.35, first class. Lake-and-rail rates were 60 cents to Duluth, 75 cents to the Twin Cities. The Soo line established a scale of $1.15 first-class, all-rail, from New York to the Twin Cities and Duluth, and the Chicago lines were forced to give the same rates from New York to the Twin Cities. From this time on until 1897, there was an almost constant rate war between the Canadian Pacific and Soo lines and the all-rail lines via Chicago.[4] In 1896,

1. Meyer: Government Regulation of Railway Rates, p. 245.

2. Ibid., pp. 245-6.

3. Rates between St.Paul and Chicago, 1887-90 (Interstate Commerce Commission, Annual Report, 1890, pp. 219-20.

| Year | Class: 1 | 2 | 3 | 4 | 5 | A | B | C | D | E | Grain |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CHICAGO TO ST.PAUL | | | | | | |
| 1887 | 80 | 70 | 48 | 33 | 28 | 30 | 26 | 23 | 20 | | |
| 1888 | 60 | 50 | 35 | 25 | 17 | 18 | 16 | 14 | 12 | 10 | |
| 1889 | 40 | 35 | 22 | 17 | 12½ | 17 | 13 | 10 | 10 | 10 | |
| 1890 # | 60 | 50 | 40 | 25 | 18 | 25 | 18 | 15 | 13 | 12 | |
| | | | | | ST.PAUL TO CHICAGO | | | | | | |
| 1887 | 80 | 70 | 48 | 33 | 28 | 30 | 26 | 23 | 20 | | 18 |
| 1890 | 60 | 50 | 40 | 25 | 18 | 25 | 18 | 15 | 13 | 12 | 12½ |

# They fluctuated for a time after 1889, then were settled Nov. 17, 1890.

4. The table in note 3, above, shows some of the effects of this war.

the Twin Cities were paying 30 cents per hundredweight on wheat and corn to New York; 32 cents to Boston. By 1900, this rate had fallen to 22.5 cents to New York; 24.5 cents to Boston.[1] An agreement was finally reached in 1897.[2]

Milling in transit had first been established in 1870-71 to aid the mills of the Northwest in their competition with eastern mills. This was an arrangement by which grain could be shipped into a milling center, made into flour, and sent on to the east at the through rate applying to grain, with a fixed allowance made for shrinkage in weight as a result of milling. This was a marked advantage to mills in the western territory, but when the eastern mills found that their supply of wheat was diminishing, because of decreased production of wheat in their section, they objected to the milling-in-transit privileges of the western mills, and desired the rate on grain products from the west to be made considerably higher than that on grain.[3] This privilege of milling-in-transit, granted to Minneapolis mills by the railroads, was an important factor in building up an independent center in the Northwest.[4] Eventually, this milling-in-transit privilege was largely done away with, and for it was substituted a practise of giving proportional rates from a center like the Twin Cities to Duluth and Chicago. With these rates, Minneapolis can draw grain from local points, mill it, and ship it on to the east, at as low a rate as could be secured by shipping directly through from the local points to Duluth or Chicago.

By 1890, the situation of the Twin Cities was fairly clear, and the

1. <u>Hearing on regulation of railway rates</u>, p. 189.

2. See below, p. 100.

3. McPherson: <u>Railroad Freight Rates</u>, pp. 195-6.

4. There was a time, shortly after the establishment of this privilege, when it was resented as allowing the railroads to insist on prepayment at the local shipping point of the through charge to Chicago or the east. If the grain was to be milled in Minneapolis and held there, it was claimed that the balance of the transit could be sold only at a loss. This complaint, however, was only temporary, and quite out of line with the general attitude toward the privilege of milling-in-transit. <u>Minnesota Railroad and Warehouse Commission Report</u>, 1886, pp. 9-10.

problems to be faced had been brought out. The situation as to railroad lines had been favorable since 1887: six lines were running from the Twin Cities to Chicago[1] and the Atlantic coast; four went to St.Louis; four connected with the trans-continental lines at Kansas City, St.Joseph, and Omaha; four ran to Lake Superior; there were two connections with the Pacific Coast;[2] and ten lines ran into the agricultural districts of Minnesota, Iowa, Nebraska, and the Dakotas.[3]

The chief rate problems which faced the Twin Cities were the adjustment of lake-and-rail rates to and from the east as compared with rates given Chicago, Milwaukee, and Duluth; the maintenance of the milling-in-transit privilege, especially on the out-of-line haul from the southwest part of the Twin City district; the all-rail rates on merchandise from the Atlantic seaboard; and the adjustment of inbound grain rates to Minneapolis, as compared with those to Duluth, Chicago-Milwaukee, and Sioux City.

As far as Minnesota was concerned, the Railroad and Warehouse Commission has been very active in securing favorable grain rates from the railroads, especially since 1897, when a state law gave it power to investigate rates on its own motion.[4] The interests of the Twin Cities have not been furthered, however, at the expense of smaller cities in the state.[5]

1. The Milwaukee & St.Paul (connection made in 1867, river division opened in 1872); the Chicago, St.Paul, Minneapolis, & Omaha (several small roads consolidated to make this line, about 1880); the Rock Island (came in on the Minneapolis & St.Louis line between 1880 and 1885); the Chicago Great Western; the Wisconsin Central; and Chicago, Burlington & Quincy (the last three lines made their connection after 1885). (These dates are given in Hudson: _A Half Century of Minneapolis_, pp. 465, 469.)

2. Over the Northern Pacific and the Canadian Pacific.

3. _Mpls. Ch. of Comm. Rept._, 1887, p. 107.

4. _Railroad and Warehouse Commission Report_, 1900, p. 8.

5. See below, p. 103.

In interstate commerce, the chief problem was to maintain and improve the situation of the Twin Cities in relation to that of Chicago and Duluth. The Interstate Commerce Commission, established in 1887, has had a good deal to do with the relative position of these centers, as numerous rate cases have come up before it, and appeals have been made to it from time to time. The establishment of the Interstate Commerce Commission in 1887 aroused a great deal of comment, both favorable and adverse. Those who favored the laissez-faire policy in regard to railroads pointed out the good that they had accomplished in reducing rates, and aiding in the building up of flourishing trade centers. Others saw the power that lay in the hands of railroad officials, and felt that what little the state railroad commissions could accomplish should be supplemented by the work of a commission which could deal with interstate commerce, and which would have the power to pass upon the reasonableness of freight rates. Allowing the railroads to go on unchecked in their methods of rate-making and local discriminations would have meant the further building up of those markets which were already favored by rates, at the expense of all other points.[1]

Finally the agitation that had begun at least as far back as the decade 1870-1880 resulted in the passage of the Act to Regulate Commerce, in 1887. Its provisions show that it was an attempt to equalize rates and make them fair rather than an attempt at a general reduction of transportation charges. In the present connection, the parts of the act which are most significant are those which provide that all rates shall be reasonable and just; forbid all rebates and personal or local discrimination, and all pooling and traffic

1. That this was realized by the public is brought out in Ripley: Railroads, Rates, and Regulation, pp. 448-9; Morgan: Railroads and Trade Centers (Popular Science Monthly, vol. 32, 1888, pp. 332-9) shows the points at issue between the two groups.

agreements; provide for publicity of rates and the establishment of an Interstate Commerce Commission with supervisory powers; and prescribe that the carrier shall not charge more for a short haul than for a long haul under the same conditions.[1] While this act was, of course, only a tentative one, nevertheless, it set forth clearly the principles on which the government was to work in its regulation of public carriers. Natural laws were to govern, as far as possible, in the building up of trade centers, rather than the selfish private interests in control of the railroads.

While the act of 1887 did much to abolish some of the most glaring abuses, it was soon realized that more far-reaching provisions had to be made to prevent the subtler forms of discrimination. In 1903 was incorporated into the act, by the Elkins Amendment,[2] a provision making both the shipper and the carrier, as well as its agents, liable in case of rebates. More effective legal procedure was also established, in cases of violation of the act, including the use of the injunction to prevent the collection of unreasonable rates pending a decision by the Interstate Commerce Commission.

This amendment enabled the Commission to carry out more satisfactorily the provisions of the Act of 1887, but it was recognized by this time that the Act of 1887 did not go far enough, that a general law wider in scope, needed to be passed.[3] In spite of all the opposition that the carriers could offer, another law was passed in 1906, greatly broadening the work of the Commission. All agencies of transportation, all services connected with the handling of goods, and all facilities for shipment were placed under the jurisdiction of

1. Ripley: <u>Railroads, Rates, and Regulations</u>, pp. 452-3.

2. Ripley, <u>Ibid.</u>, makes the point that the carriers themselves desired the passage of this amendment, as they realized the losses incident to rebating and rate-cutting (p. 492).

3. <u>Ibid</u>., p. 494.

the Commission, which was also given a limited power in the establishment of rates, and was given the right to demand information from the railroads. This act, while it has by no means finally solved the problem of federal regulation of the carriers, has nevertheless left them in quite a different position, relative to the public, than they were before the passage of the first act, in 1887.

About 1885, Minneapolis began to be alarmed at the development of Duluth as a grain market, and as a distributing center. The railroads had been according Duluth the same rates on grain as Minneapolis from a large territory in North Dakota and Minnesota; and Duluth had for some time been securing lake-and-rail rates from the east that were fifteen cents lower, first-class, than those to the Twin Cities.[1] Minneapolis complained to the Interstate Commerce Commission of the grain rates accorded Duluth, and the rates were readjusted, giving Minneapolis more consideration as the nearer market.[2] In 1893, Minneapolis again secured relief through the Interstate Commerce Commission from grain rates on the Chicago, Milwaukee, & St.Paul railroad from North and South Dakota to Minneapolis, or through Minneapolis to Duluth.[3] The Minneapolis Chamber of Commerce report for this year claimed that the Lake Superior ports were still being favored, but paid more attention to the rates from South Dakota points to Chicago, as compared with those to Minneapolis. It claimed that Minneapolis was paying a higher proportion of the Chicago rate than was justifiable on the basis of mileage.[4]

1. See above, p. 94 ; Meyer: Government Regulation of Railway Rates, pp. 398-399.

2. Ibid., p. 400.

3. Interstate Commerce Commission Annual Report, 1893, pp. 28-9.

4. For instance, the mileage from Huron, S. D., to Minneapolis was 46/100 of that from Huron to Chicago, but the rate to Minneapolis was 77/100 of that to Chicago. Similarly, the distance from Pierre, S. D., to Minneapolis was 54/100 of that to Chicago, but the rate to Minneapolis was 74/100 of that to Chicago. "Similar conditions exist between all points by all roads, through South Dakota to Chicago, as compared with Minneapolis". Mpls. Ch. of Comm. Rept., 1893, pp. 19-20.)

Mention has already been made[1] of the conflict between the Chicago and northern lines in regard to Twin City rates. In 1897, an agreement was finally reached. The following rates were then established:[2]

| | Cents per hundredweight | | | | |
|---|---|---|---|---|---|
| Class: | 1 | 2 | 3 | 4 | 5 |
| New York to Chicago | 54 | 47 | 37 | 23.5 | 20.5 |
| New York to Duluth | 60 | 52 | 41 | 30 | 26 |
| New York to Twin Cities | 75 | 65 | 50 | 35 | 30 |

This established a rate 21 cents higher, first class, New York to the Twin Cities than New York to Chicago. The differential between the Twin Cities and Duluth was 15 cents, first class. The problem of the Twin Cities from now on was to maintain this relative position with Chicago and Duluth, or to secure an even more favorable position for themselves.

In 1898, the Milwaukee Chamber of Commerce complained to the Interstate Commerce Commission of rates on grain from Minnesota, South Dakota, and Iowa to Milwaukee, as compared with those to the Twin Cities.[3] It was found that the advantage given to Minneapolis in the fixing of rates was greater than the shorter mileage justified, and a readjustment of the differentials to the two centers was ordered. The railroads were willing to make any readjustment that the Commission would suggest, but said that rates could not be established on the basis of mileage because of the geographical situation of the railroads. As it was not possible for the Commission to prepare a schedule of rates,[4] the trouble was not adjusted, and, though the railroads

1. See above, p. 92.

2. Report of the St.Paul Traffic Commission on the Lake-and-Rail Case.

3. Interstate Commerce Commission Report, Vol. VII, pp. 481-512.

4. Its power lay only in determining the reasonableness of rates already established.

put the matter up to the Chambers of Commerce of the cities concerned, they could come to no agreement, and the favorable Minneapolis rates remained in force.[1] This case shows the intense rivalry between cities, and their keen realization of the importance of even a slight change in the adjustment of rates.

At about this same time, 1899, it was found by the Commission that carriers were making a special rate to Minneapolis millers on flour for export; 1½ cents less being paid for export flour than for domestic flour, on shipments to the Atlantic seaboard. It was also found that the roads had refused to make similar concessions to millers at points intermediate between the Twin Cities and the Atlantic coast,[2] so that not only was Minneapolis enjoying a milling-in-transit rate that aided in the development of her milling industry; but the rates on flour for export were made relatively lower by the railroads than similar rates from other milling centers. The railroads were ordered by the Interstate Commerce Commission to make similar concessions to other milling points on flour intended for export.

Some reference has already been made[3] to an attempt by a Minneapolis road to make use of the Mississippi River competition to secure more favorable rates on east-bound traffic. The attempt was not successful, because it was found that the grain suffered from the moist climate of the south. But a process was worked out which dried the grain without injury, and shortly after 1895 the grain traffic to the south again became important, especially so when the railroads began to cultivate this traffic, and new lines were built from the interior to the Gulf ports.[4] By 1900, New York's export of

1. Meyer: Government Regulation of Railway Rates, pp. 404-5.

2. Interstate Commerce Commission Report, 1899, p. 26.

3. See above, p. 93.

4. Ripley: Railroads, Rates, and Regulation, p. 31.

grain had declined absolutely as well as relatively, from the figures of a few years earlier.[1] A very severe rate war followed between the roads leading to the Gulf and those running to the eastern seaboard. The Gulf roads built up a considerable traffic, until finally, in 1906, a compromise was made. A slight advantage in rates was accorded the north-south roads, to compensate for the longer haul and poorer service. That this advantage was not very great is shown by the fact that New York soon regained her old proportion of the grain trade.[2]

In 1900, the rate from Minneapolis to Chicago was 12½ cents per hundredweight on wheat and corn. It was in this year that the through rate from the Mississippi and west was based, by agreement of the carriers, on the Chicago rate, certain fixed rates being established between the Twin Cities and Chicago.[3] In 1902, the rate on corn was reduced to 7½ cents per hundredweight, and on wheat to 10 cents.

From 1900 to 1905, through rates on grain from the various western centers changed frequently, but the Twin Cities tended to improve their situation.[4]

1. Ripley: <u>Railroads, Rates, and Regulation</u>, p. 32.

2. <u>Ibid</u>., p. 33.

3. <u>Heaging on the Regulation of Railway Rates</u>, p. 189.

4. Rates on wheat from St.Paul, Omaha, Kansas City, and Wichita to New York, 1900-1905, in cents per hundredweight. (<u>Hearings on the Regulation of Railway Rates</u>, pp. 191-213.

| | Oct., 1900. | | Oct., 1901. | | Dec. 1, 1902. | | Sept., 1905. | |
|---|---|---|---|---|---|---|---|---|
| | Domestic | Export | Domestic | Export | Domestic | Export | Domestic | Export |
| St.Paul | 27½ | 26 | 30 | 28½ | 30 | 27½ | 27½ | 25 |
| Omaha | 34½ | 32½ | 37½ | 35½ | 38 | 35½ | 35 | 30 |
| Kansas City | 29½ | 27½ | 32½ | 30½ | 33½ | 31½ | 32 | 29 |
| Wichita | 38 | 36 | 41 | 36½ | 43½ | 41 | 43 | 40 |

It was also from about 1900 on that the Minnesota Railroad and Warehouse Commission became a factor in the rate situation in Minnesota. Complaints to the Commission as to rates on grain and live-stock to the Twin Cities were frequent, and the Commission was usually successful in securing a readjustment from the railroads.[1] That it was not the desire of the Commission to build up the Twin Cities, disregarding all other points in the state, was shown by its decision in regard to jobbing rates in 1900. From its investigation of rates, which was made pursuant to the law of 1897,[2] it found that jobbers in the Twin Cities were distributing goods at lower rates than competitors at smaller points could secure. It therefore ordered a readjustment, and about twenty smaller points in the state were made local distributing points, and were to be given rates based, as nearly as might be, on tariffs in force from the Twin Cities over the same railroad lines.[3] The railroads attempted to evade this order of the Commission, but were held strictly to it.[4]

Rates on live-stock to St.Paul, in relation to those to other centers, claimed considerable attention from the Commission, for the slaughtering and meat-packing industry was a comparatively new one at St.Paul, and needed to be fostered. In 1902 and 1903, live-stock rates claimed particular attention. The Chicago Live-Stock Exchange complained to the Interstate Commerce Commission in 1902 that rates on live-stock from Minnesota, Iowa, and Missouri to Chicago were higher than the proportioned rates from the same points to Chicago on dressed beef. This was building up the live-stock industry at

1. Minnesota Railroad and Warehouse Commission Report, 1905, pp. 35-41.

2. See above, p. 96.

3. Minnesota Railroad and Warehouse Commission Report, 1900, pp. 9-10.

4. Ibid., 1902, 1904.

western points at the expense of Chicago. The Minnesota Railroad Commission was immediately interested, and told the railroad companies concerned that if a reduction was made to Chicago, a similar one would be ordered to South St.Paul by the Commission.[1]

The Commission had fixed a proportional rate of 5 cents per hundredweight on grain from Minneapolis to Duluth, except on grain shipped in from southern Minnesota and South Dakota, which could go from Minneapolis to Duluth at the balance of the through rate from the local point to Duluth.[2] The rates from Minneapolis to Duluth, fixed by the state commission, forced lines to Chicago to lower their rates, and even with the rate at 10 cents per hundredweight on wheat, and 7½ cents on corn,[3] the bulk of the grain went via Duluth. The adjustments of the state commission also made the rates from Minnesota points to Minneapolis, and thence to Chicago, in some cases lower than the direct rate through to Chicago.[4]

In 1905, a state law was passed, directing the Commission to investigate freight rates within the state. As a result of this investigation, the railroads reduced class rates 20% to 25%, and the rates on agricultural products were reduced 10% to 28%.[5]

At length Minnesota went too far in its state regulation of freight rates. In 1906 and 1907, a state law was passed, and orders of the Railroad and Warehouse Commission were issued to fix passenger and freight rates in Minnesota,

1. Minnesota Railroad and Warehouse Commission Report, 1902, pp. 17-20.

2. Ibid., 1905, pp. 122-123.

3. See above, p. 102.

4. Minnesota Railroad and Warehouse Commission Report, 1905, p. 121.

5. Ibid., 1906, p. 11.

especially on the Great Northern, Northern Pacific, and Minneapolis & St.Louis roads. The railroads brought injunctions against the enforcement of these rates, claiming that they were unreasonably low and affected interstate commerce.[1] The case came up before the United States Supreme Court, and, while the right of the state to prescribe reasonable rates was upheld, it was maintained that "a state enactment [which] imposes a direct burden upon interstate commerce (it) must fail regardless of Federal legislation."[2] The power of the state over freight rates was thus limited, but this decision by no means did away with the Commission's influence over local rates.

Since 1900, there have been several readjustments of rates in the Northwest, both as regards grain rates from local points to the primary markets, and from there to the coast; and as regards rates on merchandise from the east to the Twin Cities, Chicago, and Duluth, affecting their relative positions as distributing centers.

Duluth has held an important place in the grain trade ever since the St.Paul-Duluth roads and the Great Northern were built.[3] From that time on, through rates from Chicago to the east, and from the Twin Cities via Chicago, had to be fixed with regard to the corresponding rates that could be secured through Duluth. At the time that the rate on wheat from Minneapolis to Chicago was fixed at 10 cents per hundredweight,[4] this rate was established because the proportional grain rate from Minneapolis to Duluth was 5 cents per hundredweight, and the rate from Duluth to the east was somewhat higher than

1. It was the claim of the roads that the changes in rates made were so great as to effect competing points just outside the state, and the railroads had to readjust their rates to these points.

2. 230 U. S., 352; 33 Sup. Ct. 729.

3. See above, pp. 92, 93.

4. See above, p. 102.

that from Chicago. The 10-cent rate from Minneapolis to Chicago therefore approximately equalized the through rates east through the two gateways.

Later, grain could be carried from Duluth to Chicago, over the Lakes, for 2½ cents per hundredweight, and then the proportional of the through rate from the Twin Cities to Chicago had to be lowered at 7½ cents per hundredweight.[1] This rate was made applicable only to grain that passed through Minneapolis; if held there, it still paid the 10-cent rate. These rates held for a considerable period. The through rate, lake-and-rail, of which these rates were parts, was also in competition with the all-rail rate to the east. At first, the all-rail rate was 5 cents higher than the rail-lake-rail rate, which was 20 cents. The railroads bought up the boat lines, however, and, in 1898, this difference was reduced to 3 cents; and was finally eliminated. As a result, practically all of the traffic went to the railroads. In 1910, the roads reduced their rates east from Chicago 1 cent. To maintain the through rate of 25 cents, the Minneapolis differential[2] was increased to 8.3 cents. This could not have been done, had there been competition between the railroads and the lake route.

In 1915, Duluth complained of grain rates before the Interstate Commerce Commission, and asked that the proportional rate from Minneapolis to Duluth be increased to 6 cents.[3] To this Minneapolis naturally objected greatly. In this same case before the Interstate Commerce Commission, it was proposed that the proportional rate from Minneapolis to Chicago on wheat be increased 1 cent, and that increases be made on grain and grain products to Minneapolis

1. Otherwise all the grain would have gone to Duluth, paying the 5-cent proportional rate, and would have then been sent to Chicago, the total to Chicago being 7½ cents.

2. The differential here means the difference between the through rate on east-bound grain paid by Chicago and that paid by Minneapolis, this difference being compensation for the longer haul from Minneapolis.

3. <u>Brief of Minneapolis Traffic Association before the Interstate Commerce Commission in regard to I. & S. Docket No. 555.</u>

from points in Iowa, Illinois, Wisconsin, Missouri, Nebraska, Kansas, Colorado, Utah, and Wyoming.[1] Minneapolis pointed out that the rates on grain from Minneapolis to these points was the same as those on flour, and that with the proposed increases, flour would pay ½ to 3 cents more per hundredweight than wheat.[2] This would stimulate the development of flour mills at these local points at the expense of the mills at Minneapolis.

Minneapolis claimed that if the rate to Duluth was raised to 6 cents, the position of Minneapolis as a grain market would be impaired, and, to compensate, cleaning, storing, and milling privileges on grain would have to be established at Minneapolis under the 6-cent rate. Milling-in-transit privileges had already been abolished on much of the grain coming into Minneapolis.[3] Its proportional rate to Duluth being 5 cents per hundredweight, it was important that a favorable situation be maintained in regard to rates from local points. At this time, 1915, grain rates from the northern half of Minnesota were higher to Minneapolis than to Duluth. From North Dakota and Montana, grain rates were the same to the two places, and from central Minnesota and northern South Dakota, rates were 1 to 3 cents higher to Duluth than to Minneapolis. South of a line drawn west from Minneapolis through South Dakota, grain rates were 4 cents higher to Duluth.

The proportional rate from Minneapolis to Chicago was 8.3 cents. From northern South Dakota and part of southwestern Minnesota, rates on grain through to Chicago were 7½ cents over those to Minneapolis. From southernmost Minnesota, and part of South Dakota, rates were 5½ to 7½ cents higher to Chicago than to Minneapolis. From part of Iowa, southern South Dakota, and

1. _Brief of Minneapolis Traffic Association before the Interstate Commerce Commission_ in regard to I. & S. Docket No. 555, p. 9.

2. _Ibid._, p. 9.

3. See above, p. 95.

almost all of Nebraska, rates to Chicago varied from 5½ cents over the Minneapolis rate down to the Minneapolis rate. Rates from Montana to Chicago were 7½ cents higher than to Minneapolis.

Minneapolis claimed that its millers experienced difficulty in securing grain to supply their mills at these rates, and that the eastern mills were securing a constantly larger share of the western grain, due to the rate situation.[1] In spite of the contest waged by the Minneapolis Civic and Commerce Association, however, the more favorable rates were accorded to Duluth and Chicago. The tendency of the Interstate Commerce Commission seems to have been to limit the advantages given to the Twin Cities, feeling that the railroads have been inclined to make too many concessions to them on account of water competition; and especially the tendency has been to give Duluth more recognition as a grain market.

1. Statement showing transportation charges on 4½ bu. of wheat and its products (200 lb. of flour, 70 lb. of feed) from North Dakota - New York, Bismarck, and Minot being used as representative points of production, 1913.

| | | | Transportation Charges Present | Transportation Charges Proposed |
|---|---|---|---|---|
| | Milled at Minneapolis | | | |
| To Minneapolis | 270 lb. at 16¢ | per 100 lb. | $ .432 | $ .432 |
| Minneapolis - New York, rail-lake-rail, | 270 lb. at (present) 23¢ | per 100 lb. | .621 | |
| | (proposed) 24¢ | per 100 lb. | | .648 |
| | | Total: | $1.053 | $1.080 |
| | Milled at Buffalo | | | |
| To Duluth | 270 lb. at 16¢ | per 100 lb. | .432 | .432 |
| Duluth-Buffalo (lake) | 270 lb. at 2¢ | per 100 lb. | .054 | .054 |
| Buffalo-New York (rail) | 270 lb. at 11.6¢ | per 100 lb. | .313 | .313 |
| | | Total: | $ .799 | $ .799 |
| Advantage of Buffalo miller per bbl. of flour and by-products - | | | .254 | .281 |
| Percentage of advantage - | | | 31.8% | 35.2% |

<u>Brief of Civic and Commerce Association</u>, I. & S. Docket No. 542, 555, 556, p. 70.

In the matter of distributing rates, the competition between the Twin Cities, Duluth, and Chicago has been equally as keen as in the adjustment of grain rates. Minneapolis has been more active in securing more favorable rates than has St.Paul,[1] partly because, its jobbing trade being of more recent development than St.Paul's, Minneapolis felt more need of carving out a territory in a district which had largely looked to Chicago.

In 1897, a schedule of rates was established, giving the Twin Cities, in all-rail rates from the east, a 15-cent differential over Duluth, and a 21-cent differential over Chicago.[2] In 1907, this schedule was abandoned by western lines, but an arrangement was made with eastern lines to publish through rates on the same basis.[3] In lake-and-rail rates, Duluth paid 6 cents more than Chicago, and the Twin Cities 15 cents more than Duluth,[4] from the time that Duluth was recognized as a market.[5] These relations were maintained until 1910.[6]

1. McPherson: Railroad Freight Rates, p. 348.

2. See above, p. 100.

3. Reply of Minneapolis Traffic Association to Duluth Memorial, 1910, p. 7.

4. All these jobbing rates refer to first-class rates.

5. Ibid., p. 7.

6. At that time, the schedule from New York was:

| | | First Class | Second Class | Third Class | Fourth Class | Fifth Class | Sixth Class |
|---|---|---|---|---|---|---|---|
| To Chicago: | all-rail | 75 | 65 | 50 | 35 | 30 | 25 |
| | lake-and-rail | 62 | 54 | 41 | 30 | 25 | 21 |
| To Duluth: | all-rail | 115 | 99 | 76 | 53 | 46 | 38 |
| | lake-and-rail | 68 | 59 | 45 | 33 | 28 | 24 |
| To Twin Cities: | all-rail | 115 | 99 | 76 | 53 | 46 | 38 |
| | lake-and-rail | 83 | 72 | 54 | 38 | 32 | 26 |

(From Reply of Minneapolis Traffic Association to Duluth Memorial, 1910, pp. 9-10.)

All-rail rates to the Twin Cities at this time "broke" on Chicago;[1] that is, the rate to Chicago was established, and a certain proportional rate was paid beyond, on the basis of mileage. Lake-and-rail rates, on the other hand, "broke" on Duluth.[2] Duluth desired to be put upon a parity with Chicago and Milwaukee as a lake port, and have lake-and-rail rates to the Twin Cities made by combination on Chicago, using all-rail proportionals beyond. It wished to have through rates made to Duluth, and local rates, on the basis of mileage, to all distributing points beyond, the Twin Cities included. The Twin Cities, on the other hand, while they wished Duluth to receive lake-and-rail rates equal to those granted to Chicago, felt that Chicago's supremacy had not been sufficiently maintained in this district to make it still the 100 point in the formation of rates. It was the desire of the Twin Cities to have a 13-cent differential, first-class, rail-and-lake, over Chicago and Duluth. It was Duluth's claim that the Twin Cities had been awarded too many concessions on account of water competition; that more had been made of their nearness to the Lakes than was justifiable.[3]

In 1911, the Interstate Commerce Commission decided on a readjustment of the differentials to the Twin Cities. Duluth was put upon a parity with Chicago in lake-and-rail rates, and, instead of the 15-cent differential

1. Reply of Minneapolis Traffic Association to Duluth Memorial, 1910, p. 11.
2. Ibid., p. 9.
3. The distributing rates accorded to the Twin Cities were:

| | 1 | 2 | 3 | 4 | 5 | 6 | A | B | C | D | E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rail rates to the Twin Cities from Duluth | 35 | 30 | 23 | 17 | 10 | | 14 | 12 | 10 | 9 | 7.5 |
| Local scale from Chicago to Twin Cities | 60 | 50 | 40 | 25 | 20 | | 25 | 20 | 17 | 15 | 14 |
| Proportional scale, Chicago-Twin Cities (on which the through all-rail rates were based) | 40 | 34 | 26 | 18 | 16 | 13 | | | | | |

(Duluth Memorial, pp. V and VI.)

between Duluth and the Twin Cities, a 21-cent differential was established.[1] Business was done under this scale in 1914. The attitude of the Commission seemed to be that the minimum differential between Duluth and the Twin Cities should be 21 cents, first-class. Acting on this inference, the eastern lines published new rates, increasing the differential of the Twin Cities to 28 cents, first-class.[2]

St.Paul and Minneapolis immediately protested this scale, and assailed even the 21-cent differential.[3] The Interstate Commerce Commission sustained the 21-cent differential, but reduced some of the rates from the Twin Cities to local points west, which had been attacked by the Twin Cities as giving an undue advantage to Chicago.[4]

1. Report of St.Paul Traffic Committee on Lake-and-Rail Case, 23 Interstate Commerce Commission, p. 579.

2. The following schedule of rates was then established. (Report of the St.Paul Traffic Committee on Lake-and-Rail Case, p. 3):

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| New York to Twin Cities | 90 | 78 | 59 | 43 | 34 |
| New York to Chicago and Duluth | 62 | 54 | 41 | 30 | 25 |

3. Interstate Commerce Commission Report, vol. XXX, pp. 663-75.

4. The following table shows the rates to local points, of which Minneapolis complained:

First-class rates from Minneapolis and competing markets to points in South Dakota and North Dakota on the line of the Chicago, Milwaukee, and St.Paul Railway Company, 1914.

| To | From Minneapolis | | From Chicago | | From Milwaukee | | From Winona | | From Sioux City | | From Duluth | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Miles | Rate | Miles | Rate | Miles | Rate | Miles | Rate | Miles | Rate | Miles | Rate |
| Milbank, S.D. | 190 | 57 | 605 | 94 | 519 | 94 | 296 | 68 | 293 | 68 | 341 | 66 |
| Bristol, S.D. | 249 | 70 | 663 | 110 | 577 | 110 | 354 | 73 | 235 | 62 | 400 | 82 |
| Aberdeen, S.D. | 288 | 77 | 702 | 114 | 616 | 114 | 393 | 77 | 266 | 66 | 439 | 83 |
| Roscoe, S.D. | 329 | 86 | 744 | 121 | 658 | 121 | 434 | 86 | 307 | 73 | 480 | 103 |
| Mobridge | 386 | 105 | 800 | 129 | 714 | 129 | 494 | 105 | 364 | 79 | 537 | 117 |
| Tatanka | 438 | 117 | 852 | 177 | 766 | 177 | 543 | 148 | 415 | 106 | 589 | 117 |
| Lemmon | 485 | 117 | 899 | 177 | 813 | 177 | 590 | 148 | 463 | 116 | 636 | 117 |
| Branch Line Points | | | | | | | | | | | | |
| Fargo, N.D. | 297 | 67 | 709 | 117 | 623 | 117 | 402 | 77 | 423 | 92 | --- | --- |
| Sisseton, S.D. | 227 | 66 | 642 | 101 | 556 | 101 | 333 | 77 | 330 | 75 | 378 | 75 |
| Harlem, N.D. | 315 | 72 | 729 | 112 | 643 | 112 | 419 | 75 | 301 | 85 | --- | --- |
| Edgeley, N.D. | 352 | 83 | 766 | 127 | 680 | 127 | 456 | 83 | 329 | 90 | --- | --- |
| Linton, N.D. | 404 | 99 | 819 | 128 | 733 | 128 | 510 | 99 | 383 | 88 | --- | --- |
| Orient, S.D. | 370 | 87 | 785 | 122 | 699 | 122 | 476 | 87 | 349 | 78 | --- | --- |

Interstate Commerce Commission Report, vol. XXX, p. 666.

In 1915, another case came up to the Interstate Commerce Commission, Duluth being the complainant. It was the claim that Duluth jobbers were suffering in competition with eastern jobbers, while the Twin City jobbers were protected. Duluth pointed out that the rate on merchandise from Pittsburgh, in less than carload lots, to Duluth and beyond, was less than the rates on the same goods from Pittsburgh to Duluth, in carload lots, and from there to local points in less than carload lots.[1] The position of Minneapolis jobbers was more favorable. They were protected by having considerably lower rates on carload lots to the Twin Cities and less than carload lots beyond, than obtained on less than carload lots through to the local point.[2] In some cases, also, less attention was paid to mileage in making

1. Reply Brief For Complainant Before Interstate Commerce Commission, Docket No. 7845.

2. The following table will show to some extent the comparative situation of Duluth and Minneapolis jobbers (from Reply Brief for Complainant, Interstate Commerce Commission, Docket No. 7845):

RATES SECURED BY DULUTH JOBBERS

| From | To | Commodity | Less than carload through | Carload to Duluth; Less than carload beyond | | |
|---|---|---|---|---|---|---|
| | | | | To Duluth | Beyond | Total |
| Pittsburgh | St.Paul | Iron & Steel | 31.45 | 22 | 20.7 | 42.7 |
| " | Hutchinson | " | 42.85 | 22 | 28.4 | 50.4 |
| " | Willmar | " | 46.25 | 22 | 28 | 50 |
| " | St.Cloud | " | 43.35 | 22 | 22.7 | 44.7 |
| " | Appleton | " | 51.15 | 22 | 31 | 53 |

RATES SECURED BY MINNEAPOLIS JOBBERS:

| From | To | Commodity | Less than carload through | Carload to Twin Cities; Less than carload beyond | | |
|---|---|---|---|---|---|---|
| | | | | To Twin Cities | Beyond | Total |
| Pittsburgh | St.Paul | Iron & Steel | 31.45 | 24.25 | 6.5 | 30.75 |
| " | Hutchinson | " | 42.85 | 24.25 | 11.4 | 35.65 |
| " | Willmar | " | 46.25 | 24.25 | 14.8 | 39.05 |
| " | Paynesville | " | 45.75 | 24.25 | 14.3 | 38.55 |
| " | St.Cloud | " | 43.35 | 24.25 | 11.9 | 36.15 |
| " | Appleton | " | 51.15 | 24.25 | 19.7 | 43.95 |
| " | Alexandria | " | 50.15 | 24.25 | 18.7 | 42.95 |

Duluth rates than in making Minneapolis rates. When Minneapolis had the advantage of distance, her rate was much lower than Duluth's; but when Duluth had the advantage of distance, not so much of a discrimination was made in her favor.[1] Not too much dependence should be placed on the figures Duluth quotes to substantiate this claim, for very different conditions of transportation may have existed at the different points. The indication seems to be, however, that the Minneapolis distributors were receiving greater consideration from the railroads than were Duluth jobbers.

The Twin Cities maintained in their defense that throughout southern Minnesota, northern Iowa, and South Dakota, St.Paul paid a higher rate per ton mile on merchandise than did Duluth.[2]

1. These figures, given to illustrate Duluth's complaint, may be found in the Reply Brief for Complainant, Interstate Commerce Commission, Docket No. 7845, pp. 69-71:

| | Minneapolis advantage | | Duluth advantage | |
|---|---|---|---|---|
| | Distance in miles | Rate, third-class In cents per hundredweight | Distance in miles | Rate, third-class In cents per hundredweight |
| Willmar | 106 | 17.5 | | |
| Wahkon | | | 112 | 13.7 |
| Appleton | 107 | 13.7 | | |
| Bena | | | 121 | 9.8 |
| Hutchinson | 149 | 23 | | |
| Denham | | | 179 | 17.8 |

2. These figures were given to prove this claim (St.Paul Association of Commerce Brief for Interstate Commerce Commission Docket No. 7845):

| | Miles | Fourth-class rate, in cents per hundredweight | Cents per ton mile |
|---|---|---|---|
| Duluth to Waseca | 239 | 27 | 2.25 |
| St.Paul to Waseca | 88 | 16.3 | 2.70 |
| Duluth to Rochester | 260 | 28 | 2.15 |
| St.Paul to Rochester | 109 | 18 | 3.30 |
| Duluth to Mankato | 237 | 25 | 2.10 |
| St.Paul to Mankato | 84 | 18.8 | 3.28 |
| Duluth to Mason City | 291 | 28 | 1.92 |
| St.Paul to Mason City | 140 | 21 | 3.00 |
| Duluth to Waterloo | 353 | 28 | 1.58 |
| St.Paul to Waterloo | 202 | 22 | 2.17 |
| Duluth to Sioux Falls | 343 | 32 | 1.86 |
| St.Paul to Sioux Falls | 238 | 25.5 | 2.14 |
| Duluth to Aberdeen | 381 | 42 | 2.20 |
| St.Paul to Aberdeen | 296 | 38 | 2.56 |

This case remained undecided until 1919, when the decision of the Interstate Commerce Commission was handed down. In this decision, it was said that Duluth and the Twin Cities had received the same jobbing rates into a considerable part of the northwest, but that these rates had been readjusted according to the Minnesota distance tariff law of 1914.[1] Duluth then lost out where she was of a disadvantage from the standpoint of distance. The rates were considered not unduly prejudicial to Duluth, and her complaint was dismissed.[2]

The present situation of the Twin Cities in regard to jobbing rates may be judged to be favorable, since jobbers make little or no complaint as to rates paid, and the territory in which they find it profitable to compete with Chicago and Duluth is large.[3]

The grain rate situation is, however, somewhat less satisfactory. Early in 1920, a case regarding grain rates, carried over from the preceding year, was finally decided by the Interstate Commerce Commission. It concerned both the rates from the surrounding territory into the Twin Cities, and the rates from the Twin Cities east. The most important part of this case concerned the elimination of practically all the remaining arrangements for milling-in-transit at Minneapolis, and the substitution therefor of proportional rates to Duluth and Chicago. These proportional rates will be, on grain and grain products, to Chicago 11 cents per hundredweight, and to Duluth, 5.5 cents. Minneapolis was so dissatisfied with the original decision that a rehearing

1. Interstate Commerce Commission Reports, vol. 53, p. 87.

2. Ibid., pp. 85-95.

3. Many of them trade in Iowa, Nebraska, and Wisconsin in competition with Chicago; and their salesmen go into northern Minnesota, North Dakota, and western Canada, in competition with Duluth.

was asked for,[1] but, though granted, the decision was sustained in practically all respects. Rates from local points west to Chicago, according to this decision, will base on Minneapolis, when the direct route is through Minneapolis, and will be lower than the rate via Minneapolis when the direct route is shorter than through Minneapolis.[2]

The practise of using proportional rates instead of the transit arrangement will affect all points on and north of the Chicago & Northwestern line from Mankato to Rapid City, S. D., and probably all of Montana as well. The use of this method will render unnecessary the elaborate system of keeping milling-in-transit accounts.[3] Grain from Montana will now have to pay 11 cents, from Minneapolis to Chicago, but as provision is being made to increase the direct rate to Chicago, correspondingly, this increase will not put

1. An article in the Minneapolis Tribune, Jan. 21, 1920, conveys the impression that some of the roads which desire to build up Chicago, and which would profit from the long haul through to Chicago, were working for the increased rates.

2. The rate from western points through Minneapolis to Chicago will be made not to exceed the rate from the local point direct to Chicago from all points on and north of the Chicago & Northwestern road from Mankato to Rapid City, S. D. This line from Mankato to Rapid City will constitute the dividing line; south of it, something more than the rate direct through to Chicago will be paid if the route through Minneapolis is taken. From points on and north of the Hastings and Dakota Division of the Chicago, Milwaukee & St.Paul road from Minneapolis to Mobridge, S. D., and from stations on the Minneapolis & St.Louis road, east of Watertown, the rates to Chicago will be made on the Minneapolis combination (that is, the rate paid to Chicago will be the rate to Minneapolis plus the 11-cent proportional from there to Chicago). The rates will be on the basis of 1.5 cents less than the Minneapolis combination from points on the Minneapolis & St.Louis road west of Watertown. From points south of the Chicago & Northwestern road, from Mankato to Pierre, S. D., rates will be on a parity with rates to Superior for about equal distances. (56 Interstate Commerce Commission 133).

3. See above, p. 95.

Minneapolis at an undue advantage.

One change in rates will undoubtedly leave Minneapolis in a less favorable situation. The rate on flour to the east has been 2.5 cents under the wheat rate, and this has certainly been an advantage to her in the development of her milling. As the Commission found that no other milling point possessed such an adjustment, it has recommended an increase in the flour rate from Minneapolis to bring it up to the wheat rate.

The transportation problem which has been outlined here is one for which many duplicates may be found in the modern world. The geographical situation first determines the location of a trading center, and gives it certain advantage in transportation; the chief problem of the city then becomes the maintenance of these advantages in competition with other centers. In general, as the number of railroad lines from a center multiply, that center is put in a more favorable situation.

In the case of the Twin Cities, it is clearly seen how these principles have worked out. The situation of the cities at the head of navigation on the Mississippi gave them an early prestige as a trading center. Later, when the first railroad lines from this to the east were built, they passed through Chicago, and the western center became, in large measure, dependent upon Chicago. Soon, however, a railroad was completed to Duluth, and gave the Twin Cities many of the benefits of water competition to the east. Fifteen years later still, the line to Sault Ste.Marie was completed, bringing in the competition of the Canadian Pacific line, and making the first all-rail line to the east which did not pass through Chicago.

The Twin Cities were thus placed in a very favorable situation, with potential, if not actual, water competition to the south down the Mississippi, with a large share of the benefits of water competition over the Great Lakes, and with the competition of different all-rail routes to the east. By this time, however, Duluth had become important enough to demand for itself an independent position as a market, and, from that time, the problem of the Twin Cities has been to maintain a favorable position in comparison with Chicago and Duluth. This, on the whole, has been done successfully; the Twin Cities having maintained the position as the market for the Northwest which their situation, at the head of navigation on the Mississippi, and on the frontier of civilization, originally gave them.

# CHAPTER VI

## THE METROPOLITAN AREA

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## THE METROPOLITAN AREA

Attention up to this point has been directed mainly to one aspect of metropolitan economy - the metropolitan center. The development of the Twin Cities as a commercial and industrial center has been outlined; and the story told of their successful struggle for favorable transportation facilities and rates, which gave them independence of other centers, and placed them in a strategic position for their further development. The other side of metropolitan marketing, though until now made subordinate to the development of the center, is nevertheless an equally important part of the whole concept. While the center, as the concentrating point for the area, occupies a more conspicuous position, it could not have developed, nor could it maintain its importance, without the tributary area with which it is so closely interrelated.

It has already been noted that there are many aspects of metropolitan economy which cannot be treated with definiteness and precision. Though this is somewhat disconcerting, it is not surprising, for the relationships of economic life are never fixed and permanent, but are fluid and ever-shifting. This lack of definiteness in the metropolitan concept applies particularly to the tributary area. Precise delimitation of the area is quite impossible, without violation of the actual economic situation. The relations of any part of the northwest to the Twin Cities may vary widely from time to time, and with regard to different goods and services.

Some approximation at delimitation is, however, necessary. The importance of the position of the Twin Cities can be appreciated only when it has been determined, as nearly as possible, the area over which they dominate. When St.Paul first established herself as a commercial center, her merchants carried on most of the trade of the northwest, both American and Canadian, so far as it was developed at that time. Settlement extended no farther west than the Red River, but the trade of the Red River settlements, even Lord Selkirk's and the Hudson's Bay Company's settlements in Canada, was carried on almost entirely with St.Paul.[1] In addition, all the settlers along the Minnesota and upper Mississippi rivers, as well as those in the more highly-developed district between the Mississippi and the St.Croix rivers, traded through St.Paul.

During this period, however, St.Paul can be called nothing more than an important commercial town, with a tributary area which, though not well-developed, was almost completely dependent upon her. St.Paul herself was dependent on other centers, especially St.Louis and Chicago,[2] from which the goods which she distributed were sent to her, and to which she sent the products, such as furs and lumber, of her area. Later, as her transportation facilities increased, and her commercial establishments grew in number and size, she developed a greater measure of independence.

When the flour mills were established at St.Anthony and Minneapolis, the wheat of the district began to be concentrated at that point. Most of it was being produced in southern Minnesota at that time, and, before the development of milling at Minneapolis, had been sent to local mills, or east to Chicago. With the rapid growth of the milling interests at St.Anthony's Falls, together with the movement westward of the wheat area, an increasing proportion of the wheat raised in the northwest sought its natural market at Minneapolis. Thus that point became the chief primary wheat market in the

1. See above, p. 27.

2. See above, pp. 81-82.

United States at almost the same time that it took first place as a flour-producing center, and its claim to a large part of the grain crop of the northwest has remained firm.

Between the time of this early development and the present, the changes in the tributary area of the Twin Cities have been important. In some directions the area of the Twin Cities has been restricted, but an equally noticeable tendency has been one toward more intensive development of the area in which the Twin Cities may really be said to dominate. The Canadian northwest is perhaps the only instance of a considerable district over which the Twin Cities may be said to have lost commercial control. The explanation of St.Paul's large trade with that district lay chiefly in the fact that means of communication with this district through Canada were very poor.[1] Obstacles to travel were fairly serious, and routes were poorly developed, either from the Atlantic Coast or Hudson's Bay. As the Canadian interior developed, this situation was changed, particularly after the completion of the Canadian Pacific railroad in 1885.[2] The trade of this district then began to leave St.Paul in favor of more direct routes. Tariff walls have also been set up at the boundary line, which have operated to cut off a good deal of the trade that would naturally continue, and have tended to further the development of Winnipeg as the center of trade for the Canadian northwest. While there is still considerable exchange of goods across the line, and while fairly large amounts of Canadian wheat find a market on this side of the boundary (chiefly at Duluth and Chicago), the tributary area of the Twin Cities must now be said to be limited on the north by the Canadian boundary.

1. See above, p. 27, 28.

2. See above, p. 87.

In no other direction has the influence of the Twin Cities been restricted, but in many parts of the district, competition has grown keener; other centers than the Twin Cities, in their expansion, desiring to make certain parts of the northwest tributary to them.[1] St.Paul and Minneapolis have maintained their position, however, and their location, and favorable transportation rates, made the most of by enterprising merchants, have enabled them to remain dominant in a fairly wide district, and to be important factors in the commerce of a much more considerable area.

One fairly trustworthy proof of the importance of the Twin Cities as an economic center was their recognition in the organization of the Federal Reserve and the Federal Farm Loan systems.[2] In 1915, when the Reserve Bank Organization Committee commenced its work, it was faced with the problem of dividing the country into Federal Reserve districts which would, as far as possible, recognize existing business relations. Although in the south and in the mountain regions of the west, it faced an almost impossible task of arranging districts around well-developed economic centers; it did in the rest of the country delimit the districts of the different centers in a fairly satisfactory fashion. As it allotted districts to Kansas City and Chicago, as well as to Minneapolis, so that it had to delimit the Twin City area with

1. The best examples of competition with other centers have been with Chicago and Kansas City in the southern part of the district, and with Duluth in the north, which has tried to carve out an area for itself. (See below, pp. 130-132.)

2. The Federal Farm Loan districts are not particularly helpful as illustrating metropolitan development, however, for the purpose guiding the organization of this system was to locate the Federal Land Banks in cities which played a part of some importance in the agricultural life of the section to be served, and which would be fairly convenient of access to all parts of the district. Comparatively little attention was paid to the commercial and financial relationships already established, which were of such importance a year earlier in the delimitation of the Federal Reserve districts.

a good deal of definiteness, the results of its work are of considerable value.[1]

The Ninth Federal Reserve district, as first organized, included Montana, North and South Dakota, Minnesota, the northern Michigan peninsula, and practically all of Wisconsin north of a line drawn from the southern boundary of Minnesota east to Lake Michigan. This was supposed to be an area which found its commercial, as well as its financial, center in the Twin Cities. There was so much complaint, however, over the inclusion of such a large part of Wisconsin, that that boundary was later changed, so that now only the northwestern half of Wisconsin is included in the Twin City district. There was considerable complaint, also, on the part of northern Michigan, and it seems that this part of the Twin City area is less under the dominance of the center than any other part. Nevertheless, it was not considered necessary to change the district in this direction.[2]

This delimitation by the Reserve Bank Organization Committee is a very good indication of the area of influence of the Twin Cities; but it cannot be accepted without qualifications as the area whose economic interests are most closely bound with Minneapolis and St.Paul. That area is not the same for all the commodities that enter into the trade of the district. The Twin City metropolitan market, although it has on the whole a well-rounded development of function, has also specialized in certain directions,[3] determined largely by the type of production carried on in the tributary area. When

1. It must be noted, however, that the committee was somewhat influenced, in its delimitation of the Minneapolis district, by the fact that this district had small banking resources, especially as compared with the Chicago area. This may have accounted for the inclusion of the peninsula of northern Michigan, and such a large part of Wisconsin.

2. See below, p. 129.

3. Nearly every metropolitan center shows the same tendency. Boston specialises in textiles and boots and shoes; New York in ready-made clothing and imported goods; Chicago in live-stock; St.Louis in boot-and-shoe machinery and furs; and Kansas City in the same commodities as the Twin Cities. It is a geographical specialisation of function which does not detract from the reality of the metropolitan concept, but rather follows as a natural development from it.

agriculture first developed in the northwest, the one-crop system was widely used, as is natural in a new country. Wheat was the specialised crop, and wheat became, and has remained since, the most important single item in the trade of the Twin Cities. As the district became more fully developed, however, the scientific rotation of crops came into wider use, in order to save the soil and make profits more certain. Emphasis then began to be placed on live-stock; and the increasing importance of this item in the economic life of the district was soon reflected in the metropolitan center by the development of an important live-stock market there.[1]

The area for these two products is naturally not the same. The grain market developed long before the live-stock market; hence the area over which it has control is naturally larger. The grain area[2] may be said to include all of Minnesota and North Dakota, all of South Dakota north of the Chicago and Northwestern Railroad line running to Rapid City[3] (that is, the northern two-thirds of South Dakota), and probably all of Montana, though some of the grain from that area is sent either east to Chicago or west to the markets on the coast.[4] Much of the grain from the western part of Wisconsin also comes to the Minneapolis market, although grain is not such an important part of production there as live-stock and dairy products.

Placing this very considerable area in the Twin City metropolitan market for grain does not mean that all of the grain, or even more than half of it,

1. See above, pp. 64-66.

2. By this is meant especially the wheat area, for while the other grains are sent from approximately the same area, a smaller proportion of their total yield is sent to the market at the Twin Cities. See Appendix, Table IV, for sources of grain received at Minneapolis.

3. See above, p. 115, note 2.

4. See Appendix, Table IV, for grain received at Chicago and coast ports from Montana.

raised in the district is always sent to the Minneapolis market. It does mean, however, that Minneapolis is the most important single market for the district; and that in most of the district, if not all of it, the price of grain is materially affected by the price of grain at Minneapolis.

The South St.Paul live-stock market is a comparatively new one; hence its influence in the northwest will probably be more keenly felt as time goes on. It may extend its market domination over a wider area, but it will more probably concentrate on the area already more or less under its influence, and attract a growing proportion of the shipments from this district. It faces sharp competition, however, in such an expansion of its influence, especially with Chicago and Omaha.[1] At present, the South St.Paul area includes most of Minnesota,[2] the northern third of South Dakota, and all of North Dakota. In Montana, this market competes, with considerable success, with Chicago and Omaha. Considerable shipments of live-stock come also from the west central portion of Wisconsin.[3]

The Twin Cities are also an important market for the fruit, vegetables, and dairy products of the northwest.[4] Minneapolis has a well-developed potato

1. This competition is most clearly felt, perhaps, in Montana, where, in 1919, the shipments of cattle were as follows: to Chicago, 280,247 head; to South St.Paul, 86,897 head; to South Omaha, 68,615 head; to Sioux City, 12,342 head; to Kansas City, 1,615 head; to St.Joseph, 190 head; to Denver, 15 head; to western coast and for feed, 191,416 head; total 641,337 head. (Market Reporter, April 10, 1920.)

2. The southeastern corner of Minnesota sends most of its live-stock to Chicago, the southwestern corner to Omaha.

3. Much of the information which made it possible to delimit the live-stock area of South St.Paul came from maps in a thesis in the University of Minnesota library. (Rhoads: Price Determination on the South St.Paul Live Stock Market) See also the Appendix, Table VII, for origin of live-stock receipts at South St.Paul.

4. Since 1910, Minneapolis has ranked as third primary fruit and vegetable market in the United States. (Minneapolis Journal, September 10, 1920)

market, the supplies coming largely from Minnesota, North and South Dakota, Wisconsin, and Montana, with large amounts also sent from Washington and California.[1] Dairy products in large amounts are marketed at St.Paul, which claims to be the second largest market in the United States; and the manufacture of butter, cheese, and condensed milk ranks among St.Paul's leading industries.[2]

Lumber, another important item of production in the northwest, or at least in Minnesota, is also marketed chiefly through the metropolitan center, though its manufacture no longer figures among the city's industries.[3] The lumber is now sawed in northern Minnesota, where it is cut, but the lumber companies still have their headquarters at Minneapolis, through which they do much of their business,[4] and the lumber industry and the lumber trade are still financed largely through the Twin Cities.

Not all the products of the northwest, however, are marketed through the Twin Cities. The metropolitan market is not all-embracing; for some commodities there is what approaches a national market,[5] and some marketing organizations, because of special circumstances, ignore in considerable measure the metropolitan system. In the northwest, such a situation is most noticeable in the marketing of the products of the mines. In northern Minnesota there are immense iron deposits, development of which was begun about 1880. At the present time, there are three iron ranges which are being worked, and

1. See the <u>Report of the Federal Trade Commission on the Marketing of Food</u>, 1919.
2. See Appendix, Table V. Also see above, p. 54.
3. See above, p. 40.
4. See above, pp.40-41,especially note 2, p. 41.
5. See above, p. 4.

which together produce over one-half the country's supply of iron ore.[1] Until recent years, the product of these mines was all sent east, via Duluth and the Great Lakes, to the coal districts of the east, where the smelting was done.[2] In 1915, however, a large iron and steel plant was opened near Duluth, and now manufacturing near the mines is becoming more and more important.[3]

The product of these iron mines thus does not figure to any considerable extent in the metropolitan market of the northwest. The iron ore is sent from the mines either to the steel plant near Duluth, or to Duluth itself, whence it is sent over the lake route to eastern manufacturing centers. The whole industry is controlled by the United States Steel Corporation, which finances most of its operations in the east, and conducts its business, to a considerable extent, on a national basis. Due to this fact, and to the necessity for strict localization of this industry, the Twin Cities have little or no control over it. It may be said, however, that it is entirely probable that as time goes on, Duluth will come to supply the iron and steel for the metal industries of the Twin Cities, and this will tend to bring Duluth into the metropolitan marketing organization.

There are important iron deposits also in northern Michigan and Wisconsin, which figure very little in the metropolitan marketing system. The ore produced is practically all sent over the lake route to eastern manufacturing centers; and it is true of this commodity, as of others of this district,[4] that it is influenced relatively little by the market at the Twin Cities.

1. U. S. Census, 1910, vol. XI, p. 102; Durand: Manufacturing in Minnesota; Journal of Geography, XIV, 1916, p. 220.

2. Durand: Manufacturing in Minnesota; Journal of Geography, XIV, 1916, p. 220.

3. See below, p. 131.

4. See above, p. 122.

The only other mineral resources in the northwest which are of national importance are the copper mines of Montana. The western part of this state has very rich mines which rank her second among the states of the Union in the production of copper.[1] These mines, like the iron mines of northern Minnesota, are a very important source of wealth to the northwest, but, also like the iron mines, they do not add to the economic importance of the metropolitan center. They are controlled by the Anaconda Copper Mining Company, which is financed from the east, and which markets the products of the mines, not through the Twin Cities, but through eastern agencies.

A third example of non-metropolitan marketing is to be found in connection with the granites quarried near St.Cloud, Minnesota. St.Cloud is known as the "Granite City", the product being of a high quality, and in demand throughout the country. In general, St.Cloud is an industrial tributary of the Twin Cities,[2] but the companies which quarry the granite and make it up into building stones, monuments, and tombstones sell their product in nearly every state of the Union, either through salesmen or by mail order. They claim to be in large measure independent of the Twin City market, and have developed what approaches a national market for this one product.

The conclusion must be that it is generally true that the Twin Cities furnish a concentrating center for most of the products of the northwest, although an important exception exists in the case of the mineral products. To be contrasted with this district from which the products are sent to the Twin City market is the area into which the cities distribute the goods which are manufactured at the center or are secured by trade with other metropolitan

1. In 1909, the value of products in the copper industry of Montana was $39,400,697. (U. S. Census, 1910, vol. XI, p. 109)

2. See below, p. 143.

centers. This area is a considerable one, the Twin Cities being particularly active in the jobbing of groceries, hardware, and agricultural machinery. Some jobbers claim a territory extending all the way to the Pacific Coast as far south as a line drawn west from the southern boundary of Minnesota. Many of them are active in the Canadian northwest; and some of them sell a good deal in Wisconsin and Michigan. In much of this area, the Twin Cities are not dominant, however, meeting keen competition from Chicago and Milwaukee in the east, Kansas City and St.Louis in the south and west, San Francisco and Seattle in the far west, and Duluth in the north. Minneapolis and St.Paul are the most important jobbing centers, however, in a district which includes western Wisconsin, Minnesota, North and South Dakota, and Montana.[1]

One other function assumes considerable importance, in the performance of which the metropolitan center gives evidence of its dominating influence over its tributary area. The furnishing of capital for loans and investments both in the center itself and in the surrounding district, is one of the last functions which a metropolitan center comes to perform, and it is one which the Twin Cities are now just developing.[2] It arises out of the performance of the other functions, and includes the area which is in other respects tributary to the center. It was this area which the Reserve Bank Organization Committee attempted to delimit, and its efforts were, on the whole, successful.[3]

The tributary area of the Twin Cities might be delimited for a number of other goods and services which have not been considered individually, but the result would probably not clarify the situation. It may be said that the district including the western quarter of Wisconsin, all of Minnesota, North

1. See above, p. 55.

2. See below, pp. 171-172.

3. See above, p. 121.

and South Dakota, and Montana is substantially a part of the metropolitan marketing organization of the Twin Cities. A somewhat peculiar situation obtains in the peninsula of Michigan and a part of Wisconsin, which were included in the Ninth Federal Reserve district, although they did not really belong to the Twin City area.[1] Although there was a good deal of objection at the inclusion of this territory, the present tendency seems to be to build up the business relations between it and the Twin Cities, so that eventually it may become a part of the metropolitan area. This is reversing the usual procedure, which is to build up trade relations first, the financial connection following naturally; but the work of the Reserve Bank Organization Committee may very possibly stimulate the formation of business connections.

The Twin Cities do not maintain their relationship with all parts of the area directly. Many of their functions have been to a certain extent decentralized, and there are numerous subordinate centers which act as centers for the economic life of a small local area.[2] Products are sent to them from the surrounding country, and thence are forwarded to the metropolitan center. They also do some local jobbing, securing their supplies mainly from houses in the Twin Cities, and distributing them among the mercantile houses near by. Frequently these tributary centers carry on a certain amount of manufacturing, the industries supplying a local market, or perhaps being located there to secure certain special advantages. A few of the centers develop their banking facilities to the point where they can finance many of the enterprises of their own area.

1. See above, p. 122.

2. See above, p. 9.

The most important subsidiary center in the area of the Twin Cities is, of course, Duluth. This city occupies a somewhat anomalous position, being neither entirely subordinate to the Twin Cities, nor quite independent, with a position outside the metropolitan market. Duluth was founded by the American Fur Company, and became the terminus of a post-road from St.Paul to the Great Lakes before the Civil War; but it did not attain any great importance until the era of railroad building began in Minnesota, after 1865.[1] Duluth then became the terminus of a road that connected the Twin Cities with Lake Superior. From that time on, her position increased in strength; and, between 1880 and 1890, when she had secured an all-rail route to the east, as well as her water route, she demanded, and secured, a rate from the east as favorable as that granted to Chicago, which was better, of course, than the one given to the Twin Cities.[2] At about the same time, the immense iron resources of northern Minnesota began to be developed, and most of the ore was sent through Duluth and over the Great Lakes, greatly increasing her importance as a shipping point.[3] Low water rates to the east also attracted an increasing volume of eastward-bound grain, as the wheat area shifted northward.

Thus, between 1880 and 1890, Duluth's prospects were bright, and seemed to justify her expectations of becoming, within a few years, an independent center of considerable importance.[4] This ambition has gone largely unrealized,

1. See above, p. 79.

2. See above, p. 93.

3. Carney: Minnesota, the Star of the North, p. 207.

4. "Capitalists will not be slow to appreciate and take advantage of these great natural facilities, and with what an abiding confidence may we look forward to the future results of manufacturing in building up this city into the metropolis of the Northwest." (Annual Report of the Trade and Commerce of Duluth, 1885, p. 18)

however, for she had failed to take into account several weaknesses in her position. The water transportation, which was one of the most important elements in her strength, was shut off during several months in the year. Minneapolis continued to draw most of the wheat of the district, as her mills constituted a first claim on it.

The most important obstacle to Duluth's growth, however, was her inability to develop a hinterland. Her natural area lies north and west of her, and that district is largely cut off by the Canadian boundary. The Twin Cities are the natural concentrating point for most of the American northwest; consequently Duluth has been unable to organize a tributary territory and become a well-rounded center.

She is, however, a city of considerable economic importance. Within the last ten years, the iron and steel industry has grown up there, a large iron and steel plant having been built near the city in 1915.[1] This plant has meant a great deal for the industrial development of Duluth, and, at the present time, more and more of the iron ore mined in northern Minnesota is being smelted and made into iron and steel there, and finds a market in the rapidly developing western country, where it has an advantage in locality over more eastern plants.

Duluth and Superior together rank next to Minneapolis in grain elevator capacity, being third in the United States.[2] Duluth is the second largest flax center in the country, ranking next to Minneapolis.[3] She is also an important distributing center, having an especially strong position in the

1. Durand: Manufacturing in Minnesota; Journal of Geography, XIV, p. 221.

2. Chicago has an elevator capacity of 57,305,000 bushels; Minneapolis of 56,150,000 bushels; and Duluth-Superior of 36,325,000 bushels. (Mpls. Ch. of Comm. Rep't, 1919, p. 192)

3. Ibid., p. 191.

jobbing of hardware. To a considerable extent, the towns of the Iron Range look to Duluth as their center, for their products go there, and many of the goods which their merchants sell come from there.[1] The financing of the iron and steel industry is done largely in the east, but Duluth banks furnish an important part of the funds required by the grain trade.

Duluth is, then, by no means within; nor is she entirely outside, the metropolitan market of the Twin Cities. Her industries are, to a large extent, independent of the Twin Cities, and in some lines of jobbing, such as hardware and groceries, she is practically independent. Only a fraction of her goods are secured through the medium of the Twin Cities, and her jobbers sell them in an area in northern Minnesota and North Dakota for control of which they compete with Twin City jobbers. In so far as the iron and steel industry is financed outside of Duluth, it is financed through eastern centers rather than through the Twin Cities.

On the other hand, the measure of dependence is real. In the jobbing of some things, such as boots and shoes, dry goods, and millinery, Duluth is scarcely more than a tributary of the Twin Cities. Grain comes to her, for the most part, only after the demands of the Minneapolis mills have been satisfied; in fact, many of the members of her Board of Trade are Minneapolis grain men.[2] As far as flax is concerned, she is not much more than a receiving and shipping point, for practically all of the manufacturing of linseed oil is done at Minneapolis.[3] The grain trade of Duluth is financed

1. Such towns as Coleraine, Virginia, Hibbing, and Two Harbors look to Duluth as their commercial center.

2. In 1918, 48 firm and corporation members, out of a total of 112, were Minneapolis firms. (Duluth Board of Trade Report, 1918, pp. 76-80.)

3. See above, p. 71.

partially by local banks, but when the limits of credit have been reached there, the grain companies come to Twin City banks.

It may be said, then, that her independence is most noticeable in the iron and steel industry, which, due to the presence of the iron mines near by, has grown out of proportion to the rest of Duluth's development. An example like this of semi-independence is not peculiar to the Twin City metropolitan area; it exists in nearly all areas,[1] in fact, and, though it detracts from the unity of the metropolitan market, it does not destroy it. Such apparent exceptions to metropolitan marketing only make the general dominance of the center stand out more strongly, and the inability of a center like Duluth to realize its ambitions with any completeness serves to make the metropolitan concept more real.

A number of centers have developed in the area which are really subsidiary to the Twin Cities.[2] The commercial function is the one which has been most decentralized, and most of the centers are predominantly commercial, although some of them have also fairly important industries. In southern Minnesota, which is more highly developed than any other part of the area, there are several cities which perform the function of commercial tributaries. Albert Lea, which is nearest the Iowa boundary, is a railroad and trading center. It is in the heart of the dairying district of Minnesota, and concentrates the agricultural products of the surrounding district[3] as well as distributing to it groceries and other commodities which are brought in largely from the

1. In the Boston area there is Providence; in the New York area Buffalo; in the Chicago area Milwaukee, all of which bear somewhat the same relation to the respective metropolitan centers that Duluth does to the Twin Cities.

2. The material on which the following discussion is based came largely from notes on personal investigations, very kindly loaned to me by Professor N. S. B. Gras; also partially from information obtained in the Minnesota, North and South Dakota, and Montana Gazetteer for 1916-1917.

3. These products include grain, dairy products, and live-stock.

metropolitan center. Its wholesale houses sell to the stores of that city, as well as to mercantile establishments in the smaller country towns within a radius of twenty-five or fifty miles.

Another commercial center in southern Minnesota is Rochester, which has several wholesale grocery and produce houses, whose sphere of influence extends about fifty miles to the east, west, and north, somewhat farther to the south. Most of the goods distributed come from the Twin Cities, and get into the hands of merchants of this local area not through salesmen of Twin City jobbing houses, but through the wholesale houses in Rochester. There are some local manufacturing establishments, but the town is predominantly commercial.

The third commercial center of southern Minnesota is Mankato, whose area of influence extends mainly westward, and also eastward to compete with Albert Lea and Rochester. Its commercial establishments include several wholesale houses, especially produce and grocery houses, and one or two grain elevators. Numerous commercial travellers, some of them representing Twin City houses, some of them Chicago houses, have their headquarters at Mankato, which is a railroad center of some importance. Its ambition is to become the commercial metropolis of southern Minnesota, and it has, in fact, established dominance over a considerable area, including several smaller towns. Flour is manufactured in Mankato, and sold over a considerable area, and the town has a number of manufacturing establishments of local importance. Financially, it, as well as the other commercial centers of the district, look to the Twin Cities.

North of the Twin Cities, there are no well-developed commercial centers in Minnesota except Duluth. Bemidji and Crookston each do a little wholesaling, mainly in groceries, their territory extending mainly north and south, with Duluth competing in the east, and Grand Forks in the west. For the most part, however, these towns do only a retail business with the surrounding agricultural districts, and in return collect the grain raised and send it on to Duluth or Minneapolis.

In northern Wisconsin and Michigan, there are several centers of some importance, whose chief function is the shipping of the iron ore which is mined near by.[1] They are all situated near the shore of Lake Superior, the most important ones being Ashland in Wisconsin, and Ironwood, Ishpeming and Marquette in Michigan. Some of them have also developed some wholesaling, largely in groceries.[2] These centers cannot be said to be really tributary to the Twin Cities, as they do not, at the present, either market their products or secure their supplies there.

In North Dakota, there are three towns which may be called commercial subsidiaries of the Twin Cities. Grand Forks is the local center for northern North Dakota. Some manufacturing is done there, but for a strictly local market; the town is predominantly commercial. It has eight wholesale houses, five of them dealing in groceries, one in dry goods, one in meats, and one in fish. These houses furnish supplies for a territory which extends east to the Crookston area, north to the Canadian boundary, west nearly to Montana, and south to the Fargo area mentioned below. It also has two elevators in which the grain of the surrounding country is collected for forwarding. Grand Forks also has a number of financial institutions which are of considerable local importance.[3]

Farther south, but, like Grand Forks, on the Red River, is Fargo, which performs the same function for southern North Dakota that Grand Forks does

1. See above, p. 126.

2. Michigan Department of Labor Report, 1919.

3. See below, p. 145.

for northern. It is a larger center than Grand Forks,[1] and plays a very important part in the economic life of its section. Little manufacturing is carried on, although there is a fairly large cooperative packing plant near Fargo which secures its supply of live-stock from southeastern North Dakota, northeastern South Dakota, and northwestern Minnesota. Its market for finished goods is mainly a local one.

Fargo claims to have 108 distributing agencies,[2] being especially strong in the distribution of farm implements and autos. Her firms distribute goods in North Dakota, northwestern Minnesota, eastern Montana, and northern South Dakota, although in some of this area they play a relatively unimportant part. Fargo is without doubt the most important commercial center of North Dakota, and is probably the most important commercial tributary of the Twin Cities. It also holds a rather important financial position.[3]

In western North Dakota there is Minot, which is of about the same rank as Crookston and Bemidji in Minnesota, doing some local jobbing in groceries and meats. It is a local grain center of some importance, having, in 1916, six grain elevators;[4] and it ships a good deal of lignite coal which is found in large quantities near by.

It is a matter worth noting that all three of the North Dakota commercial centers have among their wholesale houses branch establishments of Stone-Ordean-Wells, a large wholesale grocery house in Duluth. This fact indicates

1. See Appendix, Table IX, for population of this and other centers in 1920, according to U. S. Census figures.

2. Thirty-four of these were branch houses of outside corporations, thirty-five were local wholesale houses, and thirty-nine were manufacturing jobbers. (Argument for Federal Farm Loan Bank, submitted by Fargo Commercial Club, p. 16.)

3. See below, p. 145.

4. Polk: Minnesota, North and South Dakota, and Montana Gazetteer, 1916, p. 871.

Duluth's importance as a jobbing center; that city does, in fact, have an important share in the jobbing business of North Dakota. However, the Twin Cities are the more important centers for the wholesale trade, even of North Dakota, and they get the live-stock and much of the grain from that state, in addition to being the important financial center.

South Dakota, like North Dakota, has three commercial centers. In the north is Aberdeen, the second largest city in the state,[1] and a railroad and distributing point of considerable importance. It has four railroad lines[2] which bring it in close touch with surrounding territory, and its wholesale houses, of which there are a number, do business in an area extending 150 miles to the north, east, and south, and as far as the boundary to the west.[3] It claimed, in 1915, to have a jobbing business of nearly $15,000,000, in addition to a considerable retail trade.[4] It has also a grain elevator capacity which makes it an important concentrating point for the grain of the surrounding country. Manufacturing in Aberdeen is relatively unimportant, being only for a local market.

In the southern part of the state, Mitchell, though not so well developed as Aberdeen, is well on the way toward becoming a commercial center. It is a concentrating point for grain and live-stock, does some wholesaling in groceries and produce, and holds an annual corn festival which is well-known locally. Though not a large place, Mitchell is a local financial center of some importance.[5]

1. See Appendix, Table IX.

2. They are the Chicago, Milwaukee, and St.Paul; the Chicago and Northwestern; the Minneapolis and St.Louis; and the Great Northern.

3. Polk: Minnesota, North and South Dakota, and Montana Gazetteer, 1916, p. 941.

4. Ibid.

5. See below, p. 146.

Finally, Sioux Falls, the largest city in the state, occupies a position of considerable importance in southeastern South Dakota. It has, in fact, a more wide-spread influence than has Mitchell, with which it is placed in competition by reason of its location. The mercantile establishments of Sioux Falls are numerous, including among them wholesale houses representing most lines of business. Six railroad[1] lines run through the city, giving it excellent communication with the surrounding country; and, in addition to the distributing which it does, it ships out grain, live-stock and produce, as well as building stone secured from the numerous quarries roundabout.

West of Minot in North Dakota, and Aberdeen in South Dakota, there are no distributing centers of any importance until after the Montana line has been crossed. Although that state is a relatively new one, and not so far advanced in development as even North Dakota, four centers have assumed importance as local receiving and distributing agencies. When we have gone this far west in the territory, however, dependence on the Twin Cities becomes less and less marked; and the Montana centers, particularly Missoula, which is farthest west, look to the Twin Cities to a lesser degree than do the other commercial towns of the area.

Miles City, the most eastern center in Montana, is a town of considerable importance to the stock-raising industry, which is widely carried on in this part of the state. The Miles City area extends for about 200 miles roundabout the city; stock-raising being predominant in this area now, although tillage is assuming more and more importance. Miles City is an important primary wool market, well over 10,000,000 pounds being handled annually; and is also one of the most important markets in the United States for range horses.

1. They are the Chicago, Milwaukee and St.Paul; the Chicago, St.Paul, Minneapolis, and Omaha; the Chicago, Rock Island, and Pacific; the Illinois Central; the Great Northern; and the South Dakota Central lines.

Annual shipments of cattle and sheep are large, some of them going to South St.Paul, some to Omaha, and many to Chicago.

Billings, the next center of importance, distributes goods into the farming districts which surround it, and also to some extent into the coal fields in the eastern part of the state, and the oil fields of northern Wyoming. Her distributing agencies include wholesale hardware, grocery, and fruit houses, and also a number of branch houses of implement manufacturers. She is a receiving point for the agricultural products of the district, including grain, wool, live-stock, sugar beets, and produce.

In the far western part of the state is Missoula, which acts as the receiving and distributing center for western Montana. Its trade is mainly with the Flathead Indian Reservation and the Bitter Root, Missoula, Blackfoot and Flint Creek valleys, which are mainly agricultural, though some lumbering is carried on. Its industries are of a local nature.

East and north of Missoula, on the Missouri River, is Helena, the capital of the state and the center for an agricultural district of fifty to a hundred miles radius. It has a number of wholesale agencies, some of which do a considerable business. Helena is too near Great Falls, however, for much further growth; and the fact that it lost in population between 1910 and 1920[1] would seem to indicate that it has practically reached the limit of its development.

Great Falls, the second largest city in Montana, is a town of considerable commercial importance. Three main railroad lines run through the city,[2] and, in addition, five branch lines penetrate the surrounding territory, in which

1. See Appendix, Table IX.

2. The Great Northern; the Chicago, Milwaukee, and St.Paul; and the Chicago, Burlington, and Quincy.

agriculture, lumbering, and mining are all important. Great Falls has a number of wholesale houses,[1] and several distributing agencies for agricultural implements, so its jobbing interests are important. It is not solely a commercial center, however, for its industries are of more than local importance. Among them are included a large plant for the reduction, smelting, and refining of copper, a zinc plant, a good-sized flour mill, and several bituminous coal camps located near the city. Its financial interests are also considerable.[2]

This city illustrates the transition from the commercial to the industrial center, the industrial development in this case being due largely to local resources. For the most part, industries have not developed to any marked degree in the subsidiary centers of the Twin City area. The area is relatively new,[3] at least as compared with more eastern districts; and industry develops later than trade. At the present time, most of the subsidiary towns depend on the Twin Cities or more eastern centers for their manufactured goods; their industries, if developed at all, being of a strictly local nature.

There are some exceptions to this, however. Some industries have grown up quite outside the metropolitan center, notably the mining industries already mentioned,[4] and these have given rise to cities which have considerable industrial importance. In northern Minnesota, there are several mining towns,

1. They include two wholesale dry goods houses, three wholesale grocers, and wholesale hardware, produce, and meat houses. (Polk: Minnesota, North and South Dakota, and Montana Gazetteer, 1916, p. 1152 and following.)

2. See below, p. 146.

3. See above, p. 18.

4. See above, pp. 125-127.

such as Virginia, Hibbing, Eveleth, and Ely, which center around Duluth.[1] In the copper-mining district of Montana, two centers have developed. The more important one is Butte, the largest city in the state. It is one of the largest mining cities in the world, and its importance is based almost wholly on the copper-mining which brought about its growth. It has a large number of smelting and manufacturing plants, and ships annually immense quantities of the ore that is secured from the mines roundabout.

The other center is Anaconda, whose chief industry is copper, which is mined and smelted on a large scale. Gold and coal are also mined near by. Its business is considerable, and, even more so than that of Butte, is based on the mining industry.

These two cities, like Duluth, are largely outside the metropolitan markets and their industries are not greatly influenced by the metropolitan organization. But, in some cases, decentralization of the industries of the Twin Cities has taken place, to secure such advantages as greater nearness to raw materials and lower overhead expenses. These industries are a real and an important part of the metropolitan marketing organization. The most conspicuous example is the lumber industry, which, though formerly centralized in Minneapolis, has left that city, and is now located in several towns in northern Minnesota,[2] in order to remain close to the timber supplies.

Two of the most important lumber-manufacturing centers in the state are International Falls and Cloquet. At the former place are several lumber companies, and saw mills, with a capacity of 100,000,000 feet of lumber per year; and paper, pulp, and sulphite plants which produce hundreds of tons of paper a day. Large quantities of paper and lumber are shipped out of International

1. See above, p. 132.

2. See above, p. 40.

Falls annually. Cloquet is one of the largest white pine lumber centers in the world. It, like International Falls, has immense lumber, paper, and pulp mills, and other manufacturing establishments based on the lumber industry, and ships quantities of lumber, lath, shingles, and other wood products.

Much of the lumber and other products shipped from the lumber-manufacturing centers goes to Minneapolis, where most of the lumber companies have their headquarters, and which is still an important center for the lumber trade, although no longer an important lumber-manufacturing center. Such industrial centers as these are integral parts of the metropolitan economy, and are among the best examples of the dominating influence of the metropolitan center.

There are other industrial centers of considerable importance in the Twin City area. Just east of the Twin Cities themselves is Stillwater, another lumber center which has also other industries, including foundries and machine shops, twine, clothing, and shoe factories, and the manufacture of various lumber products and farm implements. There was a time in the early history of Minnesota when it was thought that Stillwater would be the most important city in the State, but its location was less favorable than that of the Twin Cities, and it seems at the present time to be at a standstill. Practically all of its products find a market in the Twin Cities.

Perhaps the most important industrial tributary in the area is Winona, on the Mississippi, near the southern boundary of Minnesota. It was one of the first cities in the state to be settled, and commanded an important position because of its location on the river. When railroads began to be built in this district, Winona was one of the early termini,[1] and her commercial importance is still considerable. She does considerable wholesaling, competing with Rochester for trade in the southeastern part of the state. Winona is not entirely a subsidiary of the Twin Cities, for a large part of her marketing is

1. See above, pp. 78-79.

done directly with the east. Moreover, there are three medical houses located there, which do not sell through the metropolitan market, but have a marketing organization of their own.[1]

Among its important industries are a pickling factory, a shoe factory, a chocolate manufacturing company, and a printing and bindery company. Part of the products of these factories are sold through brokers, mainly in the Twin Cities and Chicago; some of them are marketed through travelling salesmen, who cover a territory in southern Minnesota, northern Iowa, western Wisconsin, and eastern South Dakota. Some of the raw materials are bought through the Twin Cities; some from other metropolitan centers.

West of Winona, between Rochester and Mankato, is Faribault, another manufacturing center. It has flour, feed, planing, and woolen mills, shoe, carriage, and furniture factories, some metallic industries, and a packing house. Its manufactures are not so large or so important as those of Winona; it probably buys and sells largely through the Twin Cities, aside from its local market.

North of the Twin Cities, on the Mississippi River, is St.Cloud, a more important industrial town. Granite quarries in the vicinity gave it its start, and are still of considerable importance.[2] It also manufactures some machinery, has a woolen mill, two flour mills, and repair and construction shops of the Great Northern railroad. Some of its manufactures find a local market, some of them are sold through the Twin Cities. There is considerable

1. For instance, the Watkins Medical Company, which sells medicines, coffee, extracts and spices, and toilet articles, has 1000 salesmen; branch factories at Memphis, Tennessee, New York, and Winnipeg; and branch distributing houses in San Francisco and Ontario.

2. The product of these quarries is marketed, for the most part, outside the metropolitan organization. (See above, p. 127)

retail trade in St.Cloud, but little wholesale trade, as it is so near the Twin Cities.

Farther north, and still on the Mississippi River, is Brainerd, which is on the edge of the mining district. There are a number of mining shafts in the vicinity which are being worked. Lumbering is also important here; there are saw, planing, and pulp mills, and there is a dam in the river which furnishes boom facilities for 2,000,000 feet of logs. There is a good-sized foundry there, and a number of other establishments of local importance. Some of the products manufactured at Brainerd, as, for instance, the lumber and lumber products, are sent to the Twin Cities; the iron ore is for the most part sent to Duluth.

There is one other industrial center of some importance in Minnesota. Fergus Falls, in the western part of the state, has three woolen mills, which secure their supplies mainly from Montana; and sell partly through their own marketing organization, partly through the Twin Cities. There is also a flour milling company which has four mills, two in and two near Fergus Falls. This company seems to sell independently of the Twin Cities.

The only other industrial centers in the Twin City area are in Wisconsin. La Crosse, on the Mississippi River, south of Winona, is, like that city, a place which attained its importance early in the history of the northwest through its position on the river. Also like Winona, it is not entirely tributary to the Twin Cities as a marketing center. Its most important industries at the present time are flour milling and grist milling; its breweries were at one time of considerable importance.[1] In 1910, it was the fifth city in the state in value of manufactured products.[2]

1. Whitbeck: The Geography and Industries of Wisconsin, p. 81; U. S. Bulletin of the Census, 1910, vol. 6, p. 673.

2. U. S. Bulletin of the Census, 1910, vol. 6, pp. 694-695.

Eau Claire, the other industrial center in Wisconsin, is a city of considerable size almost due east of the Twin Cities. It is a railroad center of some importance, and, since it is situated in a timber district, its most important industries are lumber manufacturing and allied industries, and the manufacture of paper and wood-pulp.[1] In 1910, it ranked fourteenth among cities of the state in the value of its manufactured products.[2]

Few centers in the Twin City area outside of the Cities themselves have any considerable financial importance. Most of the banks in the smaller centers carry accounts in the Twin City banks, and depend on the Twin Cities for loanable funds; or, if they have any surplus for short-time investment, buy commercial paper through the Twin City banks.

There are some exceptions to this, however. Fargo and Grand Forks each seem to have a measure of local importance. Grand Forks has five banks, which, although they depend on Twin City banks in many ways, seem to serve some of the smaller banks in the towns to the west of Grand Forks.[3] Grand Forks banks have surplus loanable funds, they act as correspondent banks for the smaller institutions, and perform other services of a like nature.

Fargo is a still more important local center. It has ten banks, three of them national banks. Its bank clearings amount to well over $100,000,000 annually,[4] and its bank debits average between $1,000,000 and $2,000,000 weekly.[5] In 1915, it was claimed that about 500 country banks used Fargo banks as depositaries.[6]

1. U. S. Bulletin of the Census, 1910, vol. 6, pp. 694-695; Whitbeck: The Geography and Industries of Wisconsin, p.81.
2. U. S. Bulletin of the Census, 1910, vol. 6, pp. 694-695.
3. See advertisement in Commercial West, May 25, 1918, p. 34.
4. Leaflet issued by Fargo Commercial Club, 1919. (?)
5. See Appendix, Table XIII.
6. Argument for Federal Farm Loan Bank, submitted by Fargo Commercial Club, p. 21.

Fargo is the best example of a subsidiary financial center in the Twin City area. Other towns, such as Mitchell and Sioux Falls in South Dakota, and Great Falls in Montana, have fairly well-developed banking functions, and are the location of trust companies, building and loan associations, and insurance companies, which give them rather large supplies of loanable funds, but none of them have the important position with regard to other country banks that Fargo has.

Butte, Montana, occupies a somewhat peculiar position as the center of the copper mining industry. It has six banks, which cannot, of course, finance the mining industry themselves, but which probably have relations with eastern banks, so that they wield a greater influence than they could alone, and Butte does hold an important financial position with regard to the copper mining industry.

While this concludes the description of the Twin City metropolitan area, it by no means completes it. There are many phases of the relationship between the center and the area, and of the measure of solidarity, which it has been possible only to suggest, and not to describe completely. It is to be hoped, however, that at least enough has been told to give an adequate impression of the extent of the influence of the center over its area, and of the nature of this influence.

# C H A P T E R   V I I

## THE FINANCIAL DEVELOPMENT OF THE TWIN CITIES

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# CHAPTER VII

## THE FINANCIAL DEVELOPMENT OF THE TWIN CITIES.

The development of two of the most important functions of the metropolitan center has already been outlined. Attention has so far been concentrated on the story of St.Paul's beginning as little more than a trading center; the establishment of St.Anthony and Minneapolis as local lumbering and flour-milling points; and the subsequent growth of these towns into one economic center, which acts as the focusing point for the industry and commerce of a large district. Nevertheless, this is not the whole story of the influence of the metropolitan center. Following the industrial and commercial development of the Twin Cities, and arising in large measure from that development, came the establishment of an important financial position; and the Twin Cities have come to mean almost as much to the financial interests of the northwest as they do to the manufacturing and trading interests.

This function, while it is one of the best tests of the influence of a metropolitan center, is one of the latest to develop, and does not lend itself to accurate measurement. The extent to which the enterprises of the center, both industrial and commercial, depend on local agencies to supply their needs for capital investment, and, what is even more important, to finance their current operations; the extent to which country banks invest their surplus funds in commercial paper or long-time loans secured through the center, carry their correspondent accounts in banks in the center, and rely on these banks in times of stress; the extent to which financial institutions of the center supply the funds needed by the agricultural interests of the district; these things measure the financial importance of the metropolitan center. But, while the amount of jobbing business can be discovered with comparative ease; and the value of manufactured products can be secured with substantial accuracy, the amount of financing done can only be estimated on the basis of the scanty figures which are available. Enough data can be secured, however, to give proof of a development just as real as that in other lines of business.

For one who is accustomed to the use of the ample deposit, loan and investment facilities of the Twin Cities at the present time, it is difficult to imagine the primitive financial arrangements by which the early traders and settlers in the district carried on business. The northwest, like other new districts, passed through a period when there was not only an entire lack of banks, which meant scanty credit facilities, but a great scarcity of specie itself. Indeed, the men who carried on the earliest fur trade with the Indians found it most convenient to use furs at least as a medium of exchange, if not as a measure of value.[1] While such a situation did not continue long after settlement of the district had begun, specie continued to be scarce, and this fact was not without influence in the early history of banking in the state.[2]

Throughout the early history of the northwest, when economic life was closely bound up with the fur trade, the trading post of the American Fur Company exercised a dominating influence over the business of the district. Not only was it much the largest single establishment; what was more important, it was not a local institution as the other establishments were, but was simply one branch of the company, and so found it easy to maintain relations with other parts of the country through the other branches. As a result of this commanding position, the American Fur Company post came to be much more than a store where goods were exchanged for the furs brought in by traders.[3] It

1. Eliason: The Beginning of Banking in Minnesota; Minn. Hist. Soc. Coll., vol. XII, p. 671.

2. See below, p. 149.

3. See Eliason: The Beginning of Banking in Minnesota; Minn. Hist. Soc. Coll., Vol. XII, pp. 675-679, for a discussion of the financial operations of the American Fur Company.

cashed drafts on eastern centers, sold exchange on branches of the Company at other places, and, on occasion, acted as a fiscal agent for persons in the district or in other parts of the country. It even granted loans, and carried running accounts in some cases, built up by drafts drawn on other people, and drawn from like ordinary bank accounts. In fact, it performed all of the ordinary functions of a commercial bank, except that of the issuance of bank-notes.

For a time, this satisfied the needs of the northwest for a financial institution. The extent of its operations was limited, however, and, as population and the needs of trade increased, the lack of genuine banking institutions became more and more apparent. What the people at first felt the need of, was not so much an agency to deal in exchange, or to perform the deposit functions, as a bank of issue, which would counteract the widely-felt lack of specie by adding to the volume of paper money in circulation.

The situation in which the northwest found itself at this time was not unlike that of most western districts. Many commodities were needed from the east, while few were produced in sufficient quantities to export. The people of the district needed clothing, tools and implements of all kinds, house furnishings, and, for a time, even food products.[1] They could send, in return for these things, only furs, and, after about 1840, lumber. As a result, what little specie did find its way here, had to be sent back east to maintain the trade balance. Sentiment was consequently strong, among some groups, for the establishment of a bank (which meant to everyone a bank of issue) which could relieve the shortage of the medium of exchange by the issuance of bank notes. The nature and value of security to be maintained behind these notes differed widely, but was generally insufficient.

Not everyone in the district favored the establishment of banks of issue.

1. See above, p. 2.

The more conservative, and especially those acquainted with the evils usually attendant upon the operation of these banks, strongly opposed them, and practically prevented their gaining a foothold here, as they did in many parts of the country. Several attempts were made,[1] however, among them, one in 1849, and two in 1853. One of those in 1853 seems to have been a genuine bank, established in St.Paul, to issue notes, deal in exchange, discount notes, and make collections. But in this case, as in the others, the newspapers and business men were so hostile that the bank was driven out of business. Paper money was in common circulation, however, the bank-notes of banks of issue in other districts circulating freely.

The evils of inflated paper currency were thus clearly realized in the northwest. By 1850, however, the need of institutions to do a regular commercial banking business was realized. Those who were in strongest opposition to the establishment of a "bank" (meaning a bank of issue) favored the creation of agencies to deal in exchange and perform the discount and deposit functions. In 1853, the first commercial bank was established in St.Paul, and by the end of that year there were three banking houses in the city.[2] In St.Anthony, the first banks were established in the following year; and one was also established at Stillwater in 1854.[3] These institutions performed the regular functions of a commercial bank, and at least one of them is said to have issued notes, in spite of the hostility to this practise.[4]

When the boom of 1855-1856 began,[5] the need for funds, for speculation as

1. Eliason: The Beginning of Banking in Minnesota; Minn. Hist. Soc. Coll., vol. XII, pp. 680-684.

2. Ibid., p. 686.

3. Patchin: The Development of Banking in Minnesota; Minnesota History Bulletin, 2, p. 125.

4. Ibid., p. 128.

5. See p. 31.

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well as investment, was greatly increased, and the number of banking houses multiplied. By 1857, it was estimated that there were thirty in the whole of the Minnesota Territory.[1] Ten of these were in St.Paul alone, and probably all of the rest were in St.Anthony, Minneapolis, Stillwater, and Winona. In 1855, the business done by bankers in St.Paul was estimated at $3,500,000,[2] though this probably included some real-estate business, which nearly all the banking houses engaged in. This must have been greatly increased by 1867, with the great amount of borrowing, largely for speculation that went on. This business was done in spite of very high interest rates, for, money being so scarce, it naturally brought a high return. In 1856 and 1857, just before the panic, rates on short-time loans varied from two and one-half per cent to four per cent per month, and the demand for loans, even at that price, was great.[3]

The panic of 1857 was, of course, a very severe blow. All the usual evils of a panic appeared in aggravated form because this was a new district, and over-expansion and speculation had been common.[4] Several banks were forced to discontinue entirely, the others refused to do any further discounting, and, what was even more serious, suspended specie payments. This made it almost impossible for merchants to settle their debts in the east, as paper money was acceptable there only at a great discount. Steps were taken by city and county authorities, by banks, and even by merchants, to remedy the lack of

1. Patchin: The Development of Banking in Minnesota; Minnesota History Bulletin, 2, p. 134.

2. This includes seven banking houses, and "is based principally upon a calculation made by taking the credit side of the books in each establishment." (Emerson: Rise and Progress of Minnesota Territory, p. 8.)

3. West: Life and Times of H. H. Sibley, pp. 229-230; Patchin: The Development of Banking in Minnesota; Minnesota History Bulletin, 2, pp. 133-134.

4. See Patchin: The Development of Banking in Minnesota; Minnesota History Bulletin, 2, p. 134.

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money in circulation,[1] paper money in small denominations being issued, but it was some time before the business of the district recovered from the setback it received in the panic.

The need for state regulation of banking was by this time recognized, and in 1858, the legislature of the newly-admitted state[2] passed a banking law which authorized the establishment of institutions to perform the functions of commercial banks, including the issuance of notes. Notes were to be secured by United States bonds, or the bonds of any state. This included the Minnesota state railroad bonds,[3] which were used as security for note issue by a number of banks. By 1859, sixteen banks had been organized under the new law, but only seven of them were in operation. The state bonds on which their note issue was based were greatly depreciated, and the notes of all the banks were in large measure discredited, at home, as well as in other districts.[4] The state banking system was thus not particularly successful, though Minnesota was not more unfortunate in this regard than other western states during this period.

When the national banking system was established in 1863, it was not at once possible to found a national bank in the Twin Cities, due to the stringent requirements, especially in regard to the amount of paid-in capital. In December, 1863, however, the Bank of Minnesota was reorganized, and became the First National Bank of St.Paul. When the tax was placed upon the note issue of state banks, in 1865, nearly all the state banks in Minnesota were reorganized as national banks, so that in 1866, there were fifteen national banks in Minnesota.[5]

1. See Patchin: The Development of Banking in Minnesota, Minnesota History Bulletin, 2, pp. 139-140.

2. Minnesota became a state in 1858.

3. See above, p. 78. 4. Patchin: The Development of Banking in Minnesota; Minnesota History Bulletin, 2, p. 158. Folwell: Minnesota, p. 167.
5. Patchin: The Development of Banking in Minnesota; Minnesota History Bulletin, 2, p. 166.

This marks the close of the first phase of Minnesota's financial history. The needs of the rapidly developing community had called into existence a number of financial institutions, many of which, due to the great opportunities for gain, were led into unsound practises. Naturally it was not long before the public, awakened to the evils of the situation, put a check on bad banking by state regulation. Establishment of the national banking system was a further step in the same direction, and, by 1870, the banking of the state was on a sound basis. The banks were not numerous, nor large,[1] but they were sound, and that was a beginning much to be desired.

Beginning about 1870, with the recovery from the Civil War, comes the second "boom" period in the history of the northwest.[2] The expansion in railroad mileage, manufactures, and trading formed the basis for a corresponding increase in banking. In 1872, the capital and surplus of national banks in the Twin Cities amounted to $1,910,506.[3] By 1880, this figure was more than doubled, reaching $4,060,588.[4] In the former year (1872), individual deposits in national banks of the two cities amounted to $2,955,284; in 1880, they passed $6,000,000. Loans and discounts, which stood at $3,539,835 in the former year, reached $8,400,000 in the latter year.[5]

The development thus promisingly begun has continued very satisfactorily down to the present, though growth has not always been so rapid, and there have been some periods of setback.[6] The combined capital and surplus of

1. In 1866, the fifteen national banks of the state (there were no state banks at that date) had a total capital of $1,660,000. (Patchin: The Development of Banking in Minnesota; <u>Minnesota History Bulletin</u>, 2, p. 166.)

2. See above, pp. 33, 43, 79.

3. See Appendix, Table X. Of this amount, $1,326,921 belonged to St.Paul, and $583,585 to Minneapolis. (<u>Minneapolis, Financial Center and Gateway of the Northwest</u>, p. 9.)

4. Of which $2,705,000 belonged to St.Paul, and $1,355,588 to Minneapolis. (<u>Ibid</u>.)

5. See Appendix, Table XI. 6. See Appendix, Tables X, XI, and XII.

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national banks of the Twin Cities[1] amounted to $11,592,000 in 1890; $9,164,000 in 1900; and $19,714,361 in 1910. The volume of business done has grown even more steadily than the amount of banking capital. Individual deposits have mounted to $19,011,833 in 1890; $23,182,745 in 1900; $63,739,853 in 1910; and $168,469,000 in 1919; while balances of other banks carried in Twin City national banks, an item which was insignificant before 1880, reached $5,377,435 in 1890, $11,842,726 in 1900, $39,640,336 in 1910, and $90,111,000 in 1919. Loans and discounts tripled between 1880 and 1890, amounting in the latter year to $26,905,389. This item suffered a setback in 1893[2] from which it did not entirely recover until 1901, when it stood at $28,423,983; but since then, it has mounted very rapidly, amounting in 1910 to $76,539,953, and in 1919 to $162,887,000.

These figures, though they indicate the increase in the banking business, do not give any adequate impression of the volume of financial transactions carried on in the Twin Cities. For that purpose, bank clearings are usually considered to be the most accurate criterion. Bank clearings include all the inter-bank transactions, all the checks which pass from one bank to another, and so have been looked on as the most satisfactory available figures to indicate the amount of business carried on in any center. The Minneapolis Clearing House was organized in 1880, the St.Paul Clearing House somewhat earlier, so that figures are available from 1881 on. Like the other figures, they indicate a rapid and substantial increase in the business of Minneapolis and St.Paul. From $75,729,942 in 1881, the combined clearings mounted to $529,477,918 in 1890, $835,834,186 in 1900, $1,731,815,872 in 1910, and

1. Figures for the cities have been combined because they really constitute a single unit in banking, as in other branches of economic life.

2. See Appendix, Table XII.

$3,231,536,252 in 1919.[1] Such a growth in the volume of financial transactions is certainly a striking indication of the increase in the amount of business carried on in the Twin Cities.[2]

Within the past few years, it has come to be felt that bank clearings are, after all, but a poor means of measuring a city's business. They include only transactions between banks, and hence take no account of the transfers from one account to another within one bank. During the earlier banking history of a city, when financial institutions are generally small, this drawback would be of no great importance, but, as time goes on, some banks, by growth and consolidation, assume a greater relative importance, until finally, they may come to dominate the business of the city.[3] The transactions that are carried on within the limits of any one of these banks will reach a figure of considerable importance, yet will not appear in the bank clearings of the city. It was to remedy this evil that the Federal Reserve Board, in 1918, devised a plan of publishing every week the bank debits of all cities that are of considerable financial importance. These bank debits include all debits to individual account within each of the banks of the city, so that they tell a fairly complete story of the financial transactions of the city. They are published according to Federal Reserve districts, totals being given for each of the more important centers within the district,[4] and, while they do not run far enough back to form the basis of historical comparisons of any great value,

1. See Appendix, Table XII.

2. The fact that St.Paul ranked ahead of Minneapolis at first, but that Minneapolis took the lead in 1885, and has shown a more rapid growth since, is another indication that Minneapolis assumed leadership over her eastern twin in the decade between 1880 and 1890. (See above, p.

3. Such banks in the Twin Cities are the First National and the Northwestern National banks of Minneapolis; and the First National Bank of St.Paul.

4. The total for Minneapolis for 1919 was $3,341,684,000, for 1920, $4,613,659,000; for St.Paul, the total for 1919 was $1,948,193,000; for 1920, it was $1,895,569,000; for the whole district, the total for 1919 was $8,025,785,000; for 1920, it was $9,159,870,000. (See Appendix, Table XIII.)

they make possible comparisons between cities of the district at the present time, and constitute a desirable improvement over the figures for bank clearings.

While bank clearings and bank debits, and, to a limited extent, the figures for banking capital and surplus, individual deposits, and balances of outside banks, indicate the importance of the Twin Cities as a financial center, nothing more than a beginning can be said to have been made until there is an attempt to determine to what extent the financial needs of the northwest are satisfied by the banking houses of the two cities. Only this will disclose whether Minneapolis and St.Paul perform the financial, as well as the commercial and industrial, functions for their district.

It must be said at the outset that they did not perform this function from the beginning. It was only natural that during the early period of development, needs for capital in the two cities were much greater than could be supplied locally. New enterprises, both commercial and industrial, were being established in numbers, and much of the capital required was brought in from older districts by the men who founded them.[1] In most cases, however, these men did not bring large amounts of capital with them, but started their establishments on a small scale, and expanded later by reinvesting the earnings they had made. In fact, this practise of putting earnings back into the business was so common as to be one probable explanation of the scarcity of money which was so constantly felt in the district.[2] At the same time that it brought about rapid development of business, it meant that at no time would there be available large surplus funds for loans and investments. There is considerable evidence that, as lumbering declined at Minneapolis, the capital

1. See above, p. 25 ; Kuhlmann: <u>The Development of Flour Milling in Minneapolis</u>, p. 93; Holcombe and Bingham: <u>History of Minneapolis and Hennepin</u> pp. 172-173.

2. This impression was corroborated by a banker in Minneapolis who is familiar with the early financial history of the Twin Cities.

that had been invested in that industry was turned into flour milling, which was rapidly assuming importance. A considerable part of the early capital for the newer industry must have come from former lumbermen, although it is true also that some capital was brought in by outsiders who became interested in flour milling in the new center.[1]

The establishments which required the largest amounts of capital were the early banking houses that began to appear between 1850 and 1860, though all of them operated on relatively small amounts of paid-in capital. In several cases, the men who founded them came from the east and south, bringing with them what cash they could secure.[2] In other cases, men who had been engaged in other lines of business in the cities turned their capital and enterprise into banking.[3] It was true of banking, as of other business enterprises, that the original capital was small in amount, but that, as time went on, accumulations were turned back into the business. Later on, another source from which considerable banking capital was probably secured was found in the milling interests, which became closely allied with banking in Minneapolis, and were well represented in the directorates of several of the oldest banks.[4]

It may be said, then, that in general, the capital for early investments was brought in from more highly developed districts. It seems to be equally true, however, that in many cases this capital was brought in by men whose

1. See Kuhlmann: The Development of Flour Milling in Minneapolis, pp. 91-94.

2. J. K. Sidle, who founded what later became the First National Bank of Minneapolis, brought $10,000 with him from York, Pennsylvania. (Holcombe and Bingham. History of Minneapolis and Hennepin County, p. 169.) See also Williams: History of St.Paul, pp. 410-411.

3. The Harrison brothers, who came to Minneapolis from St.Louis to engage in lumbering, later established the Security Bank of Minneapolis, which became the Security National. (Holcombe and Bingham: History of Minneapolis and Hennepin County, pp. 172-173.)

4. Kuhlmann: The Development of Flour Milling in Minneapolis, pp. 95-96.

business interests became identified with the Twin Cities, and that, following this initial draft on older centers, the enterprises of St.Paul and Minneapolis came with considerable facility to supply their own capital for permanent investments. An exception to this statement must be made in the case of the railroads of the northwest, for it followed from their nature and the large amounts of capital they demanded that they should seek satisfaction for most of their needs outside the locality.

The early lines to the east were mainly Chicago or Milwaukee enterprises[1] and were financed from those centers. Between 1850 and 1860, the territorial government made generous land grants to a number of railroad companies which were probably to be financed locally in part, and, perhaps for that reason, were not successful in their efforts to give Minnesota the transportation she wanted and needed. Even when the state later made them a loan of over $2,000,000, by the issuance of state railroad bonds, they found continuous construction impossible.[2] The St.Paul and Pacific, one of the most important early railroads in the district, was financed largely by investments of Dutch capital, until J. J. Hill and his associates took it over and reorganized it into the Great Northern, when they secured a large part of the necessary funds from England.[3] In later years, the milling interests, which have to a large extent dominated the economic life of Minneapolis, felt the need of an all-rail line to the east, independent of Chicago; and they were largely instrumental in the construction of the Minneapolis, St.Paul, and Sault Sainte Marie,[4] though it is uncertain how much of the capital for the road they furnished.

1. See above, pp. 77,81.
2. See above, pp. 78-79.
3. See Pyle: Life of J. J. Hill, vol. I.
4. Meyer: Government Regulation of Railway Rates, p. 245.

There is still the question of the source of supply for the current funds required by business enterprises of the Twin Cities. And for this short time credit, as for the early funds for permanent investment, the Twin Cities were largely dependent on the east. The ability of banking houses to satisfy the credit needs of business rests on their capacity to add to the circulating medium, either by issuing notes, or by discounting commercial paper and making loans. During the first years of banking in the northwest, the former was considered the most important. Yet the performance of this function was not of much assistance to business, for, while the notes issued increased the circulating medium, they soon became so discredited that they were not suitable for payments to be made in the east, and so were looked on with disfavor by most business men.[1] In the making of loans and discounts, a bank is limited by the amount of its capital and surplus, and the volume of its deposits; and none of the early banking establishments of the Twin Cities were strong enough in either respect so that they could adequately supply the larger business houses with short-time funds.

Credit was essential, however, and so it had to be sought from other sources. The merchants, to a considerable extent, depended on the credit which they secured from the eastern houses with which they dealt. The importance of this source of supply is indicated by the fact that, in 1857, when the panic brought about a great shortage of specie in the Twin Cities, so that the merchants could not make their accustomed payments, it was estimated that St.Paul merchants owed eastern and foreign creditors $1,500,000.[2]

The need of industrial establishments for short-time credit was equally great. The flour mills of Minneapolis needed large amounts of credit for

1. See above, p. 152.

2. Patchin: The Development of Banking in Minnesota; <u>Minnesota History</u> Bulletin, 2, p. 137, note 72.

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short periods, to pay for the grain they bought, and to carry them until they had sold their flour in the east. Their needs, which were most conspicuous, because milling had developed on a larger scale than any of the other industries of the Twin Cities, were, however, only representative of the rest. None of the banks in the cities could furnish the larger industries with sufficient funds for their ordinary needs. The milling interests were in a relatively favorable situation, for, due to their connection with the banks, the latter were usually glad to give all the credit possible to the milling companies, and did furnish them with part of the necessary accomodation. For the rest, the millers sought eastern connections, and established relations with banks and commercial paper houses, which could handle large credit accounts, and sell their short-time paper at any time.[1]

1. Some of the letters among the Hale Papers, in the Manuscript Room of the Minnesota Historical Society, show the situation fairly clearly:

W. D. Washburn to Major Hale, New York, Jan. 9, 1877: "......I hope you can gather strength to pay the $5000 due Sidle [of the First National Bank of Minneapolis] on the 14th. I have arranged to extend the $2500 note - A.S.W.- due the 23rd...... Tell Williams of the Merchants' Bank [of Minneapolis] that I will fix up the R. R. note on my return in some way. I enclose two notes of $2000 each on 90 days - dated the 17th and 20th, that I expect you can get Neiler [of the Northwestern National Bank of Minneapolis] to take, to help you over....."

C. C. Washburn to Major Hale, Chicago, Feb. 15, 1877: ".......This morning I rec'd the $10,000 note. I will retain all for the present, but feel no assurance that I can help you to get $10,000. I want you to let Westfall, Sidle, and Neiler all to understand that they must let us have money at ten per ct. when we want it, or we shall make arrangements for it elsewhere. You can get all you want I am sure at ten per cent of the First Nat. St.Paul, and I am in favor of your opening an account there if your bankers continue to demand the pound of flesh......"

C. C. Washburn to W. L. Strong of New York, Minneapolis, May 3, 1877: "I enclose five notes $5,000 each, of the Minneapolis Mill Co., issued by D. Morrison, W. D. Washburn and myself dated May 1 and 15th and payable at National Park Bank six months from date. Please place proceeds to credit of the Minneapolis Mill Co. in such bank as you think we had best open an acc't with. The amount will be drawn for by W. D. Hale, agent of the Company as it may be wanted........"

C. C. Washburn to Major Hale, Boston, June 21, 1877: "Mr. Tower thinks that he can place $20,000 of our Company paper at 4, 5, and 6 mo. at a reasonable rate. Make and send me care Tower, Giddings and Co. 3 notes as follows: one $5000 at 4 mo. one $7,500 5 mo. and one $7,500 at 6 mo. also write me at Portland that you have done so. You wont forget the note $10,000 that I got disct. at Madison, due in N. Y......"

The situation that is thus shown to have existed in Minneapolis was equally true of St.Paul (at this time the more important financial center of the two), as will appear from a study of the papers of Maurice Auerbach.[1] Auerbach was one of the most important financial figures of the northwest, and was interested not only in a number of banking houses, but in several trading and industrial establishments in St.Paul. Hence his activities serve as an indication of the financial position of St.Paul.

This financial dependence of the Twin Cities was recognized and deprecated by business men, who felt that the importance of Minneapolis and St.Paul would

1. Auerbach Papers, in the Manuscript Room of the Minnesota Historical Society: 1890, Jan. - Feb. papers:

From Fogg Brothers, Boston, Massachusetts, to Mr. Auerbach; January 13, 1890:
"Dear Sir:
Will you kindly have Mr. Heineman send you a note same amt. date and time as those we discounted for you day or two since payable 1890 in lieu of 1889..........."

From A. H. Merrick, of Finch, Van Slyck & Company (wholesale dry goods), St.Paul, to Mr. Auerbach:
"Dear Mr. Auerbach:
Mr. Watkins prefers not to send the note to Mr. Wilder in N. Y. because he says he has already sent him a very large amt.- Says Mr. Wilder will be sending more soon after he reaches home and your notes can go then. - Mr. Watkins will take your demand note and get the money at the 1st Nat'l until some arrangement can be made with Mr. W. I will see that the money is sent to Am. Ex. Nat'l [New York] in ample time for the note due 28th inst......"

1890, Mar. - May papers:

From Dumont Clarke, of American Exchange National Bank, New York, to Mr. Auerbach:
"Dear Sir:
Yours of the 21st at hand, enclosing four notes, amounting to $17,500 for rediscount.
We should, my dear Mr. Auerbach, be very pleased to accomodate you were it not that money is very active from customers whose balances have been large, and your balance during the past year has been of small proportions, more of an accomodation to you than advantage to us......"

Telegram, n. d. (found with 1901 papers); from Robert Dunn, at Chicago, to Mr. Auerbach:
"Merchants Loan and Trust would take half a million Minneapolis wheat paper at four half and pay us commission. Wire them if any paper to be had amount and best rate."

be greatly increased by an addition to their banking facilities which would make them more independent of the east. The report of the Minneapolis Chamber of Commerce and Board of Trade for 1883 stated that banking capital, while still much less than was needed, was growing rapidly, and that the need for greater banking accommodations, and the need for buildings for wholesale dealers, were the most pressing problems before the Board of Trade.[1] The report for the following year, after a summary of the banking capital of the city, has this statement: "With the large grain and manufacturing business carried on in Minneapolis, a much larger banking capital could be profitably employed....Most of our large millers and manufacturers are forced to seek accomodations from eastern bankers during the busy season."[2] The Minnesota Railroad and Warehouse Commissioner in 1886, in a discussion of the marketing of grain, said, "Warehouse receipts are used as collateral for loans, much of the money being obtained in the east."[3] The demand for loanable funds in Minneapolis at this time is shown by the fact that the usual rate of discount for good commercial paper was eight per cent, while exchange on New York, Milwaukee, and Chicago was at a premium.[4]

Up until about 1900, the Twin Cities looked to financial institutions on the Atlantic coast as the source of their surplus funds. New York was the most important single center, as of course she was for the whole country, but banking houses in New England frequently played an important part. Gradually, however, as financial development followed industrial and commercial development at Chicago, that city assumed a more and more dominating position.

1. <u>Minneapolis Chamber of Commerce and Board of Trade report</u>, 1883, p. 5.

2. <u>Ibid</u>., 1884, p. 96.

3. <u>Minnesota Railroad and Warehouse Commission report</u>, 1886, p. 26.

4. <u>The Flour City - Minneapolis, Minnesota</u>, p. 38.

Twin City banks began to rely on Chicago houses as a market for their commercial paper, and a source of surplus funds, especially at grain-moving time, when the needs were largest. A commercial journal in Minneapolis[1] noted this in 1901, and commented on it, saying that, while New York had supplied most of the currency to move the crops a few years ago, Chicago was coming to do more and more of this. "The many growing cities west of Chicago are performing their duty to a limited area just as Chicago is performing her duty to the whole area; they are competing with Chicago in commercial lines with keenest aggression, but the surplus of money drifts naturally to the large center..... There may be trade competition between western cities and pushing rivalries to gain advantage, but this cannot change the fact of the relation Chicago holds to all the west as a great financial center."[2] Milwaukee also supplied some of the funds needed by the northwest.[3]

During all this time, the financial institutions of the Twin Cities were growing in size and importance, so that it was becoming possible to satisfy locally, in increasing measure, the need for funds. This growth is demonstrated by the rapid increase in the capital and surplus of Twin City banks, in the volume of deposits kept in those banks, and in the volume of their loans and discounts.[4] As time went on, too, the amount of capital required became less in proportion to what was to be found within the district,

1. The Commercial West, a weekly journal published in the commercial, industrial, and financial interests of the Twin Cities and the northwest generally.

2. The Commercial West, May 25, 1901, p. 7.

3. F. T. Day, of Milwaukee, was important in this business. (Conversation with a member of one of the largest farm mortgage firms in Minneapolis.)

4. The combined capital and surplus of national banks in the Twin Cities increased from $4,060,588 in 1880 to $19,714,361 in 1910; individual deposits from $6,013,086 in 1880 to $63,739,853 in 1910; loans and discounts from $8,429,580 in 1880 to $76,539,953 in 1910. (See above, pp. 153-154, and Appendix, Tables X and XI.)

for, although the amount needed to finance current operations increased rapidly, that needed for capital investment decreased as the commercial and industrial establishments of the Twin Cities were built up. Consequently, since the opening of the twentieth century, Minneapolis and St.Paul have become more and more independent of outside help in financing their commerce and industry. The year 1895 saw the establishment in Minneapolis of the first house - Lane, Piper, Jaffray - which handled commercial paper exclusively, and since that time, a number of eastern houses have established branches or placed representatives in the Twin Cities, and a number of investment houses handle commercial paper, so that, together with the many large banks that have grown up, a few of which rank among the twenty or thirty largest banks in the country, there are ample sources for the funds needed by Twin City establishments.

Even before Minneapolis and St.Paul had established any considerable measure of financial independence, they had begun to act as focusing point for the financial needs of the northwest. The district came to look to the Twin Cities for its capital and credit as it had already begun to look there for its supplies of groceries, dry goods, and machinery. Outside bank accounts, which first became important about 1880,[1] mounted steadily, and since about 1900, the banks of the district have relied largely on the Twin Cities as a reserve center, carrying little more than working balances in Chicago and New York.[2] This tendency was, of course, greatly strengthened by the establishment, in 1914, of the Federal Reserve system.

The banks of the district at the present time not only keep their legal reserves in Twin City banks, but a large part of their surplus funds are also kept there, to earn interest and at the same time be readily available;

1. See above, p. 153; also Appendix, Table XI.

2. Conversation with a prominent Minneapolis banker.

finally, the banks buy most of their commercial paper through the Twin Cities.[1] There are very few banks in Minnesota and North Dakota now which do not carry correspondent accounts in Twin City banks, and comparatively few in South Dakota and Montana. Concentration in Wisconsin and Michigan is not so marked.[2]

One important development which has tended to increase the domination of the Twin Cities is the growth of line bank systems with their headquarters in Minneapolis or St.Paul. The line-bank system is not peculiar to the northwest, but it has been more highly developed here than in almost any other district, and like the line elevators, and the chain lumber yards, has played an important part in building up the northwest, and the metropolitan center as well. Minneapolis men first began to establish line banks between 1890 and 1900,[3] and by 1916, there were 305 line banks operated from Minneapolis as headquarters.[4] At the present time, there are between ten and fifteen companies in Minneapolis which have line banks in the northwest, the number of banks in the chains varying greatly.[5] Part of the capital of the subsidiary banks is nearly always furnished by the community in which the bank is located, and the measure of control exercised varies according to the policy of the company. Direction and control, however, is concentrated in the metropolitan center, and the tendency is to bring the district into greater financial dependence on the center.

1. The Commercial West, July 27, 1918, pp. 7-8.

2. See the Bank Directory of the Ninth Federal Reserve District for 1919-1920.

3. Commercial West, Nov. 23, 1901, p. 9.

4. Minneapolis, Market of the Northwest, p. 118.

5. Among the line-bank companies in Minneapolis are the Bankers' Investment Company (one of the oldest line bank houses), the Union Investment Company, Sheldon Brothers, Bankers' Holding and Investment Company, Northland Securities Company, First Loan and Securities Company, and the John F. Sinclair Company.

It is not only by the dependence of banks of the district upon the Twin Cities that the financial importance of the metropolitan center is indicated. In all phases of financial life of the northwest, the Twin Cities play an important part. The crop movement, which creates the largest demand for currency and credit, is financed largely through banks of the center, which loan heavily to banks of the district, and to grain firms, both within the Twin Cities, and outside. These grain firms, many of which are line companies, have an important part in the financing of local elevator companies, which borrow both from local banks and from commission firms in the Cities. The Twin Cities cannot furnish, however, even at the present time, all of the funds needed to move the crops. The east is always heavily called upon during the fall months. This dependence is decreasing as time goes on, but it will probably not disappear, at least for some time to come. It is hardly desirable that it should, for if the northwest strove to supply locally all the funds required during this short period of extraordinary demand, considerable sums would almost inevitably lie idle during a large part of the year. Since 1914, the bulk of the crop financing has been done through the Federal Reserve Bank at Minneapolis, which borrows from other Federal Reserve banks, particularly in Chicago and New York. From the time of the establishment of this system, the shipments of currency from the outside during crop-moving months were greatly decreased; in 1915, these shipments amounted to about $1,000,000.[1] In large part, the need for additional currency has been satisfied, since 1914, by the issuance of Federal Reserve notes, which are well-planned to satisfy such a need as this. From October 1 to December 1, 1915, $8,000,000 of these notes were issued, in addition to $6,000,000 already out.[2] In any case, the Twin Cities, though they cannot supply all the money

1. First Annual Report of the Ninth Federal Reserve Bank.

2. Ibid.

and credit needed, are the channel through which outside funds are distributed,[1] and their part in the whole movement is a significant one.

The farm mortgage business has always been large in the northwest, as is to be expected in an agricultural district. Accordingly, farm mortgage houses early grew up at the Twin Cities. As early as 1874, a farm loan business was established there, the money loaned out on mortgages being furnished largely by eastern investors.[2] Until nearly 1900, most of the mortgages, though handled in the Twin Cities, were sold to eastern investors; even now, it is probable that only about half the mortgages remain in the district, the rest being sold to insurance companies in the east and to small investors in the middle west.[3] Farm mortgage bankers are very numerous in the Twin Cities now (1921), and the volume of business they carry on is large.[4] The establishment of the Federal Land Bank at St.Paul in 1915 confirmed the importance of the cities as a center for this business, and also added greatly to the volume of business done.

Since live-stock raising has become important in the northwest, a comparatively new type of loan has developed - the cattle loan. This business is carried on chiefly at St.Paul, and, while as yet comparatively unimportant, it is one that will doubtless show rapidly increasing volume as time goes on. The St.Paul Cattle Loan Company was incorporated in 1901;[5] in 1915, three St.Paul

1. See below, p. 172.

2. Johnston: Minnesota Journalism in the Territorial Period; Minn. Hist. Soc. Coll., vol. X, pt. 1, p. 262.

3. Conversations with farm mortgage bankers of the Twin Cities.

4. A rough estimate would place the volume of mortgages outstanding in 1915 at upwards of $130,000,000 for the two cities. (Minnesota, Center of Northwestern Agricultural Development, p. 37; Minneapolis, Market of the Northwest, p. 61.) There are said to be now a half dozen farm mortage firms in Minneapolis, each of which does an annual business of three to four million dollars; and a number of other firms doing a smaller business.

5. The Commercial West, June 22, 1901, p. 17.

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houses reported a total volume of cattle loans of $11,654,231.[1]

The insurance business was first established in the Twin Cities about 1855, it was at first centered largely in St.Paul, and carried on mainly in connection with the real estate business.[2] This business has become more and more important, however, all lines of insurance having developed, especially since 1880. The Twin Cities are now the center for insurance companies operating throughout the northwest. In 1916, 129 insurance firms were operating in that district, with their headquarters in Minneapolis.[3]

The importance of the Twin Cities in the financial life of the northwest has long been evident, but in 1914 came a real test of their position as a financial center. When the Reserve Bank Organization Committee began its work of organizing the country into Federal Reserve districts, the decision it made with reference to the northwest was one of vital importance to Minneapolis and St.Paul. If Federal Reserve banks were placed at Chicago and Kansas City, and possibly at Denver, with none at the Twin Cities, it would mean that the northwest would turn away from the Twin Cities, and grow into closer relations with the center at which the bank was located. If, on the other hand, a bank were placed there, a real step would be taken toward the building up of an area financially dependent upon the Twin Cities. The establishment of a Federal Reserve bank, would not, in itself, mark the advance of the Twin Cities into the third phase of metropolitan economy - the financial phase - but it would confirm the progress already made, and greatly enhance the influence of the center.

The Reserve Bank Organization Committee, in making its decisions, took into account not only general commercial relations, but more particularly the

1. Minnesota, the Center of Northwestern Agricultural Development, p. 39.
2. Hudson: A Half Century of Minneapolis, pp. 263-264.
3. Minneapolis, Market of the Northwest, p. 100.

financial relationships established in the district under consideration.[1] Among other investigations with regard to the extent of dependence upon the centers which were being considered, all national banks in the country were asked to indicate the city of their first, second, and third choice for location of the Federal Reserve bank with which they were to be connected. In this vote, the Twin Cities together received 508 first choice votes,[2] and they received, from the banks included in the district later organized as the Ninth Federal Reserve district, 500 votes from a total of 645 cast. In Minnesota, the Twin Cities received a total of 478 first, second, and third choice votes from a total for the state of 702; in Montana, 77 from a total of 148; in North Dakota, 249 from a total of 348; in South Dakota, 131 from a total of 261; in Wisconsin, 75 from a total of 245; and in Michigan, only 7 from a total of 200.[3]

The decision of the committee was to make Minneapolis the location of the Ninth Federal Reserve Bank, and it has added greatly, as it was expected to do, to the financial importance of the Twin Cities. The functions performed by the Federal Reserve bank, which give it this importance, cannot all be dealt with here, but those which serve best to bring the district into closer relation with the center may be at least suggested. The legal reserves of member banks are all kept in the Federal Reserve bank, which thus becomes a large concentrating agency for reserve funds. The reserve bank, through its par collection service, acts as a clearing agency for its district, and frequently balances

1. "Among the many factors which governed the committee in determining the respective districts and the selection of the cities which have been chosen were........: The mercantile, industrial, and financial connections existing in each district, and the relations between the various portions of the district and the city selected for the location of the Federal Reserve bank.............
The general geographical situation of the district, transportation lines, and the facilities for speedy communication between the Federal Reserve bank and all portions of the district." (63rd Congress, 2nd Session, Senate Document No. 485; Location of Federal Reserve Districts, p. 361.)

2. See Appendix, Table XV.

3. See Appendix, Table XV.

between banks of different districts are cleared through the respective reserve banks. When borrowing has to be done from other districts, as at crop-moving time particularly, it is done to an increasing extent, through the Federal Reserve bank.

The most important single function of the bank, however, is the rediscounting which it does for member banks. By rediscounting commercial paper for its member banks, the reserve bank allows them to build up their legal reserves, and thus adds to their loaning power. In times of need, the reserve bank issues Federal Reserve notes, partially on the basis of rediscounted paper, and, through its control of the rediscount rate and of the amount of paper to be rediscounted, it may regulate, to a considerable extent, the amount of money loaned in the district. Through the performance of this one function more than any other, the Federal Reserve bank brings the center into prominence as the chief source of loanable funds for the district. When the Federal Reserve system was first established, this function was not so important as it has since become, but its rapid development is indicated by the fact that, while, in 1915 the amount of paper rediscounted by the Ninth Federal Reserve Bank was $5,817,899, this figure grew in 1917 to $80,154,717.17, and in 1919 to $661,520,378.37.[1]

When the Ninth Federal Reserve District was organized, it consisted of Montana, North Dakota, South Dakota, Minnesota, the northern two-thirds of Wisconsin, and the northern peninsula of Michigan.[2] With regard to the part of the area west of the Twin Cities, there is no great questin, the vote of the banks in that district indicating that their interests lay primarily with the Twin Cities. It must be noted, however, that western Montana showed some

1. See the first, third, and fifth <u>Annual Reports of the Ninth Federal Reserve Bank</u>.

2. See above, p. 122.

leaning toward Spokane,[1] and that the mining industries in that state are financed, to a considerable extent, independently of the Twin Cities.[2] Similarly, banks in South Dakota were somewhat scattered in their preference, some of them leaning toward Omaha and Sioux City.[3] A study of the correspondent accounts maintained by South Dakota banks also shows much less concentration than is evident in North Dakota.[4] It is with reference to the district east of the Twin Cities, however, that the only serious objection can be raised to the work of the Reserve Bank Organization Committee. In both Wisconsin and Michigan, the bankers complained that they looked, not to the Twin Cities, but to Chicago, more than to any other one center. In the case of Wisconsin, the complaints were strong enough to cause a change in the boundary of the Ninth Federal Reserve district, so that now something less than half of Wisconsin is in the Minneapolis area.[5] In the case of the Michigan peninsula, there was no change in the boundary, although a study of the relations of the banks there shows that there is less concentration than in some districts, and that, so far as there is any marked concentration, it is in Chicago.[6] Now that these banks have been put into the Twin City district, however, this situation has changed, and they are beginning to establish relations with Minneapolis and St.Paul banks.

A general survey of the financial situation indicates that the Twin Cities are just passing into the financial phase of their metropolitan development, and

1. See Appendix, Table XV.

2. See above, pp. 125-127.

3. See Appendix, Table XV.

4. See Appendix, Table XVI.

5. See above, p. 122.

6. While, in 1919, there were more than forty banks which had no correspondent accounts in the Twin Cities, there were not more than five which had no such accounts in Chicago. (See Appendix, Table XVI.)

that the area for which they perform financial services is substantially the same as that from which they concentrate the grain and live-stock, and for which they are the jobbing center. Their financial control is less dominant, however, than their control in the other branches of exchange, for it is just developing. Moreover, the Twin Cities themselves do not constitute an independent financial center. No city does, at the present time, for capital and credit facilities are too highly developed. In our financial life we more nearly approach national economy than in any other aspect of our economic life, New York of course being the national center. Yet New York itself is by no means an independent center. The Twin Cities are dependent in an important degree upon other parts of the country, but their chief function - and it is a highly essential one - is to act as a center where both demand and supply are concentrated, where the capital which comes in from other districts may be concentrated for distribution, and to which the rest of the district may look for satisfaction of its financial needs.

A P P E N D I X

T A B L E I

RECEIPTS AND SHIPMENTS OF WHEAT AT MINNEAPOLIS, 1881-1919.

(M'p'l's Ch. of Comm. Rep't, 1918, p. 26; 1919, p. 28)

| Year | Receipts bushels | Shipments bushels |
|---|---|---|
| 1881 | 16,316,950 | 514,250 |
| 1882 | 18,947,500 | 2,105,000 |
| 1883 | 22,124,711 | 2,125,719 |
| 1884 | 29,322,720 | 4,586,960 |
| 1885 | 32,900,560 | 4,944,240 |
| 1886 | 34,904,260 | 6,651,780 |
| 1887 | 45,504,480 | 12,347,440 |
| 1888 | 44,552,730 | 11,141,100 |
| 1889 | 41,734,095 | 12,577,370 |
| 1890 | 45,271,910 | 12,173,395 |
| 1891 | 57,811,615 | 20,083,505 |
| 1892 | 72,727,600 | 21,161,010 |
| 1893 | 57,890,460 | 14,947,900 |
| 1894 | 55,000,610 | 7,119,820 |
| 1895 | 65,436,390 | 12,941,620 |
| 1896 | 69,568,970 | 9,350,190 |
| 1897 | 72,801,530 | 12,175,370 |
| 1898 | 77,159,980 | 15,186,470 |
| 1899 | 87,961,830 | 14,763,490 |
| 1900 | 83,312,320 | 10,937,010 |
| 1901 | 90,838,570 | 11,469,570 |
| 1902 | 88,762,120 | 11,770,170 |
| 1903 | 86,804,070 | 15,608,800 |
| 1904 | 86,935,980 | 18,177,340 |
| 1905 | 93,263,910 | 23,152,920 |
| 1906 | 80,694,580 | 20,332,970 |
| 1907 | 86,030,990 | 20,343,590 |
| 1908 | 91,739,900 | 19,293,860 |
| 1909 | 81,111,410 | 21,698,500 |
| 1910 | 99,721,600 | 19,207,130 |
| 1911 | 97,143,920 | 23,384,640 |
| 1912 | 113,635,280 | 29,693,910 |
| 1913 | 111,267,560 | 31,549,280 |
| 1914 | 115,389,900 | 32,953,940 |
| 1915 | 142,669,370 | 54,643,170 |
| 1916 | 130,404,830 | 40,061,860 |
| 1917 | 101,021,250 | 33,395,650 |
| 1918 | 111,885,020 | 19,571,430 |
| 1919 | 110,723,690 | 41,286,830 |

## TABLE II

### RECEIPTS AND SHIPMENTS OF FLAX SEED AT MINNEAPOLIS, 1881-1919.

(M'p'l's Ch. of Comm. Rep't, 1918, p. 28; 1919, p. 30)

| Year | Receipts bushels | Shipments bushels |
|---|---|---|
| 1881 | 165,850 | 26,500 |
| 1885 | 264,000 | 27,500 |
| 1886 | 418,500 | 38,000 |
| 1887 | 294,500 | 206,000 |
| 1888 | 473,500 | 101,500 |
| 1889 | 526,000 | 457,000 |
| 1890 | 699,000 | 487,410 |
| 1891 | 1,257,000 | 968,940 |
| 1892 | 1,145,410 | 888,830 |
| 1893 | 989,980 | 399,820 |
| 1894 | 540,720 | 986,490 |
| 1895 | 1,784,290 | 985,260 |
| 1896 | 1,499,030 | 1,167,040 |
| 1897 | 3,041,660 | 1,662,820 |
| 1898 | 2,899,450 | 1,557,090 |
| 1899 | 4,207,360 | 4,005,750 |
| 1900 | 5,093,410 | 2,013,740 |
| 1901 | 7,069,940 | 2,839,970 |
| 1902 | 8,166,400 | 2,675,920 |
| 1903 | 9,392,240 | 3,559,450 |
| 1904 | 8,513,040 | 2,342,940 |
| 1905 | 8,208,540 | 6,166,560 |
| 1906 | 10,209,060 | 5,003,210 |
| 1907 | 10,387,350 | 2,609,590 |
| 1908 | 12,596,710 | 1,802,030 |
| 1909 | 7,600,010 | 1,446,380 |
| 1910 | 7,749,790 | 1,088,520 |
| 1911 | 6,506,740 | 2,209,410 |
| 1912 | 9,635,260 | 1,875,090 |
| 1913 | 11,319,620 | 568,520 |
| 1914 | 7,759,130 | 933,270 |
| 1915 | 6,148,970 | 1,163,700 |
| 1916 | 8,892,200 | 1,172,150 |
| 1917 | 6,026,380 | 1,001,920 |
| 1918 | 6,291,280 | 1,258,150 |
| 1919 | 6,898,130 | |

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TABLE III

AVERAGE ANNUAL RECEIPTS OF GRAIN AT TEN PRIMARY MARKETS FOR THE CALENDAR YEARS 1913 TO 1917.

(Report of the Federal Trade Commission On the Grain Trade, vol. II, pp. 19-23)

(In bushels - 000's omitted)

| Market | Wheat | | Corn | | Oats | | Barley | | Rye | | All Grains | | Per Cent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Published Receipts | Order of Importance* | Published Receipts | Order of Importance* | Published Receipts | Order of Importance* | Published Receipts | Order of Importance* | Published Receipts | Order of Importance* | Published Receipts | Order of Importance* | |
| Minneapolis | 120,151 | 1 | 9,366 | 8 | 30,446 | 2 | 33,171 | 1 | 6,882 | 1 | 200,016 | 2 | 19.7 |
| Chicago | 65,412 | 4 | 100,592 | 1 | 136,687 | 1 | 27,993 | 2 | 4,259 | 2 | 334,943 | 1 | 32.9 |
| Kansas City | 55,612 | 3 | 20,422 | 3 | 9,712 | 8 | 1,084 | 7 | 375 | 9 | 87,205 | 3 | 8.5 |
| St.Louis | 34,209 | 5 | 19,784 | 6 | 23,758 | 4 | 1,883 | 6 | 518 | 7 | 80,152 | 5 | 7.9 |
| Duluth | 56,884 | 2 | 862 | 10 | 5,624 | 10 | 11,424 | 4 | 3,299 | 4 | 78,093 | 4 | 7.7 |
| Milwaukee | 8,062 | 7 | 13,666 | 7 | 28,153 | 3 | 18,840 | 3 | 3,308 | 3 | 72,031 | 6 | 7.1 |
| Omaha | 21,275 | 6 | 27,352 | 2 | 15,845 | 5 | 872 | 9 | 805 | 5 | 66,149 | 7 | 6.5 |
| Peoria | 3,079 | 10 | 23,843 | 4 | 12,779 | 7 | 3,001 | 5 | 468 | 8 | 43,170 | 8 | 4.2 |
| Indianapolis | 3,175 | 9 | 18,586 | 5 | 10,913 | 6 | † | | 145 | 10 | 32,674 | 9 | 3.2 |
| Cincinnati | 5,955 | 8 | 8,504 | 9 | 7,014 | 9 | 885 | 8 | 649 | 6 | 23,007 | 10 | 2.3 |

*As estimated by the Commission because of known variations in the basis for computing "receipts".

† No figures.


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TABLE IV

PERCENTAGE ANALYSES OF SOURCES OF GRAIN RECEIPTS (WHEAT, CORN, OATS, RYE, AND BARLEY) AT SPECIFIED MARKETS DURING THE CROP YEARS 1912-1913 TO 1916-1917.

(Report of the Federal Trade Commission on the Grain Trade, vol. II, pp. 40-41.)

| | Grand Total (carloads)† | Ill. | Ind. | Ia. | Kan. | Mich. | Minn. | Mo. | Mont. | Neb. | N. D. | Ohio | Okla. | S. D. | Wis. | Middle At. Div. | Mt. and Pac. Div. | Southern Div. | Central Div. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chicago | 262,033 | 51.98 | 2.44 | 31.43 | 0.35 | 0.03 | 5.79 | 0.71 | 0.02 | 1.78 | 0.23 | .01 | .07 | 3.30 | 0.50 | - | .53 | - | .84 |
| Minneapolis | 308,691 | .01 | - | 1.01 | .11 | - | 36.03 | - | 4.24 | .86 | 33.98 | - | .05 | 23.11 | .09 | - | .38 | - | .13 |
| Kansas City | 81,551 | .04 | - | 6.53 | 55.24 | - | .71 | 3.26 | .16 | 26.39 | .05 | - | 1.81 | 3.78 | .10 | - | 1.00 | .44 | .48 |
| Duluth | 85,385 | - | - | .02 | - | - | 17.79 | - | 6.15 | .02 | 72.2 | - | - | 3.38 | .01 | - | .15 | - | .28 |
| St.Louis | 42,174 | 41.63 | .10 | 26.47 | .49 | - | 1.07 | 19.73 | .43 | 6.39 | .04 | * | .33 | .25 | .40 | - | .51 | .03 | 2.12 |
| Milwaukee | 56,085 | 1.39 | - | 32.35 | .01 | - | 23.53 | - | * | .74 | .25 | - | - | 23.15 | 17.74 | - | .04 | - | .79 |
| Omaha | 70,338 | - | - | 22.38 | .21 | - | .20 | - | .47 | 63.19 | - | - | .02 | 12.16 | - | - | .97 | - | .40 |
| Peoria | 27,576 | 78.68 | - | 21.04 | - | - | .10 | .01 | - | - | - | - | - | .04 | - | - | - | - | .13 |
| Indianapolis | 24,026 | 47.26 | 48.61 | - | - | - | * | - | - | - | - | .01 | - | * | - | - | - | - | 4.12 |
| Cincinnati | 12,091 | 12.09 | 67.99 | .33 | .02 | .21 | .08 | | | - | - | - | - | - | - | - | - | - | - |
| Portland | 5,530 | - | - | - | - | - | - | - | .63 | - | - | - | - | - | - | - | 99.36 | - | - |
| Seattle | 6,496 | - | - | - | - | - | - | - | 1.31 | .05 | - | - | - | - | - | - | 98.57 | - | - |
| Los Angeles | 2,147 | - | - | - | .37 | - | - | - | - | .28 | - | - | - | - | - | - | 99.26 | - | - |

†According to shipments reported by country elevators and warehouses.

*Less than one one-hundredth per cent.

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TABLE V

STATISTICS OF INDUSTRIES IN ST.PAUL, 1909-1919.

(From St.Paul, an Economic Center, by St.Paul Association of Public and Business Affairs)

| Industry | Year | Number of establishments | Wage-Earners | Capital | Value of Product |
|---|---|---|---|---|---|
| All industries | 1919 | 849 | 41,258 | $155,685,000 | $215,000,000 |
| | 1914 | 737 | 31,430 | 101,789,920 | 103,683,000 |
| | 1909 | 719 | 24,839 | 88,467,000 | 86,990,000 |
| Boots and shoes | 1919 | 6 | 1,600 | 5,250,000 | 9,500,000 |
| | 1914 | 4 | 1,125 | 3,250,000 | 3,400,000 |
| | 1909 | 5 | 1,517 | 3,004,000 | 4,265,000 |
| Butter, Cheese, & condensed milk | 1919 | 9 | 216 | 865,000 | 18,000,000 |
| | 1914 | 7 | 172 | 496,000 | 3,330,000 |
| | 1909 | 6 | 50 | 170,000 | 2,120,000 |
| R.R. repair shop | 1919 | 9 | 4,342 | 10,350,000 | 5,895,000 |
| | 1914 | 7 | 3,194 | 6,756,000 | 3,820,000 |
| | 1909 | 7 | 2,406 | 5,125,000 | 3,640,000 |
| Foundry & machine shop products | 1919 | 72 | 4,056 | 12,225,000 | 9,650,000 |
| | 1914 | 60 | 3,132 | 9,353,000 | 6,794,000 |
| | 1909 | 45 | 2,118 | 5,681,000 | 5,033,000 |
| Fur goods | 1919 | 17 | 1,168 | 4,500,000 | 8,500,000 |
| | 1914 | 14 | 1,003 | 2,540,000 | 3,980,000 |
| | 1909 | 13 | 867 | 1,638,000 | 3,110,000 |
| Printing and publishing | 1919 | 176 | 6,500 | 14,500,000 | 18,942,000 |
| | 1914 | 149 | 5,388 | 8,325,000 | 11,775,000 |
| | 1909 | 113 | 2,085 | 5,518,000 | 5,821,000 |
| Meat Packing* | 1919 | 8 | 8,500 | 45,000,000 | 75,000,000 |
| | 1914 | 7 | 4,750 | 25,000,000 | 35,000,000 |
| | 1909 | 7 | 4,500 | 22,000,000 | 28,000,000 |

*Includes figures for South St.Paul.

Figures for 1919 not entirely reliable; probably too high.

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(Page 1)

YEARLY RECEIPTS AND SHIPMENTS OF LIVE STOCK AT SOUTH ST.PAUL, 1888-1919.

(St.Paul Union Stockyards Company Report, 1919, pp. 4, 5.)

RECEIPTS

| Year | Cattle | Calves | Hogs | Sheep | Horses | Cars |
|---|---|---|---|---|---|---|
| 1888 | 31514 | 2210 | 272712 | 61343 | 806 | 5831 |
| 1889 | 64546 | 4114 | 249099 | 121564 | 2833 | 7444 |
| 1890 | 93227 | 5529 | 315987 | 189603 | 2454 | 9783 |
| 1891 | 136983 | 5654 | 263479 | 89423 | 1834 | 10601 |
| 1892 | 80612 | 5204 | 238909 | 97156 | 2108 | 7443 |
| 1893 | 109644 | 3986 | 194092 | 153314 | 896 | 8645 |
| 1894 | 74933 | 3312 | 326663 | 95142 | 356 | 8636 |
| 1895 | 88540 | 4526 | 364455 | 174868 | 140 | 9801 |
| 1896 | 92062 | 5750 | 313736 | 200415 | 87 | 9169 |
| 1897 | 171552 | 27139 | 243074 | 315210 | 254 | 11204 |
| 1898 | 173316 | 42677 | 338405 | 430194 | 1431 | 13857 |
| 1899 | 169888 | 51479 | 369243 | 383598 | 5745 | 14119 |
| 1900 | 176172 | 44509 | 500415 | 489574 | 26778 | 17185 |
| 1901 | 155843 | 34447 | 616796 | 332367 | 15143 | 16446 |
| 1902 | 265721 | 40345 | 667526 | 602340 | 8162 | 22582 |
| 1903 | 260195 | 43094 | 759542 | 875640 | 7823 | 24623 |
| 1904 | 351974 | 37326 | 881635 | 772766 | 6438 | 28835 |
| 1905 | 435028 | 53537 | 855237 | 818437 | 5561 | 31978 |
| 1906 | 426987 | 59677 | 860810 | 735259 | 9299 | 32245 |
| 1907 | 458763 | 60848 | 866777 | 567830 | 14557 | 32776 |
| 1908 | 400808 | 62352 | 1133412 | 359343 | 7125 | 30517 |
| 1909 | 418629 | 78523 | 725420 | 496062 | 5632 | 28022 |
| 1910 | 481722 | 121944 | 835886 | 864811 | 5482 | 34280 |
| 1911 | 412490 | 126147 | 910733 | 712126 | 7709 | 32123 |
| 1912 | 393059 | 130708 | 983665 | 627973 | 5314 | 32685 |
| 1913 | 415998 | 115948 | 1256801 | 785444 | 5203 | 38845 |
| 1914 | 467710 | 117453 | 1589630 | 794739 | 5683 | 45232 |
| 1915 | 712918 | 142671 | 2155201 | 704119 | 10091 | 58890 |
| 1916 | 756620 | 184495 | 2674547 | 623214 | 11777 | 65332 |
| 1917 | 982485 | 214644 | 1927952 | 429617 | 9959 | 64962 |
| 1918 | 1161592 | 268816 | 2061390 | 630203 | 6541 | 75918 |
| 1919 | 1170244 | 320682 | 2189716 | 911885 | 11228 | 81440 |

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(Page 2)

YEARLY RECEIPTS AND SHIPMENTS OF LIVE STOCK AT SOUTH ST.PAUL, 1888-1919.

(St.Paul Union Stockyards Company Report, 1919, pp. 4, 5.)

SHIPMENTS

| Year | Cattle | Calves | Hogs | Sheep | Horses | Cars |
|---|---|---|---|---|---|---|
| 1888 | 22706 | 1661 | 8060 | 49509 | 428 | 1730 |
| 1889 | 43442 | 1896 | 21495 | 102971 | 3375 | 3058 |
| 1890 | 77075 | 2512 | 35745 | 126366 | 2228 | 4804 |
| 1891 | 124216 | 2747 | 22326 | 81838 | 1598 | 6618 |
| 1892 | 65339 | 1885 | 25708 | 77401 | 1634 | 3650 |
| 1893 | 95713 | 1406 | 6256 | 115277 | 725 | 5025 |
| 1894 | 67164 | 769 | 8538 | 76659 | 284 | 3612 |
| 1895 | 72585 | 1045 | 29438 | 125136 | 116 | 4261 |
| 1896 | 73998 | 4647 | 75472 | 161468 | 40 | 5050 |
| 1897 | 153941 | 18628 | 156659 | 254551 | 157 | 8251 |
| 1898 | 141589 | 21616 | 36374 | 317455 | 1021 | 7134 |
| 1899 | 134488 | 37755 | 35110 | 309942 | 4152 | 7090 |
| 1900 | 134645 | 19698 | 45158 | 403924 | 24723 | 7873 |
| 1901 | 102760 | 23573 | 54749 | 207512 | 13802 | 5988 |
| 1902 | 201723 | 27817 | 28645 | 484912 | 7754 | 10310 |
| 1903 | 188829 | 23647 | 49705 | 681872 | 7510 | 10624 |
| 1904 | 257906 | 17587 | 71654 | 622269 | 6205 | 13108 |
| 1905 | 329593 | 22352 | 33198 | 612341 | 5561 | 15160 |
| 1906 | 338874 | 14404 | 19736 | 580067 | 8829 | 15272 |
| 1907 | 363392 | 15509 | 72605 | 488744 | 14098 | 16984 |
| 1908 | 288894 | 13466 | 253071 | 241049 | 6691 | 13267 |
| 1909 | 294256 | 28159 | 136982 | 347785 | 5729 | 13325 |
| 1910 | 335848 | 33555 | 193849 | 688540 | 5820 | 16796 |
| 1911 | 282220 | 36132 | 243606 | 541551 | 7637 | 14342 |
| 1912 | 269941 | 23266 | 228133 | 430633 | 5079 | 13138 |
| 1913 | 298870 | 22977 | 319857 | 596077 | 5185 | 15647 |
| 1914 | 303718 | 23957 | 531207 | 565253 | 5547 | 18054 |
| 1915 | 504354 | 18265 | 795087 | 536384 | 10175 | 26069 |
| 1916 | 514271 | 42174 | 1180980 | 485186 | 12006 | 29324 |
| 1917 | 679006 | 44406 | 868493 | 319071 | 9428 | 32628 |
| 1918 | 860111 | 35565 | 877195 | 462505 | 6473 | 39948 |
| 1919 | 871054 | 64122 | 867914 | 675850 | 10823 | 44353 |

TABLE VII

ORIGIN OF LIVE STOCK RECEIPTS AT SOUTH ST.PAUL, 1907, 1914.

(St.Paul Union Stockyards Company Annual Report, 1907, 1914, back cover)

| From Points in | Cattle and Calves | Hogs | Sheep | Horses | Carloads |
|---|---|---|---|---|---|
| | | 1907 | | | |
| Minnesota | 170,509 | 638,538 | 90,050 | 1,162 | 13,480 |
| Wisconsin | 25,308 | 70,772 | 26,308 | 158 | 1,848 |
| Iowa | 1,324 | 1,730 | 1,257 | 428 | 114 |
| Far South* | 2,592 | - | 974 | 197 | 128 |
| South Dakota | 50,174 | 85,875 | 17,343 | 300 | 3,250 |
| North Dakota | 139,108 | 69,545 | 151,981 | 6,462 | 6,859 |
| Montana | 120,523 | 317 | 244,718 | 5,017 | 6,479 |
| Far West† | 2,918 | - | 33,761 | 716 | 277 |
| Manitoba and Northwest Territory | 4,331 | - | - | - | 238 |
| Returned | 2,824 | - | 1,438 | 117 | 103 |
| Total: | 519,611 | 866,777 | 567,830 | 14,557 | 32,776 |
| | | 1914 | | | |
| Minnesota | 344,817 | 972,990 | 150,860 | 1,264 | 24,933 |
| Wisconsin | 52,078 | 136,956 | 30,107 | 47 | 3,671 |
| Iowa | 1,227 | 1,717 | 207 | 1,167 | 137 |
| Far South* | 3,819 | - | 707 | 428 | 117 |
| South Dakota | 19,944 | 104,990 | 10,992 | 637 | 2,353 |
| North Dakota | 88,165 | 315,985 | 58,971 | 880 | 7,823 |
| Montana | 34,824 | 9,589 | 513,554 | 978 | 3,810 |
| Far West† | - | - | 28,360 | 282 | 2,232 |
| Returned | 1,666 | - | 584 | - | 43 |
| Total: | 585,163 | 1,589,630 | 794,739 | 5,683 | 45,232 |

*Includes Nebraska, Missouri, and Illinois.
†Includes Idaho, Oregon, and Washington.

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T A B L E  V I I I

Percentages for Minneapolis and St.Paul of the total value of products and the total number of wage-earners of twenty Twin City industries, ranked in order of their value of products.

| Industry | Value of Products: Minneapolis Percentage | Value of Products: St.Paul Percentage | Number of Wage-Earners: Minneapolis Percentage | Number of Wage-Earners: St.Paul Percentage |
|---|---|---|---|---|
| 1. Flour* | | | | |
| 2. Foundry and machine-shop products | 73 | 27 | 66.8 | 33.2 |
| 3. Printing and publishing | 50.5 | 49.5 | 47.3 | 52.6 |
| 4. Lumber products | 78 | 22 | † | † |
| 5. Malt liquors | 35.9 | 64.1 | 32.5 | 67.5 |
| 6. Car construction | 54.4 | 45.6 | 51.1 | 48.9 |
| 7. Bakery products | 76 | 24 | 77.1 | 22.7 |
| 8. Dairy products | 32.1 | 67.9 | † | † |
| 9. Men's clothing | 38.8 | 61.2 | 41.5 | 58.5 |
| 10. Fur goods | 13.9 | 86.1 | 16.0 | 84.0 |
| 11. Furniture | 51.6 | 48.4 | 59.1 | 40.9 |
| 12. Boots and shoes* | | | | |
| 13. Druggists' preparations | 67.5 | 32.5 | 73.1 | 26.9 |
| 14. Confectionery | 67.5 | 32.5 | 65.0 | 35.0 |
| 15. Paint and varnish | 57.4 | 42.6 | † | † |
| 16. Leather goods | 48.1 | 51.9 | 47.5 | 52.5 |
| 17. Tobacco products | 28.6 | 71.4 | 25 | 75 |
| 18. Mattresses and beds | 73.7 | 26.3 | 72.3 | 27.7 |
| 19. Marble and stone work | 58.6 | 41.4 | 65 | 35 |
| 20. Wagons | 38.1 | 61.9 | 33.5 | 66.5 |
| All other industries⁰ | 68.3 | 31.7 | | |
| Total value of manufactured products | 73.2 | 26.8 | | |

*No figures given, for the purpose of avoiding disclosure of individual firms.
† No percentages of wage-earners given.
0 Miscellaneous manufactures, and lines in which individual concerns would be exposed if the figures were segregated.

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T A B L E  I X (Page 1)

TABLE SHOWING POPULATION OF CITIES IN THE TWIN CITY AREA.

(U. S. Census, 1920)

MICHIGAN

| | 1920 | Increase or Decrease over 1910. |
|---|---|---|
| Battle Creek | 36,164 | 10,897 |
| Bay City | 47,554 | 2,388 |
| Detroit | 993,739 | 527,973 |
| Flint | 91,590 | 53,040 |
| Grand Rapids | 137,634 | 25,063 |
| Hamtramck village | 48,615 | 45,056 |
| Highland Park | 46,499 | 42,379 |
| Jackson | 48,374 | 16,941 |
| Kalamazoo | 48,858 | 9,421 |
| Lansing | 57,827 | 26,098 |
| Muskegon | 36,570 | 12,508 |
| Pontiac | 34,273 | 19,741 |
| Port Huron | 25,944 | 7,081 |
| Saginaw | 61,903 | 11,393 |

Over 10,000 and Less Than 25,000

| | 1920 | Increase or Decrease over 1910. |
|---|---|---|
| Adrian city | 11,878 | 1,115 |
| Alpena city | 11,101 | -1,605 |
| Ann Arbor city | 19,516 | 4,699 |
| Benton Harbor city | 12,233 | 3,048 |
| <u>Escanaba city</u> | 13,103 | - 91 |
| Holland city | 12,166 | 1,676 |
| <u>Ironwood city</u> | 15,739 | 2,918 |
| <u>Ishpeming city</u> | 10,500 | - 1,948 |
| <u>Marquette city</u> | 12,718 | 1,215 |
| Monroe city | 11,573 | 4,680 |
| Owosso city | 12,575 | 2,936 |
| <u>Sault Ste. Marie cy.</u> | 12,096 | - 519 |
| Traverse city | 10,925 | - 1,190 |
| Wyandotte city | 13,851 | 5,564 |

Cities underlined are in the Ninth Federal Reserve District.

MICHIGAN

Over 5,000 and Less Than 10,000.

| | 1920 | Increase or Decrease over 1910. |
|---|---|---|
| Albion city | 8,354 | 2,521 |
| Alma city | 7,542 | 4,785 |
| <u>Bessemer city</u> | 5,482 | 899 |
| Cadillac city | 9,750 | 1,375 |
| Charlotte city | 5,126 | 240 |
| Cheboygan city | 5,642 | - 1,217 |
| Coldwater city | 6,114 | 169 |
| Dowagiac city | 5,440 | 352 |
| Grand Haven city | 7,205 | 1,349 |
| <u>Hancock city</u> | 7,527 | - 1,454 |
| Hastings city | 5,132 | 749 |
| Hillsdale city | 5,476 | 475 |
| Ionia city | 6,935 | 1,905 |
| <u>Iron Mountain city</u> | 8,251 | - 965 |
| <u>Laurium village</u> | 6,696 | - 1,841 |
| Ludington city | 8,810 | - 322 |
| Manistee city | 9,694 | - 2,687 |
| <u>Manistique city</u> | 6,380 | 1,658 |
| <u>Menominee city</u> | 8,907 | - 1,600 |
| Midland city | 5,483 | 2,956 |
| Mount Clemens city | 9,488 | 1,781 |
| <u>Munising city</u> | 5,037 | 2,085 |
| Muskegon Heights cy. | 9,514 | 7,824 |
| <u>Negaunee city</u> | 7,419 | - 1,041 |
| Niles city | 7,311 | 2,155 |
| Petoskey city | 5,064 | 280 |
| River Rouge village | 9,822 | 5,659 |
| Royal Oak village | 6,007 | 4,936 |
| St.Joseph city | 7,251 | 1,315 |
| Sturgis city | 5,995 | 2,360 |
| Three Rivers city | 5,209 | 137 |
| Ypsilanti city | 7,413 | 1,183 |

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T A B L E  I X

(Page 2)

TABLE SHOWING POPULATION OF CITIES IN THE TWIN CITY AREA.

(U. S. Census, 1920)

| | 1920 | Increase or Decrease over 1910. |
|---|---|---|
| **MINNESOTA** | | |
| Duluth | 98,917 | 20,451 |
| Minneapolis | 380,582 | 79,174 |
| St.Paul | 234,595 | 19,851 |
| **Over 10,000 and Less Than 25,000** | | |
| Austin city | 10,118 | 3,158 |
| Faribault city | 11,089 | 2,088 |
| Hibbing village | 15,089 | 6,257 |
| Mankato city | 12,469 | 2,104 |
| Rochester city | 13,722 | 5,878 |
| St.Cloud city | 15,873 | 5,273 |
| Virginia city | 14,022 | 3,549 |
| Winona city | 19,143 | 560 |
| **Over 5,000 and Less Than 10,000** | | |
| Albert Lea city | 8,056 | 1,864 |
| Bemidji city | 7,086 | 1,987 |
| Brainerd city | 9,591 | 1,065 |
| Chisholm village | 9,039 | 1,355 |
| Cloquet city | 5,127 | - 1,904 |
| Crookston city | 6,825 | - 734 |
| Eveleth city | 7,205 | 169 |
| Fergus Falls city | 7,581 | 604 |
| Little Falls city | 5,500 | - 578 |
| Moorhead city | 5,720 | 880 |
| New Ulm city | 6,745 | 1,097 |
| Owatonna city | 7,252 | 1,594 |
| Red Wing city | 8,637 | - 411 |
| So. St.Paul city | 6,860 | 2,350 |
| Stillwater city | 7,735 | - 2,463 |
| Willmar city | 5,892 | 1,757 |

| | 1920 | Increase or Decrease over 1910. |
|---|---|---|
| **NORTH DAKOTA** | | |
| **Over 10,000 and Less Than 25,000** | | |
| Fargo city | 21,631 | 7,630 |
| Grand Forks city | 14,010 | 1,552 |
| Minot city | 10,476 | 4,288 |
| **Over 5,000 and Less Than 10,000** | | |
| Bismarck city | 7,122 | 1,679 |
| Devils Lake city | 5,140 | - 17 |
| Jamestown city | 6,627 | 2,269 |
| **SOUTH DAKOTA** | | |
| Sioux Falls | 25,178 | 11,082 |
| **Over 10,000 and Less Than 25,000** | | |
| Aberdeen city | 14,537 | 3,784 |
| **Over 5,000 and Less Than 10,000** | | |
| Huron city | 8,302 | 2,511 |
| Lead city | 5,018 | - 3,379 |
| Mitchell city | 8,478 | - 1,963 |
| Rapid city | 5,777 | 1,923 |
| Watertown city | 9,400 | 2,390 |
| Yankton city | 5,024 | 1,237 |

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T A B L E  I X

(Page 3)

TABLE SHOWING POPULATION OF CITIES IN THE TWIN CITY AREA.

(U. S. Census, 1920)

| | 1920 | Increase or Decrease over 1910. |
|---|---|---|
| **MONTANA** | | |
| Butte | 41,611 | 2,446 |
| **Over 10,000 and Less Than 25,000** | | |
| Anaconda city | 11,668 | 1,534 |
| Billings city | 15,100 | 5,069 |
| Great Falls city | 24,121 | 10,173 |
| Helena city | 12,037 | - 478 |
| Missoula city | 12,668 | - 201 |
| **Over 5,000 and Less Than 10,000** | | |
| Bozeman city | 6,183 | 1,076 |
| Havre city | 5,429 | 1,805 |
| Kalispell city | 5,147 | - 402 |
| Lewistown city | 6,120 | 3,128 |
| Livingston city | 6,311 | 952 |
| Miles City | 7,937 | 3,240 |
| **WISCONSIN** | | |
| Green Bay | 31,017 | 5,781 |
| Kenosha | 40,472 | 19,104 |
| <u>La Crosse</u> | 30,363 | - 54 |
| Madison | 38,376 | 12,847 |
| Milwaukee | 457,147 | 83,290 |
| Oshkosh | 33,163 | 100 |
| Racine | 53,593 | 20,591 |
| Sheboygan | 30,955 | 4,557 |
| <u>Superior</u> | 39,625 | - 760 |
| **Over 10,000 and Less Than 25,000** | | |
| Appleton city | 19,561 | 2,788 |

| | 1920 | Increase or Decrease over 1910. |
|---|---|---|
| **WISCONSIN (Cont'd)** | | |
| <u>Ashland city</u> | 11,334 | - 260 |
| Beloit city | 21,284 | 6,159 |
| <u>Eau Claire city</u> | 20,880 | 2,570 |
| Fond du Lac city | 23,427 | 4,630 |
| Janesville city | 18,293 | 4,399 |
| Manitowoc city | 17,563 | 4,536 |
| Marinette city | 13,610 | -1,000 |
| Stevens Point city | 11,371 | 2,679 |
| Waukesha city | 12,558 | 3,818 |
| Wausau city | 18,661 | 2,101 |
| West Allis city | 13,765 | 7,120 |
| **Over 5,000 and Less Than 10,000** | | |
| <u>Antigo city</u> | 8,451 | 1,255 |
| Baraboo city | 5,538 | - 786 |
| Beaver Dam city | 7,992 | 1,234 |
| <u>Chippewa Falls city</u> | 9,130 | 237 |
| Cudahy city | 6,725 | 3,034 |
| De Pere city | 5,165 | 688 |
| Kaukauna city | 5,951 | 1,234 |
| Marshfield city | 7,394 | 1,611 |
| Menasha city | 7,214 | 1,133 |
| Menomonie city | 5,104 | 68 |
| <u>Merrill city</u> | 8,068 | - 621 |
| Neenah city | 7,171 | 1,437 |
| Portage city | 5,582 | 142 |
| <u>Rhinelander city</u> | 6,654 | 1,017 |
| South Milwaukee city | 7,598 | 1,506 |
| Stoughton city | 5,101 | 340 |
| Two Rivers city | 7,305 | 2,455 |
| Watertown city | 9,299 | 4,270 |
| Wauwatosa city | 5,818 | 472 |
| Wisconsin Rapids city | 7,243 | 722 |

Cities underlined in Wisconsin are in the Ninth Federal Reserve District.

TABLE X

COMPOSITE STATEMENT OF CAPITAL AND SURPLUS,
NATIONAL BANKS OF MINNEAPOLIS AND ST.PAUL, 1872-1913.

(Minneapolis, Financial Center and Gateway of the Northwest, Table I)

| Year | Capital | Surplus | Total |
|---|---|---|---|
| 1872 | 1,619,900 | 290,606 | 1,910,506 |
| 1873 | 2,350,000 | 355,106 | 2,705,106 |
| 1874 | 2,450,000 | 431,956 | 2,881,956 |
| 1875 | 2,550,000 | 477,426 | 3,027,426 |
| 1876 | 2,500,000 | 493,182 | 3,043,182 |
| 1877 | 2,650,000 | 436,967 | 3,086,967 |
| 1878 | 2,950,000 | 449,946 | 3,399,946 |
| 1879 | 2,950,000 | 467,000 | 3,417,000 |
| 1880 | 3,450,000 | 610,588 | 4,060,588 |
| 1881 | 3,300,000 | 646,558 | 3,946,558 |
| 1882 | 3,800,000 | 750,000 | 4,550,000 |
| 1883 | 6,550,000 | 977,500 | 7,527,500 |
| 1884 | 8,397,700 | 1,250,000 | 9,647,700 |
| 1885 | 8,300,000 | 1,275,000 | 9,575,000 |
| 1886 | 9,200,000 | 1,408,100 | 10,608,100 |
| 1887 | 9,400,000 | 1,517,500 | 10,917,500 |
| 1888 | 9,450,000 | 1,704,500 | 11,154,500 |
| 1889 | 9,700,000 | 1,871,000 | 11,471,000 |
| 1890 | 9,700,000 | 1,872,000 | 11,592,000 |
| 1891 | 9,640,000 | 1,883,000 | 11,523,000 |
| 1892 | 9,731,000 | 1,937,000 | 11,668,000 |
| 1893 | 8,200,000 | 1,777,000 | 9,977,000 |
| 1894 | 9,500,000 | 1,574,000 | 11,074,000 |
| 1895 | 9,000,000 | 1,454,500 | 10,454,500 |
| 1896 | 9,000,000 | 1,516,000 | 10,516,000 |
| 1897 | 8,300,000 | 1,346,000 | 9,646,000 |
| 1898 | 8,300,000 | 1,169,000 | 9,469,000 |
| 1899 | 7,800,000 | 1,130,500 | 8,930,500 |
| 1900 | 7,800,000 | 1,364,000 | 9,164,000 |
| 1901 | 7,050,000 | 1,478,000 | 8,528,000 |
| 1902 | 7,050,000 | 1,635,000 | 8,685,000 |
| 1903 | 7,050,000 | 2,706,000 | 11,156,000 |
| 1904 | 8,450,000 | 3,456,190 | 11,906,190 |
| 1905 | 8,900,000 | 3,757,083 | 12,657,083 |
| 1906 | 9,150,000 | 4,397,083 | 13,547,083 |
| 1907 | 9,800,000 | 6,617,083 | 16,417,083 |
| 1908 | 9,800,000 | 7,952,083 | 17,752,083 |
| 1909 | 9,750,000 | 7,975,143 | 17,725,143 |
| 1910 | 11,000,000 | 8,714,361 | 19,714,361 |
| 1911 | 10,900,000 | 9,225,000 | 20,125,000 |
| 1912 | 10,900,000 | 9,360,000 | 20,260,000 |
| 1913 | 13,400,000 | 9,910,000 | 23,310,000 |
| 1914* | 14,100,000 | 10,060,000 | 24,160,000 |
| 1915 | 16,600,000 | 10,060,000 | 26,660,000 |
| 1916 | 16,600,000 | 10,110,000 | 26,710,000 |
| 1917 | 16,900,000 | 10,235,000 | 27,135,000 |
| 1918 | 18,150,000 | 11,675,000 | 29,825,000 |
| 1919 | 18,150,000 | 11,775,000 | 29,925,000 |

*Figures for 1914 and following were secured from the Reports of the United States Comptroller of the Currency.

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TABLE XI

COMPOSITE STATEMENT OF DEPOSITS, BANK ACCOUNTS HELD, AND LOANS AND DISCOUNTS, NATIONAL BANKS OF MINNEAPOLIS AND ST.PAUL, 1872-1913.

(Minneapolis, Financial Center and Gateway of the Northwest, Table 3)

| Year | Deposits | Due to Other Banks | Total | Loans and Discounts |
|---|---|---|---|---|
| 1872 | $ 2,955,284 | $ 201,423 | $ 3,156,707 | $ 3,539,835 |
| 1873 | 3,878,597 | 275,551 | 4,154,148 | 4,596,439 |
| 1874 | 3,592,817 | 253,662 | 3,846,479 | 4,915,476 |
| 1875 | 3,548,452 | 443,801 | 3,992,253 | 5,184,767 |
| 1876 | 3,819,404 | 257,045 | 4,076,449 | 5,414,834 |
| 1877 | 3,586,810 | 409,659 | 3,996,469 | 5,499,763 |
| 1878 | 3,871,705 | 431,607 | 4,303,312 | 6,342,907 |
| 1879 | 4,804,068 | 504,666 | 5,308,734 | 6,655,076 |
| 1880 | 6,013,086 | 671,571 | 6,684,587 | 8,429,580 |
| 1881 | 8,358,203 | 2,634,337 | 11,492,540 | 11,047,462 |
| 1882 | 8,519,725 | 2,011,121 | 10,530,846 | 11,879,824 |
| 1883 | 11,131,493 | 2,622,835 | 13,754,328 | 16,947,588 |
| 1884 | 11,634,756 | 2,719,324 | 14,354,080 | 18,283,679 |
| 1885 | 13,259,228 | 3,908,047 | 17,167,275 | 20,761,177 |
| 1886 | 15,034,549 | 4,885,902 | 19,920,451 | 22,952,225 |
| 1887 | 18,082,591 | 5,229,362 | 23,311,953 | 27,266,206 |
| 1888 | 17,428,484 | 5,644,792 | 23,073,276 | 25,614,254 |
| 1889 | 16,450,847 | 4,444,165 | 20,895,012 | 24,538,700 |
| 1890 | 19,011,833 | 5,377,435 | 24,389,268 | 26,905,389 |
| 1891 | 18,946,729 | 6,095,918 | 25,042,647 | 25,642,678 |
| 1892 | 19,735,875 | 7,157,253 | 26,893,128 | 28,900,595 |
| 1893 | 14,571,516 | 3,917,630 | 18,489,266 | 21,968,293 |
| 1894 | 15,613,140 | 6,951,089 | 22,564,229 | 21,942,039 |
| 1895 | 16,848,524 | 6,265,185 | 23,113,709 | 22,106,389 |
| 1896 | 16,750,187 | 5,704,370 | 22,454,557 | 21,238,979 |
| 1897 | 17,811,395 | 10,004,798 | 27,816,193 | 18,124,014 |
| 1898 | 19,845,573 | 8,334,850 | 28,180,423 | 20,014,489 |
| 1899 | 24,460,133 | 12,135,768 | 36,595,901 | 23,942,946 |
| 1900 | 23,182,745 | 11,842,726 | 35,025,471 | 25,755,522 |
| 1901 | 24,860,987 | 14,745,206 | 39,606,193 | 28,423,983 |
| 1902 | 29,360,999 | 16,571,201 | 45,932,200 | 33,357,204 |
| 1903 | 28,581,005 | 15,377,611 | 43,958,616 | 35,769,370 |
| 1904 | 32,276,393 | 15,783,001 | 48,059,394 | 37,370,444 |
| 1905 | 35,186,156 | 20,511,721 | 55,697,877 | 41,693,313 |
| 1906 | 41,839,025 | 24,920,722 | 66,759,747 | 48,192,486 |
| 1907 | 50,257,362 | 28,405,425 | 78,662,787 | 60,257,821 |
| 1908 | 58,970,848 | 42,155,929 | 101,126,777 | 69,013,651 |
| 1909 | 68,575,767 | 35,046,035 | 103,621,802 | 72,790,124 |
| 1910 | 63,739,853 | 39,640,336 | 103,380,189 | 76,539,953 |
| 1911 | 65,815,453 | 33,618,156 | 99,433,609 | 76,267,519 |
| 1912 | 74,664,332 | 40,769,713 | 115,434,045 | 87,130,453 |
| 1913 | 80,370,117 | 51,699,956 | 132,070,073 | 99,079,696 |
| 1914* | 103,320,856 | 42,143,285 | 145,464,141 | 115,656,731 |
| 1915 | 133,293,000 | 78,856,000 | 212,149,000 | 131,111,000 |
| 1916 | 134,015,000 | 77,989,000 | 212,004,000 | 160,384,000 |
| 1917 | 137,854,000 | 74,243,000 | 212,097,000 | 158,730,000 |
| 1918 | 139,412,000 | 101,575,000 | 240,987,000 | 159,425,000 |
| 1919 | 170,009,000 | 90,111,000 | 260,120,000 | 195,864,000 |

*Figures for 1914 and following were taken from the Reports of the United States Comptroller of the Currency.

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## TABLE XII

### ANNUAL CLEARING HOUSE TOTALS FOR MINNEAPOLIS AND ST.PAUL, 1881-1913.

(Minneapolis, Financial Center and Gateway of the Northwest, Table 5)

| Year | Minneapolis | St.Paul | Total |
|---|---|---|---|
| 1881 | $ 19,487,650 | $*56,242,292 | $ 75,729,942 |
| 1882 | 72,100,087 | * | |
| 1883 | 87,437,487 | *80,276,100 | 167,713,587 |
| 1884 | 99,677,059 | 101,636,568 | 201,313,627 |
| 1885 | 124,715,103 | 118,340,978 | 243,056,081 |
| 1886 | 165,421,842 | 152,954,315 | 318,376,157 |
| 1887 | 194,777,583 | 205,013,099 | 399,790,682 |
| 1888 | 215,626,250 | 194,912,912 | 410,539,162 |
| 1889 | 240,221,068 | 209,405,281 | 449,626,349 |
| 1890 | 303,913,022 | 225,564,896 | 529,477,918 |
| 1891 | 366,720,248 | 242,075,278 | 608,795,526 |
| 1892 | 438,053,526 | 271,125,301 | 709,178,827 |
| 1893 | 332,243,860 | 207,679,487 | 539,923,347 |
| 1894 | 309,002,009 | 183,856,870 | 492,858,879 |
| 1895 | 372,895,344 | 222,332,181 | 595,227,525 |
| 1896 | 392,965,673 | 228,875,307 | 621,840,980 |
| 1897 | 414,597,614 | 197,712,205 | 612,309,819 |
| 1898 | 460,222,572 | 221,105,689 | 681,328,261 |
| 1899 | 539,705,249 | 239,306,455 | 779,011,704 |
| 1900 | 579,994,076 | 255,840,110 | 835,834,186 |
| 1901 | 626,020,457 | 260,413,678 | 886,434,135 |
| 1902 | 729,752,331 | 294,097,110 | 1,023,849,441 |
| 1903 | 741,049,348 | 309,230,101 | 1,050,279,449 |
| 1904 | 843,230,773 | 315,805,393 | 1,159,036,166 |
| 1905 | 913,579,558 | 342,751,234 | 1,256,330,792 |
| 1906 | 990,890,203 | 419,466,276 | 1,410,356,479 |
| 1907 | 1,145,462,149 | 484,891,667 | 1,630,353,816 |
| 1908 | 1,057,468,860 | 433,976,978 | 1,491,445,838 |
| 1909 | 1,029,914,855 | 520,614,861 | 1,550,529,716 |
| 1910 | 1,155,659,664 | 576,156,208 | 1,731,815,872 |
| 1911 | 1,068,090,893 | 531,574,516 | 1,599,665,409 |
| 1912 | 1,182,232,466 | 579,166,753 | 1,761,399,219 |
| 1913 | 1,312,412,256 | 530,515,562 | 1,842,927,818 |
| 1914 | †1,374,267,916 | ‡585,307,614 | 1,959,575,530 |
| 1915 | 1,341,545,483 | 661,915,332 | 2,003,460,815 |
| 1916 | 1,469,874,329 | 784,991,100 | 2,254,865,429 |
| 1917 | 1,660,000,000 | 758,148,987 | 2,418,148,987 |
| 1918 | 1,949,000,000 | 807,199,129 | 2,756,199,129 |
| 1919 | 2,266,000,000 | 965,536,252 | 3,231,536,252 |

*Figures for St.Paul were not given for the years preceding 1884. Those for 1881 and 1883 were taken from figures in a file in the Jobbing and Wholesaling section of the St.Paul Association of Public and Business Affairs, which did not contain figures for 1882.

† Figures for Minneapolis from 1914 on are taken from a table in the possession of Mr. Pomeroy, President of the Minneapolis Clearing House.

‡ Figures for St.Paul from 1914 on were secured from the St.Paul Association of Public and Business Affairs.

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Table XIII. Sheet I.

# Weekly Bank Debits For Cities In The Ninth Federal Reserve District. (000's Omitted)

## 1918

| DATE | ABERDEEN | BILLINGS | BUTTE | DULUTH | FARGO | GRAND FORKS | GREAT FALLS | HELENA | MINNEAPOLIS | ST. PAUL | SUPERIOR | WEEKLY TOTAL | MONTHLY TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sept. 4 | 1796 | — | | 14033 | | | | 1760 | 66058 | 23016 | 1401 | 108134 | |
| 11 | 2280 | 2255 | | 30259 | | | | 2198 | 98299 | 28413 | 2238 | 166022 | |
| 18 | 1890 | 2011 | 6158 | 52535 | 3581 | | 3275 | 1920 | 107739 | 33357 | 2235 | 214701 | |
| 25 | 1937 | 1832 | — | 63802 | 4800 | 1468 | 3602 | 2099 | 113331 | 35696 | 2145 | 232649 | 943506 |
| Oct. 2 | 1886 | 2187 | — | 67964 | 3551 | 1183 | — | 3287 | 110310 | 37614 | 2299 | 231141 | |
| 9 | 2255 | 1890 | — | 66884 | 4304 | 1854 | — | 2645 | 122371 | 32974 | 2813 | 237995 | |
| 16 | 1981 | 2039 | — | 61194 | 3503 | 1757 | — | 2822 | 115667 | 38824 | 2349 | 230136 | |
| 23 | 1827 | 2380 | — | 56985 | 3832 | 1832 | — | 2774 | 112748 | 45218 | 3007 | 230513 | |
| 30 | 1550 | 1807 | — | 56698 | | 1426 | — | 2244 | 99479 | | 2358 | 165562 | 1095347 |
| Nov. 6 | 1529 | 2140 | — | 53615 | 2914 | 1842 | 2997 | 2475 | 80248 | | 1925 | 149685 | |
| 13 | 1282 | 2074 | — | 49744 | — | 1439 | 2638 | 2913 | 80154 | 33361 | 2230 | 175835 | |
| 20 | 1572 | 2587 | — | 45360 | 3085 | 1618 | 2944 | 2649 | 87076 | 39121 | 2557 | 188569 | |
| 27 | 1121 | 2343 | — | 52051 | 2549 | 1350 | | 2190 | 84943 | 45178 | 2931 | 194656 | 708745 |
| Dec. 4 | 1639 | 2796 | — | 49365 | 1740 | 1817 | 3869 | 2784 | 83186 | 34350 | 2048 | 183594 | |
| 11 | 1154 | 2483 | — | 47699 | 2952 | 1646 | 3785 | 2866 | 101506 | 34243 | 1294 | 199678 | |
| 18 | 1663 | 1899 | — | 47662 | 2883 | 1693 | 3512 | 2462 | 91037 | 44094 | 2685 | 255524 | |
| 24 | 1220 | 1854 | — | 44105 | 2097 | 1250 | 2985 | 2418 | 85767 | 32141 | | 173837 | |
| 31 | 1039 | 2498 | — | 34563 | 1559 | 1162 | 3071 | 1835 | 77442 | 39379 | 1669 | 164217 | 978850 |
| | | | | | | | | | 1717366 | 577239 | | | |

## 1919

| DATE | ABERDEEN | BILLINGS | DULUTH | FARGO | GRAND FORKS | GREAT FALLS | HELENA | MINNEAPOLIS | ST. PAUL | SUPERIOR | WINONA | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 8 | 1642 | 2400 | 41287 | 2717 | 1683 | 3529 | 3237 | 94098 | 35504 | 2285 | — | 188382 | |
| 15 | 1254 | 2181 | 34780 | 2523 | 1597 | 3118 | 3892 | 77668 | 33730 | 1775 | 1254 | 163772 | |
| 22 | 1287 | 2037 | 31924 | 2365 | 1384 | 2893 | 2711 | 80296 | 44421 | 1995 | 815 | 172128 | |
| 29 | 1130 | 1649 | 29534 | 1763 | 1062 | 2925 | 2352 | 64792 | 34833 | 1300 | 901 | 142241 | 666523 |
| Feb. 5 | 1257 | 1763 | 25525 | 2537 | 1197 | 3249 | 2016 | 67776 | 38196 | 1422 | 1217 | 146155 | |
| 11-12 | 992 | 1431 | 15533 | 1732 | 1187 | 2981 | 2113 | 42993 | 29106 | 1811 | 978 | 100857 | |
| 19 | 1284 | 2066 | 14082 | 1541 | 1180 | 3126 | 2281 | 62127 | 35793 | 1830 | 950 | 127260 | |
| 26 | 888 | 1616 | 9575 | 1765 | 946 | 2412 | 2249 | 54292 | 32507 | 1578 | 826 | 108654 | 482926 |
| Mar. 5 | 1224 | 2765 | 12893 | 2214 | 1624 | 2178 | 2299 | 62299 | 36824 | 2020 | 931 | 127268 | |
| 12 | 1233 | 2030 | 11393 | 2057 | 1268 | 1926 | 2653 | 62783 | 32162 | 1730 | 922 | 120157 | |
| 19 | 1159 | 1947 | 13205 | 3728 | 1050 | 2142 | 1894 | 71174 | 34943 | 1208 | 812 | 133267 | |
| 26 | 1185 | 1913 | 11956 | 2579 | 1170 | 1971 | 1922 | 77285 | 29864 | 1324 | 820 | 131989 | 512681 |
| Apr. 2 | 1523 | 2354 | 19256 | 1646 | 1295 | 2248 | 2102 | 98812 | 39033 | 1887 | 1064 | 171220 | |
| 9 | 1438 | 2602 | 14671 | 2633 | 1475 | 2497 | 2569 | 72526 | 36020 | 1692 | 1235 | 139358 | |
| 16 | 1398 | 2517 | 20288 | 1891 | 1401 | 2701 | 2019 | 82995 | 30859 | 1853 | 947 | 148869 | |
| 23 | 1489 | 2036 | 23944 | 2636 | 1202 | 2197 | 2175 | 67011 | 30912 | 1998 | 928 | 136534 | |
| 30 | 1270 | 2166 | 28728 | 1867 | 1218 | 2522 | 1831 | 70177 | 34468 | 1716 | 903 | 146866 | 742847 |
| May 7 | 1823 | 2464 | 19693 | 1392 | 1814 | 3336 | 2522 | 79013 | 29917 | 2272 | 1038 | 145286 | |
| 14 | 1926 | 2360 | 22517 | 2614 | 1817 | 2871 | 2561 | 75751 | 35401 | 2048 | 1145 | 151011 | |
| 21 | 1616 | 2331 | 21721 | 3307 | 1631 | 2597 | 2169 | 77637 | 41142 | 2063 | 892 | 157106 | |
| 28 | 1712 | 1925 | 17984 | 5919 | 1422 | 2297 | 1904 | 66878 | 35682 | 1216 | 939 | 137878 | 591281 |
| June 4 | 1567 | 1911 | 22373 | 3021 | 1711 | 2196 | 1832 | 66753 | 35454 | 1334 | 1082 | 139237 | |
| 11 | 1676 | 2451 | 20396 | 5646 | 1615 | 1798 | 2617 | 72410 | 37720 | 1150 | 1070 | 148549 | |
| 18 | 1614 | 2114 | 22406 | 5862 | 1664 | 1428 | 2044 | 69313 | 45625 | 1320 | 1537 | 154927 | |
| 25 | 3186 | 1932 | 17498 | 2314 | 1892 | 1796 | 2265 | 66216 | 40478 | 1397 | 1168 | 140142 | 582852 |
| July 2 | 1530 | 1847 | 27193 | 2477 | 1655 | 1574 | 2264 | 83663 | 31887 | 1244 | 1400 | 156734 | |
| 9 | 1587 | 2133 | 18626 | 2641 | 1503 | 1774 | 2495 | 60421 | 29979 | 1175 | 1440 | 123714 | |
| 16 | 2056 | 2079 | 28573 | 3168 | 1716 | 1448 | 2457 | 13553 | 40804 | 1146 | 1173 | 168173 | |
| 23 | 2498 | 2114 | 21015 | 5673 | 1628 | 1621 | 2052 | 69200 | 39772 | 1256 | 1069 | 147898 | |
| 30 | 1476 | 1837 | 19566 | 3018 | 1526 | 1582 | 2001 | 67902 | 34292 | 1124 | 974 | 135298 | 731817 |
| Aug. 6 | 1806 | 2212 | 19046 | 3869 | 1578 | 2165 | 2674 | 75766 | 39263 | 1440 | 1048 | 150872 | |
| 13 | 1898 | 1017 | 18221 | 3600 | 1562 | 1914 | 2711 | 76309 | 34965 | 1993 | 740 | 144929 | |
| 20 | 1875 | 2026 | 17922 | 7809 | 1644 | 1793 | 2579 | 83730 | 37962 | 1819 | 879 | 160038 | |
| 27 | 2023 | 1564 | 17690 | 7637 | 1560 | 1482 | 3219 | 73999 | 30580 | 1697 | 880 | 142831 | 598670 |
| Sept. 3 | 1780 | 1969 | 17263 | 7729 | 1514 | 1797 | 3752 | 71255 | 31395 | 1753 | 899 | 148106 | |
| 10 | 2283 | 2390 | 20493 | 9144 | 1818 | 2184 | 2136 | 107903 | 53252 | 2261 | 1161 | 205025 | |
| 17 | 2100 | 1946 | 24889 | 9393 | 2288 | 2419 | 2679 | 104520 | 43271 | 2227 | 1582 | 197314 | |
| 24 | 1944 | 2265 | 20815 | 9337 | 1991 | 2699 | 2875 | 102807 | 39563 | 1879 | 1278 | 187463 | 737908 |
| Oct. 1 | 1930 | 2226 | 23892 | 9181 | 2226 | 2174 | 2531 | 98807 | 42102 | 2189 | 1404 | 188662 | |
| 8 | 2465 | 2385 | 24482 | 9336 | 2609 | 2773 | 3731 | 103328 | 37227 | 2169 | 1515 | 191720 | |
| 15 | 1988 | 2555 | 23498 | 9866 | 2708 | 2192 | 2817 | 101901 | 39806 | 2131 | 1215 | 190621 | |
| 22 | 2154 | 2823 | 21534 | 10147 | 2376 | 2441 | 2765 | 104046 | 39690 | 2081 | 2174 | 195231 | |
| 29 | 1723 | 2285 | 20560 | 7654 | 1989 | 2197 | 2551 | 101836 | 34743 | 1985 | 1232 | 178735 | 944969 |
| Nov. 5 | 2142 | 2582 | 27628 | 9515 | 2973 | 2611 | 2237 | 94816 | 43611 | 2353 | 1304 | 192272 | |
| 12 | 1515 | 2710 | 21185 | 8765 | 2003 | 2943 | 3009 | 92179 | 38504 | 1980 | 1205 | 175998 | |
| 19 | 988 | 2880 | 19618 | 9167 | 2275 | 2183 | 3014 | 101698 | 41820 | 2036 | 441 | 187120 | |
| 26 | 1420 | 2787 | 16271 | — | 1931 | 2542 | 2372 | 101181 | 44137 | 1844 | 1248 | 176739 | 732129 |
| Dec. 3 | 1809 | 2931 | 15229 | — | 2152 | 2290 | 2572 | 96357 | 41843 | 1918 | 1128 | 169329 | |
| 10 | 1904 | 2160 | 18727 | — | 2371 | 2887 | 2839 | 97358 | 41927 | 1844 | 1316 | 173333 | |
| 17 | 1925 | 2210 | 19632 | — | 1913 | 2983 | 2701 | 100939 | 44044 | 2079 | 1430 | 179856 | |
| 24 | 1537 | 2361 | 19035 | 3077 | 1889 | 2392 | 2749 | 102334 | 43000 | 2040 | 1327 | 181741 | |
| 31 | 1409 | 2280 | 14246 | | 1669 | 2095 | 2437 | 93795 | 38058 | — | — | 155989 | 860248 |
| | | | | | | | | 3341684 | 1948193 | | | | |

Sheet 2

1920

| DATE | ABERDEEN | BILLINGS | DULUTH | FARGO | GRAND FORKS | GREAT FALLS | HELENA | MINNEAPOLIS | ST. PAUL | SUPERIOR | WINONA | SIOUX FALLS | WEEKLY TOTALS | MONTHLY TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 7 | 2062 | 2851 | 16087 | 3328 | 2178 | 2895 | 3096 | 88359 | 37961 | 2036 | 2217 | | 163070 | |
| 14 | 1914 | 2416 | 19299 | 3021 | 1939 | 3214 | 2639 | 103142 | 40310 | 1896 | 1360 | 9372 | 190522 | |
| 21 | 1597 | 2429 | 19084 | 3116 | 1554 | 2693 | 2403 | 97751 | 36804 | 2024 | 1130 | 6829 | 177414 | |
| 28 | 3829 | 2133 | 16502 | 2549 | 1432 | 2675 | 2610 | 81537 | 36032 | 1687 | 911 | 6800 | 153702 | 689702 |
| Feb. 4 | 1484 | 2079 | 15976 | 2804 | 1566 | 2804 | 2438 | 80900 | 37687 | 1856 | 1337 | | 150931 | |
| 11 | 1382 | 2393 | 18372 | 2848 | 1548 | 2611 | 2604 | 83534 | 38850 | 1610 | 2165 | 5013 | 162930 | |
| 18 | 2149 | 2601 | 16007 | 2797 | 1486 | 2113 | 1986 | 76348 | 36575 | 1741 | 1045 | 6752 | 151600 | |
| 25 | 1128 | 1918 | 14427 | 2390 | | 2465 | 1812 | 73848 | 32739 | 1990 | 976 | 5566 | 139309 | 604770 |
| Mar. 3 | 1872 | 2629 | 19611 | 3052 | 2056 | 2217 | 2634 | 94692 | 44552 | 2172 | 1299 | 10134 | 186910 | |
| 10 | 1774 | 2437 | 14429 | 3366 | 2220 | 2406 | 3352 | 75879 | 38088 | 1856 | 1181 | 9450 | 156438 | |
| 17 | 1966 | 2683 | 17066 | 2940 | 1685 | 1987 | 2384 | 86597 | 45319 | 2072 | 160 | 9726 | 174585 | |
| 24 | 1863 | 2025 | 15191 | 3237 | 1690 | 2044 | 2501 | 79104 | 42974 | 2107 | 1037 | 8049 | 161822 | |
| 31 | 1573 | 2442 | 16423 | 2866 | 1583 | 2297 | 2081 | 76032 | 38339 | 2072 | 1326 | 7412 | 154446 | 834201 |
| Apr. 7 | 1892 | 2521 | 15120 | 3391 | 2109 | 1893 | 2741 | 81474 | 37995 | 2135 | 1540 | 7616 | 160427 | |
| 14 | 1861 | 2515 | 20346 | 4103 | 2113 | 2017 | 2449 | 94960 | 36627 | 2425 | 1373 | 6805 | 177594 | |
| 21 | 1722 | 2710 | 20371 | 3477 | 1987 | 2317 | 2014 | 85287 | 41084 | 2024 | 1332 | 7462 | 171787 | |
| 28 | 1709 | 2486 | 24681 | 3321 | 1756 | 1948 | 2376 | 77253 | 35572 | 2036 | 1346 | 5692 | 160176 | 669984 |
| May 5 | 2040 | 2624 | 24499 | 3541 | 2066 | 1897 | 2681 | 91039 | 34244 | 2135 | 1288 | 7475 | 175529 | |
| 12 | 1880 | 2415 | 23038 | 2992 | 1971 | 1693 | 2658 | 87177 | 32824 | 1990 | 1283 | 6813 | 166734 | |
| 19 | 1904 | 2192 | 22824 | 3619 | 1826 | 1909 | 2527 | 92625 | 33946 | 2015 | 1194 | 7961 | 174542 | |
| 26 | 1643 | 2237 | 22758 | 3533 | 1772 | 2142 | 2025 | 90065 | 33882 | 2077 | 1108 | 6488 | 169730 | 686535 |
| June 2 | 1736 | 2274 | 26155 | 3403 | 1698 | 1871 | 2214 | 73699 | 30349 | 2039 | 1029 | 6093 | 152560 | |
| 9 | 2044 | 2443 | 23131 | 3877 | 1959 | 1975 | 2528 | 90394 | 35843 | 2365 | 1250 | 8042 | 175851 | |
| 16 | 1771 | 2101 | 23936 | 3368 | 1992 | 2001 | 2715 | 87275 | 32508 | 1956 | 1243 | 6820 | 167686 | |
| 23 | 1739 | 2011 | 19075 | 3511 | 1681 | 2312 | 2436 | 82121 | 39049 | 2060 | 1267 | 6635 | 163897 | |
| 30 | 1552 | 1765 | 18818 | 3220 | 1395 | 2042 | 2081 | 81711 | 35606 | 1987 | 1003 | 5734 | 156914 | 816908 |
| July 7 | 1808 | 1991 | 16351 | 4023 | 1971 | 2293 | 2553 | 74967 | 34636 | 2036 | 1409 | 5571 | 149609 | |
| 14 | 1840 | 2037 | 23865 | 3892 | 1845 | 1982 | 2369 | 97397 | 38648 | 2036 | 1507 | 6126 | 183545 | |
| 21 | 806 | 2135 | 23806 | 3407 | 1602 | 1822 | 2368 | 87490 | 35996 | 2180 | 1409 | 6057 | 169078 | |
| 28 | 1533 | 1780 | 20449 | 3235 | 1568 | 1638 | 2049 | 74148 | 36891 | 1947 | 1255 | 5870 | 152363 | 654595 |
| Aug. 4 | 1651 | 1887 | 22596 | 2875 | 1574 | 1723 | 2446 | 83553 | 31942 | 1950 | 1086 | 5216 | 158499 | |
| 11 | 1801 | 2005 | 19499 | 3506 | 1557 | 2107 | 2485 | 74295 | 28931 | 2227 | 1173 | 5193 | 144779 | |
| 18 | 1713 | 1963 | | 3266 | 1482 | 1963 | 2246 | 89918 | 36784 | 2067 | 1175 | 5675 | 148252 | |
| 25 | 1752 | 1725 | 19622 | 3307 | 1600 | 1986 | 2174 | 79164 | 32557 | 1811 | 989 | 5421 | 152108 | 603638 |
| Sept 1 | 1849 | 2031 | 20482 | 3499 | 1508 | 2341 | 2305 | 83885 | 34447 | 1841 | 974 | 4993 | 160155 | |
| 8 | 2352 | 1941 | 21325 | 3498 | 1503 | 2508 | 2246 | 78234 | 28611 | 1958 | 1089 | 4883 | 149148 | |
| 15 | 2171 | 2301 | 37249 | 4068 | 2136 | 2299 | 2702 | 104232 | 33504 | 2102 | 1416 | 5955 | 200135 | |
| 22 | 2183 | 2295 | 37409 | 4319 | 1912 | 3143 | 2975 | 114038 | 43142 | 2015 | 1539 | 6598 | 221568 | |
| 29 | 1932 | 2036 | 36603 | 3688 | 1651 | 2892 | 2314 | 100615 | 33105 | 2170 | 1039 | 6099 | 194144 | 925150 |
| Oct. 6 | 2221 | 2500 | 40115 | 4811 | 2247 | 2915 | 2962 | 115113 | 37504 | 1980 | 1320 | 6274 | 219962 | |
| 13 | 2153 | 2440 | 39969 | 4505 | 2057 | 2331 | 2671 | 116725 | 35076 | 2021 | 1526 | 8285 | 219759 | |
| 20 | 1978 | 3200 | 40030 | 4135 | | 2272 | 2776 | 110562 | 51572 | 2188 | 1852 | 6700 | 227265 | |
| 27 | 1824 | 2608 | 38656 | 3675 | 1727 | 2714 | 2162 | 95917 | 38436 | 2770 | 1267 | 5600 | 197356 | 864342 |
| Nov. 3 | 1732 | 1629 | 35536 | 3844 | 1873 | 2528 | 2674 | 86458 | 31402 | 2463 | 1090 | 5200 | 176429 | |
| 10 | 2275 | 3010 | 44297 | 3868 | 2158 | 3792 | 3379 | 112360 | 41155 | 2565 | 1460 | 5400 | 225719 | |
| 17 | 1911 | 3262 | 39010 | 3572 | 1993 | 3257 | 2614 | 105547 | 44751 | 2326 | 1537 | 6400 | 216180 | |
| 24 | 1319 | 2961 | 36931 | 3028 | 1797 | 3148 | 2639 | 99982 | 35113 | 2253 | 1152 | 5000 | 194823 | 813151 |
| Dec. 1 | 1642 | 2834 | 28794 | 3363 | 1524 | 3255 | 2874 | 80991 | 33797 | 2285 | 1114 | 5500 | 167973 | |
| 8 | 1800 | 3275 | 33265 | 3183 | 2003 | 3136 | 2977 | 94444 | 32416 | 2524 | 1539 | 5400 | 185963 | |
| 15 | 1504 | 1990 | 31654 | 2871 | 1746 | 2519 | 2626 | 90972 | 38005 | 2545 | 1431 | 5000 | 182863 | |
| 22 | 1585 | 2021 | 26778 | 2634 | 1456 | 2738 | 2972 | 83822 | 35414 | 2427 | 1380 | 4500 | 167727 | |
| 29 | 2781 | 2170 | 24384 | 2000 | 1030 | 2352 | 2271 | 66527 | 25925 | 1942 | 829 | 4100 | 136311 | 840837 |
| | | | | | | | | 4613659 | 1895569 | | | | | |

1921

| DATE | ABERDEEN | BILLINGS | DULUTH | FARGO | GRAND FORKS | GREAT FALLS | HELENA | MINNEAPOLIS | ST. PAUL | SUPERIOR | WINONA | SIOUX FALLS | WEEKLY TOTALS | MONTHLY TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 5 | 1625 | 2086 | 24273 | 2372 | 1325 | 2619 | 3465 | 90604 | 33336 | 1937 | 887 | 5700 | 178229 | |
| 12 | 4709 | 2218 | 23742 | 2475 | 1294 | 2528 | 3849 | 75594 | 25859 | 2248 | 1077 | 5000 | 150598 | |
| 19 | 1497 | 1923 | 22244 | 2139 | 1264 | 2275 | 2559 | 75412 | 32117 | 1864 | 980 | 4500 | 148774 | |
| 26 | 1241 | 1681 | 16923 | 1822 | 1136 | 1969 | 2082 | 68691 | 23766 | 2057 | 824 | 3900 | 126092 | 595693 |
| Feb. 2 | 1362 | 1446 | 14358 | 2050 | 1030 | 1747 | 2075 | 70212 | 28024 | 1960 | 856 | 4100 | 129220 | |
| 9 | 1332 | 1626 | 14159 | 2171 | 1214 | 1645 | 2313 | 63187 | 26445 | 1968 | 890 | 5000 | 121940 | |
| 16 | 1163 | 1550 | 15902 | 2234 | 991 | 1357 | 1774 | 69766 | 27877 | 2104 | 1070 | 3800 | 129591 | |
| 23 | 988 | 1400 | 10953 | 2211 | 82[illegible] | 1126 | 1822 | 53490 | 22753 | 2012 | 920 | 3600 | 102096 | 482847 |
| | | | | | | | | 566956 | 220177 | | | | | |

T A B L E   X I V

COMPARATIVE BANK DEPOSITS OF MINNESOTA, NORTH DAKOTA, SOUTH DAKOTA, AND MONTANA FOR THE PAST SIXTEEN YEARS.

| | MINNESOTA | | NORTH DAKOTA | |
|---|---|---|---|---|
| YEAR | Total Number of Banks | Total Deposits | Total Number of Banks | Total Deposits |
| 1900 | 267 | $ 76,083,000 | 155 | $ 11,222,000 |
| 1901 | 300 | 87,800,000 | 168 | 12,456,000 |
| 1902 | 385 | 111,558,000 | 203 | 19,012,000 |
| 1903 | 450 | 113,528,000 | 262 | 22,476,000 |
| 1904 | 563 | 124,406,000 | 292 | 22,311,000 |
| 1905 | 636 | 142,583,000 | 339 | 27,630,000 |
| 1906 | 690 | 166,568,000 | 456 | 36,663,000 |
| 1907 | 755 | 179,875,000 | 515 | 41,884,000 |
| 1908 | 874 | 195,975,000 | 555 | 47,526,000 |
| 1909 | 903 | 269,948,000 | 596 | 58,753,000 |
| 1910 | 911 | 297,080,000 | 699 | 71,218,000 |
| 1911 | 1009 | 343,003,000 | 715 | 72,554,000 |
| 1912 | 1021 | 372,700,000 | 745 | 89,453,000 |
| 1913 | 1046 | 379,013,000 | 751 | 90,321,000 |
| 1914 | 1140 | 462,353,000 | 769 | 86,117,000 |
| 1915 | 1159 | 551,219,000 | 804 | 121,623,000 |

| | SOUTH DAKOTA | | MONTANA | |
|---|---|---|---|---|
| YEAR | Total Number of Banks | Total Deposits | Total Number of Banks | Total Deposits |
| 1900 | 207 | $ 14,732,000 | 35 | $ 17,115,000 |
| 1901 | 230 | 19,194,000 | 39 | 23,143,000 |
| 1902 | 276 | 27,988,000 | 44 | 27,704,000 |
| 1903 | 327 | 27,512,000 | 50 | 28,239,000 |
| 1904 | 328 | 29,220,000 | 54 | 28,334,000 |
| 1905 | 352 | 33,427,000 | 61 | 33,146,000 |
| 1906 | 406 | 42,764,000 | 72 | 42,505,000 |
| 1907 | 465 | 53,386,000 | 85 | 47,980,000 |
| 1908 | 515 | 61,480,000 | 92 | 47,152,000 |
| 1909 | 567 | 78,830,000 | 114 | 52,795,000 |
| 1910 | 578 | 90,847,000 | 143 | 54,194,000 |
| 1911 | 631 | 78,559,000 | 208 | 67,596,000 |
| 1912 | 627 | 86,944,000 | 221 | 75,431,000 |
| 1913 | 625 | 90,535,000 | 259 | 80,572,000 |
| 1914 | 624 | 94,283,000 | 291 | 82,016,000 |
| 1915 | 640 | 111,001,000 | 300 | 101,742,000 |

Published 1916, by First and Security National Bank, Minneapolis.

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T A B L E   X V

(Page 1)

Votes cast for the Twin Cities as the location for a Federal Reserve Bank. (63rd Congress, 2nd Session, Senate Document No. 485, Location of Federal Reserve Districts, pp. 350-356.)

PART 1

First-choice votes in the Ninth Federal Reserve District for reserve bank cities.

| | Montana | North Dakota | South Dakota | Minnesota | Northern Wisconsin | Northern Michigan | Total |
|---|---|---|---|---|---|---|---|
| Minneapolis | 18 | 97 | 54 | 188 | 8 | - | 365 |
| St.Paul | 10 | 19 | 6 | 52 | 6 | - | 93 |
| Twin Cities (Minneapolis or St.Paul) | 20 | 6 | 4 | 11 | 1 | - | 42 |
| Chicago | 1 | 2 | 25 | 8 | 53 | 29 | 118 |
| Milwaukee | - | - | - | - | 11 | - | 11 |
| Omaha | - | - | 8 | - | - | - | 8 |
| Spokane | 4 | - | - | - | - | - | 4 |
| Sioux City | - | - | 2 | - | - | - | 2 |
| Fargo | - | 1 | - | - | - | - | 1 |
| Detroit | - | - | - | - | - | 1 | 1 |
| | | | | | Total: | | 645 |

PART 2

Analysis of first-choice votes cast by banks in the Ninth Federal Reserve District.

| Minneapolis | |
|---|---|
| Idaho | 1 |
| Iowa | 4 |
| Minnesota | 188 |
| Montana | 18 |
| North Dakota | 97 |
| South Dakota | 54 |
| Wisconsin | 8 |
| Total: | 370 |

| St.Paul | |
|---|---|
| Minnesota | 52 |
| Montana | 10 |
| North Dakota | 19 |
| South Dakota | 6 |
| Wisconsin | 7 |
| Total: | 94 |

| Twin Cities | |
|---|---|
| Iowa | 1 |
| Montana | 20 |
| Minnesota | 11 |
| North Dakota | 6 |
| South Dakota | 4 |
| Wisconsin | 1 |
| Wyoming | 1 |
| Total: | 44 |

| Sioux City | |
|---|---|
| Iowa | 5 |
| Nebraska | 3 |
| South Dakota | 2 |
| Total: | 10 |

| Spokane | |
|---|---|
| Idaho | 9 |
| Montana | 4 |
| Washington | 16 |
| Oregon | 1 |
| Total: | 30 |

| Detroit | |
|---|---|
| Michigan | 23 |

| Fargo | |
|---|---|
| North Dakota | 1 |

| Chicago | | | |
|---|---|---|---|
| Idaho | 2 | Montana | 1 |
| Illinois | 305 | Nebraska | 5 |
| Indiana | 134 | North Dakota | 2 |
| Iowa | 256 | Ohio | 2 |
| Michigan | 72 | South Dakota | 25 |
| Minnesota | 8 | Wisconsin | 89 |
| Missouri | 4 | Utah | 1 |
| | | Total: | 906 |

TABLE XV

(Page 2)

PART 3

First, second, and third-choice votes cast by banks in Minnesota, Montana, North Dakota, South Dakota, Michigan, and Wisconsin.

| Minnesota | First Choice | Second Choice | Third Choice |
|---|---|---|---|
| Chicago | 8 | 24 | 173 |
| Dubuque | - | - | 1 |
| Duluth | - | - | 8 |
| Fargo | - | - | 2 |
| Mankato | - | - | 2 |
| Milwaukee | - | - | 1 |
| Minneapolis | 188 | 50 | 1 |
| New York | - | - | 1 |
| St.Louis | - | - | 1 |
| St.Paul | 52 | 164 | 11 |
| Sioux City | - | - | 1 |
| Winona | - | - | 1 |
| Minneapolis or St.Paul | 11 | 1 | - |
| Total: | 259 | 239 | 203 |

| North Dakota | First Choice | Second Choice | Third Choice |
|---|---|---|---|
| Chicago | 2 | 7 | 95 |
| Duluth | - | - | 3 |
| Fargo | 1 | - | 2 |
| Minneapolis | 99 | 19 | 1 |
| St.Paul | 19 | 92 | 2 |
| Spokane | - | 1 | - |
| Twin Cities (Mpls. or St.P.) | 6 | 1 | - |
| Total: | 125 | 120 | 103 |

| Michigan | First Choice | Second Choice | Third Choice |
|---|---|---|---|
| Boston | - | - | 1 |
| Chicago | 72 | 22 | 1 |
| Cincinnati | - | - | 4 |
| Cleveland | - | 2 | 16 |
| Detroit | 23 | 27 | 2 |
| Grand Rapids | - | - | 4 |
| Kalamazoo | - | - | 1 |
| Milwaukee | - | 5 | 3 |
| Minneapolis | - | 3 | 2 |
| Muskegon | - | - | 1 |
| New York | - | 1 | 7 |
| St.Paul | - | - | 1 |
| Twin Cities (Mpls. or St.P.) | | | 1 |
| Toledo | - | - | 1 |
| Total: | 95 | 60 | 45 |

| Montana | First Choice | Second Choice | Third Choice |
|---|---|---|---|
| Chicago | 1 | 22 | 24 |
| Denver | - | - | 3 |
| Minneapolis | 18 | 10 | - |
| New York | - | - | 1 |
| Omaha | - | 1 | 1 |
| Portland | - | - | 2 |
| St.Louis | - | - | 2 |
| St.Paul | 10 | 14 | 3 |
| Seattle | - | 2 | 1 |
| Spokane | 4 | - | 6 |
| Twin Cities (Minneapolis or St.Paul) | 20 | 2 | - |
| Spokane or Seattle | - | - | 1 |
| Total: | 53 | 51 | 44 |

| South Dakota | First Choice | Second Choice | Third Choice |
|---|---|---|---|
| Chicago | 25 | 26 | 36 |
| Denver | - | - | 5 |
| Des Moines | - | - | 1 |
| Kansas City | - | - | 1 |
| Minneapolis | 54 | 12 | 11 |
| New York | - | - | 3 |
| Omaha | 8 | 8 | 7 |
| St.Paul | 6 | 38 | 4 |
| Sioux City | 2 | 9 | 8 |
| Twin Cities | 4 | 2 | - |
| Sioux City or Omaha | - | - | 1 |
| Total: | 99 | 95 | 77 |

| Wisconsin | First Choice | Second Choice | Third Choice |
|---|---|---|---|
| Chicago | 89 | 17 | 11 |
| Cleveland | - | - | 1 |
| Dubuque | - | - | 1 |
| Madison | - | - | 1 |
| Milwaukee | 13 | 28 | 2 |
| Minneapolis | 8 | 16 | 22 |
| New York | - | 1 | 1 |
| St.Louis | - | 1 | 3 |
| St.Paul | 7 | 9 | 7 |
| Twin Cities | 1 | 1 | 4 |
| St.Louis or Minneapolis | - | - | 1 |
| Total: | 118 | 73 | 54 |

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BIBLIOGRAPHICAL NOTE

The bibliography which follows indicates those sources which have aided in varying degrees in the preparation of this thesis. Some of them were helpful only in a general way; others were of invaluable assistance. Some of them deserve special mention in explanation of their usefulness in this work.

The interview, to which resort was had on numerous occasions, was useful chiefly in indicating the general trend of development, and in furnishing helpful suggestions which guided further research. In questions such as those of the rate situation, and the financial development of the Twin Cities, where previous investigation had been scanty, the gaps to be filled, in large part through the aid of the personal interview, were considerable.

Perhaps the most important among the manuscript sources were the Hale papers and the Auerbach papers, preserved by the Minnesota Historical Society. They consist chiefly of correspondence carried on by these men, both of whom played a prominent part in the early history of the Twin Cities, Major Hale as a miller in Minneapolis, and Maurice Auerbach as a St.Paul financier.

The numerous public reports, municipal, state, and federal, were invaluable in furnishing statistical material; sometimes they contained valuable interpretations of these statistics, and summaries of development as well. The briefs presented to the Federal Farm Loan Board, and the Reserve Bank Organization Committee, are of somewhat the same nature, and were particularly helpful because of their historical character.

Among secondary sources must be mentioned particularly the chronicles of the early history of the Twin Cities and the northwest. They are based, in considerable measure, on personal experiences and reminiscences of pioneers, and are most useful for the period antedating public reports. Partially because of the character of the sources on which the authors placed reliance, these accounts are not always accurate, and there is danger in using them without checking their data from other sources. The most useful of the books of this character was A Half Century of Minneapolis, by H. B. Hudson, and this book constitutes an exception to the general rule. It is based partially on reminiscences, but the author used freely the early newspapers and other documentary material to be found in the library of the Minnesota Historical Society, and his book is a careful and very useful compilation of material.

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Mr. Theodore Albrecht, of the Union Investment Company, Minneapolis.

Mr. S. D. Andrews, of the Minneapolis Drug Company, Minneapolis.

Mr. E. H. Berg, in the Traffic Branch of the St.Paul Association of Public and Business Affairs.

Mr. L. C. Burr, of Butler Brothers, Minneapolis.

Mr. O. M. Corwin, of the Wells-Dickey Company, Minneapolis.

Mr. F. R. Durant, of the Grain Bulletin, Minneapolis.

Mr. J. F. Ebersole, of the Federal Reserve Bank, Minneapolis, and of the University of Minnesota.

Mr. John Harrison, of Winston, Harper, Fisher, Minneapolis.

Mr. H. M. Hill, of Janney, Semple, Hill and Company, Minneapolis.

Mr. Walter Jordan, of Jordan Brothers, Minneapolis.

Mr. Lee Kuempel, Chief Clerk in the St.Paul District, Freight Traffic Committee of the United States Railroad Administration.

Mr. George P. Lane, of Lane, Piper, and Jaffray, Minneapolis.

Mr. L. C. Leyder, of the Simmons Hardware Company, Minneapolis.

Mr. T. W. McCosker, of McDonald Brothers, Minneapolis.

Mr. T. A. McGrath, Commerce Counsel for the Minneapolis Traffic Association.

Mr. Curtis Mosher, of the Federal Reserve Bank, Minneapolis.

Mr. J. E. Neville, of the Northwestern National Bank, Minneapolis.

Mr. L. B. Newell, of G. R. Newell and Company, Minneapolis.

Mr. J. H. Reese, Chief of the Tariff Bureau of the Minneapolis, St.Paul, and Sault Ste. Marie Railroad, Minneapolis.

Mr. Guy Ross, of the Bankers' Investment Company, Minneapolis.

Mr. A. M. Sheldon, of Sheldon Brothers, Minneapolis.

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Mr. J. E. Tatum, of the Civic and Commerce Association, Minneapolis.

Mr. W. C. Tubbs, of Wyman-Partridge and Company, Minneapolis.

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International Falls
Virginia
Biwabik
Hibbing
Cloquet
Duluth
Superior
Ashland
Marquette
Ishpeming
Escanaba
Brainerd
Fergus Falls
St. Cloud
Aberdeen
Minneapolis
Stillwater
St. Paul
Eau Claire
Redwing
Faribault
Mankato
Rochester
Winona
La Crosse
Mitchell
Sioux Falls
Albert Lea
Milwaukee
Sioux City
Des Moines
Omaha
Chicago
LEGEND
Commercial Tributaries
Industrial Tributaries
Duluth District
Federal Reserve Area
Jobbing Area
Grain Area
Livestock Area

Table XIII. Sheet I.

# Weekly Bank Debits For Cities In The Ninth Federal Reserve District. (000's Omitted)

## 1918

| DATE | ABERDEEN | BILLINGS | BUTTE | DULUTH | FARGO | GRAND FORKS | GREAT FALLS | HELENA | MINNEAPOLIS | ST. PAUL | SUPERIOR | WEEKLY TOTAL | MONTHLY TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sept. 4 | 1796 | — | — | 14033 | — | | | 1760 | 66058 | 23086 | 1401 | 108134 | |
| 11 | 2280 | 2255 | — | 30259 | — | | | 2198 | 91299 | 28473 | 2238 | 166022 | |
| 18 | 1890 | 2011 | 6158 | 52535 | 3581 | | 3275 | 1720 | 107739 | 33357 | 2235 | 214701 | |
| 25 | 1937 | 1832 | — | 63803 | 4800 | 1468 | 3602 | 2099 | 113331 | 35696 | 2145 | 232649 | 943506 |
| Oct. 2 | 1886 | 2187 | — | 67964 | 3551 | 1483 | — | 3287 | 110310 | 37674 | 2299 | 231141 | |
| 9 | 2255 | 1890 | — | 66884 | 4304 | 1854 | — | 2645 | 122376 | 32974 | 2813 | 237995 | |
| 16 | 1981 | 2039 | — | 61194 | 3503 | 1757 | — | 2822 | 115667 | 38824 | 2349 | 230136 | |
| 23 | 1827 | 2380 | — | 56485 | 3832 | 1832 | — | 2774 | 112748 | 45218 | 3007 | 230513 | |
| 30 | 1550 | 1807 | — | 56698 | | 1426 | — | 2244 | 94479 | | 2358 | 165562 | 1095347 |
| Nov. 6 | 1529 | 2140 | — | 53613 | 2914 | 1842 | 2997 | 2475 | 80248 | | 1925 | 149685 | |
| 13 | 1282 | 2074 | — | 49794 | | 1439 | 2638 | 2913 | 80154 | 33361 | 2230 | 175835 | |
| 20 | 1572 | 2587 | — | 45360 | 3085 | 1618 | 2944 | 2649 | 87076 | 39121 | 2557 | 188569 | |
| 27 | 1121 | 2343 | — | 52051 | 2549 | 1350 | | 2190 | 84943 | 45178 | 2931 | 194656 | 708745 |
| Dec. 4 | 1639 | 2796 | — | 49365 | 1740 | 1817 | 3869 | 2784 | 83186 | 34850 | 2048 | 183594 | |
| 11 | 1154 | 2483 | — | 47699 | 2952 | 1646 | 3785 | 2866 | 101506 | 34293 | 1294 | 199678 | |
| 18 | 1663 | 1899 | — | 47662 | 2883 | 1693 | 3512 | 2462 | 91037 | 44094 | 2685 | 255524 | |
| 24 | 1220 | 1854 | — | 44105 | 2097 | 1250 | 2985 | 2418 | 85767 | 32141 | | 173837 | |
| 31 | 1039 | 2498 | — | 34563 | 1559 | 1162 | 3071 | 1835 | 77442 | 39379 | 1669 | 164217 | 978850 |
| | | | | | | | | | 1117366 | 577239 | | | |

## 1919

| DATE | ABERDEEN | BILLINGS | DULUTH | FARGO | GRAND FORKS | GREAT FALLS | HELENA | MINNEAPOLIS | ST. PAUL | SUPERIOR | WINONA | WEEKLY TOTAL | MONTHLY TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 8 | 1642 | 2400 | 41287 | 2717 | 1683 | 3529 | 3237 | 94098 | 35504 | 2285 | — | 188382 | |
| 15 | 1254 | 2181 | 34780 | 2523 | 1597 | 3118 | 3892 | 77668 | 39730 | 1775 | 1204 | 163772 | |
| 22 | 1287 | 2037 | 31924 | 2365 | 1384 | 2893 | 2711 | 80296 | 44421 | 1995 | 815 | 172128 | |
| 29 | 1130 | 1649 | 29534 | 1763 | 1062 | 2920 | 2352 | 64792 | 34833 | 1300 | 901 | 142241 | 666523 |
| Feb. 5 | 1257 | 1763 | 25525 | 2537 | 1197 | 3249 | 2016 | 67776 | 38196 | 1422 | 1217 | 146155 | |
| 11-12 | 992 | 1431 | 15533 | 1732 | 1187 | 2981 | 2113 | 42993 | 29106 | 1811 | 978 | 100857 | |
| 19 | 1284 | 2066 | 14082 | 1541 | 1180 | 3126 | 2281 | 62127 | 35793 | 1830 | 950 | 127260 | |
| 26 | 888 | 1616 | 9575 | 1765 | 946 | 2412 | 2249 | 54292 | 32507 | 1578 | 826 | 108654 | 482926 |
| Mar. 5 | 1224 | 2765 | 12893 | 2214 | 1624 | 2178 | 2299 | 62299 | 36824 | 2020 | 931 | 127268 | |
| 12 | 1233 | 2030 | 11393 | 2057 | 1268 | 1926 | 2653 | 62783 | 32162 | 1730 | 922 | 120157 | |
| 19 | 1159 | 1947 | 13205 | 3728 | 1050 | 2142 | 1899 | 71174 | 34143 | 1208 | 812 | 133267 | |
| 26 | 1185 | 1913 | 11956 | 2579 | 1170 | 1971 | 1922 | 77285 | 29864 | 1324 | 820 | 131989 | 512681 |
| Apr. 2 | 1523 | 2354 | 19256 | 1646 | 1295 | 2248 | 2102 | 98812 | 39033 | 1887 | 1064 | 171220 | |
| 9 | 1438 | 2602 | 14671 | 2633 | 1475 | 2497 | 2569 | 72526 | 36020 | 1692 | 1235 | 139358 | |
| 16 | 1398 | 2517 | 20288 | 1891 | 1401 | 2701 | 2019 | 82795 | 30859 | 1853 | 947 | 148869 | |
| 23 | 1489 | 2036 | 23944 | 2636 | 1202 | 2197 | 2175 | 67017 | 30912 | 1998 | 928 | 136534 | |
| 30 | 1270 | 2166 | 28728 | 1867 | 1218 | 2522 | 1831 | 70177 | 34468 | 1716 | 903 | 146866 | 742847 |
| May 7 | 1823 | 2464 | 19693 | 1392 | 1814 | 3336 | 2522 | 79013 | 29119 | 2272 | 1038 | 145286 | |
| 14 | 1926 | 2360 | 22517 | 2614 | 1817 | 2871 | 2561 | 75751 | 35401 | 2048 | 1145 | 151011 | |
| 21 | 1616 | 2331 | 21721 | 3307 | 1631 | 2597 | 2169 | 77637 | 41142 | 2063 | 892 | 157106 | |
| 28 | 1712 | 1925 | 17984 | 5919 | 1422 | 2297 | 1904 | 66878 | 35682 | 1216 | 939 | 137878 | 591281 |
| June 4 | 1567 | 1911 | 22373 | 3621 | 1711 | 2196 | 1832 | 66753 | 35454 | 1334 | 1082 | 139234 | |
| 11 | 1676 | 2451 | 20396 | 5646 | 1615 | 1798 | 2617 | 72410 | 37720 | 1150 | 1070 | 148549 | |
| 18 | 1614 | 2114 | 22406 | 5862 | 1664 | 1428 | 2044 | 69313 | 45625 | 1320 | 1537 | 154927 | |
| 25 | 3186 | 1932 | 17498 | 2314 | 1892 | 1796 | 2265 | 66216 | 40478 | 1397 | 1168 | 140142 | 582852 |
| July 2 | 1530 | 1847 | 27193 | 2477 | 1655 | 1574 | 2264 | 83663 | 31887 | 1244 | 1400 | 156734 | |
| 9 | 1587 | 2133 | 18626 | 2641 | 1503 | 1774 | 2495 | 60421 | 29979 | 1115 | 1440 | 123714 | |
| 16 | 2056 | 2079 | 28573 | 3168 | 1716 | 1448 | 2457 | 83553 | 40804 | 1146 | 1173 | 168173 | |
| 23 | 2498 | 2114 | 21015 | 5673 | 1628 | 1621 | 2052 | 64200 | 39772 | 1256 | 1069 | 147898 | |
| 30 | 1476 | 1837 | 19566 | 3018 | 1526 | 1582 | 2001 | 67902 | 34292 | 1124 | 974 | 135298 | 731817 |
| Aug. 6 | 1806 | 2212 | 19046 | 3869 | 1578 | 2165 | 2674 | 75766 | 39263 | 1445 | 1048 | 150872 | |
| 13 | 1898 | 1017 | 18221 | 3600 | 1562 | 1914 | 2711 | 76309 | 34965 | 1993 | 740 | 144929 | |
| 20 | 1875 | 2026 | 17922 | 7809 | 1644 | 1793 | 2579 | 83730 | 37962 | 1819 | 879 | 160038 | |
| 27 | 2023 | 1564 | 17690 | 7637 | 1560 | 1982 | 3219 | 73999 | 30580 | 1697 | 880 | 142831 | 598670 |
| Sept. 3 | 1780 | 1969 | 17263 | 7729 | 1514 | 1797 | 3752 | 78255 | 31395 | 1753 | 899 | 148106 | |
| 10 | 2283 | 2390 | 20493 | 9144 | 1818 | 2184 | 2136 | 107903 | 53252 | 2261 | 1161 | 205025 | |
| 17 | 2100 | 1946 | 24889 | 9393 | 2288 | 2419 | 2679 | 104520 | 43271 | 2227 | 1582 | 197314 | |
| 24 | 1944 | 2265 | 20815 | 9337 | 1991 | 2699 | 2875 | 102807 | 39563 | 1889 | 1278 | 187463 | 737908 |
| Oct. 1 | 1930 | 2226 | 23892 | 9181 | 2226 | 2174 | 2531 | 98807 | 42102 | 2189 | 1404 | 188662 | |
| 8 | 2465 | 2385 | 24482 | 9336 | 2609 | 2773 | 3431 | 103328 | 37227 | 2169 | 1515 | 191720 | |
| 15 | 1988 | 2555 | 23498 | 9866 | 2708 | 2142 | 2817 | 101901 | 39806 | 2131 | 1215 | 190621 | |
| 22 | 2154 | 2823 | 21534 | 10147 | 2376 | 2441 | 2765 | 104046 | 39690 | 2081 | 2174 | 195231 | |
| 29 | 1723 | 2285 | 20560 | 7654 | 1989 | 2197 | 2531 | 101836 | 34743 | 1985 | 1232 | 178735 | 944969 |
| Nov. 5 | 2142 | 2582 | 27628 | 9515 | 2973 | 2611 | 2737 | 94816 | 43611 | 2353 | 1304 | 192272 | |
| 12 | 1515 | 2710 | 21185 | 8765 | 2003 | 2943 | 3009 | 92179 | 38504 | 1980 | 1205 | 175998 | |
| 19 | 988 | 2880 | 19618 | 9167 | 2275 | 3183 | 3014 | 101698 | 41820 | 2036 | 441 | 187120 | |
| 26 | 1420 | 2787 | 16271 | — | 1931 | 3542 | 2378 | 101181 | 44137 | 1844 | 1248 | 176739 | 732129 |
| Dec. 3 | 1809 | 2931 | 15229 | — | 2152 | 3290 | 2572 | 96357 | 41943 | 1918 | 1128 | 169329 | |
| 10 | 1904 | 2160 | 18727 | — | 2371 | 2887 | 2839 | 97358 | 41927 | 1844 | 1316 | 173333 | |
| 17 | 1925 | 2210 | 19632 | — | 1913 | 2983 | 2701 | 100939 | 44044 | 2079 | 1430 | 179856 | |
| 24 | 1537 | 2361 | 19035 | 3077 | 1889 | 2392 | 2749 | 102334 | 43000 | 2040 | 1327 | 181741 | |
| 31 | 1409 | 2280 | 14246 | | 1669 | 2095 | 2437 | 93795 | 38058 | — | — | 155989 | 860248 |
| | | | | | | | | 3341684 | 1948193 | | | | |

Sheet 2.

# 1920

| DATE | ABERDEEN | BILLINGS | DULUTH | FARGO | GRAND FORKS | GREAT FALLS | HELENA | MINNEAPOLIS | ST. PAUL | SUPERIOR | WINONA | SIOUX FALLS | WEEKLY TOTALS | MONTHLY TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 7 | 2062 | 2851 | 16087 | 3328 | 2178 | 2895 | 3096 | 88359 | 37961 | 2036 | 2217 | | 163070 | |
| 14 | 1914 | 2416 | 19299 | 3021 | 1939 | 3214 | 2639 | 103142 | 40310 | 1896 | 1360 | 9372 | 190522 | |
| 21 | 1597 | 2429 | 19084 | 3116 | 1554 | 2693 | 2403 | 97751 | 36804 | 2024 | 1130 | 6829 | 177414 | |
| 28 | 3829 | 2133 | 16502 | 2549 | 1432 | 2675 | 2615 | 81537 | 36032 | 1687 | 911 | 6800 | 158702 | 689702 |
| Feb. 4 | 1484 | 2079 | 15976 | 2804 | 1566 | 2804 | 2438 | 80900 | 37687 | 1856 | 1337 | | 150931 | |
| 11 | 1382 | 2393 | 18372 | 2848 | 1548 | 2611 | 2604 | 83534 | 38850 | 1610 | 2165 | 5013 | 162930 | |
| 18 | 2149 | 2601 | 16007 | 2797 | 1486 | 2113 | 1986 | 76348 | 36575 | 1741 | 1045 | 6752 | 151600 | |
| 25 | 1128 | 1918 | 14427 | 2390 | | 2465 | 1812 | 73848 | 32789 | 1990 | 976 | 5566 | 139309 | 604770 |
| Mar. 3 | 1872 | 2629 | 19611 | 3052 | 2056 | 2217 | 2634 | 94692 | 44552 | 2162 | 1299 | 10134 | 186910 | |
| 10 | 1774 | 2437 | 14429 | 3366 | 2220 | 2406 | 3352 | 75879 | 38088 | 1856 | 1181 | 9450 | 156438 | |
| 17 | 1966 | 2683 | 17066 | 2940 | 1685 | 1987 | 2384 | 86597 | 45319 | [illegible] | 160 | 9726 | 174585 | |
| 24 | 1863 | 2025 | 15191 | 3237 | 1690 | 2044 | 2501 | 79104 | 42974 | [illegible] | 1037 | 8049 | 161822 | |
| 31 | 1573 | 2442 | 16423 | 2866 | 1583 | 2297 | 2081 | 76032 | 38339 | 2072 | 1326 | 7412 | 154446 | 834201 |
| Apr. 7 | 1892 | 2521 | 15120 | 3391 | 2109 | 1893 | 2741 | 81474 | 37995 | 2135 | 1540 | 7616 | 160427 | |
| 14 | 1861 | 2515 | 20346 | 4103 | 2113 | 2017 | 2449 | 94960 | 36627 | 2425 | 1373 | 6805 | 177594 | |
| 21 | 1722 | 2710 | 20371 | 3477 | 1987 | 2317 | 2014 | 85287 | 41084 | 2024 | 1332 | 7462 | 171787 | |
| 28 | 1709 | 2486 | 24681 | 3321 | 1756 | 1948 | 2376 | 77253 | 35572 | 2036 | 1316 | 5692 | 160176 | 669984 |
| May 5 | 2040 | 2624 | 24499 | 3541 | 2066 | 1897 | 2681 | 91039 | 34244 | 2135 | 1288 | 7475 | 175529 | |
| 12 | 1880 | 2415 | 23038 | 2992 | 1971 | 1693 | 2658 | 87177 | 32824 | 1990 | 1283 | 6813 | 166734 | |
| 19 | 1904 | 2192 | 22824 | 3619 | 1826 | 1909 | 2527 | 92625 | 33946 | 2015 | 1194 | 7961 | 174542 | |
| 26 | 1643 | 2237 | 22758 | 3533 | 1772 | 2142 | 2025 | 90065 | 33882 | 2077 | 1108 | 6488 | 169730 | 686535 |
| June 2 | 1736 | 2274 | 26155 | 3403 | 1698 | 1871 | 2214 | 73699 | 30349 | 2039 | 1029 | 6093 | 152560 | |
| 9 | 2044 | 2443 | 23131 | 3877 | 1959 | 1975 | 2528 | 90374 | 35843 | 2365 | 1250 | 8042 | 175851 | |
| 16 | 1771 | 2101 | 23936 | 3368 | 1992 | 2001 | 2715 | 87273 | 32508 | 1956 | 1243 | 6820 | 167686 | |
| 23 | 1739 | 2011 | 19075 | 3511 | 1681 | 2312 | 2436 | 82121 | 39049 | 2060 | 1267 | 6635 | 163897 | |
| 30 | 1552 | 1765 | 18818 | 3220 | 1395 | 2042 | 2081 | 81711 | 35606 | 1987 | 1003 | 5734 | 156914 | 816908 |
| July 7 | 1808 | 1991 | 16351 | 4023 | 1971 | 2293 | 2553 | 74967 | 34636 | 2036 | 1409 | 5571 | 149609 | |
| 14 | 1840 | 2037 | 23865 | 3892 | 1845 | 1982 | 2369 | 97397 | 38648 | 2036 | 1507 | 6126 | 183545 | |
| 21 | 806 | 2135 | 23806 | 3407 | 1602 | 1822 | 2368 | 87490 | 35996 | 2180 | 1409 | 6057 | 169078 | |
| 28 | 1533 | 1780 | 20449 | 3235 | 1568 | 1638 | 2049 | 74148 | 36891 | 1947 | 1255 | 5870 | 152363 | 654595 |
| Aug. 4 | 1651 | 1887 | 22596 | 2875 | 1574 | 1723 | 2446 | 83553 | 31942 | 1950 | 1086 | 5216 | 158499 | |
| 11 | 1801 | 2005 | 19499 | 3506 | 1557 | 2107 | 2485 | 74295 | 28931 | 2227 | 1173 | 5193 | 144779 | |
| 18 | 1713 | 1963 | | 3266 | 1482 | 1963 | 2246 | 89918 | 36784 | 2067 | 1175 | 5675 | 148252 | |
| 25 | 1752 | 1725 | 19622 | 3307 | 1600 | 1986 | 2174 | 79164 | 32557 | 1811 | 989 | 5421 | 152108 | 603638 |
| Sept. 1 | 1849 | 2031 | 20482 | 3499 | 1508 | 2341 | 2305 | 83885 | 34447 | 1841 | 974 | 4993 | 160155 | |
| 8 | 2352 | 1941 | 21325 | 3498 | 1503 | 2508 | 2246 | 78234 | 28611 | 1958 | 1089 | 4883 | 149148 | |
| 15 | 2171 | 2301 | 37249 | 4068 | 2136 | 2299 | 2702 | 104232 | 33504 | 2102 | 1416 | 5955 | 200135 | |
| 22 | 2183 | 2295 | 37409 | 4319 | 1972 | 3143 | 2975 | 114038 | 43142 | 2015 | 1539 | 6598 | 221568 | |
| 29 | 1932 | 2036 | 36603 | 3688 | 1651 | 2892 | 2314 | 100615 | 33105 | 2170 | 1039 | 6099 | 194144 | 925150 |
| Oct. 6 | 2221 | 2500 | 40115 | 4811 | 2247 | 2915 | 2962 | 115113 | 37504 | 1980 | 1320 | 6274 | 219962 | |
| 13 | 2153 | 2440 | 39969 | 4505 | 2057 | 2331 | 2671 | 116725 | 35076 | 2021 | 1526 | 8285 | 219759 | |
| 20 | 1978 | 3200 | 40030 | 4135 | | 2272 | 2776 | 110562 | 51572 | 2188 | 1852 | 6700 | 227265 | |
| 27 | 1824 | 2608 | 38656 | 3675 | 1727 | 2714 | 2162 | 95917 | 38436 | 2770 | 1267 | 5600 | 197356 | 864342 |
| Nov. 3 | 1732 | 1629 | 35536 | 3844 | 1873 | 2528 | 2674 | 86458 | 31402 | 2463 | 1090 | 5200 | 176429 | |
| 10 | 2275 | 3010 | 44297 | 3868 | 2158 | 3792 | 3379 | 112360 | 41155 | 2565 | 1460 | 5400 | 225719 | |
| 17 | 1911 | 3262 | 39010 | 3572 | 1993 | 3257 | 2614 | 105547 | 44751 | 2326 | 1537 | 6400 | 216180 | |
| 24 | 1319 | 2961 | 36931 | 3028 | 1797 | 3148 | 2639 | 99982 | 35112 | 2253 | 1152 | 5000 | 194823 | 813151 |
| Dec. 1 | 1642 | 2834 | 28794 | 3363 | 1524 | 3255 | 2874 | 80991 | 33797 | 2285 | 1114 | 5500 | 167973 | |
| 8 | 1800 | 3275 | 33265 | 3183 | 2003 | 3136 | 2977 | 94444 | 32416 | 2524 | 1539 | 5400 | 185963 | |
| 15 | 1504 | 1990 | 31654 | 2871 | 1746 | 2519 | 2626 | 90972 | 38005 | 2545 | 1431 | 5000 | 182863 | |
| 22 | 1585 | 2021 | 26778 | 2634 | 1456 | 2738 | 2972 | 83822 | 35414 | 2427 | 1380 | 4500 | 167727 | |
| 29 | 2781 | 2170 | 24384 | 2000 | 1030 | 2352 | 2271 | 66527 | 25925 | 1942 | 829 | 4100 | 136311 | 840837 |
| | | | | | | | | 4613659 | 1895569 | | | | | |

# 1921

| DATE | ABERDEEN | BILLINGS | DULUTH | FARGO | GRAND FORKS | GREAT FALLS | HELENA | MINNEAPOLIS | ST. PAUL | SUPERIOR | WINONA | SIOUX FALLS | WEEKLY TOTALS | MONTHLY TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan. 5 | 1625 | 2086 | 24273 | 2372 | 1325 | 2619 | 3465 | 90604 | 33336 | 1937 | 887 | 5700 | 178229 | |
| 12 | 4709 | 2218 | 23742 | 2475 | 1299 | 2528 | 3849 | 75594 | 25859 | 2248 | 1077 | 5000 | 150598 | |
| 19 | 1497 | 1923 | 22244 | 2139 | 1264 | 2275 | 2559 | 75412 | 32117 | 1864 | 980 | 4500 | 148774 | |
| 26 | 1241 | 1681 | 16923 | 1822 | 1136 | 1969 | 2082 | 68691 | 23766 | 2057 | 824 | 3900 | 126092 | 595693 |
| Feb. 2 | 1362 | 1446 | 14358 | 2050 | 1030 | 1747 | 2075 | 70212 | 28024 | 1960 | 856 | 4100 | 129220 | |
| 9 | 1332 | 1626 | 14159 | 2171 | 1204 | 1645 | 2313 | 63187 | 26445 | 1967 | 890 | 5000 | 121940 | |
| 16 | 1163 | 1550 | 15902 | 2234 | 994 | 1357 | 1774 | 69766 | 27877 | 2104 | 1070 | 3800 | 129591 | |
| 23 | 988 | 1400 | 10953 | 2211 | 821 | 1126 | 1822 | 53490 | 22753 | 2012 | 920 | 3600 | 102096 | 482847 |
| | | | | | | | | 566956 | 220177 | | | | | |