An Historical Analysis

of

The Economic Growth of St. Louis

1840 - 1945

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PART I

The River Metropolis, 1840-1870

Location Factors and Their Influence on St. Louis

An exclusive right to the Missouri River Indian trade probably accounts more than any other factor for the precise location of St. Louis. The Louisiana Fur Company, known also as Maxent, Laclede and Company, needed a trading post near the mouth of the Missouri River and Laclede in 1763 found on the eastern edge of present day Saint Louis a site with the desired characteristics. First, of course, it was at the front door of the Missouri territory. In addition boats could be brought directly in for a landing and yet higher ground rising back from the river gave level areas needed for the proposed village and also promised protection against river floods. While the importance of its original advantages has long since disappeared the location possessed features which were of no interest to Laclede, but which, in the economic environment of the Nineteenth Century, helped materially in the making of a great city.

The twenty years preceding the Civil War have long been recognized as the heyday of the steamboat. In this period St. Louis was at the strategic center of one of the two great inland water transportation systems of the continent. In a letter, dated June 20, 1847, to the St. Louis delegation to the Chicago Convention, the Honorable Thomas H. Benton described this central position with considerable enthusiasm.[1]

> "Many years ago the late Governor Clark and myself undertook to calculate the extent of boatable water in the valley of the Mississippi; we made it about fifty thousand miles! of which thirty thousand were computed to unite above St. Louis, and twenty thousand below. Of course, we counted all the infant streams on which a flat, a keel, or a bateau could be floated, and justly; for every tributary of the humblest boatable character helps to swell not only the volume of the central waters, but the commerce upon them. Of this immense extent of river navigation, all combined in one system of waters, St. Louis is the centre and the entrepot, presenting even now, in its infancy, an astonishing and almost incredible amount of commerce, destined to increase forever."

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[1] Quoted in Scharf, J. Thomas, History of Saint Louis City and County (1883), Vol. II, p. 1037.

As a site for the major harbor on the great inland waterway system, so rapturously described by the U. S. Senator from Missouri, St. Louis left a great deal to be desired. It did possess one advantage of paramount importance to towns located on the shifting Mississippi - a rocky foundation. It was thereby protected from the fate that befell its neighboring predecessor, Ste. Genevieve. Thirty years before the time when Laclede passed on his way up the river, the first white settlement in Missouri had been established by lead miners and hunters near the present site of Ste. Genevieve. However, even while the Louisiana Fur Company was developing its trade in the Upper Mississippi area the Mississippi was forcing inhabitants of the village to move back as banks of the river were eroded. By 1790 the original site was wholly abandoned. In 1850 when St. Louis could claim 104,978 residents, Ste. Genevieve had a population of only 2,258 and this represented the peak to which its population was to grow. Changes occurring in the channel of the river since that date have left the town some three miles west of the river.[1] Other towns have been crippled by floods and by the vagaries of the changing Mississippi channel. St. Louis, however, while finding far from ideal conditions on the banks of the river, was at least well protected against annihilation from erosion or flood.[2] One study of the advantages and disadvantages of the St. Louis port, relative to others available in the area, comments that at least "it was obvious that it would be far more likely to be permanent."[3] The permanency of the St. Louis site may have been obvious to Pierre Laclede but it is more likely that being in possession of an eight year monopoly grant for the Missouri fur trade he was much more concerned with other aspects of the site.

A comment made in 1854 by the commercial chroniclers Chambers and Knapp suggests that Laclede in choosing the precise site for his trading post might have been interested in little more than the presence of a clearing:

> "The next year (1763) Laclede set out to explore the country assigned to him, accompanied by two youths, afterwards well known citizens of this place, the brothers Auguste and Pierre Chouteau. Having carefully examined every point on the river, not omitting Ste. Genevieve, which had then for ten years been the headquarters of a considerable trade in peltry and lead, he satisfied himself that no other site presented the advantages sought for him to so great an extent as the spot on which now stands St. Louis. It was, at the time when Laclede first set foot upon it, a beautiful expanse of undulating prairie, free from woods, save at one point on the river bank, near the centre of the present city, which was then embellished by a grove of noble forest trees."

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[1] Violette, Eugene Morrow, A History of Missouri (1918), pp. 12-13.

[2] cf., Williams, Helen D., Factors in the Growth of St. Louis From 1840 to 1860 (1934), pp. 2-3.

[3] Marshall, Willis W., Geography of the Early Port of St. Louis (1932), p. 31.

The terraces or bluffs comprising the waterfront of St. Louis offered protection against floods but were no inconsiderable nuisance to the busy port city of the steamboat era. Warehouses must be crowded down along the levee or built back at inconvenient distances and separated by steep slopes from the narrow strip of flat shoreline. Apparently crowding was preferred, for after the fire of 1849 serious proposals were made that the city should buy the property between the levee and Commercial Street between Vine and Market and leave it open as a part of the levee.[1] Nothing came of the matter. Crowding and disorder on the levee continued to make a costly problem for the steamboat operator and the merchant. A visitor to the city in 1850 admired the warehouses but found no pleasure in their location -

> "Water Street is well built up with a series of lofty limestone warehouses; but an irretrievable error has been committed in arranging them at so short distance from the water. On some accounts this proximity to the river may be convenient; but for the sake of a broad area for commerce; for the sake of a fresh and salubrious circulation of air from the water; for the sake of scenic beauty, or a noble promenade for pleasure, there should have been no encroachment upon the precincts of the 'eternal river'."[2]

The steamboatmen and merchants probably worried very little about the loss of "fresh and salubrious circulation of air" but they no doubt found their own way to express their exasperated displeasure at delays and loss of merchandise occurring on the levee.[3]

An even more troublesome fault that threatened the very existence of the port developed in the early steamboat period. Such heavy silting occurred that the "waterfront" was threatening to move inland. Normally a river port would find a favorable location on the outside of a meander. In that position it would have its waterfront scoured by the current of the river and would enjoy deep water and an absence of silting. On the stretches of the river in which Laclede was interested the eastern bank was subject to flooding and no doubt in his canoes and pirogues Laclede was little concerned with shallows that might develop some time in the future from silting. So the St. Louis site suited his purposes but presented its problems to a port city a few decades later. The predicament in which the city found itself is described by Scharf as follows:

> "Almost coincidently with the arrival of the first steamboat at St. Louis in 1817 a sand-bar formed in the bend at the lower end of the town, which gradually extended up as far as Market Street, making a naked beach at low water. Another bar soon formed in the river at the upper end of the city, west of Bloody Island. Thus, at the very outset of the commercial progress of St. Louis, the current of the Mississippi, cutting

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[1] Marshall, Willis W., Geography of the Early Port of St. Louis (1932), pp. 31-38.

[2] cf., Stevens, Walter B., History of Saint Louis, the Fourth City, 1764-1909 (1909), pp. 535-6.

[3] cf., Marshall, Willis W., Geography of the Early Port of St. Louis (1932), p. 38.

> deeper and deeper into the American Bottom on the eastern side of Bloody Island, was threatening the city with the diversion of its channel to the east side of the island, leaving St. Louis 'high and dry', with a sand-bar in front of it.
>
> In this crisis it was generally predicted that the city would amount to nothing in a commercial point of view, and the timid refused to make investments in real estate, fearing that the town would be left without the facility of availing itself of the benefits which the new steam system of navigation promised."[1]

Efforts made in 1835 to remove sand-bars from the harbor by plowing were fruitless and the city turned to Congress for aid. The first Federal work on the harbor was undertaken in 1837 under the direction of Lieut. Robert E. Lee. The problem continued all through the years until the decline of steamboating, but intermittent aid from Congress and the persistent efforts of city officials prevented closing of the harbor that might have placed the city beyond resuscitation by the later-arriving railroads.

Two other hazards militated against the growth of St. Louis as the entrepot of the Mississippi Valley. The first was damage to vessels from ice. In some winters the port could be used, and was used, for wintering steamboats. But a severe winter in 1856 brought staggering losses to the port in the break up of ice in late February.[2] Ten steamboats were sunk and many others were badly damaged as ice to the thickness of four feet moved down in mass on the port. Two Alton wharf-boats which had probably been wintered at St. Louis for safety were shattered to pieces and cast up on the shore on a ridge of ice.[3]

Although the losses were particularly heavy in 1856, damage occurred in many other years and the danger was an ever-present one hurting the development of the city.[4] In his study, The Declining Significance of the Mississippi as a Commercial Highway, John B. Appleton characterized the port as "a veritable killing place for steamboats from ice movements"[5]

A second hazard affected St. Louis through a danger present to a special degree on the river stretches immediately above and below the port. Floods on the rivers above St. Louis, particularly on the Missouri, brought huge trees and masses of debris down the river. Lodging in the channels below St. Louis they created a viciously destructive obstacle to navigation.

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[1]Scharf, J. Thomas, History of Saint Louis City (1883), Vol. II, p. 1053.

[2]Marshall, Willis W., Geography of the Early Port of St. Louis (1932), p. 73.

[3]Chittenden, H.M., History of Early Steamboat Navigation on the Missouri River (1903), p. 207.

[4]cf. Reinhardt, A. H., Gunboats of James B. Eads During the Civil War (1936), p. 19.

[5]Appleton, John B., The Declining Significance of the Mississippi as a Commercial Highway in the Middle of the Nineteenth Century, Reprinted in R. G. Thwaites, Early Western Travels.

There is a record of insurance companies in Cincinnati paying out $234,000 to cover steamboat losses occurring in the 180 mile stretch from St. Louis to the Ohio in the short period of 6 weeks in the Fall of 1842.[1] Fires and explosions contributed their part to these losses but snags and shallows made up the major risks.[2] In this same short stretch of river 72 steamboats were sunk in 17 months during the years 1842-3. Snagboats at work on the river in the 1830's did a great deal to reduce the hazards but the disadvantages found on the river below St. Louis remained large:

> "As early as 1841 the attention of Congress was called to the condition of the Mississippi above the mouth of the Ohio. From 1836 to 1841 it was said that more property had been destroyed from the mouth of the Ohio to St. Louis by snags than on all the other parts of the river and its tributaries. Notwithstanding the general government had provided snag-boats for the lower river, the manifest neglect of the Western rivers was entailing an annual loss of millions of dollars upon the commerce of the West, owing to the dangerous and destructive condition of the then only commercial highway for that great section of the country."[3]

The average steamboat did not last more than five years. After that they were obsolescent or had sunk or been blown up. Around 1850 on one bend in the river between St. Louis and Cairo there lay the wrecks of 103 steamboats.[4]

With all the disadvantages militating against the development of St. Louis in the heyday of steamboating it may well be asked why there developed on the site of Laclede's old settlement the entrepot of the Mississippi Valley. The raw material wealth of the upper valley and the regional economic specialization developing in the United States made it inevitable that a great commercial city would develop somewhere on the lower Ohio or on the Mississippi between Memphis and some more northerly point on the river. But why at St. Louis?

Among the historians who have depicted and analyzed the growth of Saint Louis there is complete unanimity of opinion as to the reasons for the development of the particular site on which Laclede's village of 10,000 population stood in 1819 at the beginning of steamboating on the Mississippi River System. These views are rather completely summarized in the following excerpt from L. Y. Horton's Analysis of the St. Louis Trade Area:

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[1]Hall, J., The West (1848), pp. 60-61.

[2]Allen, T., Commerce and Navigation of The Valley of The Mississippi (1848), p. 11 ff.

[3]Scharf, J. Thomas, History of Saint Louis City (1883), Vol. II, p. 1043.

[4]Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909) p. 357.

"It is common knowledge that wealth and population (therefore, cities) tend to concentrate about breaks in transportation, whether the breaks be between land and water transportation, between two types of land transportation, or between two types of water transportation. In this regard, St. Louis was doubly fortunate because there were both breaks between two types of water transportation and between land and water transportation.

The channel of the Mississippi below St. Louis had a minimum depth of about six feet, while above St. Louis the minimum depth was only three or four feet. With the development of larger river steamers, the effect of these differences in the depth of the channel in these two integral parts of the river was the breaking up of the river traffic into two fleets, one adapted to the deeper waters south of the city and the other to the shallow waters north of the city. The reason for this was that it was cheaper to carry on business in the larger vessels wherever possible and to use the smaller vessels only where the larger ones could not operate because of the shallowness of the water or the inconsiderableness of the cargoes available. Although it was possible during the spring and fall of the year for vessels with a deeper draft to penetrate farther northward than St. Louis, it became the general practice to limit their use to the lower Mississippi.

As a result, St. Louis became the bulk breaking and reshipment point, as it was at this city that the cargoes were unloaded from the deep draft vessels and reloaded on the shallow, and vice versa. In this way St. Louis became established as a transfer point and it was both the northern terminus for one great fleet of steamboats and the southern terminus for another. Another reason for the early growth of the commercial aspect of the city was its position. It was located at the crossroads of the east-west and the north-south traffic. This situation was enhanced by the fact that it was the crossing of the east-west overland traffic and the north-south river traffic."[1]

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[1]Horton, L. Y., Analysis of the St. Louis Trade Territory (1935), pp. 13-14.

It seems that a "handicap" in the dominant river transportation endowed the St. Louis site with its essential advantage as a commercial center.[1] In addition to change in depth of the river channel at St. Louis and the break created by the river in overland east-west transportation, another related factor also enhanced the commercial value of the St. Louis location. New Orleans and other lower Mississippi points and various eastern points, such as Baltimore and Pittsburgh, shipped freight by the Mississippi or the Ohio to various destinations on the upper Mississippi and on the Missouri River. As a result a break-up of bulk shipments at some distributing point was almost inevitable. With the change in ruling river depth at St. Louis the city was the obvious reshipment point. Finally, even the weather offered some strengthening of these factors which placed high value on the site of Saint Louis as a commercial center:

> ".....there was a seasonal difference in the period during which goods were available for transportation above and below St. Louis. The reasons for this were two-fold; the stage of the river differed above and below this port so that the river might be navigable below and yet not so above; usually in the spring the river below St. Louis would be open before that portion of the river above the port was free from ice. As a result of these two features of navigation, goods were brought up to St. Louis and stored until such time as the upper parts of the river could be open to navigation. In view of the fact that it was the commercial practice to reship the goods at St.Louis, it was necessary to hold the goods in store here until the up-river boats came downstream with the winter's produce from the up-river regions. Likewise in the fall, the upper river was closed to navigation at a much earlier period than was the lower.

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[1]Also see Williams, Helen D., Factors in the Growth of St. Louis From 1840 to 1860 (1934), p. 23:

> "That the city realized the importance of its position is clearly shown by the following statement in the St. Louis Business Directory for 1842, page 42:
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> > 'Owing to the depth of the water in the Mississippi from the mouth of the Missouri down to New Orleans being much greater than in the waters above, the same class of boats which can be profitably employed in the lower trade cannot ordinarily extend their trip beyond St. Louis. ... The result of this is to make St. Louis the great shipping point for the imports of all the vast territories lying north and east of her, and a considerable portion of the trade south and east.'
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> The carrying trade of St. Louis profited greatly from this situation. The city became the commercial mart for all the country from the mouth of the Ohio, north, and from Lake Michigan, west. For the first ten years of the period of this study every pound of western produce and western merchandise broke bulk at St. Louis."

> As a result of these factors, the ease of obtaining a cargo was characterized by a high degree of seasonality, the two periods of excessive activity being in the spring and fall of the year.
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> Had there been no such difference in the periods of open navigation on the river, and had this break in navigation been at some other point, it is possible that St. Louis would not have achieved the significant place that it did as a base of supplies for the up-river regions or as a place for storage of freights."[1]

In respect to east-west land travel the river offered a "break" in transportation that was to be of much greater importance in the period after 1865 when a variety of railroad routes centered in St. Louis. In this earlier period and until the Eads Bridge was completed in 1874 St. Louis was served by steam-powered ferries. The first charter for this service had been granted in 1819 to Samuel Wiggins who sold his boats and franchise in 1832. Other ferry companies were enfranchised but a virtual monopoly was held by the original Wiggins Company. Although the services and the charges of the ferry company seemed to be as satisfactory as conditions permitted, ferrying across the Mississippi with interruptions by storm and ice never supplied adequate means of communication between the east and west banks of the river.

The flow of east-west commerce was checked by the obstacle presented by the Mississippi and an enhanced trade was deposited on the doorway of St. Louis just as a check in the flow of the river built up much less desirable results in the form of sand bars in the river channel. However, St. Louisans did suffer from the uncertainty and high cost attaching to ferrying and early proposals were made for building a highway bridge across the river.[2] But the estimated cost of $737,600 was too much to permit any progress to be made. The matter continued to be agitated and a bridge company was formed in 1855 but financial support could not be found for it. In 1865 both a Missouri and an Illinois Company were chartered and by 1874 the bridge was built under the guiding hand of James B. Eads.

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[1] Marshall, Willis W., Geography of the Early Port of St. Louis (1932), pp. 49-50.

[2] How, L., James B. Eads (1900), p. 57.

Regional Specialization and Regional Interdependence

Situated in the West at a dominating "break" in one of the two great waterways of the continent, St. Louis was inevitably affected by the regional economic specialization and resultant interregional trade which developed with the rise of the "factory system".

By 1840 the industrial revolution had given England her well developed factory system. With the disappearance of domestic or home production, England lost the large measure of self-sufficiency she had formerly possessed as she came to specialize in factory production of manufactured articles. For food and raw materials she increasingly went abroad selling her manufactures in every settled portion of the world. A related development was evolving the same system of production in the United States, mainly in the northeastern portion. In America, as in England, the industries in which home manufacture first yielded to factory methods were the textiles, particularly cotton. The concentration of manufacturers in eight eastern states is readily seen in the following figures showing the volume of manufactured cotton goods, woolens, and machinery in the leading states and in the United States as a whole:[1]

	Cotton Goods	Woolen Goods	Machinery
Massachusetts	$16,553,423	$ 7,082,898	$ 926,975
Rhode Island	7,116,792	842,172	437,100
Pennsylvania	5,013,007	2,319,061	1,998,152
New Hampshire	4,412,304	795,784	106,814
New York	3,640,237	3,537,337	2,895,517
Connecticut	2,715,964	2,494,313	319,680
New Jersey	2,086,104	440,710	755,050
Maryland	1,150,580	235,900	348,165
Total - 9 states	42,688,411	17,748,175	7,787,453
Total - U. S.	46,350,453	20,696,999	10,980,581

Massachusetts with several areas well endowed with water power had shifted the center of the textile industry from Rhode Island to the Merrimack Valley which had become an important center of manufacture. The production in Massachusetts of 24 million dollars of textiles and machinery was equal to about thirty percent of the nation's total output of these products. The above figures show that between seventy and ninety percent of these leading factory products were manufactured in the New England States and Pennsylvania and New York. Other lines of production were grouped around these leading industries to add to the concentration of industry in the Northeast.

By modern standards, the factories were small. The average cotton mill had only 58 employes. Woolen mills, in many areas making little headway against household manufacture, were still smaller with an average of 15 employes. However, these industries and many which had only begun to feel the impact of new production techniques were being pressed

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[1] Bogart, E. L. and Thompson, C. M., Readings in the Economic History of the United States (1929), p. 283.

with varying speed into the new pattern. As transportation became more certain and transportation costs fell precipitously with the development of river, canal, and railroad facilities, the practical market area of the factory was tremendously widened. As a result, increased production from individual plants and from specialized areas became not only feasible but advantageous as the factory organization with a larger scale of production materially reduced manufacturing costs.

In the decade before 1840, the pressures of new technical methods and wider markets were exercising a growing influence on the organization of lumber manufacture, flour milling, slaughtering, iron production, and many others. Slaughtering was well on its way into the use of larger production units and Cincinnati was developing as the leading pork packing center of the country. By 1840, technical changes in the iron industry were permitting the use of anthracite for smelting and a shift westward in the center of that industry was foreshadowed. Small furnaces using charcoal for smelting had earlier set the iron industry in a long belt stretching from Lake Champlain to the Carolinas but signs pointing to the concentration of the industry in Pennsylvania were apparent. Further, the English practice of smelting with coke from bituminous coal was making some headway and was holding out promising opportunities to the bituminous coal regions of the country.

A definite pattern of interregional trade, with important effects for St. Louis, developed out of the concentration of manufacture in the Northeast, the occupation of the South with its cotton kingdom, and the agricultural and frontier activities of the western states. From the East, a variety of manufactured products moved south and west; from the West, foodstuffs went to the other two regions either for domestic consumption or export; and the South balanced its books, although they did not always balance, by its sales of cotton, hemp, sugar, and tobacco, mainly to the Northeast and to European markets.

The regional specialization which was to center manufacturing in the eastern states for decades was still only in its formative stages. In the decade from 1840 to 1850, Pennsylvania, Ohio and New York stood in that order in the national production of wheat. However, it is worth noting that by 1860 the three leading states were Illinois, Indiana and Wisconsin with Illinois leading in corn production.[1]

After his trip through the eastern states the English traveler, J. S. Buckingham, in 1841 very aptly summarized the economic position of Pennsylvania which in greater or less degree could be applied to the other eastern states:

> "Of the manufactures, trade, and commerce of Philadelphia, more may be said as to its prospects than as to its actual condition. At present there is not nearly so much of either as there might have been, or as there will be a few years hence, when the vast resources of the state come to be more fully developed. The few manufactories now carried on here are confined to carpets, floorcloth, some hardware of a course kind, glass, porcelain, and articles of

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[1]Van Metre, Thurman W., The Economic History of the United States (1921), p. 391.

> domestic consumption; but little or nothing is made for exportation, if we except a very extensive and excellent manufactory of steam engines, conducted on a large scale, and supplying both the cities of the seacoast and the rising towns of the Western Waters.
>
> That which promises so much for the future, however, is the gradual development of the mineral wealth of Pennsylvania. In the interior of this state has been recently discovered beds of coal and iron sufficiently extensive to afford materials for manufacturing for centuries to come; and these will soon become articles of export to other parts of the country. The communications by railroad and canal every day, extending into the interior, by Harrisburg and Pittsburgh, to the Ohio, and thence down the Mississippi, up the Missouri, on by the Arkansas to the Rocky Mountains, and by the Red River to Texas, will facilitate the diffusion of imported as well as domestic manufactured goods, and form a channel for the conveyance of the produce of the countries watered by those rivers to Philadelphia, where the Delaware will form its outlet to Europe, the West Indies, and other parts of the world."[1]

Great things were happening in transportation in this year 1840. Ten years earlier Peter Cooper had assured success for the start of the Baltimore & Ohio and for his own speculation in Baltimore real estate with a successful trial of the one-ton steam locomotive, Tom Thumb. By 1840, over 2800 miles of rail line had been built but no connected system of lines existed except along the Atlantic Coast from New York to Washington and even this stretch was broken by one short gap. Elsewhere short lines linked nearby towns with very few of the links in excess of 100 miles. Four separate pieces of road radiated out from the western end of Lake Erie for distances of 30 to 40 miles to give Michigan its only rail service.[2]

In Ohio only one stretch, about 50 miles long, is found joining Sandusky and Carey. Indiana and Kentucky were no further advanced having lines of about similar length joining, in the first case, Vernon and Madison, and in the second, Frankfort and Lexington. In western Illinois, immediately west of Springfield, that state had its only rail line joining Jacksonville and Meredosia.

The next twenty years were to see the construction of many through rail lines particularly in the area bounded on the south by the line of the Baltimore and Ohio from Washington through Cincinnati to St. Louis and on the east by the Atlantic and on the west by the Mississippi River. But in 1840 the inland and coastal waterways dominated the domestic transportation scene. For over a decade the rival cities of the East - Philadelphia, Baltimore, Boston and New York - had been preoccupied with canal construction. New York City and western New York state, and New England to a lesser extent, benefited tremendously from the completion of

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[1]Buckingham, J.S., America, Historical, Statistic and Descriptive (1841), Vol. II, pp. 359-360.

[2]cf. Paullin, C.O., Atlas of the Historical Georgraphy of the United States, (1932).

the Erie Canal in 1825. The cost of transporting freight was cut to one-tenth and much trade and travel to the West was diverted to this northern route. In the West, Ohio was well on its way with its construction of over 800 miles of canals with two main channels lying across the state from Lake Erie to the Ohio River. One channel joined Cleveland and Portsmouth in 1832 and the other was completed between Toledo and Cincinnati by 1842. Indiana also was busy with the Wabash Canal connecting Toledo with the Ohio River. The Illinois and Michigan Canal connecting the lake with navigable sections of the Illinois River was started in 1836 but, in spite of Federal land grant aid, was not completed until 1848.

Although a few of the canals, particularly the Erie, and the Welland Canal around Niagara Falls, were of considerable importance in shaping the pattern of American economic development the canals generally possessed little more than local significance when compared with the Great Lakes and the Mississippi River system. By 1811, four years after Fulton displayed on the Hudson the potentialities of the steamboat, steam power was introduced on the Mississippi. Twenty years later, a trip down the river to New Orleans was taking only a week and over 125 steamboats were found on the Ohio and Mississippi. On the Great Lakes tonnage grew even more rapidly. However, while the Lakes could boast a larger tonnage, less than one third of their vessels were steam-powered.

With a population of 312,710 in 1840, New York had already assumed the commanding lead over her rivals that she was never to relinquish. Baltimore stood in second place with 102,313 followed closely by New Orleans with 102,193, Philadelphia with 93,665 and Boston with 93,383.[1] A population of 46,338 easily gave Cincinnati first place in the northwest. In a country that was so predominantly rural in character the 16,469 residents of St. Louis made the town one of the more important centers. Only nineteen cities stood above St. Louis in the population roster and all of these were in New England and the Atlantic or Gulf Coastal states except for Cincinnati and Louisville, Ky. (21,210).

Pittsburgh's population of 21,115 placed it no great distance above St. Louis and except for it and Cincinnati and Louisville, Laclede's village had come to tower above its neighbors in the west. Indiana had no town of over 5,000 population and Illinois could only make moderate claims for Chicago with 4,470; Springfield, 2,579; Alton, 2,340; and Quincy, 2,319. With a population of only 1,174 Jefferson City, Mo. fell far behind.

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[1] New Orleans increased in population from 29,737 in 1830 to 102,193 in 1840.

The City From 1840 to 1870

It is in this national setting that we find St. Louis in 1840. The town itself stretched along the river front with its northern and southern corporate limits in 1841 extended so as to reach about twenty-six modern city blocks above and below Market Street.[1] On the north, the boundary of the city was Dock Street; on the south, Louisa; and on the west present day 18th Street. The city directory for 1840 shows almost no addresses west of Ninth Street.[2] The corner of Olive and Twelfth Street, where land was selling for thirteen dollars a foot, was much too far from the center of the city to be considered for commercial property and its "excessive" distance west did not make it very attractive for residential building.[3] The ground now utilized by railroad yards and industrial plants between Chouteau and Market Streets was largely covered between Seventh and Eighteenth Street by Chouteau's Pond which had an area of over one hundred acres. A peninsula extending into the pond in the neighborhood of Eleventh and Poplar supplied the site for the Chouteau Mansion. The frontier character of the town and its smallness is clearly apparent in the comments of Richard Smith Elliott who visited there in 1843:

> "We spent the winter of 1843-44 in St. Louis and took boarding first in the then outskirts of the city, in the brick mansion owned by Mrs. John Perry, on the corner of Sixth and Locust Streets. Luther M. Kennett was building the first marble front ever in St. Louis on the next lot north, but folks generally thought it was rather far away from business, then mostly transacted on the Levee, Main and Second streets. From our windows we could look westward to a clump of forest trees at 18th and St. Charles Streets and could see the camp of some Indians on a friendly visit to Colonel Mitchell, the superintendent. Beyond the Indian camp were farms. I had very little to do and often strolled away up 6th and 7th Streets where but few houses obstructed the view and I sometimes went even as far as Chouteau's Pond, and would look at the outside of the old stone mill, in which ten years later I aided to start the first stone sawing by steam in St. Louis, and would try to imagine what a nice cascade the water tricking over the mill dam would make if there was only enough of it. Mr. Renshaw's lone mansion was at the corner of 9th and Market, but there was little if any city growth beyond. On Morgan St. and Franklin Ave., I was told that I could get lots at seven or eight dollars a foot. I did not think it worth while to regret that I had no money to buy with."[4]

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[1]The Act of the Legislature of February 15, 1841 set the boundaries of the city at the river on the east, Second Carondelet Avenue on the west, at St. George in the county on the south, and at Stony Creek on the north. Total area was approximately 4.5 square miles. This represented an absorption into the city of the hitherto independent town of North St. Louis known as Bremen which had been bounded by the river and Twelfth, Madison and Montgomery Streets.

[2]Keemle, Charles, The St. Louis Directory, 1840-1.

[3]Scharf, J. Thomas, History of Saint Louis City and County (1883), Vol. II, p. 1030.

[4]Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p. 792.

The appearance of the rapidly growing town had been considerably altered in the decades before 1840. Older sections of the city still had characteristics of the early period with narrow streets and stone cottages with steeply sloping roofs. In the newer districts streets were more regular and wider and American styles in architecture predominated.[1] The 1836 City Directory comments with satisfaction that the older French and Spanish construction styles were fast disappearing so that "scarcely a single building remains of those which were erected when St. Louis was under the dominion of France and Spain".[2] Others, however, viewed with far less satisfaction the displacement of the older architecture and the dominance of an "imitation of Boston, New York, Philadelphia and Baltimore residential architecture.....built flush to the street".[3]

In less desirable ways the town imitated its contemporaries in many parts of America. Unpaved streets changed from choking dust to quagmires as the seasons changed. And any time except in the rainy season filth and refuse collected in the roadways. In 1841 residents on Pine Street between Main and Second petitioned to have "the stagnant water and other nuisance" removed. The stench on the street was reported as unbearable and "gutters remained in their putrid state from one street to another".[4]

At least on one score some of the grounds for past criticism of the town was soon removed. In 1847 the citizens celebrated with all proper flourishes the completion of their new gas lighting system. Considerable evidence of the crude conditions found in the town in the thirties is apparent in the improvements described in a current publication of 1853:[5]

> "Twenty years since, (i.e. 1833) there were but few paved streets or sidewalks here, though now there are fifty-three miles of street paving, and one hundred miles of side-walk pavement. A wharf paved in the most substantial manner for nearly one mile in length, and rapidly extending, has taken the place of a few yards of ragged pavement which was all that served the purpose of a landing here twenty years ago. Then a sewer was unknown, while now there are completed or commenced thirteen miles of sewer, under a system which has been in operation scarcely four years. The following is a statement from the City Engineer, brought up to this time, showing the extent of wharf, pavement and sewers:
>
> 1. Total length of street pavement in city about 53 miles.
> 2. Total side-walk pavement about 100 miles.
> 3. Total wharf pavement about 9/10 miles.
> 4. Total wharf about 4 3/4 "
> 5. Total water-pipe laid " 35 1/4 "
> 6. Total sewers 13 3/5 "
>
> No. of streets 175."

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[1]Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p.125

[2]Keemle, Charles, The St. Louis Directory, 1836-7, p. ii.

[3]Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p.530.

[4]Williams, Helen D., Factors in the Growth of St. Louis From 1840 to 1860 (1934), pp. 5-10.

[5]Missouri Republican, Annual Review History of St. Louis (1854)

The life of the town in 1840 obviously was focussed on the commercial waterfront. Main Street, also known as Front Street, would have been First Street under a numerical designation.[1] Between it and the actual waterfront the irregularities of the shore line allowed room in places for such short streets as Water or Exchange Square but Main Street lived up to its name in this western commercial center. Offices and warehouses of the commission and forwarding houses were concentrated here. As late as 1855, when growth had forced some considerable dispersion in the commercial activity of the city, seventy-three of the ninety-one commission merchants found in St. Louis were located on Front Street.[2]

A record of the varied commercial interests of St. Louis of 1840 was written on the name plates of the commercial establishments. Walking north along Main Street toward the Tontine Coffeehouse at No. 89 north, a visitor would pass the "factory" of Andrews and Beakey who listed themselves as tin, copper, and sheet iron manufacturers. Along a few doors he would see the drygoods shop of J. J. Anderson, the warehouse of Augustus Adams, importer of fancy French and German goods and English cutlery; and next door the wholesale drygoods warehouse of Peter Blow. Among the variety of shops and small manufactories and warehouses that still lay between our traveler and his destination he would notice doctors' offices, retail and wholesale druggists, merchant tailors, wholesale and retail drygoods merchants, a wholesale grocer, a manufacturer of copper, tin and sheet iron who also sold stoves, and the establishment of S. P. Carpenter who dealt in boots and shoes. At 75 North Main our traveler would pass the banking offices of Benoist and Co. and just before reaching the Tontine Coffeehouse the factory of Beltzhoover and Robb, manufacturers of hats and caps.

If the refreshments offered by the Tontine House encouraged the visitor to continue his walk north along Main Street he would see similar shops and warehouses and in addition, without going far, a "segar" store, a cabinet warehouse and upholstery shop, a blacksmith shop and foundry. Still further north would be seen a tinner and copper manufactory, an engraving shop and the offices of the American Fur Company under the name of Pierre Chouteau, Jr. & Co. Such were the varied establishments, stores and shops and small factories testifying to the presence of a vigorous commercial community.

The population of St. Louis was growing rapidly and both the number and character of the buildings of the town were changed by the influx of immigration. German immigration predominated and the German residents brought a number of changes to the city. A City Census of 1851 showed the population had increased from 16,649 to 77,716 in the short

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[1]The 1840 City Directory prepared by Charles Keemle apparently used the street names Main and Front interchangeably without any geographical location appearing as a reason for the use of one instead of the other.

[2]Williams, Helen D., Factors in the Growth of Saint Louis From 1840 to 1860 (1934), p. 13.

space of eleven years and showed the following interesting division of the total of 41,730 residents who were of foreign extraction:

German	23,814
Irish	11,277
English	2,921
Other nations	2,458
Free negroes	1,259
Total	41,730

It is apparent that over one half of the total population was represented by immigrants and nearly one third of the total were Germans.[1] Falsification which occurred in the 1870 Census makes its report on the total population worthless. The total was reported as 351,189 for St. Louis County whereas it appears that the true figure would have been somewhere in the neighborhood of 267,000.[2] However, the breakdown by population origins for 1870 can be assumed to be approximately correct and it shows the same influx from foreign countries as the source of over one third of the population increase from 1840 to 1870.[3] In the latter year sixty-four percent of the population had been born in the United States, the bulk being of Missouri parentage - the influx from other states making up less than thirty percent of the American-born population. Of the approximate one third of the total population of foreign birth well over one half came from Germany, about one quarter from Ireland, and less than five percent from any one other country.

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[1]For 1850 the Missouri Republican reported in the issue of Jan. 1, 1851, the following population figures:

Total population	- 77,860
Total foreign born	- 40,000
Born in Germany	- 24,000
" " Ireland	- 11,000
" " England	- 3,000
Other foreign Countries	- 2,000

[2]cf. Stevens, Walter B., St. Louis The Fourth City 1764-1909 (1909), p. 989:

> "From 1860 to 1880, twenty years, the population of St. Louis increased 164,944. That is what the honest counts show. The census of 1870 must be discredited and ignored in any analysis of the growth of the population. Possibly a fair division of the growth by decades would allot two-fifths of the 164,944 to the ten years from 1860 to 1870 and three-fifths to the decade from 1870 to 1880. The next ten years, from 1880 to 1890, showed an increase of 101,248. From 1890 to 1900 the increase was 123,468."

[3]Scharf, J. Thomas, History of Saint Louis City and County (1883), Vol. II, pp. 1014-1023.

The German newcomers and first generation descendants of German-born residents made up a large part of the city in 1870 and very definitely influenced the physical characteristics and social habits and institutions of the city.[1] South Second Street underwent typical changes. Predominantly French in the first part of the Nineteenth Century with a number of small hotels and stores it changed much in physical appearance as larger German inns and shops were built, The Rheinesche Weinhalle was the best of the inns catering only to privileged characters while the "wine hall" of Louis Krug was a noted gathering place for reporters from Westliche Post, Anzeiger, and Tages-Chronik.[2] Many German churches were built after 1834 when the first German parish was founded under Reverend Korndorffer. And the Arts received their support in varied forms. Many German theatrical performances were presented in various halls and in 1859 Heinrich Bornstein opened the St. Louis Opera House on Market Street between Fifth and Sixth. The Philharmonic Society from 1859 to 1869, the St. Louis Sangerbund, and many other organizations contributed to the fine arts but probably none was as welcome and as much enjoyed, nor so long remembered, as the first German Brass Band which was organized in 1838. It may have lacked some of the subtlety of its artistic contemporaries but few of them could boast the enthusiastic following it possessed.

Inevitably with the growth of population the city was forced to expand. To care for growing business and for the population increase from 14,253 in 1837 to 35,930 in 1845 over eleven hundred structures were built and the same rapid construction continued until the Civil War. However, the construction commonly fell behind the demand. Storehouses in good and bad locations were quickly filled and in 1845, in spite of the building of 2,000 houses, homeseekers seemed to have been as hard pressed as they were a century later in St. Louis. Rents increased sharply through the two decades after 1840 and property values jumped rapidly.[3] Land ten miles from the waterfront that sold in 1845 for seven dollars an acre increased twenty-fold in value in ten years. Even in 1860 when over 2,500 homes were built the demand continued to drive values upward. In twenty years the assessed value of city real estate increased from twelve million to one hundred million.[4]

A brief summary suggests the varied growth associated with this growth of property values:

> "In 1840 St. Louis did not have a railroad nor one within striking distance whereas in 1859 five roads had their termini at this point. In 1840 the city did not have even an omnibus line and in 1860 it had twenty-five miles of street railway. There were only two public schools in 1840, one on Fourth Street and the other on Sixth Street, while in 1860 there was a high school and twenty-five grade schools. In 1840 St. Louis had no gas and no telegraph but in 1860 it had fifty miles of gas pipe and fifty-five miles of

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[1] Some Notes on Missouri, Scribner's Monthly, Vol. VIII, (July 1874).

[2] Kargau, Ernst D., St. Louis in Fruheren Jahren (1893), pp. 11-28.

[3] cf. Hogan, John, Thoughts About the City of St. Louis (1854).

[4] Williams, Helen D., Factors in the Growth of Saint Louis From 1840 to 1860 (1934), p. 13.

telegraph. In 1840 St. Louis had fifteen churches while in 1860 it had sixty Protestant churches, twenty-two Catholic and two Jewish synagogues.[1]

Growth, however, did not go on without serious setbacks. The first calamity striking the city came in the form of a destructive flood in the winter of 1843-44. The city suffered severe property losses, but lost even more in destruction of shipping and temporary loss of trade.[2] Through May and June flood conditions existed, reaching a climax late in June which was sustained for nearly a week before any recession occurred. Bottom land around St. Louis was completely flooded and along the waterfront losses were considerable. One steamboat finding its customary landing place submerged moved up town and tied up through a window to a makeshift capstan inside a warehouse at the corner of Washington Avenue and Commercial Alley.[3] Damage in the areas immediately around St. Louis was even more severe than in the city. Across the river in St. Clair County the villages of Cahokia, Prairie du Pont and Illinoistown (now East St. Louis) were hard hit and the first two never recovered from the effects.[4]

The year 1849 saw the town receive two brutal blows. Both fire and plague struck its citizens with dismayingly large loss of life and serious setbacks to the commerce of the town. The "Great Fire" of Saint Louis broke out about ten o'clock on the night of May 17 on the Steamboat White Cloud from where it spread to other steamers and to a row of shanties along the waterfront between Vine and Locust Streets. Dynamite was finally used to check the fire at Second and Market Streets. By the time it had burned out next morning it had destroyed twenty-three steamboats and three barges and virtually wiped out all building on an area along the river of about fifteen City blocks lying between Locust and Elm Streets.[5]

The editors of the Western Journal and Civilian maintained at the time that the losses from the fire were being "greatly exaggerated in many of the public prints" and claimed much of the building losses would have been quickly replaced if the cholera epidemic had not followed quickly on the heels of the fire.[6] It seems, however, that for a relatively small community with property values in the neighborhood of fifty million dollars the property losses were sizable. The boats and cargoes lost were reported as valued at $439,000 and the City property destroyed at various figures, the least of which was over $2,500,000.[7] As occurred in other great city fires there were incidental benefits derived in rebuilding. A better class of structures was built and property holders on Main Street secured the

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[1]Williams, Helen D., Factors in the Growth of Saint Louis from 1840 to 1860 (1934), p. 20.

[2]Taylor, J. N., Sketch Book of St. Louis (1858), p. 23.

[3]Chittenden, H. M., History of Early Steamboat Navigation on the Missouri River (1903), pp. 144-5.

[4]Brink, McDonough & Co. (ed.), History of St. Clair County (1881), pp. 325-330.

[5]cf. Spencer, Thomas E., The Story of Old St. Louis (1914), p. 158.

[6]Western Journal and Civilian (1849), Vol. II, p. 348.

[7]Shoemaker, F. C., Missouri and Missourians (1942), Vol. 1, p. 338 cites estimates as high as $5,500,000.

widening of that principal business thoroughfare. Immediately after the fire they petitioned the Council to set back the building lines at their own expense and the present width of the street was obtained.

The Western Journal reports that cholera appeared in the city early in January 1849 and assumed epidemic proportions in May.[1] In three months over six thousand died, ten percent of the population, two-thirds of them as a result of the plague. Writing in 1860 Edwards depicted very clearly the invitation which the city offered to the plague:

> "It may be here remarked, that if there were any place on the Mississippi River which could furnish in abundance aliment for the cholera, St. Louis was that place. Most of the alleys were unpaved, and were used as repositories for all kinds of filth thrown from the dwellings, and which had become blended with the soil one or two feet below the surface. When the alleys were cleansed, the surface only was scraped, and the rest was left to exhale its poisonous particles. In many parts of the city, the cellars contained water, which, becoming stagnant, like so many Dead Seas, infected the atmosphere, offering all the elements of nutrition to a malignant pestilence like the cholera. There was not a sewer in the city, which could have corrected this last evil by draining the cellars."[2]

Under the impact of fire and plague the city staggered only momentarily and then went on to add almost day by day to its bounding commercial growth. Even in the years of the fire and plague, the Common Council and leading business men of the city were looking on ahead to the railroad era and taking active steps to advance its arrival. In January 1850 subscriptions were called for to finance Missouri's first railroad, the Pacific, and only two weeks were needed to raise $319,000. By 1855, individual subscriptions to the stock of the railroads totalled nearly one million dollars.[3] But other cities were outdoing St. Louis in their support of railroads and the best evidence of the vigor of the city was to be found on her waterfront. There the year 1849 saw the arrival of 2,975 steamboats and barges possessing a tonnage in excess of 633,000 tons. The estimated value of the leading articles received at the port in 1849 was $10,087,000, a slight decline from the $10,288,000 of 1848.[4]

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[1]Western Journal and Civilian (1849), Vol. III, pp. 209-210.

[2]Edwards, Richard and Hopewell, M., Edwards' Great West (1860), p. 406.

[3]Stevens, Walter B., The Centennial History of Missouri (1921), p. 392.

[4]Missouri Republican, A Review of the Trade and Commerce of St. Louis for the Year 1849, p. 10.

The City and The Steamboat

The record of steamship arrivals and departures supplies an excellent business index for the years from 1840 to 1860 not only for St. Louis but for the "fertile localities on the Missouri, Illinois and Mississippi Rivers, of which the great 'metropolis of the West' had become a market".[1]

These few years were "the palmy days of steamboating - - - - when railroads had not yet come into active competition". In the late fifties steamboat service was being maintained at a high level but by 1866 was showing definite signs of decline and within another ten years had dropped precipitously. River traffic did not decline quite as sharply as steamboat services. Some of the latter decline represents in part the replacement of "stately steamboats" by "noisy towboats with consorts of clumsy barges".[2]

The first steamboat, the General Pike, put into St. Louis in 1817. In 1830 there were only 278 arrivals at St. Louis and the "tardy, expensive, and unsafe" keel boat and barge was still a factor in transporting merchandise.[3] Six years later, however, the St. Louis City Directory is speaking of the keel boat as something belonging to a past era and by 1840 steamboat arrivals at St. Louis were in excess of 1700 annually.[4] In 1858 a contemporary described the waterfront of the city as a bustling, crowded place.

> "At her levee you see a row of mighty steamers of the largest class, lying side by side for a mile in length, numbering from 150 to 300; some going out, others ever coming in; some receiving and some discharging freight; and that levee for a mile in length and 250 feet broad, piled with every variety of merchandise the mind can recall....."[5]

The event really marking the start of Mississippi steam navigation was the institution of a Louisville-New Orleans service in 1816 by Captain Henry W. Shreve in the Washington. This vessel was not the first to make its way to New Orleans from the Ohio having been preceded by the New Orleans five years earlier. But Captain Shreve challenged successfully both on the river and in the courts, the monopoly of the river traffic claimed by Fulton and his partners, owners of the New Orleans and backers of the Ohio Steamboat Navigation Company.[6] Thereafter, during the whole of the steamboat era the Ohio was a major artery pouring the merchandise of the east into the Mississippi Valley region and carrying back the furs, foods, and other western products to the eastern communities or to eastern ports for export. The Ohio River unfortunately possessed one serious impediment in the Louisville and Portland Canal around the "Falls of the Ohio". In 1811, before the canal was constructed, the New Orleans steamed

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[1]Edwards, R. and Hopewell, M., Edwards' Great West (1860), p. 391.

[2]Riley, Louise, Mississippi River Transportation (1924), p. 14.

[3]Keemle, Charles, St. Louis Directory, 1836-7, p. ii.

[4]Lippincott, I., Internal Trade of the United States (1916), p. 136.

[5]A Journey to the West, DeBow's Review (1858), Vol. 24, 1st series, p. 256.

[6]cf. Hulbert, A. B., The Ohio River, A Course of Empire (1906), pp. 330-335.

out of Pittsburgh for the lower Mississippi Valley but spent one month at the falls at Louisville waiting for high water conditions to permit her to proceed beyond. The canal eliminated this sort of obstacle but created two substantial though lesser obstacles. One was the high cost of canal tolls. Writing in 1848 J. Hall showed what canal tolls meant to this developing trade. One instance cited was that of a 190 ton steamer passing back and forth between Cincinnati and St. Louis. The vessel made the return trip in approximately two weeks and in a year paid canal tolls of nearly $5,500, a sum which was equal to about half the value of such a boat.[1]

A second obstacle was created by the inadequate size of the canal. Its smallness excluded boats of the best size from being used between upper Ohio points and either St. Louis or New Orleans.[2]

But Hall, critical as he was, found considerable satisfaction in viewing the commerce flooding the waterways of the Mississippi System. Viewed against the transportation of a later day the source of some of his satisfaction seems a bit strange.

> "The navigation of the Ohio below Cincinnati, and of the Mississippi below St. Louis, is not obstructed by ice and extreme low water, more than four months in the year; the navigation is open eight months, during which time the boats between Cincinnati and St. Louis may, and actually do run, and are actively employed."[3]

It is not difficult to understand how seriously the appearance of railroads, particularly the through roads, was to affect the Ohio River traffic in the very near future.

Shallow and irregular channels made Missouri River travel difficult. And swift currents added their hazard creating whirlpools that the steamboats could not cross. In 1867, the Bishop was swamped in a strong eddy; and snags, and shoals were continually taking their toll of the river boats.[4] But difficulties did not stop the development of river traffic, in fact, by offering large prizes to the successful, they offered their own peculiar incentive to steamboatmen:

> "When the steamboat and the prairie schooner were the only means of transportation to the promised land of the great West; when the gold hunter, the trapper and the adventurer were the pioneers of civilization, hundreds of boats plied the waters of the Missouri, going as far north as Fort Benton, 2500 miles from St. Louis. Fortunes were made by a boat in a single trip. Steamboating reached the summit of its prosperity about the time of the breaking out of the Civil War. More than 700 boats

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[1]Hall, J., The West (1848), p. 83.

[2]Ibid., p. 79; see also Allen, T., Commerce and Navigation Of the Valley of the Mississippi (1848), p. 18.

[3]Hall, J., The West (1848), p. 84.

[4]cf. Chittenden, H. M., History of Early Steamboat Navigation on the Missouri River (1903).

navigated the Missouri in those days, and more than 200 now lie buried in the sands between Kansas City and St. Louis - silent reminders of the glory of other days."[1]

An even more flourishing trade developed on the Mississippi above St. Louis. Above Keokuk on the very northeast corner of the state of Missouri two rapids prevented further movement of the larger boats and Keokuk in lesser degree but for something of the same reason became just as St. Louis a transshipment point for some cargoes.[2] Over a thousand steamboats were coming annually to Keokuk's levees.[3] In the fifties, freight rates on the upper river ranged from four cents to six cents per ton-mile for upstream shipments and slightly less for downstream.[4]

The river offered its best to the trade southward from St. Louis, particularly below the mouth of Ohio.[5] And the prosperity of the South in the two decades prior to the Civil War made tremendous use of the channel as "money flowed northward in vast quantities". However sand bars developing in the mouth of the River provided a considerable hindrance to exports through New Orleans and hurt St. Louis in the sixties when rail routes and the Great Lakes were offering her northern neighbors very favorable channels for export trade. A River Improvement Association was formed in St. Louis in 1867 to secure aid from Congress in clearing the river mouth. Eads' famous jetties had pointed to the solution of the problem by 1875 but not before the railroads had effected their serious diversion of traffic away from the river.[6]

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[1]"The Improvement of the Missouri River and Its Usefulness as a Traffic Route", Annals of the American Academy of Political and Social Science (1908), Vol. 31, p. 179.

[2]cf. Hartsough, M.L., From Canoe to Steel Barge on the Upper Mississippi (1934), p. 87.

[3]The manifest of the U.S.S. Little Morgan in 1862 was probably typical of the shallow draft boats operating in the tributary streams, in this case the Des Moines River:

6 cases hardware	2 hhds. sugar	20 crates woodenware
50 kegs nails	6 kits mackeral	8 casks glassware
20 boxes castings	12 cases boots and shoes	14 cases dry goods
30 cases dry goods	6 cases dry goods	2 boxes boots & shoes
12 cases hats	10 sacks coffee	10 bbls. salt
4 hhds. sugar	30 boxes soap	2 hhds. sugar
4 bbls. dried fruit	4 cases dried fruit	4 crates crockery
13 cases dry goods	14 boxes candles	

(Russell, C. E., A-Rafting on the Mississippi (1928), p. 26)

[4]Quick, H. and E., Mississippi Steamboatin' (1926), pp. 175-6.

[5]Reedy, W. M., St. Louis, The Future Great in L. P. Powell's Historic Towns of the Western States (1901).

[6]Soraghan, Catherine V., The History of St. Louis, 1865-1876 (1936), pp. 111-12.

Excessive terminal costs at New Orleans also supplied another handicap for the river route. In considering the relations developing between the rail and river routes in this period, L. U. Reavis saw both excessive terminal charges and excessive profit margins as dangers which might hurt the river traffic.

> "Terminal charges at New Orleans may have to be reduced, if the Mississippi River is to become the highway for the products of the West; but if St. Louis can furnish at all times an advantageous and reliable market, if its merchants are content with a small profit on a large aggregate, instead of a large profit on a small volume of business, and if they unite on direct importation via New Orleans, with the view of reducing export freight charges, they will command the trade of the Mississippi Valley and of the northwest equally with the southwest."[1]

Other cities had turned more rapidly to railroad transportation than had St. Louis so these threats were of particular concern to the city if she was to obtain the full measure of her potential growth.

From 1840 to 1860 steamboat arrivals not only record the flourishing commercial activities of "the Metropolis of the West" but reveal in the origins from which the vessels came, the wide trade areas lying tributary to the port.

Steamship Arrivals at St. Louis From Designated Sections of the Mississippi River System For Selected Years[2]

Year	Total	Lower Mississippi River	Upper Mississippi River	Illinois River	Missouri River	Ohio River	Others
1845	2,105	250	647	298	249	406	255
1850	2,879	301	635	788	390	493	272
1860	3,454	767	1,524	544	269	277	73
1865	2,769	709	826	457	389	165	223[a]

[a]47 of these 223 arrivals were reported as coming from the White River; 71 from the Cumberland; 41 from the Arkansas; and 64 from the Tennessee.

Source: Data for 1865 from St. Louis Merchants' Exchange Annual Report of 1865, p. 15; other years from Lippincott, I., Internal Trade of the United States (1916), p. 136.

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[1]Reavis, L. U., The Railway and River Systems of the City of St. Louis (1879), p. 10.

[2]For data on various other years between 1839 and 1851 see "Commerce of St. Louis", DeBow's Commercial Review, Vol. 1, pp. 79, 148; "Progress of Our Commerce and Commercial Towns", DeBow's Commercial Review, Vol. 7, p. 445; Annual Review of Trade and Commerce of St. Louis, issues of 1848 and 1852 at p. 13 and issue of 1849 at p. 10; and Hall, J., The West (1848), pp. 97-102, 223, 224, 251.

Since the size of vessels operating above and below St. Louis differed materially it is not possible to make definite comparisons of the relative importance of these portions of the river system. In spite of its smaller vessels it is obvious that the Upper Mississippi was a very important trade area of the city. The increase from 1850 to 1860 was particularly marked and even after suffering the inroads made by rail lines the total arrivals in 1865 were almost one third larger than in 1850. It is noteworthy, too, that arrivals from the lower river were still well maintained in 1865 with 707, compared with 767 in 1860 and 301 in 1850. The steady losses on the Ohio River after 1850 testify in large part to the influence of the rail network built up in these years in the area east of the Mississippi. For instance, the completion of the Baltimore and Ohio to St. Louis in 1857 created a paralleling route and offered a competing service the steamboat found difficult to meet. However, in the first year after the war there were still forty-five steamers regularly plying between St. Louis and Ohio River points compared with fifty-five for the Lower Mississippi, thirty-four split between the Arkansas, White, Cumberland and Tennessee Rivers and sixteen to Illinois River ports. In numbers, however, the Missouri River service with seventy-one vessels was largest of all.[1]

The full size of the tremendous river traffic can be very clearly appreciated when it is recognized that the vessel tonnage on the Mississippi River System exceeded the total British Empire tonnage. In the early forties British Empire shipping tonnage was approximately 83,000, Atlantic Seaboard tonnage was 76,000, and Mississippi River System tonnage was 126,000.[2]

In 1842 New Orleans alone had a registered tonnage greater than the total Atlantic Seaboard tonnage.[3]

As a rival of the Great Lakes the River System, however, was forced to take second place by 1855. As the following figures show the total tonnage on the Great Lakes in 1840 was well under half of that on the rivers of the Mississippi Valley but slightly in excess by 1855.

Total Vessel Tonnage[4]

Year	Great Lakes	Mississippi River System
1840	47,060	117,070
1845	84,610	172,140
1850	184,430	275,190
1855	334,590	316,040
1860	436,550	334,950

Source: Lippincott, I., Internal Trade of the United States (1916), p. 149.

[1]St.Louis Merchants' Exchange Annual Report of 1866, p. 21.

[2]Hulbert, A.B., The Ohio River, A Course of Empire (1906), pp. 336-7.

[3]Ibid., p. 338.

[4]A considerable portion of the Lake tonnage and a much smaller part of the Mississippi tonnage was not steam-powered. For 1854 steam tonnage on the Great Lakes was reported as 94,326, less than one third of the total tonnage reported. See Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p. 365.

The Great Lakes assumed leadership in the years between 1850 and 1855 and although Lake traffic to a limited extent came from or went to St. Louis the rising Lake tonnage spelled increasing competition for the River on east and west bound traffic.

Walter B. Stevens, a usually sympathetic chronicler of St. Louis affairs, points out a strange slowness on the part of the business men of the City to invest in steamboats and then a later, rather rapid entry into steamboating as a business venture:

> "St. Louis business men were slow to go into steamboating as a business. Cincinnati and Louisville were far ahead in the tonnage owned or controlled. Not until steamboats had been coming to the St. Louis levee a dozen years did St. Louis capital venture. As late as 1833 not more than two or three boats actually were owned in St. Louis. But when this conservative city awoke to the possibilities of river transportation, other steamboat centers were quickly left behind. In 1850 St. Louis owned or controlled 24,955 tons; Cincinnati, 16,906 tons; Louisville, 14,820 tons. Three years later St. Louis had increased steamboat holdings to 45,441 tons. Cincinnati had decreased to 10,191, and Louisville to 14,166 tons."[1]

By 1845, St. Louisans had close to five million dollars invested in steamboats and St. Louis owned or controlled a greater vessel tonnage than any city on the river except New Orleans.[2] With a capital invested in vessels in the neighborhood of twenty-five million dollars New Orleans investors could still regard St. Louis ownership as a relatively minor interest in the river investment.[3]

Nearing the end of the great steamboat era on Mississippi waters St. Louis had overcome her slow start - perhaps unfortunately in view of the coming decline of steamboating. In 1854, the city had 48,557 steam tonnage enrolled at the port as against 101,487 tons for New York and 57,174 tons for New Orleans. The entire steam tonnage of the Great Lakes was 94,326 and St. Louis ownership was greater than the combined tonnage of Philadelphia and Baltimore.[4] By 1867, the St. Louis steam tonnage had grown to 106,000 tons with a carrying capacity of 186,000 tons and a value of $10,376,000.[5]

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[1]Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909) p. 347.

[2]Shoemaker, F. C., Missouri and Missourians, Vol. I, p. 485. (1943)

[3]cf. Hall, J., The West (1848), p. 171: tonnage registered in New Orleans is given as 80,993; St. Louis 14,725; Cincinnati 12,025; Pittsburgh 10,107; Louisville 4,618; and Nashville 3,810.

[4]Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p. 365.

[5]St.Louis Merchants' Exchange, Annual Report of 1866, p. 33: see also Waterhouse, Sylvester, The Resources of Missouri (1869), p. 34.

Commerce and Industry

The rivers made St. Louis the center for a large and varied trade but their contribution was supplemented in a very important fashion by the overland trails.

> "Although practically all of the overland trails started at Independence or Westport, St. Louis was so located that all traffic which originated along these trails or was destined to pass over these trails had to pass through St. Louis. Goods intended for movement over these trails was either carried up the Missouri River to Independence or Westport by water or overland from St. Louis.
>
> The overland trails may be said to have played a dual function. First, they added greatly to the possibilities of marketing goods, as St. Louis was the real outfitting place for practically all the overland journeys. In this way St. Louis' market area included to some extent at least, all that area tributary to the Santa Fe Trail, the Oregon Trail, and the Mormon Trail. Secondly, the overland trails functioned to extend the productive hinterland beyond the area which was accessible by water transportation, i.e., beyond the area of the drainage basins of the Upper Mississippi and Missouri Rivers. Of course the products which could be transported eastward over these trails to points whence they could be carried on by water were limited to those of high value per unit bulk and weight. This limited the resources almost entirely to furs and gold."[1]

In 1840 the combined receipts and shipments at the port had a dollar value in excess of thirty million.[2] And by the time of the Civil War this figure had risen to the neighborhood of two hundred millions[3] equal to about one-third of the total foreign trade of the United States and greater than the combined trade of Cincinnati, Louisville, Wheeling, Nashville, New Albany and Memphis.

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[1]Marshall, Willis, W., Geography of the Early Port of St. Louis (1932), p. 47.

[2]Among the more romantic, and incidentally profitable, trade stories of the last century is that of the trade with Santa Fe. Using a land route of over 2000 miles the Santa Fe traders supplied Missouri with specie, mules and skins and took back manufactured articles particularly domestic cotton goods. Whiskey also was an important item. It was bought from Missouri distilleries at forty cents a gallon and being diluted with an equal part of water then sold for three dollars in Taos. (Sauer, Carl O., The Geography of the Ozark Highland of Missouri (1920), pp. 133-4). In 1847, reports value the Santa Fe trade for St.Louis at $500,000 (Hall, J., The West (1848), pp. 256-8). See also: deLiniere, Virginia, The Santa Fe Trail (1923); Buckingham, J.S., The Eastern and Western States (1842); Sauer, Carl O., The Geography of the Ozark Highland of Missouri (1920), pp. 133 ff; W.P.A. Writers Program, Missouri (1941), pp. 78-9.

[3]Lippincott reports a figure of $35,000,000 for 1842 and $200,000,000 for 1860 (Internal Trade of the United States (1916), p. 225-6); and Helen D. Williams reports $50,000,000 for 1840 and $120,000,000 for 1855 (Factors in the Growth of St.Louis from 1840 to 1860 (1934), p. 51.)

The inbound traffic to the city consisted of two quite different groups of products. One coming from eastern markets consisted of a variety of manufactured articles moving to St. Louis for consumption in the city and nearby areas or for resale in the southwest, west and northwest. The other came from the immediate hinterland of the city which supplied agricultural, mineral, forest and animal products. Surplus crops moved from farms to supply the local city market and for reshipment to the south and east and to foreign countries.

The major raw materials and foodstuffs coming into the warehouses of the city were lead, wheat, tobacco, hog products (bacon, lard, and pork) and hemp. The approximate value of these and other important products brought into the port by river in 1845 were as follows:[1]

Bacon	$175,000	Lead	$222,000
Bagging	62,000	Lard	127,000
Barley	12,000	Pork	125,000
Corn	30,000	Tobacco	520,000 (leaf)
Flour	92,000	Tobacco	103,000 (mfrd)
Hemp	248,000	Wheat	680,000
Hides	110,000	Whiskey	203,000

Wheat and tobacco stand out above the others with hemp and lead following. Combined hog products (bacon, lard and pork), however, reached a total second only to wheat.

The importation of 30,000 barrels of whiskey in addition to some 1900 barrels of brandy might suggest that the 30,000 adult males residing in St. Louis were topers of no mean ability. However, if so accused, they could advance the same explanation as was made for residents of our National Capital when they were similarly charged a century later - visitors or residents of outlying areas received a goodly portion of the imports of the city.

In addition to the foregoing commodities there were sizable receipts of molasses, oats, barley, potatoes, salt, sugar, cheese and lesser receipts of other staple products. In 1845 the fur trade was still large and buffalo robes, furs and pelts brought to the city for transshipment east, probably possessed an annual value close to $350,000.[2]

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[1]Value estimated by applying prices current in 1848 (reported in DeBow's Commercial Review of the South and West, Vol. 7, pp. 180-1) to volume of receipts reported in Chambers and Knapp, Annual Review of The Trade and Commerce of Saint Louis, 1848.

[2]cf., Williams, H.D., Factors in the Growth of St. Louis From 1840 to 1860 (1934), pp. 62-3; and Chittenden, H.M., The American Fur Trade of the Far West (1902), Vol. II, p. 818.

In large part, furs moved to the New York market principally by way of the Ohio River or the Great Lakes in the early days. In the steamboat era the river route via New Orleans was extensively used. Chittenden, in his authoritative work on the fur trade, dates the outstanding period of the trans-Mississippi fur trade as 1803-1843. Depletion of nearby trapping grounds, the flood of immigration, and declining values for beaver skins mark the end of the period.[1]

In its heyday the fur trade brought a very considerable trade in cloth, blankets and various fabrics through St. Louis as trade goods used by the fur companies. Of even greater importance, the profits made in the fur trade were enormous and to a certain extent supplied capital for the varied, later development of the commerce and industry of the city.[2]

Hemp and tobacco, the two great staples of Missouri, moved down the Missouri or along wagon roads to the city. Wheat and flour came from Missouri, Illinois and Iowa.

The major portion of the large receipts of lead arrived in the city from southwestern Wisconsin and northwestern Illinois with some considerable quantities coming in by wagon from southeastern Missouri.[3] This commodity had been one of the earliest "money crops" found by the early settlers.[4] First extraction was free lead dug almost from the surface of the ground. Ste. Genevieve on the river below St. Louis was an important lead market and fur trading center before 1770 and Missouri found in lead her second most valuable "export". With the rise of St. Louis the center of lead trading moved up the river.[5] Large scale mining developed after 1850 but the importance of lead to St. Louis was at its greatest before that date.[6]

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[1]Chittenden, H.M., The American Fur Trade of the Far West (1902), pp. 3-8, 32-40, 365, 818-822.

[2]Buckingham, J.S., The Eastern and Western States of America (1842), Vol. III, p. 144.

[3]Western Journal (1850), Vol. IV, p. 51.

[4]cf., Schafer, Joseph, The Wisconsin Lead Region (1932).

[5]Thwaites, R. G., Notes on Early Lead Mines, Wisconsin Historical Collections, Vol. 13 (1893), pp. 271 ff.

[6]On June 2, 1841, the Missouri Republican reported that the receipts of lead in the first two months after navigation opened were worth $423,640. This was from the upper Mississippi and much of it had been forwarded to eastern markets. On December 1, 1842, the Missouri Republican, quoting from the Galena Gazette reported that the product of the mines in 1842 had been worth almost $1,000,000 which was a large amount considering the low price the article had borne.

From 1840 to 1843, the imports of lead from Galena rose from 20,000,000 pounds to 39,000,000 pounds. March 27, 1847 the Missouri Republican pointed out that in 1841, 463,400 pigs of lead had been received from Galena, and in 1846, 672,420 pigs of lead had come from that point. In 1847 the amount imported was 749,128 pigs while in 1849 it had decreased to 590,293 pigs. From 1842 to 1853 the upper Mississippi lead trade amounted to 7,103,448 pigs worth $16,657,988. On January 3, 1853, the Missouri Republican called attention to the fact that a decline in the upper Mississippi lead trade had been perceptible since 1847. After 1847 there was a decline in the actual output of upper Mississippi lead. The shipments in St.Louis in 1857 were less than half of what they had been in 1847. (Williams, Helen D., Factors in the Growth of St.Louis from 1840 to 1860 (1934), pp. 72-74.)

Commerce in lead brought St. Louis one of its early industries. In 1847, a shot tower, one of the largest in the country, was built. The tower made of brick and standing 186 feet high was capable of producing daily twenty-five tons of shot and buckshot.

Other manufacturing plants which were also results of the trade in lead produced, after 1814, white lead, in which St. Louis was to become a leading producer in the latter part of the century, and after 1852 sheet lead and lead pipe.[1] By 1854 the whole of the Mississippi Valley was being supplied with lead pipe from St. Louis "at prices with which other points could not compete".[2]

As Michigan and Wisconsin became important logging centers lumber moved to St. Louis for reshipment to New Orleans, the eastern seaboard, and to Europe. This reversed a movement that had been typical for the years 1820 to 1840 when the St. Louis area was importing pine lumber from Pittsburgh. Much of the lumber was milled at upper river points such as Galena and Dubuque and rafted to St. Louis. One by-product of this trade was the growth of an important furniture center at St. Louis after 1848 when immigration brought a considerable number of German cabinet makers to the city.

For lead, lumber and the staple agricultural products St. Louis was the leading market for a wide area in the two decades before the Civil War. The St. Louis Directory of 1840 comments that the city served as the commercial center for "Missouri, Iowa, Wisconsin, a large part of Illinois, and a portion of Arkansas".

A record of the waterways on which commodity receipts of St. Louis were originated shows not only the importance of the various rivers but, in general outline, the various areas marketing in St. Louis. For a number of commodities the following tabulation lists under the name of each river the percentage of the total received at St. Louis which originated on the designated river:

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[1]Shoemaker, F.C., Missouri and Missourians (1943), pp. 560-561.

[2]cf., Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), pp. 275-276.

Commodity	Illinois River	Missouri River	Mississippi River	Ohio River	Total Received at St. Louis
Barley	4.1	a	85.4	10.0	62,080 sacks
Beans	20.8	7.9	71.3	-	33,156 sacks
Bark, tanning				100.0	(5,276 sacks (12 tons
Corn	39.0	6.5	54.5	-	484,192
Cheese	a	a	3.8	95.8	27,246 boxes
Cooperage	34.9	16.5	45.6	3.0	98,141 pcs.
Coffee	-	-	100.0	-	104,467 sacks
Flour	22.5	4.7	71.8	1.0	201,052 bbls.
Fruit, dried	4.9	33.9	43.4	17.8	17,887 bbls.
Glass	a	-	1.4	98.2	21,269 boxes
Hides	16.2	28.4	54.9	a	101,440
Hogs	13.1	21.3	65.6	-	20,435
Hemp	a	94.1	5.5	-	62,874 bales
Leather	4.9	a	12.4	82.4	14,666 rolls
Lead	-	1.2	98.8	-	442,218 pigs
Molasses	-	-	100.0	-	53,554 bbls.
Nails	-	-	23.0	77.0	68,967 kegs
Oats	26.3	a	72.9	a	464,062 sacks
Onions	5.8	a	94.0	a	27,007 sacks
Oysters	16.2	-	47.7	36.1	6,291 pkgs.
Pork	51.4	4.3	44.3	-	75,804 bbls.
Paper	-	-	1.2	98.8	68,969 bdls.
Potatoes	15.3	1.0	81.7	2.0	72,224
Sugar	-	-	100.0	-	104,974 (bbls (hhds (bags (boxes
Salt	-	-	100.0	-	203,696 sacks
Salt	-	-	-	100.0	69,832 bbls.
Wheat	47.2	9.9	41.5	1.4	1,078,503 sacks
Whiskey	40.8	a	54.4	4.3	49,870 bbls.
Tobacco	a	80.0	19.5	a	10,102 hhds.
Tobacco	1.8	47.5	31.1	19.6	10,528 boxes

[a]Less than 1 percent.

Important portions of a variety of receipts such as beans, corn, flour, hides and oats came to the city from the Illinois River but that river was the most important trade channel for only pork and wheat. Down the Missouri came eighty percent of the receipts of tobacco and ninety-five percent of the hemp. The percentages in the column under the Mississippi River show at a glance that for two-thirds of the receipts the largest origins were on that river. By way of the Ohio came a number of important manufactured products.

The record of commodity shipments going out of St. Louis in the two decades before the Civil War reveals the essential character of the city as a commercial center, acting in large part only as an intermediary in the movement of goods from origin to its immediate hinterland or to the far distant markets of the West.

From reports of the Overland Dispatch Company the St. Louis Merchants' Exchange estimated the total St. Louis freight going to the territories in 1865 as follows:

To Plattsmouth	-	3,000,000	pounds
Leavenworth City	-	6,000,000	"
Santa Fe	-	8,000,000	"
St. Joseph	-	10,000,000	"
Nebraska City	-	15,000,000	"
Atchison	-	25,000,000	"
Government freight	-	50,000,000	"
		117,000,000	pounds

In addition there was an important trade with Ft. Benton, 2500 miles away, amounting to 6,000,000 lbs. - total commerce with Montana was probably in the neighborhood of 13,000,000 lbs.[1]

Comparison of the estimated value of commodity receipts at St. Louis with the approximate value of outgoing shipments[2] reveals that in 1845 the two were in close balance for many commodities.

	Receipts	Shipments
Bacon	$175,000	$ 306,000
Bagging	62,000	119,000
Barley	12,000	0
Corn	30,000	20,000
Flour	92,000	862,000
Hemp	248,000	(not reported)
Hides	110,000	89,000
Lead	222,000	1,500,000
Lard	127,000	467,000
Pork	125,000	402,000
Tobacco (leaf)	520,000	508,000
Tobacco (mfrd)	103,000	103,000
Wheat	680,000	0
Whiskey	203,000	0

The figures reveal some evidence of processing or manufacture for bacon, lard, pork, bagging and flour for which the value of shipments exceed receipts. Hog receipts, largely from Missouri and Illinois were of material size during these years. In 1866 reports of the St. Louis Merchants' Exchange show about forty percent of hog receipts being delivered by or originating on Illinois railroads; eighteen percent originated on the upper

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[1] St. Louis Merchants' Exchange, Annual Report of 1866, p. 35.

[2] In deriving these figures the same unit prices are applied to figures for receipts and shipments which were reported in records of the period in physical units. As a result, the dollar values are only very rough approximations.

Mississippi, Illinois and Missouri rivers; twenty percent on Missouri railroads and the rest from unidentified sources.[1]

The development of pork packing was relatively new and appears as one of the early processing fields in which St. Louis made a start toward the manufacturing activity that was to become important after the Civil War.

> "The decade, 1840-1850, marks the rise of St. Louis as an important packing point. Hitherto, that city, so advantageously situated at the place on the Mississippi where all the Missouri, Illinois, and upper Mississippi River traffic could be reshipped to larger boats for the completion of the southward journey, had been content to derive its profits from its commissions. Ship merchants were growing rich from Illinois farmers, and were constantly urging the latter to build up their own town of Alton as the competitor of St. Louis. By 1845, however, the 'back country' of Missouri began to furnish hogs and cattle in increasing numbers and the packing business rapidly grew to such an extent that the city soon became a good market, not only for Missouri, but also for large numbers of Illinois hogs, which, if the older conditions had remained, would have gone to Alton."[2]

By 1849-50 over 115,000 hogs were being slaughtered in the city[3] and East St. Louis was also making its start in the packing industry. It was, however, far overshadowed by the west side of the river until the National Stockyards were built on the Illinois side in 1873.[4]

In the foregoing table it will be noted that 680,000 bushels of wheat were received at the port and none reported as shipped out, while flour shipments were in excess of $800,000. The repeal of the Corn Laws in England in 1846, the markedly growing dependence of England on foreign food supplies, and the movement of grain production westward as industrialization increased in the Atlantic states all made grain handling through

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[1] Origin of St. Louis Hog Receipts, 1866

Upper Mississippi River	17,969
Illinois River	11,266
Missouri River	8,570
Ohio and Mississippi R.R.	10,474
Chicago, Alton & St. Louis R.R.	30,215
Chicago, Alton & Terre Haute R.R.	47,926
Pacific R.R.	12,810
North Missouri R.R.	36,765
Iron Mountain R.R.	117
Other sources	41,510
	217,622

(St. Louis Merchants' Exchange, Annual Report of 1866, p. 64)

[2] Clemen, Rudolf A., The American Livestock and Meat Industry (1923), p. 105.

[3] Shoemaker, F.C., Missouri and Missourians (1942), Vol. II, p. 554.

[4] cf. Brink, McDonough & Co., (ed.), History of St. Clair County (1881), pp. 303-4.

St. Louis grow to sizable proportions before the Civil War brought its serious interruptions. However, milling increased also, with the result that the bulk of grain received at St. Louis was milled there.[1] In 1841 the city had only two flour mills and these were of small capacity. In ten years both the number and size increased sufficiently to forecast the leading place held by the city in flour milling in 1860. With its increase to nineteen mills in 1851 and subsequent growth in the decade the city ranked with Rochester, Minnesota, as the leading flour manufacturing center of the whole country.[2] At the same time, across the river, an early milling industry which had retailed flour in sacks in St. Louis was expanding in similar fashion and adding materially to the milling capacity of the "St. Louis Industrial Area".[3] The figures for 1870, approximately typical of the previous decade - show 6,638,253 bushels of wheat being received at the city and 636,562 bushels, or ten percent, being reshipped. Barley was the only other grain where outgoing shipments were a small proportion of receipts. From one half to three-fourths of the receipts of corn, oats, and rye were reshipped.[4]

From 1855 to 1870 the grain trade of the city fell on troubled days. The Civil War, the change from handling grain in sacks to bulk handling for barge movements, and the lack of elevator capacity presented serious difficulties.[5] These troubles or problems were passed but they left after-effects injurious to the place of the town in the nation's grain trade. There were not three problems here but really only one, namely, the building up of the Mississippi River to the Gulf as a main channel for grains moving to eastern ports and to foreign markets.[6] The Great Lakes and eastern railroads offered routes that would finish the river and markedly reduce the importance of St. Louis as handlers of grain unless a successful transition were made from the too costly steamboat handling.

The opening of the Illinois-Michigan Canal in 1848 had already presented one challenge to St. Louis. As a result of the canal traffic the Illinois River Valley enjoyed a tremendous boom but the large granaries of the valley turned their traffic toward Chicago. Previously they had found their best outlet by the Mississippi but now grain moved by the cheaper northern route and, as the middleman, Chicago benefited.[7]

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[1]Missouri Republican, Annual Review (1848), pp. 3-6.

[2]Kuhlmann, Charles B., The Development of the Flour-Milling Industry In The United States (1929).

[3]Brink, McDonough & Co. (ed.), History of St. Clair County (1881), p. 348 ff.

[4]The relation of receipts to shipments in 1870 were as follows:

	Corn	Oats	Rye	Barley
Received (bu.)	4,708,838	4,519,510	210,542	778,518
Shipped (bu.)	3,637,060	3,144,744	100,254	70,451

[5]Fite, E. D., Social and Industrial Conditions in the North During The Civil War (1910), pp. 66-7.

[6]Cf. Hartsough, M. L., From Canoe to Steel Barge on the Upper Mississippi (1934), p. 186.

[7]Cole, A. C., Era of the Civil War (1919), p. 31.

The Civil War checked experiments with barge handling of grain on the river for some very important years as the railroad network eastward was filling in and bringing to Chicago more favorable routes to the east.

> "In 1868 Chicago controlled 76,000,000 bushels of grain, St. Louis but 13,000,000 bushels, because Chicago could ship grain to New York from five to ten cents cheaper than could St. Louis ... Charles Orthwein chartered a steamboat and five barges to ship 12,000 bushels of wheat in bulk form to New York by way of New Orleans. Since the cargo arrived in perfect condition, the experiment disproved the theory that grain in bulk form sent by water would suffer from temperature and moisture".[1]

Before the Civil War many doubts existed in the minds of St. Louis grain men as to the feasibility of shipping in bulk to eastern ports. These doubts could only be removed, as they finally were, by experimentation. In this experiment, facilities in the port for bulk storage were required but were not supplied until 1865.[2] The need for grain elevators was recognized before 1860 and concerted efforts by St. Louis grain dealers were being undertaken prior to the Civil War.[3] The St. Louis Grain Elevator Company was chartered in 1863 but had serious trouble in raising the required $500,000 of capital. It was not until two years later that the city actually saw its first elevator in operation. Then when the Mississippi Valley Transportation Company was organized in the following year to use tugs and barges it ran into considerable troubles with two inadequacies of the river - one old, and one relatively new. The winter closing of stretches of the Mississippi with ice between St. Louis to Cairo was a severe handicap and later forced the company to build its own elevator at Belmont below the mouth of the Ohio. The second handicap was found in the mouth of the Mississippi. Eads' jetties did not solve the problem of silting until after 1875 and the lack of a good outlet at the mouth of the river allowed barge handling of grain to grow very slowly. However, a start was made in 1866 and some tows of ten barges with steam tugs made the trip to New Orleans in six days.[4] By 1883 these handicaps and the rather hesitant experimentation were things of the past and the Mississippi Valley Transportation Company had thirteen towboats and ninety-eight barges in the service. With each barge capable of loading 1400 tons and a towboat able to handle five barges on good stages of water, a single tow would take down fourteen hundred tons of grain.[5] Shipments (by all carriers) of wheat from St. Louis stayed relatively small until 1878. The annual average from 1867 to 1870 was 8,600,000 bushels; from 1871 to 1877 slightly under 1,700,000 bushels; and in the following ten years 6,950,000 bushels.[6]

In addition to the lead and foodstuffs processed in the city and shipped to its trade area in the West, St.Louis served as the entrepot thru which a variety of manufactured products passed to the large trade area tributary to the Mississippi River System - the area from which it drew the great volume of raw materials.

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[1] Soraghan, Catherine V., The History of St.Louis, 1865-1876, (1936) p.115

[2] St.Louis Merchants' Exchange, Annual Report of 1865, p. 12.

[3] Stevens, Walter B., St.Louis The Fourth City, 1764-1909 (1909), pp. 664, 667-668.

[4] St.Louis Merchants' Exchange, Annual Report of 1866, p. 38.

[5] Elliot, R.S., Notes Taken in Sixty Years (1883), p. 298.

[6] See Appendix B.

In general manufactured articles and luxury foods came to the growing metropolis from eastern sources. Philadelphia and Baltimore were its leading manufacturing and wholesale centers supplying a variety of manufactured and semimanufactured products.[1] Among a long list of receipts in 1845 are 1590 tons of castings, 24,000 boxes of glass, 3800 tons of iron and 22,000 kegs of nails.[2] Pittsburgh was also sharing in this traffic as well as New York and Boston. The April 1, 1840 issue of the short-lived daily newspaper, The Pennant, advertised for sale a lot of one hundred kegs of Pittsburgh white lead and another lot of nails from the same city. Soap and other products originating in Boston appeared among the advertisements. And it was obvious the St. Louisan did not wholly forego "imported" luxuries for notice was given of the arrival of one hundred cases of pickled oysters from Baltimore.

The Ohio River served as the major trade channel for these products. As shown in the tabulation on a foregoing page presenting commodity receipts at St. Louis, that river moved to the city considerable amounts of tanning bark, cheese, dried fruit, glass, leather, nails, oysters, paper, salt, and manufactured tobacco. In addition to these products cloth, blankets, clothing, boots and shoes and a variety of drygoods came to the city for its own citizens and for reshipment to Santa Fe, to the far upper Missouri and to the whole area of the middle west.

Wholesale drygoods and grocery companies were the nucleus around which the economic structure of the city was built. They were in the opinion of the Missouri Republican of 1856 "the heaviest business of the city."[3] By the middle fifties thirty firms were doing a regular wholesale drygoods business. Sixteen of these handled boots and shoes and in 1855 were credited with sales of two and a half million dollars.[4] At this same time fifty-two wholesale grocery firms were enjoying the same large profits and rapidly growing business.[5] Annual sales were in the neighborhood of twenty-two million dollars and had been growing with great rapidity in the past decade.[6]

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[1]Atherton, L., The Pioneer Merchant in Mid-America (1939), p. 66.

[2]Missouri Republican, Annual Review (1848)

[3]Missouri Republican, Annual Review of the Commerce of St.Louis For The Year 1856.

[4]Ibid.

[5]"When Carlos S. Greeley started a wholesale grocery in St.Louis he put in no stock of liquor. The "dry grocery" house of Greeley & Gale made money from the beginning. It grew into one of the institutions of the city. The profits helped to build the Kansas Pacific Railroad, the line from Sedalia to Warsaw, the St.Louis and Illinois Railroad; they were represented in the capital of the National Bank of Commerce and the Boatmen's; they helped to establish the Belcher Sugar refinery, the St.Louis Cotton Factory, the Crystal City Plate Glass Company. They contributed generously to Drury College, to Lindenwood Seminary, to the Mercantile Library, to Washington University". (Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p. 659.)

[6]Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p. 663.

In 1840 St. Louis merchants were not only supplying groceries and hardware for the areas along the borders of the Mississippi and Missouri but were finding important markets in "interior" Iowa and Nebraska and in far distant Washington, Utah, Wyoming and California.[1] By the middle fifties the Illinois, Iowa, Kansas and Missouri markets were tremendously more valuable as immigration added greatly to their population and "Kentucky, Tennessee and Arkansas are beginning to turn their attention to St. Louis as their legitimate market for Dry Goods, as well as Groceries, Provisions, Flour and Rope and Bagging".[2] As the Civil War approached to take its severe toll of St. Louis the city was furnishing groceries and hardware to virtually all Illinois, Iowa, Minnesota, Kansas, Indian nations and the plains, Utah and to parts of Wisconsin, Indiana, Kentucky, Tennessee and Arkansas.[3]

Review of the trade in wheat, hogs and lead revealed that these products brought to St. Louis three of its early industries - flour milling, slaughtering and lead manufacture. A number of other beginnings were made prior to 1870 but as late as the outbreak of the Civil War only a few enterprises in the city had moved beyond the "craft" stage in which one or two proprietors and a journeyman worker or two made up the shop. Certainly the "factory system" can be found only in a few lines of manufacture.

> "St. Louis cannot be said to have possessed any industries in the strict sense of the term prior to the year 1850, and perhaps nothing that was comparable to an industrial system until the beginning of the Civil War period, 1861. For a great number of years, St. Louis was satisfied with a lucrative shipping business which its strategic geographic location brought it. Then too, the role of merchant supply center for the far West was very attractive. Pork packing and milling were two important and flourishing enterprises which due to their demand for barrels and kegs fostered a thriving cooperage business."[4]

In 1840 with a population of 16,000 the city had 214 retail establishments with a capital of nearly four million dollars and twenty-five commission houses with a capital of nearly one million dollars.[5] In comparison, ten years later the total capital employed in manufacture of products was only slightly over four million dollars and the capital invested in what can be classified as factory production was slightly over two and one-half millions.[6] It is very apparent in accounts of the time that in the decade of the forties commercial interests dominated in a very definite fashion the economic affairs of the city.[7] And where manufacturing is described, it

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[1]Buckingham, J.S., The Eastern and Western States (1842), pp. 55-6.

[2]Missouri Republican, Annual Review of the Commerce of St.Louis For The Year 1856.

[3]Missouri Republican, Annual Review of The Trade and Commerce of St.Louis For The Year 1858.

[4]Shoemaker, F.C., Missouri and Missourians, (1943), Vol. II, p. 555.

[5]DeBow's Commercial Review, Cities of The Mississippi and Ohio, Vol. I, p. 147.

[6]Adapted from report of Missouri Republican on "Productive Industry", 1851.

[7]cf. Keemle, Charles, St.Louis Directory, 1840-1, p. vi;
Hall, J., The West (1848), p. 247;
Buckingham, J.S., The Eastern and Western States of America (1842), Vol. III, p. 126.
Missouri Republican, Issue of January 1, 1842.
Edwards, R. and Hopewell, M., Edwards' Great West (1860), pp. 376-7.

appears very commonly to be a shop handicraft system of production. The earliest organization of manufacturing interests is found in the Mechanics Exchange and the roster of membership in 1839 is very revealing. Members are identified by trade and there is an obvious domination of the crafts -- carpenters, founders, cabinetmakers, tailors, shipbuilders, machinists, bakers, coopers, gunsmith, carriagemaker, upholsterers, blacksmiths, and so on.[1] The Exchange was not a labor organization but a representative body of "manufacturers" including a number of names that were prominent in the later industrial and commercial history of the city. It is clear that much of the "manufacture" of 1840 consisted of little more than the service trades found today in the cobblers shop or the blacksmith shop, or in the latter's modern counterpart, the garage. For instance in the following contemporary description by Edwards and Hopewell it must be recognized that the "boot-and-shoe shops that manufacture" and many of the other "manufactories" were one-man shops.

> "At this time (1841) there were in St.Louis, two foundries; twelve stove- grate, tin, and copper manufactories; twenty-seven blacksmiths and housesmiths; two white-lead, red-lead and litharge manufactories, one castor-oil factory, twenty cabinet and chair factories; two establishments for manufacturing linseed-oil; three factories for the making of lead-pipe; fifteen tobacco and cigar manufactories; eleven coopers and nine hatters; twelve saddle, harness and trunk manufactories; fifty-eight boot-and-shoe shops that manufacture; six grist-mills; six breweries, a glass-cutting establishment; a Britannia (tableware metal) manufactory; a carpet manufactory, and an oil-cloth factory. There was also a sugar refinery; a chemical and fancy-soap manufactory; a pottery and stoneware manufactory; an establishment for cutting and beautifying marble; two tanneries; and several manufactories of ploughs and other agricultural implements."[2]

In its January 1, 1842 issued the Missouri Republican shows a more proper modesty in its description of St. Louis industries, listing only twelve stove-grate, tin and copper manufactories, three lead pipe producers and eighteen foundries. Other manufactories are recognized for what they were, small service industries such as the fifty-eight boot and shoe shops and the bakery and the other producers of consumer goods and services. The U. S. Census of 1840 lists Missouri as lowest among the states in manufacture with only 191 men so employed producing an annual output of $190,000.[3]

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[1] Stevens, Walter B., St.Louis The Fourth City, 1764-1909 (1909), p. 683

[2] Edwards, Richard and Hopewell, M., Edwards' Great West (1860), pp. 376-377.

[3] cf. Buckingham, J.S., The Eastern and Western States of America (1842), Vol. III, p. 126;
Leonard, John W., Industries of St.Louis (1887), p. 11;
Shoemaker, F.C., Missouri and Missourians (1943), Vol. II, p. 552.
Vogt, Herbert J., Boot and Shoe Industry of St.Louis (1929), p. 30.

In the next decade the St. Louis merchant continued to be absorbed with his profitable commercial opportunities and only very limited capital was risked in manufacturing ventures. The editors of the Western Journal and Civilian noted in 1851 that St. Louis merchants were too busy trying to handle the trade that forced itself on them to even seize new commercial opportunities lying at their door.

> "The rapid increase of population in the West has forced upon St. Louis a commerce and growth unparalleled in the history of modern cities; and instead of expending her means in opening new avenues of commerce, her capital and energies have been employed in erecting buildings and preparing suitable accommodations for the trade which has sought her port unsolicited. While this condition remains unchanged it is not to be expected that our citizens will interest themselves to any considerable degree in seeking out new markets: but the mighty movement that is now going on in opening new commercial channels, east of the Mississippi, should admonish us to prepare for a contest, which will be necessary to retain unimpaired the natural advantages of St. Louis over all other points in the valley of the Mississippi..... We should not wait as formerly for others to seek our market, we should seek theirs; this is the principle pursued by all other commercial towns and cities, with the exception of New Orleans, and even she begins to feel the necessity of adopting it to protect her commerce against the encroachments of the eastern and southeastern markets."[1]

The tremendous opportunities in trade undoubtedly acted as a "cost" for the development of manufacture - profits must be certain and large in industry before enterprisers would turn away from the lucrative commerce. In his study of the fur trade Lippincott supports this view, holding that the commercial advantages of St. Louis "militated against its success in other lines of industry" and "tended to retard the introduction of manufactures".[2]

The decade of the forties does mark the tentative beginnings in some lines of what may reasonably be termed industrial production. In 1851 the list of "production industries" published by the Missouri Republican shows an investment of $4,377,711. Nearly one half of this investment, however, is still found in the shops of small craftsmen. The "industries" in which the average investment per establishment is $10,000 or more makes up a relatively short list.

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[1]The Western Journal of Commerce, St. Louis and the Tennessee Trade (1851), Vol. VI, pp. 33-4.

[2]Lippincott, I., A Century and a Half of the Fur Trade (1916), pp. 208-9.

Industry	Average Capital Per Establishment	Number of Establishments
Iron Foundries	$ 43,000	9
Breweries	12,000	16
Type foundry	22,000	1
Rope makers	10,000	7
Drug and Chemical factories	10,000	2
Shot factory	40,000	1
Sawmills	13,000	9
Flour mills	23,000	19
Planing mills	23,000	2
Glass factories	25,000	2
Sugar refineries	59,000	3
White Lead, Linseed and Castor Oil factories	49,000	3
Cotton Yarn factory	70,000	1
Gas company	220,000	1
Spice mill	14,000	1
Cotton Batting factory	32,000	1
Lead Pipe and Sheet factory	35,000	1
Pork houses	30,000	8
Woolen factory	70,000	1
Distillers	20,000	2
Mill Stone manufactory	10,000	1
Steamboat yard	125,000	1

The total capital invested in these twenty-two industries was $2,566,000, the total employes about 6500, and the annual product $7,624,000. These figures can be considered in terms of a city population in 1850 of 77,860; the estimated value of its commerce of $90,000,000; and the city's investment in steamboats of $5,000,000. Comparison of these several figures reveals that investment in all manufacturing industries was only about one half of the investment in steamboats alone and the annual product was less than one tenth of the value of the city's commerce. So there appears to have been only a very small place in the economy of the city occupied by the city's industry even in 1850 and "it was not until after the war that what might be called a system of manufactures was developed."[1]

[1]Snow, Marshall, History of the Development of Missouri and Particularly of St. Louis (1908), p. 363.

Among the foregoing "productive industries" listed by the Missouri Republican in 1851 there were the following thirty-one with annual products in excess of $100,000:

Annual Products From "Productive Industries"

	Total	Average per Establishment
Flour milling	$2,367,750	$ 124,618
Sugar refining	1,213,000	404,333
Carpentering	1,171,580	11,265
Pork packing	799,522	99,940
Tailoring	650,550	6,137
White Lead and Oil	600,000	200,000
Iron foundries	569,000	63,222
Candles and Lard Oil	498,500	49,850
Boots and Shoes	402,900	3,663
Shot manufacture	375,000	375,000
Butchering	349,650	7,136
Blacksmithing	303,130	4,269
Brick manufacture	301,470	6,[illegible]
Cooperage	288,822	5,449
Tin and Coppersmithing	287,328	8,209
Brewing	285,925	17,870
Baking	276,400	5,533
Saddle manufacture	260,850	10,868
Sawmilling	248,000	27,555
Tanning	223,900	24,878
Painting and Glazing	217,000	7,750
Rope making	215,000	30,714
Cabinet making	182,800	3,656
Starch manufacture	165,000	55,000
Steamboat yard	150,000	150,000
Type foundry	150,000	150,000
Wagon manufacture	146,585	4,581
Carriage making	130,000	16,250
Upholstering	122,800	12,280
Stonecutting	122,700	13,633
Bricklaying	104,750	8,058

The "small shop" nature of some of the fields possessing relatively large annual products is revealed by the average value produced per establishment. The annual product of carpentering is over one million dollars but the average annual product or income per establishment is only $11,265 compared with an average per establishment of $63,222 for iron foundries, $124,618 for flour mills, $404,333 for sugar refining, and $375,000 for shot manufacture. Noticeable among the small shop or craft production are boots and shoes, cooperage, brick manufacture, wagon manufacture and butchering. These and a number of the others are important fields in the economy of St. Louis but they are still far from the factory system which had developed and was enjoying a very rapid expansion in the East.

The fields in the above table which may qualify as "manufacturing industries" on the grounds of large total product and large product per plant are those mentioned - iron foundries, flour milling, sugar refining, shot manufacture - and also the production of type, candles and lard oil, rope, tanned leather, lumber, white lead and oil (castor and linseed), starch, pork products, beer,[1] and the repair and construction of steamboats.

In 1851 there was $4,378,000 invested in all lines of "manufactories" and, as has been noted, approximately one half of this total was in small shops of artisans and craftsmen. By 1860 the total capital in all lines had increased to a point somewhere between nine and twelve millions.[2] The data for 1851 and 1860 are not strictly comparable but the average capital invested per establishment in the two years allows an approximate comparison to be made. In 1851 it was $3,830 and in 1860 (according to figures reported by Scharf) was $11,309. A material increase in plant size is indicated but the average in 1860 is still very small. And annual value of production per plant had not grown significantly, being approximately $24,500. There were "only nineteen classes of manufacturing whose production was valued at more than $500,000 per year"[3] so it is reasonable to assume that the total "factory" capital had not increased much, if any, beyond six to eight million dollars.

Between 1840 and 1860 the absorption of the enterprisers of St. Louis in commerce kept them from moving rapidly into manufacturing fields and accounts in considerable part for the employment of less than 42,000 in manufacture as late as 1880.[4] A variety of other factors, of course, played their part in shaping the growth of St. Louis. One of these factors, probably of relatively minor importance, is found in the handicap which inadequate banking facilities imposed between 1840 and 1860 on the developing industries.[5] In 1837 the Missouri legislature chartered the State Bank of Missouri and expelled all "foreign" banks. The State Bank was the only one in St. Louis for a decade and while the conservativeness of its management was a welcome relief from banking excesses common to this period its policies and its monopoly position did not encourage the entry of enterprises into new risk fields.[6]

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[1] L.F. Thomas in The Localization of Business Activities in Metropolitan St. Louis (1927) at page 70 dates the beginning in St. Louis of meat packing at 1874 and beer manufacture in 1880.

[2] Williams, Helen D., in Factors in the Growth of St. Louis From 1840 to 1860 at p. 98 gives a figure of $9,205,205; Scharf, J. Thomas in History of Saint Louis City and County at p. 1338 gives the figure as $12,733,948.

[3] Williams, W. and Shoemaker, F. C., Missouri Mother of the West (1930) Vol. II, pp. 379-80.

[4] Among the advantages possessed by St. Louis for the development of manufactures contemporary accounts stress the coal and other mineral and agricultural wealth of the surrounding territory, the adequate labor supply and the situation of the city on the river system. (cf. Taylor, J. N., Sketch Book of St. Louis (1858) pp. 78-80; and The Western Journal (1848), Vol. I, p. 230.)

[5] Williams, H. D., Factors in the Growth of St. Louis From 1840 to 1860 (1934), p. 92.

[6] cf. Ghent, W. J., The Early Far West (1931), p. 306.

The Boatmen's Bank, the oldest existing bank west of the Mississippi, opened its doors on October 18, 1847 to mark a new banking era that was not a wholly favorable one in its first decades. Local and national financial crises affected the city's banking structure during the fifties and the Civil War years brought repeated difficulties. On November 28, 1860 all banks in St. Louis but one suspended specie payments and circulation of money in Missouri declined by four million dollars from July 1859 to August 1860. "Even the conservative bank of the West, the Bank of the State of Missouri could not always redeem its currency".[1] And the whole war period was spotted with alternating months of suspension and resumption.

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[1]Shoemaker, F. C., Missouri, Day by Day (1942), pp. 39, 261-2, 382-3.

The Influence of Railroad Development

Along with the new industrial influence just making itself felt, St. Louis began to feel in the decade of the fifties the first influence of railway development. In 1850, the middle west was virtually without railroads. Lines which ten years before had radiated short distances out from the West End of Lake Erie had lengthened to link Sandusky and Cincinnati and to connect Detroit with the south end of Lake Michigan. Indianapolis was connected with the Ohio above Louisville. In Illinois a few miles of line were built out from Chicago, and Springfield was reaching west toward the Illinois River.[1] Only plans could be found in Missouri or in any of the territory west of the Mississippi. In various conventions St. Louis people had shown an early enthusiasm for railroad development. Members at the first convention, held in St. Louis in April, 1835, recommended the construction of two railroads from St. Louis and adjourned to a banquet at the National Hotel. However, the convention was not wholly without result.[2] The judges of the St. Louis County Court appropriated two thousand dollars for surveys of the two proposed routes.[3]

In the early fifties the State of Missouri and the well-to-do merchants of Saint Louis were giving generous support to St. Louis railroads but by 1860 the development was still very small and Missouri should have spoken in very modest terms of the 817 miles of rail line it had in operation.[4] Illinois, its neighbor and frequent rival, had 2,790 miles in the state and in addition had extended its railroads into tributary area. Much of the 905 miles in Wisconsin and all of the 655 miles in Iowa were merely extensions of Illinois railroads. And to this aggregate there should be added the 600 miles of line between Cairo and New Orleans which linked the lower Mississippi Valley to the Illinois Central and thereby to Chicago. With two lines at East St. Louis connecting with the network of Ohio railroads and making connections to the east coast, St. Louis was substantially as well connected with the factories and markets of the east as Chicago but completely lacked connections with the "feeder" railroads through southern Wisconsin, eastern Iowa and a large section of Illinois which focussed on Chicago. Chicago had connections to the Mississippi at LaCrosse and Prairie du Chien in Wisconsin, and five connections across the Mississippi - four into eastern Iowa and one reaching across northern Missouri to St. Joseph on the Missouri River. In contrast, St. Louis had one line reaching to St. Joseph, another three-quarters of the way to Kansas City, a third reaching southwestward for a short distance and finally the Iron Mountain reaching into southeastern Missouri but still stopping short of the southern border of the state.

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[1] cf. Paullin, Charles O., Atlas of the Historical Geography of the United States (1932), Plate 139A.

[2] cf. Snow, Marshall S., History of the Development of Missouri and Particularly of St. Louis (1908), pp. 326-346.

[3] For able and detailed descriptions of the early interest and support offered by St. Louis to railroad development see Scharf, J. Thomas, History of Saint Louis City and County (1883), pp. 1139-1213; and Jennings, Dorothy, Railroad Development in Missouri Before the Civil War (1930).

[4] U.S. Department of Commerce, Statistical Abstract of the United States (1934), p. 347.

Why was a wealthy commercial center so slow to put its capital and energies into development of railroad lines in its tributary area? Contemporary commercial writers had prodded St. Louis but, as Hartsough observes, St. Louis enterprises and business leaders did nothing more for years than observe developments in the east.

> "The changing trend of trade was by no means unobserved. The growing importance of the canals, the Great Lakes, and the railroads in carrying westward trade was frequently commented on during the fifties in Hunt's Merchants' Magazine and DeBow's Review. The latter tried to stir St. Louis and New Orleans to protective activity before it was too late; the former contented itself with observing what was happening."[1]

However, Hunt's Merchants' Magazine had not always been as forward looking. In 1845 it expressed the view that the trade of St. Louis "cannot be diverted, nor can any amount of capital supply the place of the rivers which constitute her highways".[2] Experience taught the editor of the magazine more than it did St. Louis enterprisers, or the magazine obtained a new editor. In any event, the magazine saw later, and not too much later, that the river might not always safeguard the future of St. Louis. As late as 1865 the secretary of the St. Louis Merchants' Exchange indicates that the city is still too much absorbed in the river era.

> "In the past our people have depended too much on the natural channels for trade, namely, the great rivers that wash our shore; but now public attention is being given to railroad extension."[3]

In an earlier section we have seen that St. Louis was slow to invest in steamboats and the best days of the river era had been reached before capital from the city was heavily involved in river facilities. And similarly, once well established in the great wealth of commerce brought by the river system, the city was slow to struggle with the problems of changing transportation techniques. A glance at a railroad map of 1860 reveals the strategic layout of Illinois railroads was such that in considerable part St. Louis did not benefit from their existence.[4] The Illinois Central by-passed St. Louis to reach south, and the bulk of the remainder of Illinois rail lines lay east and west. The St. Louis, Alton and Chicago Railroad gave a direct connection between Chicago and St. Louis and could be considered a mutual or an offsetting advantage, depending on the point of view.

It was not chance but very definite design that made the strategic pattern of Illinois "feeder" railroads favor Chicago and not St. Louis. These were the days of "special incorporation" when a separate act of the legislature was needed to create a corporation charter. As a result, political forces possessed a very easy means of directing railroad expansion. Advocates of "state policy" in the Illinois legislature backed their "Illinois Plan"

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[1] Hartsough, M. L., From Canoe to Steel Barge on the Upper Mississippi (1934), p. 197.

[2] Hunt's Merchant Magazine, Vol. XV, p. 170.

[3] St. Louis Merchants' Exchange, Annual Report of 1865, p. 7.

[4] See Appendix L.

which had as its purpose the building up of Illinois cities through careful selection of railroad construction. For instance, a proposed route for the Ohio and Mississippi Railroad running across the state from St. Louis to Vincennes and Cincinnati was opposed because it would aid the growth of the two terminal cities at the expense of intermediate Illinois points. Similar objections were faced by promoters of the Atlantic and Mississippi Railroad who proposed to build from Indianapolis to St. Louis. The state group was softened by proposals that the east-west roads across southern and central Illinois should develop Alton as their western terminus.[1]

Two of the three east-west roads across middle and southern Illinois were completed in the last half of the fifties. The Terre Haute and Alton was built between 1853 and 1855 and before it was completed obtained a branch line to East St. Louis. As a result Alton lost much of the terminal advantages promised to her by backers of the Illinois plan. The town became merely an important intermediate station and "St. Louis interests chuckled over the advantage that accrued to their city".[2]

The intentions of the Illinois system were also aimed at making Cairo the southern entrepot of the state with Springfield benefiting as an important intermediate point and Alton and Galena gaining as northern termini for the north-south roads of the state. "To Chicago, however, went the peculiar benefits of the proposed system". A branch of the Illinois Central terminating in Chicago was to be built so that "like the Illinois and Michigan Canal, it would divert trade from St. Louis".[3] Southern Illinois very generally opposed the "state system" and it had the backing of Governor French who was financially interested in railroad construction in the southern part of the state. The Governor was dubbed "the tool of St. Louis" and efforts of southern Illinois interests to end special incorporation by passage of a general incorporation law were labeled a "St. Louis proposition" by their opponents and successfully blocked in the legislature. This political situation did not prevent the construction of Illinois railroads terminating in St. Louis but inevitably made more difficult the promotion of a network of feeder lines in the area immediately east of the city. But its big result lay in the positive impetus it gave to the construction of the Illinois Central and to the other roads radiating out from Chicago.

In the sixties Missouri did not manage to make up for its slow start with railroad construction in the previous decade. To the contrary it lost further ground to several of the surrounding states.

Railway Mileage Operated

	1860	1870	Increase
Missouri	817	2000	1183
Illinois	2790	4823	2033
Wisconsin	905	1525	620
Minnesota	0	1092	1092
Iowa	655	2683	2028
Kansas	0	1501	1501
No.& So.Dak.	0	65	65

[1]Cole,A.C., The Era of the Civil War (1919), pp. 33-4.
[2]Ibid., p. 45-6.
[3]Ibid., p. 33.

In large part the Civil War must explain the smallness of the gain made by Missouri.[1] Both Illinois and Iowa added almost twice as much to their mileage as Missouri and the rail mileage tributary to Chicago in Wisconsin and Minnesota increased very materially. St. Louis, however, did make an important advance in building lines into the north Missouri and Iowa network. And in respect to transcontinental traffic the city was in about as good a position as Chicago by virtue of its line to Denver joining the Union Pacific at Cheyenne. But to the southwest Missouri railroads had not yet broken their way over the northern border of Arkansas.

The annual report of the St. Louis Merchants' Exchange in 1866 stated the need of St. Louis for connections into Iowa, Nebraska, and Minnesota but recognized that diversion of traffic to St. Louis would not be easy. Even more significant is the recognition that the city lacked rail connections to its own natural, nearby market areas.

> "The extension of this last line (St. Louis and San Diego, via Springfield) from Rolla merely to the southwest corner of Missouri would be an incalculable benefit. The trade of the Northwestern roads may be partially diverted from St. Louis by the construction of rival lines. But the Southwest Branch, by its advantages of situation, will compel all connecting lines to be subsidiary to itself; and its commerce, constantly swelled by the traffic of subsidiary roads, must necessarily flow to St. Louis. The extension of this road would open to settlement vast tracts of valuable land, and, by the impulse of cheap transportation, lead to an extended development of the rich mines of Southwestern Missouri."[2]

The two major and closely related results of railroad construction which affected St. Louis up to 1870 were the loss of steamboat tonnage to railroads and the narrowing of the St. Louis market area as other cities, notably Chicago, built rail lines into territories that the river system had made tributary territories of St. Louis.

The sixties were abnormally affected for St. Louis by the Civil War and the early part of the following decade, although it lies outside our present period, reveals more certainly the effect of rail development on river traffic at St. Louis. Ten years after the close of the war 1,940,545 tons of freight was shipped from St. Louis and 3,896,295 tons were received.[3] Railroads moved sixty-seven percent of the outgoing tonnage and eighty-three percent of the incoming traffic.

Appendices D and E show for 1865 and 1873 St. Louis receipts of over sixty commodities with a breakdown identifying the delivering rail

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[1]Violette ascribes the slowness of Missouri railroad expension between 1860 and 1870 to the Civil War, the unproductive character of the land grants, excessive costs of construction, lack of traffic, and bad financial management. (Violette, E.M., A History of Missouri (1917), pp. 240-242.)

[2]St. Louis Merchants' Exchange, Annual Report of 1866, p. 32.

[3]St. Louis Merchants' Exchange, Annual Report of 1883, pp. 40-41.

carriers or the separate stretches of the Mississippi System on which waterway receipts were originated. The 1865 figures show railroads of material but varying importance in different commodity movements. For example, the St. Louis, Alton & Terre Haute R.R. and the Ohio & Mississippi R.R., brought in all of the 42,268 boxes of cheese shipped into the city. None came by boat. But for oats the railroads (mainly the St. Louis, Alton & Terre Haute) terminated only 19,783 bushels of a total of 295,871 bushels. All the balance, 276,088 bushels came via the Illinois River.

In 1873 the receipts of cheese had increased to 58,771 boxes with all but 2,978 coming in by rail. Oats receipts had grown to 3,358,400 bushels and 433,564 sacks. The major part of the sacked grain moved on the upper Mississippi River but almost all the bulk movement came by rail with the St. Louis, Kansas City & Northern carrying nearly a million and a half bushels and the Missouri Pacific eight hundred thousand.

Appendices F and G show river and rail outgoing shipments from St. Louis by individual commodities for 1865 and 1873 and, while the importance of the river system in shipping particular commodities varies a great deal, there is an even larger diversion from the waterway by 1873 than in the case of receipts. In 1865 the river was still moving out the great bulk of all commodities except for furs and pelts, hides, lard, iron slabs, rags, rye, salt, leaf tobacco, wheat, white lead and wool. With very few exceptions this situation was reversed by 1873 and the railroads were moving larger quantities of most of the individual commodities than the rivers. Exceptions to this division of traffic is to be noted for very few articles. Out of some sixty commodities river tonnage is larger than rail for only apples, ale and beer, bacon, corn, corn meal, hay, oats, onions, ore, pork in barrels, rye, salt, and white lead. For the remaining commodities rail tonnage is in excess, and often far in excess, of river tonnage.

The second effect of railroad construction, the narrowing of the St. Louis trade area, was very obvious. The opening of the Illinois-Michigan Canal in 1848 improved markedly the position of Chicago in a trade territory which that city could properly view as a tributary one but which had nevertheless moved much of its traffic downriver to St. Louis.[1] The railroads merely magnified tremendously the diversion started by the canal to the very material advantage of Chicago.

> "Not Alton, but Chicago - the key to the railroad system of the northwest- was to succeed to the economic leadership of St. Louis. Railroads reinforced the canal and even competed with it for the lighter freights. When the rail connections with Peoria and Rock Island were completed, the process of making the Illinois valley tributary to Chicago was rounded out. The Chicago and Galena diverted from St. Louis and the Mississippi route the lead traffic and the agricultural products of Minnesota, Wisconsin and northern Iowa as well as of northwestern Illinois. The Illinois Central brought forward to Chicago quantities of products from central Illinois, though it carried enough to Cairo to threaten

[1] Thomas, L. E., The Localization of Business Activities in Metropolitan St. Louis (1927), p. 18.

> to build up another rival to St. Louis at the southern extremity of the state. At the beginning of the decade with five-eights of the agricultural trade of St. Louis drawn from Illinois and with Illinoisians taking in return nearly three fourths of the merchandise sold in St. Louis, the Missouri legislature was able to levy a tax of $4.50 on every $1,000 worth of foreign products and merchandise sold in that state and on articles purchased by outsiders; in the closing years St. Louis bent all her energies toward saving what remnants she could from the grasp of Chicago."[1]

River traffic in the best days of the steamboat had made a "natural" St. Louis trade territory out of not only the country west of the Mississippi but also the upper illinois and Mississippi River valleys and the country bordering on the Tennessee and Cumberland Rivers and lying within the northern portion of Arkansas. The slowness of St. Louis business men to move from steamboating days into the new era, the drive of Illinois interests against St. Louis, and the disturbance of the Civil War hurt St. Louis rail development, but in fact, its losses of trade territory would inevitably have been large. The fact which St. Louis was slow to realize was that a large trade area that was "natural" to St. Louis under one transportation system was an obvious tributary area of other cities such as Chicago and Cincinnati under a different transportation scheme.

> "It was also clearly realized, at least by some observers, that this competition between the north-south and the east-west route was to a large extent a competition between marketing centers -- between St. Louis-Cincinnati and Chicago-Milwaukee and between New Orleans and the Atlantic ports."[2]

Railroads strengthened the trade position of these cities in certain areas but they afforded means for one or the other of the cities to change the pattern of "natural" or "tributary" trade areas.[3] As a result, St. Louis found that the "northwest" of the upper Missouri and Mississippi rivers, portions of Illinois, and even sections of northern Missouri were no longer her "own".[4]

The St. Louis Merchants' Exchange reported in 1866 that of fifteen million bushels of wheat shipped from points above Rock Island only one million came to St. Louis.[5] The construction of the Lake Superior and Mississippi Railroad between the Twin Cities and Duluth in 1871 also increased the diversion of upper river traffic from St. Louis to the Great Lakes route.[6]

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[1] Cole, A. C., Era of the Civil War (1919), p. 52.

[2] Hartsough, M. L., From Canoe to Steel Barge on the Upper Mississippi (1934), pp. 197-8.

[3] cf. Horton, L. Y., Analysis of The St. Louis Trade Territory (1935), pp. 16-17;
Violette, E. M., A History of Missouri (1918), pp. 233-4.

[4] Thomas, L. F., The Localization of Business Activities in Metropolitan St. Louis (1927), p. 5;
Lippincott, I., Internal Trade of the United States, (1916), p. 145.

[5] St. Louis Merchants' Exchange, Annual Report of 1866, p. 9.

[6] Hartsough, M. L., From Canoe to Steel Barge on the Upper Mississippi. (1934), pp. 196-7.

In respect to central and southern Illinois traffic, the lack of a bridge at St. Louis undoubtedly diverted some traffic from the city. Ice still interrupted the ferry service from time to time and the charges of the ferry company comprised a handicap of importance for some incoming traffic. Eads estimated that for 1867 freight transportation costs would have been reduced by over a half million dollars and passenger costs by over one hundred thousand dollars if the city had possessed a bridge across the river.[1] And Hubbard in The Older Middle West very graphically shows that the Illinois Central was making a Chicago trade area out of the south which had been so much St. Louis' own in steamboat days.

> "Moreover, the volume of South-going trade was.....much larger than that registered by river traffic. The building of the Illinois Central and the establishment of direct connection between Chicago and the South added still further to this trade. The work on this road began in 1851 in both northern and southern Illinois. This important line gradually brought together isolated counties in southern and central Illinois and put them in touch with the southern market. By its river connections with the southern railroad systems, the Nashville and Chattanooga, Memphis and Charleston, and the Mobile and Ohio, great inland districts of Kentucky, Tennessee, Mississippi and Alabama were made accessible to northern products. The sale of lands along the roads brought settlers, and land sold easily at improved values..... An event of special significance was the completion of the road to Chicago and the bringing of northern Illinois into the scope of this trade area. In November, 1857, the first large consignment of sugar reached Chicago and from that time until the war hundreds of hogsheads of sugar and molasses were received each month, and even large shipments of cotton. Pork, flour, and grain from Chicago and northern Illinois went to the South in increasing quantities. The freight shipments of the Illinois Central railroad increased speedily from 1858 to 1860, this road being one of the first to recover after the crisis of 1857. We shall see that in 1860-1861 the business of the Illinois Central with the south was enormous; at Cairo freight accumulated beyond the power of the railroad and steamship companies to handle it. In March, 1860, the completion of the Mississippi Central Railroad made an unbroken connection between New Orleans and Chicago."[2]

St. Louis had grown to be a wealthy commercial center because of a "break" in the dominant transportation system of the pre-railroad period. But now the "break" was being by-passed so that even the lower river territory was no longer a natural trade area of the city.

The same phenomenon was occurring in the northwest which the Missouri River had tied to St. Louis. When the Chicago, Rock Island and Pacific reached Council Bluffs in 1869 the old St. Louis river artery was cut and the Montana trade in very large volume was diverted to Chicago.[3]

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[1]Eads, James B., Addresses, Letters and Papers (1884), p. 535.

[2]Hubbart, H. C., The Older Middle West, 1840-1880 (1936), pp. 86-87.

[3]Trexler, H. A., Missouri-Montana Highways, Missouri Historical Review, April 1918.

So partly through the slowness of St. Louis enterprise, partly from the handicaps created by the Civil War, and partly through the inevitable redistribution of markets under the new form of transportation, the Metropolis of the West found itself challenged at every turn.

Effects of the Civil War

An appreciation of the economic interdependence existing between St. Louis and the South, built largely on the southern river traffic, makes very clear the paralyzing shock to the trade of St. Louis which the Civil War inflicted.[1] Until the lower river was opened by Union forces in September 1863 the phrase "free navigation of the Mississippi were words to conjure with" in all the territory of the Middle West except for that portion directly tributary to the Great Lakes.[2] The North merely looked at the opening of the river as a valuable military advantage but to St. Louis it was the first requirement for recovery from effects of the war.[3] By 1860 railroads had made heavy inroads into river traffic but a third of the surplus of the upper Mississippi area was still going south. And much of St. Louis budding manufacturers were going south where the best market for the hardwood, machinery, cotton yarn, pipe, shoes, and hemp products of St. Louis was found.[4] It is true that the proportion of the total trade of the upper valley which went south in 1860 was smaller than in 1840 but the actual volume was larger in 1860 than in the earlier year.[5]

St. Louis did enjoy a superficial, wartime boom after the first disruptions of the outbreak of hostilities were ended.[6] Its merchants could not help but gain a profitable trade as the city served as the western supply base for a million troops. From September 1, 1861 to December 31, 1865 the Commissary of the Department of the West spent $230,700,000 in the city for supplies and transportation.[7] But the broad general activities of the city were badly disorganized as commercial activities seemed to fall into the hands of those merchants who were successful in obtaining government contracts.[8]

Various minor benefits came to the city from the war. Eads obtained an early contract to build seven shallow draft, ironclad gunboats and the city became an active boat-building center throughout the war.[9] Pork packing also increased materially to meet army needs so that by the end of the war a number of companies were doing a flourishing business.[10] In the last half of 1861 and the first half of 1862 the city packed 18,789,000 pounds of pork products and in the peak year, 1863-4, 43,783,000 pounds. In 1865-6, however, the wartime boom collapsed with only 25,654,000 pounds being packed.[11] Unfortunately for St. Louis, Chicago had been making

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[1]Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p. 367.
[2]Rhodes, J. F., History of the United States (1920), Vol. IV, p. 299.
[3]cf. Hubbart, H. C., The Older Middle West, 1840-1880 (1936), pp.157 ff.
[4]Ibid., pp. 80-81.
[5]cf. Fiske, John, The Mississippi Valley in the Civil War, (1900).
[6]Hubbart, H.C., The Older Middle West, 1840-1880 (1936), pp. 220-21.
[7]W.P.A. Writers Program, Missouri (1941), p. 81;
Richard, Brenda E., St. Louis During the Civil War (1934), p. 145.
[8]cf. Reedy, W.M., St. Louis, The Future Great in L.P.Powell's Historic Towns of the Western States (1901).
[9]Shoemaker, F. C., Missouri, Day by Day (1942), p. 249.
Richard, Brenda E., St. Louis During the Civil War (1934), p. 140.
[10]Stevens, Walter B., St. Louis The Fourth City 1764-1909(1909), p. 638.
[11]St. Louis Merchants' Exchange, Annual Report of 1866, p. 63.

gains during the war which were far larger than those of St. Louis and in the long run less dependent on wartime boom conditions.

> "Progress in hog packing was centered chiefly in Chicago. The industry here had been progressing slowly for almost 30 years, when suddenly as the result of the unusual transportation conditions arising out of the closing of the Mississippi River the yearly output rose from 270,000 hogs in 1860, the largest number packed in any one year before the war, to 900,000, and one-third of the whole packing business of the West was gathered at one center; in the revolution St. Louis, Louisville, and Cincinnati as pork-packing centers were left far behind, the last named city losing forever to its rival on the Lakes the proud title 'Porkopolis of the West'."[1]

Tobacco manufacture in the city made some gains as the conflict disorganized labor conditions in the rural districts of Missouri. In 1865 virtually all the tobacco raised in the state came to St. Louis for manufacture or reshipment.[2] However, in general the city probably lost more than it gained in that the troubles of the Missouri industry resulted in gains for eastern tobacco cultivation, mainly in the Connecticut Valley.[3] Somewhat counteracting this advantage given to the east was the impetus given to the St. Louis shoe industry by the war. The loss of skilled labor in the East and the large needs of the army for shoes resulted in help to the shoe industries of Chicago, Detroit, and St. Louis. The government laboratories in St. Louis for the manufacture of drugs also helped locate an important element of that industry in the city.

An appraisal of St. Louis and her situation in 1866, made by the secretary of the St. Louis Merchants' Exchange, does not find much in the way of offsetting advantages to the general disruption of the war.

> "When we consider the difficulties which have hampered the trade of our city during the war, and the disadvantages under which we have labored, the record of our business may be considered as satisfactory as could be expected. Cut off from the Southern trade, which had always sought a market in St. Louis; the trade of the North West diverted to other cities on account of the disturbed state of our affairs; the trade of our own state completely prostrated; it is not to be wondered at that the commercial interests of our city suffered deeply."[4]

One of the two outstanding sources of loss to St. Louis from the war unquestionably came from the retardation of railroad construction, particularly in Missouri and the states lying to the south. An earlier section has shown that St. Louis capital was slow to move into railroad investment and the war blocked development for five years at a very crucial time. And at the same time, it sharply aided the development of the network tied into Chicago.

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[1] Fite, E. D., Social and Industrial Conditions in the North During the Civil War (1910), p. 78.

[2] St. Louis Merchants' Exchange, Annual Report of 1865, p. 65.

[3] cf. Fite, E. D., Social and Industrial Conditions in the North During the Civil War (1910), p. 3.

[4] St. Louis Merchants' Exchange, Annual Report of 1865, (George H. Morgan, Secretary), (1866), p. 5.

Furthermore, the Chicago-New York route became the dominant east-west route during the war and along with Chicago's dominance of the Iowa rail network constituted a severe handicap to Baltimore, Cincinnati and St. Louis who were "too near the seat of the war to share in the growing trade".[1]

The second major source of injury wrought by the war was the wrecking of the economy of the south. St. Louis merchants had been slow to seize business opportunities in the states north of Missouri, largely because of preoccupation with the southward-moving river trade. The economic ties of the city were firmly fixed in the south and change was difficult. The need for finding new markets was obvious in the decade after the war. A measure of the shift in the potentialties to be found in northern and southern markets can be seen in the cash value of farms for 1860 and 1870 in Tennessee, Arkansas, Mississippi and Louisiana and in four northern states - Iowa, Minnesota, Wisconsin and Illinois.[2] In the four southern states this dollar value was 758 millions in 1860 and 408 millions in 1870 - a decrease of forty-six percent. In the four northern states the value was 687 millions in 1860 and 1711 millions in 1870 - an increase of 250 percent.

[1]Fite, E. D., Social and Industrial Conditions in the North During the Civil War (1910), pp. 47-8.

[2]U. S. Census, Agriculture in the United States in 1860, p. 184.

PART II

Commercial and Industrial Development 1870-1910

Growth of the City and Its Population

By 1875 the city is showing many evidences of the new era. Steamboats still bustled about the water front but a sign of new times on the river is apparent in the many large barges tied up along the levee. And even more significant of the changing times are the tracks of the several railroads. The St. Louis, Kansas City & Northern came in along the shore from the north and at Biddle Street, as the tracks entered the town, ran a switching track into one of the outstanding industrial plants of the north side, the St. Louis Grain Elevator.[1] The railroad obviously met a competitor here in the movement of grain for the plant was built partly out over the river so as to provide loading facilities for river barges. A few blocks north of the elevator could be seen the four tall chimneys of the St. Louis Refining Company, a further sign of another phase of the new days.

At Washington Street the rail tracks turned into their terminal and also continued on down the inner side of the levee past warehouses, mercantile offices and shops, to go under Eads Bridge and on to the South Levee to the Iron Mountain Railroad terminal. Within a few blocks of this depot could be seen the plants of the St. Louis Iron and Machine Works, Mulhall Packing Company, the Southern Oil and Color Company, the Southern Boiler and Sheet Iron Works, the Empire Stove Company, and other industrial plants typical of the developing industry of the city. Along the tracks of the Iron Mountain, running south along the river shore could be seen similar establishments and as the town began to thin out on its southern edge, the three large buildings of the St. Louis Cotton Compress Company stood out clearly. As was the case with the St. Louis Grain Elevator, this plant was served not only by the railroad but by steamboats and barges on the river.

The major rail terminals of the city lay between 7th and 12th Streets near the center of town between Chouteau and Market Streets. Here were the freight depots of the Atlantic and Pacific, the Missouri Pacific, and the Missouri, Kansas & Texas. Around these terminals were a number of industrial companies, the Central Elevator Company, the mills of the St. Louis Bagging Company, the Pacific Iron Works, the Fritz and Wainright Brewery, the tobacco warehouse of Evans Brothers, and other plants of similar type.

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[1]Description of the city from Pictorial St. Louis by Camille N. Dry (1876)

In terms of its present appearance, the commercial and residential sections of the city in 1875 still seemed to cling close to the river. In that year the corporate boundaries of the city were set at their present limits when the legislature of the state separated city and county government. The city had built out far beyond 9th Street where the western edge of building had been found in 1840 but it still was only built up about half way out to its western corporate limits. A resident could take the horse cars out Easton Avenue and on west past Grand, or if he chose, north along Grand, but he would find only in a few places any consistently built up sections in that area. In general, scattered farm homes or rather pretentious estates dotted the west side beyond Grand Avenue.

In 1875 the city proper housed a population in the neighborhood of 300,000 and increased its building steadily as population was more than doubled by 1910. The separation of the city from the county, effective in 1876, draws attention to the question of accrediting to St. Louis the population of not only the city proper but of sections which may properly be considered the metropolitan area or the industrial area of St. Louis. The following table shows a total for the "St. Louis Industrial District" consisting of the City and St. Louis County, and Madison and St. Clair Counties in Illinois. For the years 1930 and 1940 only, the U. S. Census reported a population figure for the "St. Louis Metropolitan District" which consisted of a portion of St. Clair, Madison and Monroe Counties in Illinois and a portion of St. Charles County and all of St. Louis City and County in Missouri. The population reported for this Metropolitan District in 1930 and 1940 was within five percent of the figure for the St. Louis Industrial Area arrived at as described above and as shown in the following table, therefore the figures for the St. Louis Industrial District may be taken as a satisfactory approximation of the St. Louis Metropolitan population from 1870 to 1910.

Year	St.Louis City (Mo.)	St.Louis County, (Mo.)	Madison County, (Ill.)	St.Clair County, (Ill.)	Total: St.Louis Industrial District
1870[a]	236,671	30,605	44,131	51,068	362,475
1880	350,518	31,888	50,126	61,806	494,338
1890	451,770	36,307	51,535	66,571	606,183
1900	575,238	50,040	64,694	86,685	776,657
1910	687,029	82,417	89,847	119,870	979,163

[a]Estimated: See Appendix K; other figures from U. S. Census.

As has been previously stated there was admitted falsification of the Census returns for 1870 and as a result the figure of 351,189 reported for St. Louis County (including the city), is a considerable overstatement. Best estimates of the correct figures for city and county have placed them at two-fifths of the way between the 1860 and the 1880 figures.[1]

It is apparent in the foregoing figures that the city proper was of increasing importance in the total Industrial District population until 1890 when it steadily lost ground. In that year it made up eighty-eight percent of the total and in the two succeeding decennial censuses seventy-two

[1]cf., Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p. 989.

and sixty-eight percent respectively. Relative importance after 1890 was largely gained by St. Louis County which increased its percentage of the total from 5.8 to 8.2. The two Illinois counties between 1900 and 1910 increased their combined percentage importance from 19 to 21 percent.

In the decades following 1880 the population of St. Louis City and the St. Louis Industrial Area both grew somewhat faster than the national total. And among the cities dependent on the river transportation of the Mississippi System in the period before 1870 St. Louis shows a relatively favorable growth. The following table shows the population of the country as a whole increasing by eighty-three percent from 1880 to 1910 with St. Louis City population increasing ninety-six percent and the Industrial District ninety-eight percent.

Population Growth by Decades 1880-1910
(in thousands)

Location	1880	1890	Ratio of 1890 to 1880	1900	Ratio of 1900 to 1880	1910	Ratio of 1910 to 1880	Amount of Increase 1880 to 1910
St. Louis City	351	452	129	575	164	687	196	337
St. Louis Industrial District	494	606	123	777	157	979	198	485
Chicago	503	1,100	219	1,699	338	2,185	434	1,682
Chicago Industrial District	663	1,263	190	1,939	292	2,577	389	1,914
Cincinnati	255	297	116	326	128	364	143	108
Kansas City[a]	59	171	290	215	365	331	561	272
Louisville	124	161	130	205	165	224	181	100
Memphis	34	64	192	102	304	131	386	98
New Orleans	216	242	112	287	133	339	157	123
Minneapolis	47	165	351	203	432	301	643	255
Omaha	31	140	460	103	336	124	407	94
United States	50,156	62,948	126	75,995	152	91,972	183	41,816

[a]Includes Kansas City in Missouri and in Kansas.

Source: U. S. Census: for make-up of St. Louis and Chicago Industrial Areas see Appendix K.

Minneapolis, Kansas City, Chicago, and Memphis show very large percentage increases in 1910 relative to 1880. However, except for Chicago, the absolute amount of increase is much smaller than for St. Louis, the large percentage increases being due to small populations in the base year. St. Louis City has its growth spread rather evenly over these thirty years with an accretion of 100,000 to 125,000 in each decade. The same feature is also apparent in the data for most of the other cities although irregularities are apparent for certain decades in Cincinnati, Minneapolis, Kansas City, and Omaha. The St. Louis Industrial District also shows some uneveness in growth increasing approximately 112,000 in the eighties, 70,000 in the nineties and 203,000 in the last decade of this period.

Rail and River, 1870-1910

In 1870, the states west of the Mississippi River including even Missouri had made relatively small headway with the building of a railway network. In the area of the Mississippi Valley, Illinois was very definitely in the lead with a state mileage well over double that of Missouri and with directly supplementary mileage of very considerable extent in Iowa, Wisconsin, and Minnesota.

St. Louis enjoyed comparatively satisfactory rail connections with eastern manufacturing areas but waited until the eighties or nineties for a "feeder" system of railroads in Missouri, Arkansas, Oklahoma and Texas. To the north the feeder roads existed but they were oriented toward Chicago, and in the South, in the area east of the Mississippi, the Illinois Central was an early and powerful influence tying that area to Chicago. As a result, southern Missouri and the states directly to the south which were favorable areas for St. Louis trade had obtained only two through rail routes and virtually no network of feeder lines by 1880.[1] And this situation had not materially improved by 1890. The western half of Kansas and southeastern quarter of Nebraska, however, were very favorably developed and St. Louis connections into these areas were good.

Statistics on railway mileage show a considerable relative lag in construction in a number of the southwestern states in which St. Louis commercial interests might hope to find favorable markets.

Railroad Mileage of Selected States

State	1870	1880	1890	1900	1910
N. & S. Dakota	65	1,225	4,427	5,581	8,149
Minnesota	1,092	3,151	5,466	6,943	8,669
Wisconsin	1,525	3,155	5,584	6,531	7,475
Nebraska	705	1,953	5,295	5,685	6,067
Iowa	2,683	5,400	8,356	9,185	9,755
Illinois	4,823	7,851	10,214	11,003	11,878
Kansas	1,501	3,400	8,806	8,719	9,007
Missouri	2,000	3,965	6,004	6,875	8,083
Oklahoma	0	289	1,214	2,151	5,980
Arkansas	256	859	2,196	3,360	5,306
Texas	711	3,244	8,613	9,886	14,282
Louisiana	450	652	1,759	2,824	5,554
Mountain States	1,466	5,082	12,676	15,808	22,956
Pacific Coast States	1,084	2,992	7,567	10,389	14,932

Source: U.S.Dept. of Commerce, Statistical Abstract of the United States (1943), p. 451

[1]See Appendix L for outline maps showing approximate railroad lines in 1870, 1880, 1890.

Comparison of the 1890 and 1910 mileages reveals the relative slowness of development in some of the states. By 1890, Kansas, Illinois, Iowa, and Nebraska had over eighty-five percent of their 1910 mileage while Missouri had only seventy-four percent and Arkansas, Louisiana, Oklahoma, and Texas between twenty and sixty percent of their respective 1910 mileages.

In the ten years from 1874 to 1883 railroads west of the Mississippi handled well under one half of the total rail tonnage handled at St. Louis. Of a total of 4,396,000 tons in 1874 the lines west of the river handled only thirty-seven percent.[1] However, ten years later the western lines had steadily improved their relative place and are handling forty-six percent, thus bearing evidence to the related settlement of the territory and construction of rail lines. And later when the rail network was filled out in the Southwest the importance of the area to St. Louis reflects the handicap which the city suffered in these earlier years. Walter B. Stevens who stands along with Scharf as the leading historian of St. Louis economic affairs fully appreciated the significance to the city of the railroad building of the later period.

> "In 1903, out of a total of over 5,000 miles of railroad constructed in the United States, 2,302 miles were built in the Southwest; that is, in the states of Missouri, Arkansas, Louisiana, Oklahoma, Indian Territory and Texas. In 1904 the total railroad building in the United States amounted to 3,822.26 miles; in 1905 to 4,358.2 miles, and in 1906 to 5,623 miles, of which in each year, at least 40 percent was in the states above named. About the same percentage of mileage is being constructed in the southwest now. In all of this development St. Louis capital has been heavily interested.
>
> As an indication of the volume of business St. Louis has with the southwest, the following figures are instructive: the total number of tons of freight shipped out of St. Louis in 1907 was 18,574,916; of this, 10,537,291 tons, or 57 percent was for the southwest. The total number of tons of freight shipped in to St. Louis the same year was 29,445,669; of this, 15,146,725 tons, or 51 percent, was from the Southwest."[2]

While rail transportation was developing its extensive facilities throughout the forty years of this period the channel conditions of the Mississippi River System were improved but few fundamental improvements were made. Eads' work in the mouth of the passes removed a very serious handicap to river commerce and some important improvements in channel depths were made on all the sections of the System except on the Missouri for which lavish public expenditures were started after 1910. On the Illinois River from the mouth to just below Peoria early state projects had struggled with only partial success to maintain a four foot channel. A Federal project of 1879 provided for a seven foot channel but although several locks and dams were in operation in the nineties, the work was still not completed by 1910 so that at extreme low water four and one half feet was the maximum for through traffic. This, however, was a considerable improvement over the earlier years when only the smallest flatboats could use the river in the dry seasons. On the upper stretch of the Illinois the first appropriation aiming at a seven foot channel was made in 1907.

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[1] St.Louis Merchants' Exchange, Annual Report of 1883, p. 38.

[2] Stevens, Walter B., St.Louis, The Fourth City, 1764-1909 (1909) pp. 694-5.

On the Upper Mississippi between St. Louis and Minneapolis-St. Paul, the first project came in 1879 and was carried on steadily so that by 1911 the expenditure of something over twelve million dollars was maintaining a channel of four and one half feet at low water. Between St. Louis and Cairo, in the stretch which had offered so many obstacles to transportation in earlier days, the Federal Government began work in 1872 to maintain a channel with a minimum depth of eight feet. By 1911 over twelve millions had been expended and the project depth was rather generally maintained. Below Cairo the hazards on the river had been less serious in the pre-Civil War years but improvements aiming at a nine foot channel were approved by Congress in 1905 and 1907.

The Missouri continued to be the poor transportation means that it had been before 1870. The report of the Chief of Engineers in 1911 records little or no improvement in the channel and not even any complete solution of the old "snag" problem.

> "The original condition of the river was, and to a great extent the present condition is, one of alternate pools and bars. The low water depth over bars is about 3 feet. -----The river is also encumbered with snags, which, however, are getting fewer due to constant snagging operations. No project for improvement of the river as a whole has been adopted."[1]

Lavish expenditures were to be poured into the Missouri in later years but it is apparent that Missouri communities had no very valuable transportation means in the river.

On the thousand miles of the Ohio, river improvements had been started by the Federal Government as early as 1827. Locks and dams were constructed to provide passage around the worst of the shallows and dredging and snagging operations went on intermittently. The total expenditure from 1827 to 1911, however, stood at, by present day standards, the very modest figure of $6,503,000.[2] The combined tonnage handled by the east and west railroads made up the bulk of the city's tonnage as river traffic passed further and further beyond its best days. For freight received at St. Louis, the railroad percentage of the total increased year by year from eighty-one percent in 1874 to ninety-two percent in 1883. However, the total actual receipts by river declined little or none. The river merely failed to grow with the marked growth of receipts at the port. In 1874 the rail carriers brought in 3,165,093 tons and river carriers 736,765. Ten years later, the rail tonnage had more than doubled to 6,940,723 tons while river tonnage was 629,225 without the inclusion of 231,285 tons of lumber, logs and shingles moving by raft.[3]

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[1]Chief of Engineers, U. S. Army, Annual Report of 1911, Part I, p. 689.

[2]Ibid, p. 733

[3]St.Louis Merchants' Exchange, Annual Report of 1883, p. 40.

By the end of the period under consideration, the river traffic terminating in the city was down to 300,000 tons, less than half the volume typical of the seventies and eighties. And rail terminations were nearly four times greater than in 1883.[1]

In handling outgoing traffic the river was slightly more valuable to the city in the early years of the period. However, shipments by river dropped sharply in percentage importance though holding to about the same tonnage. Outgoing shipments by barge and steamboat aggregated 707,325 tons in 1874, thirty-six percent of total outgoing tonnage. By 1883 these figures were 677,340 tons and sixteen percent, providing evidence that St. Louis was finding less and less contribution to her growth from river transportation. By the end of the period shipments out of the city by river had about disappeared. The average annual shipments for 1906-1908 were only 80,000 tons while rail shipments were over 17,250,000 tons.[1]

The major products moving out by river were white lead, lard, meat, hams, barbed wire and ale and beer.[2] Downriver boats took the bulk of the meat and hams with some considerable quantity also going to Tennessee River points.

Nearly half the barbed wire was also shipped to downriver points, but important portions of the total went to the Upper Mississippi, and to Illinois and Missouri River destinations. Out of a total of 1100 tons of white lead 650 tons went out on Upper Mississippi boats, 360 tons went downriver and 50 tons to Illinois River points. Downriver boats also took out 76,000 pounds of tobacco with almost all the remainder, 1900 pounds, going to Upper Mississippi destinations.

In respect to both receipts and shipments all of the component parts of the Mississippi River System except the Ohio River declined in importance in carrying traffic to St. Louis. The following table showing receipts in 1908 reveals that with one exception the various sections of the river system had declined to virtual insignificance. The Ohio, however, started a largertonnage toward St. Louis in 1908 than in 1883. Coal traffic accounts for much of this tonnage.

Tons Received and Shipped by River 1883 - 1908

Waterway	Tons Received		Tons Shipped	
	1883	1908	1883	1908
Upper Mississippi	126,330[a]	19,245	60,020	27,280
Lower Mississippi	202,210	70,165	535,330	30,285
Illinois River	94,205	9,475	4,715	5,900
Missouri River	33,770[b]	4,365	18,990	5,320
Ohio River	155,095	185,100	55,920	3,955
Cumberland and Tennessee Rivers	17,615	4,830	510	
Ouachita	-	-	1,855	-
Total	629,225	293,180	677,340	72,740

[a]Does not include 228,950 tons by raft.

[b]Does not include 2,335 tons by raft.

Source: St. Louis Merchants' Exchange Annual Reports of 1883 at p. 48 and 1908 at pp. 92-3.

[1]St.Louis Merchants' Exchange, Annual Report of 1908, p. 93.

[2]Ibid., p. 103.

The decline in shipments is very marked for all sections of the river system but the drop of the Lower Mississippi tonnage from 535,000 to 30,000 is particularly striking since St. Louis had found in the earlier decades, and still hoped to find, an important traffic artery down the valley to eastern and foreign markets. Not only railroad lines paralleling the river but high terminal expenses, heavy insurance costs, and uncertainties of river navigation account for the failure of the river.[1]

Tonnage on the Upper Mississippi was falling off rapidly in the last part of the century but the number of steamers moving between St. Louis and Illinois River ports increased from nine in 1886 to fourteen in 1899. Many of these, however, carried no cargo but served as towboats for barges. And they were unable to maintain the Illinois River tonnage. From 1881 to 1891, St. Louis receipts from the Illinois River dropped from 160,555 tons to 31,190.[2] The largest part of the decline was in the movement of flour and grain. In respect to wheat and flour St. Louis and the River unquestionably suffered from the shift in the center of wheat production to the northwest with the resulting decline of Peoria as a milling center. Corn traffic, however, virtually ceased to move to St. Louis by river and this loss can only be attributed to diversion to railroads. Livestock and meat traffic also left the River as Peoria declined as a livestock center and refrigerator cars were made available for fresh meat traffic. Other commodities, important in the seventies, which contributed to the disappearance of Upper River traffic were salt, coal, hay, lumber, butter and cheese.

On the Missouri River little more than experimental trips were being operated.[3] The secretary of the Merchants' Exchange is noting as early as 1878 that Kansas and Nebraska grain goes to "markets north and east of us".[4] He notes that low water on the Mississippi diverted much of the western crop that might otherwise have come to St. Louis but the failure of the Missouri River to provide a usable transportation facility to St. Louis created an original diversion to rail carriers that inevitably reduced lower river tonnage. Chittenden declared that by 1880 Missouri River navigation was "dead beyond the hope of resurrection, at least within another century."[5]

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[1] Quick, H., American Inland Waterways (1929), p. 123.

[2] State of Illinois, The Centennial History of Illinois (1918-20), Vol. IV, p. 346.

[3] Cf. Improvements of the Missouri River, Annals of the American Academy of Political and Social Science, Vol. 31 (1908), pp. 182-3.

[4] St. Louis Merchants' Exchange, Annual Report of 1878, p. 14

[5] Chittenden, H. M., History of Early Steamboat Navigation on the Missouri River (1903), p. 423.

Commerce and Industry, 1870-1910

Though it was handicapped by the slowness of rail construction in Missouri, Oklahoma, Arkansas, Texas and New Mexico, St. Louis rather rapidly re-established itself in its western and southwestern trade area as decline in the importance of river transport constricted its trade area to the north. From 1873 to 1883 the western trade by rail gained about forty percent with eastern traffic increasing by smaller amounts and river traffic showing no gains or actual declines.[1]

By the end of this ten year period the Missouri Pacific or Southwest System was organized[2] consisting of a great trunk-line network of 9,757 miles through the Southwest. This road was the most important channel of trade for St. Louis bringing in forty-three percent of the city's railroad receipts and carrying out fifty-four percent of rail shipments for a total of nearly five million tons. To show that "end-to-end" computations were commonplace for his day and could lead to some strange descriptions, the secretary of the Merchants' Exchange figured that "were these cars made into a train from San Francisco via El Paso, the locomotive would be 200 miles east of St. Louis before the caboose left its starting point".[3]

As late as 1903 it is evident St. Louis still had one major trade concern - the Southwest. The commercial interests of the city had their official publication in the Annual Reports of the Merchants' Exchange and for 1903 this publication expressed very definite satisfaction in the building up of rail mileage in the Southwest:

> "There were more miles of railroad constructed the last year than in 1902 and out of over 5,000 miles built in the U.S. in 1903, over 2,000 miles were constructed in the Southwest. The preliminary report shows the construction in this territory to have been as follows:
>
> | | |
> |---|---|
> | Arkansas | 263 Miles |
> | Indian Territory | 319 " |
> | Louisiana | 446 " |
> | Missouri | 250 " |
> | Oklahoma | 653 " |
> | Texas | 371 " |
> | Total | 2,302 Miles |

[1] St. Louis Merchants' Exchange, Annual Report of 1883, pp. 34-5

[2] The System was comprised of the parent road and its branches and the Wabash; St. Louis & Pacific; St. Louis Iron Mountain & Southern; Texas & Pacific; International-Great Northern; Missouri, Kansas and Texas; Central Branch Union Pacific; Galveston, Houston & Henderson; and the various branches of these roads.

[3] St. Louis Merchants' Exchange, Annual Report of 1883, p. 31

> These new lines are of special importance to this city as they add to the wealth and business influence of St. Louis and open up new country for development, which is practically all tributary to this market. Some of these new roads are of special importance to St. Louis, as the new line of the Frisco, down the west bank of the Mississippi River, opening a new route to Southeastern Missouri, Memphis and the Southwest."[1]

The make-up of the commerce of St. Louis shows no fundamental change throughout this whole period from the Civil War to 1910. Near the turn of the century the leading articles in the trade of the city are grain and cattle, flour, drygoods, groceries, boots and shoes, tobacco, hardware, beer, and a number of articles which were also the backbone of the pre-Civil War commerce. As St. Louis manufacture developed and as the national industrial pattern changed and brought new materials and products to the fore, St. Louis commercial houses inevitably added new products to their sales lists but the changes were not revolutionary. The city kept the old fundamental characteristics of an important commercial entrepot in the great agricultural area of the Middle West and Southwest.

The Merchants' Exchange in 1883 presented one of its occasional reports on "Business in Leading Articles" and with few exceptions the items might have been those appearing in a similar list before the Civil War.[2]

Three reports on the volume and money value of leading articles for three years around the turn of the century show the continuance of this same basic similarity.

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[1]St. Louis Merchants' Exchange, Annual Report of 1903, p. 92.

[2]St. Louis Merchants' Exchange, Annual Report of 1888, p. 20.

St. Louis Commerce in Leading Articles

	1898	1903	1908
Tobacco, manufactured (lbs.)	61,255,250	80,875,428	72,759,588
Grain receipts (bu.)	54,273,212	68,894,986	70,967,740
Flour manufactured (bbls.)	1,054,875	1,112,316	965,832
Flour received (bbls.)	(unreported)	2,840,695	2,763,700
Lead received (80# pigs)	2,183,012	2,407,605	1,998,370
Cattle received (number)	795,611	1,209,121	1,293,564
Hogs received (number)	2,136,328	1,785,873	3,199,922
Sheep received (number)	477,091	565,836	724,781
Cotton receipts (bales)	986,193	577,582	675,842
Coal received (tons)	(unreported)	6,534,785	7,365,091

Money Value of Sales

Groceries and related lines	$55,000,000	$78,000,000	$70,000,000
Dry goods and notions	55,000,000	50,000,000	65,000,000
Boots and shoes	36,000,000	45,000,000	53,000,000
Lumber	10,000,000	(unreported)	47,000,000
Tobacco and cigars	40,000,000	36,000,000	45,000,000
Hardware, shelf and heavy	20,000,000	35,000,000	37,000,000
Furniture & related lines	22,500,000	25,000,000	27,700,000
Beer	20,000,000	17,000,000	22,361,640
Drugs and chemicals	27,000,000	21,500,000	19,000,000
Steel castings, machine shop and foundry products	(unreported)	5,000,000	18,500,000
Woodenware	7,500,000	12,000,000	18,000,000
Vehicles and implements	15,000,000	21,500,000	16,000,000
Railway supplies	(unreported)	25,000,000	15,000,000
Paints, oils and white lead	5,000,000	10,000,000	12,000,000
Hides	(unreported)	11,000,000	11,500,000
Electric supplies	(unreported)	7,000,000	10,000,000
Railroad & street cars (mfr.)	(unreported)	15,000,000	9,000,000
Paper, stationery & envelopes	(unreported)	6,950,000	9,000,000
Soap and candles	(unreported)	(unreported)	9,000,000
Furs	(unreported)	5,000,000	7,500,000
Plumbers' supplies	(unreported)	3,000,000	7,500,000

Source: St. Louis Merchants' Exchange, Annual Reports of 1898, 1903 and 1908.

The list presented in the 1898 report is a very limited one and the lack of figures on a number of items is probably due in most cases to this fact and not to the absence of an important sales volume. In addition to the above articles there are, in 1903, for example, sales

ranging between two and seven millions in such articles as millinery, confectionery, stoves and ranges, saddlery and harness, hats and caps, window and plate glass, tin and enameled ware, bakery products, glass and queensware, dry plates, carpets and wool.

Only a few new items of importance appear among these leading articles. Sales in 1908 ranging between nine and fifteen millions for railway supplies, steam railroad and street railway cars, and electric supplies, reflect the very considerable development of St. Louis activity in lines of commercial activity that developed largely after the Civil War. However, the bulk of the items are old in the roster of St. Louis commercial activity although they have been tremendously enlarged.

The grocery trade with its sales of seventy million in 1908 had its origin with the beginning of Laclede's Settlement. By the forties the offices and warehouses of wholesale grocers and jobbers were everywhere apparent along the waterfront streets. Even in its small beginnings as a business supply industry for the fur traders and the small lumbering and mining communities of the West the grocery trade was the backbone of the commercial life of the city. And its volume of sales in the later years of this period place it in the forefront of the city's commerce and gives St. Louis a leading role among the nation's wholesale grocery centers. By 1882 the trade of the city was larger than that of any other city in the country except New York. Thirty general wholesale houses were handling thirty million dollars of sales in a great variety of food products and their sales were supplemented by the business done by a number of specialty houses handling, in some cases, only an individual commodity.[1] The wholesale merchandising of tea, for instance, was revolutionized as five or six firms came to make tea their whole stock in trade, employing their own tasters and sorters and importing their tea supplies direct. The same specialization was later in coming to coffee merchandising although St. Louis continued to hold its place as the largest interior coffee market in the world. Its shipments in 1882 were twenty-five percent greater than those of Chicago, Cincinnati or New Orleans[2] and the city was receiving "about one-eighth of the entire Rio crop".[3] By 1903 the immense roasting plants of the city challenged the lead of even New York as a coffee market. Trainloads of Brazilian coffee were arriving at St. Louis loaded from shipboard at New Orleans. In addition to its roasted products the city became an outstanding jobbing center for green coffees selling these products over an even larger area than that covered by general grocery sales.[4]

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[1]S. F. Howe and Co. (ed), Yearbook of the Commercial, Banking and Manufacturing Interests of St. Louis (1882-3), pp. 104, 163.

[2]S. F. Howe and Co. (ed.), Yearbook of the Commercial, Banking and Manufacturing Interests of St. Louis, (1882-3), p. 163.

[3]Overstoltz, Henry, The City of St. Louis: Its History, Growth and Industries (1880), p. 25.

[4]cf., St. Louis Merchants' Exchange, Annual Report of 1903, p. 64.

Sugar, bread and crackers, butter and cheese, fruits and vegetables, and a great variety of items were also important in the wholesale trade of the city and contributed to the healthy growth of the city's grocery trade. Butter was brought in mainly from Illinois, Wisconsin and Iowa in refrigerator cars and stored in the refrigerated warehouses of the city wholesalers from whence it was sold over a wide area in the Southwest stretching from New Orleans across to New Mexico with some shipments going to California. Cheese also came mainly from the same sources, very little coming from Missouri, and was distributed over the same trade area. Near the turn of the century the St. Louis butter trade was challenged by the rising popularity of oleomargarine and butter sales declined somewhat as wholesalers, possibly rather belatedly, were "now compelled to handle 'oleo' as their trade demands it".[1]

In the eighties and nineties the city added materially to its trade as it became a general market for both home grown and foreign fruits and vegetables. Its location is advantageous for jobbing the early fruits and green vegetables of Arkansas and Texas and its produce merchants have also become important in the marketing of fruits, vegetables and nuts from Tennessee, Mississippi, Georgia, Alabama and Florida.[2] In the handling of pecans and peanuts St. Louis in 1898 claimed the position as the leading market in the world so dominating domestic jobbing of these products that shipments distributed from St. Louis to Richmond and other Virginia points passed through districts in which the nuts were grown. The major sales, however, were made to Milwaukee, Minneapolis, Salt Lake City, San Francisco with some going even to New York City.

This varied grocery and produce trade developed and gave healthy support to a variety of food industries in the city. The leading ones and the healthy growth they enjoyed are shown in the following Census figures on value of manufactures.

	1880	1909	
Bread and bakery products	$ 2,575,350	$ 8,623,641	
Confectionery and ice cream	1,158,185	3,848,422	
Coffee and spices	568,000	9,513,595	
Soap and candles	1,607,341	3,437,735	(1900)[a]
Canned and preserved products	906,850	992,000	
Other food preparations	30,840	4,454,774	
Total	$ 6,846,766	$27,432,432	

[a]Not reported separately for 1909; this figure not included in total for 1909.

Source: U. S. Census of Manufactures for 1880 and 1910.

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[1]St.Louis Merchants' Exchange, Annual Report of 1893, pp. 218-19.

[2]cf. St. Louis Merchants' Exchange, Annual Report of 1908, p. 259.

The importance of St. Louis in coffee manufacture is reflected in the nine million dollar value reported for coffee and spices in 1909 - an item that grew tremendously after 1880. The rise of the city as a candy manufacturing center has also been a very substantial one. By 1890, for better grades of confectionery it was an outstanding center with a trade extending "to the east as far as Ohio, to Minnesota on the north, and to the extremities of the south, southwest and west".[1] In 1888 three companies sold over fifteen million pounds of candy over this territory. And the trebling of the value of candy manufactured in the city from 1880 to 1909 reveals a continued expansion of large manufacturers and distributors.

A great variety of food products are to be found in the unclassified general grouping of the Census. The wide sales territory developed by many specialty lines is well illustrated by the rise of the Dodson-Hils Manufacturing Company. Starting in 1881 this company produced a variety of food products such as catsups, mustard, spices, baking powder, flavoring extracts and syrups and honey which inside of ten years it was marketing in thirty-eight states and also in South America.[2]

During this whole period a continued expansion of the market of St. Louis Wholesalers and jobbers is apparent in reports of the St. Louis Merchants' Exchange. However, severe competition is reported in what is considered the city's natural trade area, the Southwest.

> "These heavy sales of groceries from St. Louis are in the face of the keenest possible competition, a competition that is not felt in any other line of manufacturing or jobbing. This competition is from the large number of jobbing houses that are located in the smaller towns of the Mississippi Valley. Thus we find well equipped wholesale grocery houses at Joplin and Springfield and Carthage, Missouri, in nearby Illinois towns as Cairo, and through Arkansas. This is all direct St. Louis territory and to maintain their prestige there, the St. Louis jobbers are obliged to keep their profits down to the minimum and St. Louis is thus made the lowest priced wholesale grocery market in the U. S."[3]

Sections of Illinois, Iowa and Nebraska might seem to be as favorable a trade area for St. Louis food products as the Southwest but merchants of the city maintained few salesmen in the territory and apparently allowed the trade to go by default to local jobbers and Chicago firms.[4]

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[1] St. Louis Merchants' Exchange, Annual Report of 1888, p. 38.

[2] cf., Kargau, Ernest D., St. Louis in Fruheren Jahren (1893), pp. 428-30.

[3] St. Louis Merchants' Exchange, Annual Report of 1903, p. 63.

[4] Osgood, C. N., Some Phases of the Commercial Development of St. Louis (1892), p. 10.

Another of the large items in the commerce of the city, the grain trade, started as soon as early farming in nearby Missouri and Illinois developed small surpluses. After the Civil War and on to the present, the large volumes of grain gathered into city elevators and milled or shipped on to domestic and export markets have made St. Louis one of the important grain centers of the country. Wheat and corn have comprised the bulk of outgoing shipments through the whole period with oats increasing markedly in importance after 1900.

Average Annual Grain Shipments From St. Louis
(in thousands of bushels)

Year	Wheat	Corn	Oats	Rye	Barley
1870-74	6,880	5,119	3,068	152	115
1875-79	11,067	8,051	2,062	404	213
1880-84	17,282	14,815	3,261	404	156
1885-89	12,866	18,427	4,489	447	279
1890-94	17,877	25,184	5,586	659	159
1895-99	12,131	20,190	5,504	504	82
1900-04	23,599	18,302	11,343	736	213
1905-09	19,391	18,979	19,072	413	278
1910-14	26,430	13,073	15,690	234	172

Source: Appendix B.

As a grain shipping center St. Louis shows a very satisfactory growth. Much of the story of the city's grain trade is tied up with the efforts to utilize the Mississippi as a channel for the important export trade in wheat and corn. The improved condition of the mouth of the river in the seventies aided these efforts by reducing shipping costs from St. Louis to Liverpool via New Orleans from fifty to thirty-two cents a bushel.[1] The St. Louis Grain Association was organized in part to help divert the export grain trade from Chicago to the river route. Early efforts to build up this trade were on the whole very successful but by the later years of the century the river route was failing St. Louis badly. River shipments to New Orleans helped the position of St. Louis as a grain center very materially in the late eighties when around fifteen million bushels of wheat, corn, rye and oats were annually moved south by the river. With some annual irregularities the volume declined through the last decade of the century to reach a figure of 2,750,000 bushels in 1903[2] - less than five percent of total shipments from St. Louis.[3] It is obvious that the very healthy growth in shipments of grain from St. Louis grew with the developing railway network. Inevitably this rail network not only aided the city but offered assistance to other centers to the detriment of St. Louis. This is noticeable in the movement of the western grain trade to the Gulf ports. As the river offered no advantages to shippers, grain moved by rail line direct from interior points to the Gulf.[3] Nearly half

[1] State of Illinois, The Centennial History of Illinois (1918-20), Vol. IV, p. 365.

[2] St. Louis Merchants' Exchange Annual Report of 1903, p. 119.

[3] St. Louis Merchants' Exchange Annual Report of 1893, p. 111.

of the grain exports from New Orleans was moving from Kansas points directly to that city and the great bulk of this movement was for the account of St. Louis dealers. As a result, it would have moved through St. Louis had river transportation offered sufficient inducements.

Before 1919 detailed traffic data for inland waterways are not consistently reported by the Chief of Engineers for the U. S. Army. The figures for that year reveal how the Mississippi System which had at the most before the Civil War merely shared the dominating inland transportation role with the Great Lakes had now fallen far behind. While grain shipments alone from Chicago and Calumet Harbors stood at 1,268,000 tons the river carried in both inbound and outbound shipments less than 55,000 tons for St. Louis.

With its trade in wheat St. Louis developed a healthy milling industry which in the late seventies made the city the major flour producing center of the country and gave St. Louis brands of flour an excellent reputation not only in eastern markets but in the principal European marketing centers. The industry was an early one, there being twenty-two small mills in the city before the Civil War.

The war, cutting off the Southern market, gave the industry a set back, but afterwards there was a steady growth. By 1869 the city mills were producing a million barrels of flour and country mills tributary to the city (at Alton, Belleville, and other towns in southern Illinois) were sending in 1,200,000 more. In the next decade the production of the city mills doubled, while that of the country mills also increased considerably. By 1880 the St. Louis millers were in a very strong position. The city mill-owners were reaching out into the tributary territory, buying or building mills there. The foreign trade in flour was also well developed. Much flour was being sent down the Mississippi for export to Cuba and the West Indies, and millers were selling their flour in British markets directly, without the intervention of middlemen in the Atlantic ports. A system of flour inspection had been established and their grades were being generally accepted in foreign markets.

For some time St. Louis millers were unable to believe that any flour could be better than their red winter wheat flour. And they were able to persuade themselves for some time that the spring "patents" were a passing fad. When they found the demand continuing to shift toward spring wheat flours, they equipped their own mills to handle soft winter varieties. The first St. Louis "patent" flours were not a success and while St. Louis millers were correcting their processes, Minneapolis took the lead in the eighties. In 1880 the two cities were about equal but in the next ten years, Minneapolis millers quadrupled their production while St. Louis' output remained stationary.

In keeping with the times, and unquestionably with at least intermittent justification, St. Louis milling interests blamed their situation on discriminating freight rates. Various steps were taken by them to gain rate reductions. However, the relative weakening of the St. Louis position in the flour industry rested on more fundamental factors than rate discrimination. Most important was the change in public demand, a shift to corn-growing in the territory to the north and west of St. Louis and a

decline in the quality of winter wheat due to continuous cropping and possibly to climatic changes.[1] The St. Louis millers turned in a limited measure in the late nineties to the milling of the hard winter wheat of Kansas but the city never became distinctively a hard-wheat center. It was too far from the growing regions and there were too many strong milling companies in Kansas City and Kansas by 1900.

In 1883 New York was the leading city in shipments of flour with 4,437,000 barrels and was followed closely by Chicago, Minneapolis and Milwaukee who shipped virtually the same amounts, the range for the three cities being between 3,999,000 and 3,985,000 barrels. St. Louis was in fifth place with 2,751,182 barrels. From this time on Minneapolis forged ahead in flour manufacture and left her competitors far behind. Figures for 1907 are representative of the comparative manufacturing situation for the first decade of the Twentieth Century and show very convincingly the dominance of Minneapolis.

Flour Manufacture in 1907
(thousands of barrels)

Minneapolis	13,660	Duluth-Superior	715
Buffalo	3,108	Indianapolis	610
Kansas City	1,974	Detroit	558
Milwaukee	1,289	Nashville	509
St. Louis	1,189	Cincinnati	472
Chicago	1,000	Philadelphia	450

Source: St. Louis Merchants' Exchange, Annual Reports 1900-1910.

In the late nineties, the city of Buffalo set out on a determined program of wharf and elevator improvements to build up the city as a grain and milling center and the results are apparent in the strong second position held by the city in 1907. Ten years earlier her flour manufactures were less than half of the 1907 figure and although the city stood, behind Milwaukee, in third place, her lead over Kansas City, St. Louis and Chicago had been inconsequential.[2]

As for St. Louis, 'in view of changing demands for flour and shifts in wheat growing areas the city hardly needed to apologize for its relative place.

From 1880 to 1909 the value of manufacture for "Flouring and Grist Mill Products" reported in the Census of Manufactures for St. Louis City shows a decline from $13,783,000 to $3,551,000 and thereafter increases to $10,025,000 in 1929. Unfortunately, the figures before 1929 are

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[1]Kuhlmann, C. B., The Development of the Flour Milling Industry in the United States (1902), pp. 183-188.

[2]St. Louis Merchants' Exchange, Annual Report of 1898, p. 151.

reported only for St. Louis City and do not show the value of manufacture in the whole industrial area and do not show whether the declining city figures from 1880 to 1910 reflect a loss for the whole industrial area or merely an increasing tendency of St. Louis milling to locate outside the limits of the corporate city. However, the 1930 Census credits the St. Louis Industrial Area with a value of manufacture for flouring and grist mills of $25,956,000 and for the city proper only $10,025,000 so it is obvious that over half the milling industry is located in the immediately surrounding counties comprising the industrial area.

Distribution from St. Louis of drygoods and clothing over a wide market area developed out of the position of St. Louis as a supply center in early days. Cotton goods and other drygoods had been an important item in the New Mexico trade and a varied and active jobbing interest grew up, the growth being particularly marked in the late seventies and eighties. The large number of jobbing firms which were found in the city after 1880 led to a keen rivalry and to very favorable conditions for buyers both in respect to prices offered and the completeness and variety of available stocks.[1] These advantages were so marked that for a number of lines, such as the major brands of heavy cotton goods produced in the South, the supply houses of St. Louis were able to obtain goods under very favorable terms from manufacturers.[2] By the late eighties the territory of dry goods sales reached over the whole West to the Pacific Coast, in the Northeast to Ohio and in the Southeast to Florida.[3]

In the wholesale distribution of hats and caps the position of the city houses was if anything a more commanding one than in drygoods. Jobbers of caps and soft hats made St. Louis the leading supply center for the whole country although little or no manufacture was undertaken in the city. Sales were particularly important in the South and Southwest but the southeastern states such as Georgia, Florida and Alabama drew on the city for large supplies and sales were heavy throughout the Pacific Coast region from California to Washington.[4]

Not only the jobbing but the manufacture of men and women's clothing developed on an important scale. As the market for finer dress fabrics developed in the South and West, St. Louis benefited and by 1909 was manufacturing nearly five million dollars of women's clothing. However,

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[1]In 1882, St. Louis had twice as many wholesale drygoods firms as Chicago and nearly as many as New York with total capital invested being in excess of ten million dollars. (cf. Yearbook of the Commercial, Banking and Manufacturing Interests of St. Louis, 1883)

[2]Orean, G. W., Commercial and Architectural St. Louis (1888), pp. 242-3.

[3]Kargau, Ernest D., Mercantile, Industrial and Professional St. Louis (1902), pp. 559-585.

[4]Leonard, J. W., Industries of St. Louis (1887); St. Louis Merchants' Exchange, Annual Reports of 1880-1910.

it was not until the late twenties that the present very important women's clothing industry reached production values comparable to men's wear. A fourfold increase from 1909 to 1929 in women's clothing raised production to twenty-two million dollars while something better than a doubled production of men's clothing placed that industry at almost the identical figure.[1]

No St. Louis industry illustrates the manner in which an important manufacturing industry developed hand in hand with a large jobbing business as well as does the boot and shoe industry. Before the Civil War a healthy small-shop production of boots and shoes existed consisting of something over one hundred producers with a total annual production of $400,000 and sales per establishment of about $3,600. The Civil War helped this line of manufacture somewhat but in 1880 its output valued at $1,635,000 left it far behind the leading centers in Massachusetts.[2] However, an important wholesale trade was developing in the city handling two to three times the volume of boots and shoes manufactured in the city. Houses whose attention was particularly directed to the north and west carried all grades up to the best while others specializing in the southern market undersold Chicago with cheaper grades. Jobbing sales for outside manufacturers increased materially in the late eighties and early nineties and with this growth, partly as a cause and partly as an effect, there came a spectacular growth in city manufactures.

George Warren Brown who sold shoes in the St. Louis territory in the seventies was responsible for the start of the modern shoe industry of St. Louis. Starting with a $12,000 capital in a loft on St. Charles Street he achieved a quick success and others followed.[3] From 1883 to 1893 city production increased from one half million pairs to four and one half millions[4] and within a few years the city also saw construction of the first factory built in the West for the production of rubbers.

In the first decade of the century more production capacity was added to the boot and shoe factories of St. Louis than to those of any other city in the country. By the end of the decade, twenty-seven companies were operating plants within the city and an additional seventeen within the industrial area or in nearby towns.[5] Aside from their very much enlarged output the St. Louis firms handled thousands of cases of eastern-made shoes to make St. Louis the largest distributing center in the United States, selling not only over the whole country but supplying also sizable markets in South America, Cuba, the Philippines, and Europe.[6] About seventy-five percent of the sales were made from St. Louis manufacture which had grown

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[1] U. S. Census of Manufactures; See Appendix I.

[2] cf. Vogt, Herbert J., The Boot and Shoes Industry of St. Louis (1929), pp. 34 ff.

[3] Stevens, W. B., St. Louis The Fourth City, 1764-1909 (1909), p. 650.

[4] St. Louis Merchants' Exchange, Annual Report of 1893, p. 39.

[5] In 1939 when census figures reported the value of shoe manufacture for St. Louis City and for the St. Louis Industrial Area, the latter was only slightly above the former standing at $23,925,581 as against $21,159,692.

[6] St. Louis Merchants' Exchange, Annual Report of 1908, p. 34.

from its production value of $1,635,000 in 1890 to $33,970,000 in 1909. In the first world war the nation called on the industry for greatly enhanced supplies and the value of St. Louis production increased to $88,554,000 but returned to its former levels after the war.[1]

The large sales of tobacco by St. Louis, reported as forty-five million dollars in 1908, rested in considerable part on local manufacture of tobacco products. In the late years of this period about three-quarters of the trade came from locally manufactured tobacco and one-quarter from manufactures at other points.[2] The tobacco trade and industry are old-timers in the city. Five "manufactories" were doing a thriving business ten years before the Civil War, adding $67,000 of their products to the manufactured tobacco coming to the city via the Ohio for local consumption and for distribution over the wide trade area of St. Louis.[3] For several decades after the war the industry enjoyed in very large measure the two advantages of particular value to its growth - cheap labor supply and location near tobacco-raising country. For some decades the labor situation was so "favorable" that it lead to serious exploitation of tobacco workers who were required by many St. Louis firms to take their pay in the form of cigars and by peddling them to obtain the money for their labor.[4] In the early eighties this undesirable practice was disappearing rapidly, largely as a result of the St. Louis strike of 1879, without any noticeable injury to the growth of the industry. About this same time Missouri tobacco cultivation, formerly a large and favorable source of leaf tobacco, was declining particularly in the grades needed for the St. Louis industry. By the late eighties the crop had fallen to half of former years and one-half to two-thirds of this reduced crop was of grades suitable only for the export market and so contributed to the city's trade but not to its manufacture.[5] The decline in cultivation was partly caused by a growing lack of newly cleared land for tobacco culture, by the increased profitability of other farm crops as rail transportation became available, and in certain sections, by an influx of immigrants from Germany or the northern states who had no experience with tobacco cultivation.[6] The St. Louis industry was compelled to turn to Kentucky and Virginia for part of their supplies as efforts to induce Missouri farmers to increase their planting of thepopular "White Burley" were only moderately successful. In addition, some supplies were imported from Cuba and Porto Rico for the manufacture of cigars. In spite of these necessary readjustments the tobacco business flourished particularly in the nineties and the city was producing not far from one fifth of the total national production by the end of this period.[7]

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[1] See Appendix I.

[2] St. Louis Merchants' Exchange, Annual Report of 1908, p. 235.

[3] Missouri Republican, Annual Review, 1851.

[4] Missouri Bureau of Labor Statistics, 1881, pp. 23-29.

[5] Orear, G. W., Commercial and Architectural St. Louis (1888), p. 232.

[6] cf. Sauer, Carl O., The Geography of the Ozark Highland of Missouri (1920), p. 120.

[7] cf. Land, John E., St. Louis, Her Trade, Commerce and Industries (1882), p. 46;
Leonard, J. W., Industries of St. Louis (1887), p. 45;
St. Louis Merchants' Exchange, Annual Reports 1880-1910.

In spite of its favorable setting in the corn belt St. Louis was relatively slow to develop as a livestock and meat-packing center. In the first ten to fifteen years after the Civil War, trade in livestock increased very slowly and the city lost further ground to Chicago. During the first four years only 387,664 head of cattle were received at St. Louis while 1,378,158 went to Chicago.[1] As a result, the leading place in the industry which had been held by St. Louis before the war now moved to the lake city. One of the major advantages of Chicago lay in the excellent facilities of its Union Stockyards while St. Louis possessed nothing more than a number of small scattered yards of three or four acres each. More extensive rail connections to the Southwest and the building of two large stockyards gave the city its opportunity to improve both as a livestock market and as a slaughtering center. The National Stockyards in East St. Louis was begun in 1871 by a group of eastern capitalists and the St. Louis Union Stockyards in 1874. The main yards of the latter, located in St. Louis proper, covered over thirty acres and possessed good rail facilities which allowed stock to be unloaded directly into the pens. Branch yards on the east side of the river were built and utilized for holding stock to be shipped to eastern markets. With the possession of needed stockyard facilities St. Louis was in position to take advantage of "good transport connections in all directions" and its location near the corn belt.[2]

"Pork houses" gave St. Louis before the Civil War one of its largest industries, only flour milling and sugar refining among the developing industrial plants had products of greater value. Throughout this whole period from 1870 to 1910 the industry was a flourishing one although the relative importance of the city in the national industry was adversely affected by the growing importance of the northwestern corn belt in hog raising. This change tended first to shift the industry to Chicago and later to western Missouri. By the late nineties St. Louis was in fourth place in number of hogs slaughtered annually as shown by the following figures for the 1897-98 season.

Number of Hogs Packed in the West

	1897-98	1907-8
Chicago	6,747,265	6,295,410
Kansas City	3,184,386	3,574,835
Omaha	1,570,050	2,261,626
St. Louis	1,238,810	1,853,279
Milwaukee (incl. Cudahy)	1,002,034	1,424,464
Indianapolis	988,559	1,755,669
Cincinnati	635,143	605,375
Ottumwa	627,049	696,029
Cleveland	540,002	757,976
St. Joseph	423,500	1,873,917

Source: St. Louis Merchants' Exchange Annual Reports of 1898 and 1908

[1] Saraghan, C. V., History of St. Louis 1865-1876 (1936), pp. 120 ff.

[2] Hoover, E. M., Location Theory and The Shoe and Leather Industries (1929), pp. 140-1;
St. Louis Merchants' Exchange, Annual Report of 1908, p. 228.

By 1907-8 Chicago had lost some ground to rival cities but maintained its very clear lead over Kansas City which along with St. Louis and a number of the major centers showed sizable growth. The gain made by Indianapolis was almost enough to double that city's slaughter but the spectacular advance was made by St. Joseph in moving from tenth place in 1897-98 to fourth place. Specific reasons for shifts made by the industry are extremely hard to evaluate but the major general causes are to be found in changes in corn and hog raising, the concentration of the packing business after the nineties into the hands of four large companies, and in transportation factors, particularly the relation between rates on live hogs and on hog products.[1]

Until 1890 St. Louis had only one major beef packing company, Nelson Morris and Co. The addition in the nineties of the plants of the Mound City Packing Co., the St. Louis Dressed Beef Co., and Swift and Co. gave shippers assurance of finding a good market for livestock in the city and contributed to the marked improvement in the position of the city as a meat packing center which occurred in the years after 1900.

From 1880 to 1890 the packing industry in the city increased its output from eight millions to twelve million dollars annually and did not show any material advance again until after 1900. But then, in ten years, value of production doubled in the city and a very considerable growth occurred in the industrial area around the city. The relative amount of the St. Louis packing industry found in the corporate limits and within the whole industrial area is shown in Census figures for 1929. In that year a value of manufacture of eighty-six millions is reported for the city proper and one hundred and eighty-three millions for the St. Louis Industrial Area.

The receipt of over 688,000 bales of cotton in the city in 1908 marks another important commercial activity of the city. From the early days after the Civil War St. Louis merchants showed a very considerable interest in cotton and had hopes of making the city a leading cotton market.[2] In the seventies the opening of northern Texas and much of Arkansas by rail connections to the city resulted in sharp increases in receipts of cotton. The appearance also of the St. Louis Cotton Compress Company in 1873 with storage capacity for 200,000 bales and excellent rail connections marked an outstanding step forward in the growth of the city as a cotton center.[3] In 1881 the company purchased nearly forty acres of land on the line of the St. Louis San Francisco Railroad, west of Grand Avenue, and erected a range of warehouses which doubled their former capacity. Also of comparable importance was the appearance of the Peper Cotton Compress Company in 1871.

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[1]Cf. Buzzell, Rowena, Economics of Hog and Hog Products Traffic Flow (1944) (a staff study of The Board of Investigation and Research.)

[2]"Some Notes on Missouri", Scribner's Monthly, Vol. VIII (July 1874)

[3]Howe, S. F. & Co. (ed.), Yearbook of the Commercial, Banking and Manufacturing Interests of St. Louis (1883), pp. 36-39.

From the beginning and continuing through this whole period, the city has acted as a middleman with through shipments making up increasingly large proportions of the gross receipts. As the following figures show, this tendency is particularly marked after 1885 and has been an increasingly strong feature of the trade in the more recent years.

Year	Annual Average Gross Receipts (bales)	Annual Average Through Shipments (bales)	Annual Avge. Net Receipts (bales)	Through Shipments As Percent Of Gross Receipts
1871-1875	115,688	38,800	76,887	34%
1876-1880	339,579	103,555	236,025	31
1881-1885	377,459	143,817	233,642	38
1886-1890	552,415	294,924	257,491	53
1891-1895	663,008	489,089	173,919	74
1896-1900	847,174	684,824	162,349	81
1901-1905	666,901	564,311	102,590	85
1906-1910	595,246	497,697	97,549	84

Although the years 1896-1900 show the largest annual gross receipts, the volume in more recent years of through shipments has been fairly well maintained and the decline in gross receipts is attributable to a lessening portion being handled in the city. The year in which St. Louis storage and compress companies handled the largest volume was 1880 when net receipts were 358,000 bales. Through the eighties the annual average was approximately 270,000 bales and thereafter declined rather seriously, the annual average for the next ten years being 180,000 bales, and in the first decade of the present century 90,000 bales.[1] Various factors explain this decline. Improvement in the rail network eastward from cotton growing areas going hand-in-hand with the development of a number of interior markets in the cotton growing areas inevitably had adverse effects for St. Louis.[2] Cotton had been principally concentrated at a few interior points, such as St. Louis and Memphis, and at the ports, including New Orleans and Galveston. It was shipped by the farmer-producer to commission merchants at the larger markets. Gradually the marketing organization changed so that the producer sold his cotton at the nearest station to local buyers and at a number of interior points facilities for handling the crop were developed. As a result St. Louis along with other of the former concentration points found markedly reduced volumes coming to the city for storage and compressing.[3]

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[1] See Exhibit J.

[2] The New Orleans Cotton Exchange v. The Illinois Central R. Co., et al, 2 I.C.R. 777 (1890).

[3] Application of Rates on Cotton to Gulf Ports, 123 I.C.C. 685 (1927).

The early brewing industry of St. Louis was well supported by residents of the city before the Civil War and was producing in the neighborhood of $300,000 of malt beverage annually. Change in manufacturing and marketing, however, soon made a national industry out of the start made by local brewers. The industry was producing $4,536,000 worth of products in 1880 and by the end of the following ten years had nearly quadrupled this annual figure. Although it was a relatively late arrival in the field the Anheuser-Busch Brewing Association is very closely connected with this phenomenal growth. This company was the first to build ice houses throughout the southern states and the first to utilize refrigerator cars for a wide distribution of its products.[1] The company was also the first to introduce bottled beer in the United States. This innovation not only virtually destroyed a formerly large importation of English and German beers but built up an important export of American beers mainly in the hands of the Anheuser-Busch Company. By the late eighties this company was enjoying larger sales than any single brewery in the world. Before the turn of the century the city's exports to Mexico and South America had grown tremendously and constituted a large part of the total imports of beers and ales in these countries.[2]

A very definite concentration of production in a small number of strong concerns is noticeable in the industry. From 1889 to 1899 growth brought an increase in the number of brewing establishments from twenty-two to twenty-eight but in the next decade while the value of products increased from $11,674,000 to $23,147,000 the number of establishments dropped to ten. As a result, although St. Louis was not the largest producer of beer in the United States it could boast of the presence of a number of firmly established and growing companies and, among them, the largest brewery in the world.[3]

A great variety of other commodities are important and show very satisfactory growth in the period from 1870 to 1910. Woodenware was one of these and jobbers in this line sold their products in every state of the Union and to Canada and Mexico.[4] Their sales were consistently large enough to place half the business of the whole country in their hands.[5] And the St. Louis dealers were successful in making the transition from the handling of wooden washtubs, buckets and the like to galvanized iron products and in building up related jobbing lines in cordage, brooms, wrapping paper, paper bags, stove polish and so on through an extensive list.

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[1]Howe, S. F. (ed.), Yearbook of The Commercial, Banking and Manufacturing Interests of St. Louis (1883), pp. 89-94.

[2]St. Louis Merchants' Exchange, Annual Report of 1898, p. 62.

[3]St. Louis Merchants' Exchange, Annual Report of 1903, p. 47.

[4]St. Louis Merchants' Exchange, Annual Report of 1898, p. 51.

[5]St. Louis Merchants' Exchange, Annual Report of 1903, p. 48; Annual Report of 1908, p. 39.

For some reason St. Louis by the forties had attracted a flourishing patent medicine business and with its early start went on to become a leading producer and distributor of patent medicines and drugs. Annual sales in the neighborhood of fifteen million dollars toward the close of the century put the industry among the most flourishing found in the city. Among its seven large wholesale houses were several of the largest in the country. Only New York stood above the city in value of manufacture or in volume of sales.[1] The value of drugs and chemicals manufactured in the city trebled from 1880 to 1890 and after a decade of relatively small growth went on to reach over fifteen millions by 1919. Much of the later growth is in production of chemical products and reached a figure of $39,615,000 for the whole St. Louis Industrial Area in 1929.

With the largest wholesale drug house and the greatest chemical manufacturing plant in the country the city was known over very wide markets:

> "Three wholesale drug houses supply most of the Western, Southern and Southwestern States with drugs, chemicals and proprietary medicines and the manufacturers in these two branches, of whom there are a great number in the city, have also an extensive trade all over the country aside from the export business, which includes Central and South America, Mexico, the Islands in the Pacific, Europe and even South Africa."[2]

Along with its great variety of expanding wholesale and jobbing activities St. Louis managed to stage an important revival in its standby of early days, the fur trade. Its seven and a half million dollars of fur sales in 1908 came from invasion of a new field - the purchase of the furs of remote sections of Canada and of Alaska - and gave the city the foremost position as a market for northern furs.[3] A few years later it was able to supplant London as an auction market for American seal skins.[4]

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[1]Leonard, John W., Industries of St. Louis (1887), p. 48.

[2]Kargau, Ernest D., Mercantile, Industrial and Professional St. Louis (1902), p. 422.

[3]St. Louis Merchants' Exchange, Annual Report of 1908, p. 245.

[4]St. Louis Daily Record, Fifty Years of Civic Progress, 1890-1940, p. 10E.

A summary of the large and varied commerce of St. Louis shows St. Louis jobbers and wholesalers drawing on raw material areas and supplying market areas over a large part of the nation and in various foreign countries. Large receipts of grain, lead, cattle, hogs, cotton, and coal are drawn in major part from the rich middlewest and southwest with tobacco in large volume coming from the southeast and in smaller amounts from foreign sources. The sales of many products reveal the wholesalers and manufacturers of the city selling with success from the Atlantic to the Pacific coasts. The reports and records of the commercial interests of St. Louis for this whole period, as found in Chamber of Commerce reports, in a variety of annual surveys, and particularly in the regular reports of the St. Louis Merchants' Exchange, show St. Louis merchants to be generally satisfied, in fact, rather complacent, with their ability to market over very wide areas after the rail network was built through Arkansas and into Texas and Louisiana. The concern of the St. Louis commercial and manufacturing interests in the development of a southwest rail system is merely one evidence of their concentration on markets in Missouri and Kansas and in the area to the south of these two states. Even after river transportation fell on bad days the Lower Mississippi area continued to hold the first attention of St. Louis. However, the foregoing description of the varied trade and manufacture of the city shows its manufacturers and jobbers reaching over the whole nation and into foreign countries for its markets.

The city's market areas seem to expand almost without effort and without meeting restricting handicaps in every region save one. And strangely, that one is a closely contiguous market in Missouri, Illinois, Iowa and Nebraska. The success of St. Louis merchants in southwestern markets apparently led them to give relatively small attention to certain portions of these states. Chicago's shipments of merchandise to the northern half of Missouri, for example, were approximately equal to the shipments from St. Louis. Similarly, in southern Illinois the trade was divided between the two states. In northern Illinois and Iowa, however, St. Louis houses maintained few salesmen and the trade largely went to Chicago. In much of this area St. Louis suffered no handicap in respect to rail rates or service and apparently the preoccupation and success of St. Louis merchants in markets to the South and West account for their relative lack of interest in Iowa and Illinois markets.[1]

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[1]cf. Address of C. N. Osgood published by the St. Louis Commercial Club in 1893.

Rise and Decline of Iron Production

The record of this period shows St. Louis enjoying a generally sound economic growth in spite of several very apparent handicaps in the form of the failure of the river on which the city relied so much; the slowness of rail development in Missouri and the states to the immediate south and west; and the failure of St. Louis merchants to push vigorously into markets in Illinois, Iowa and even northern Missouri. While these factors unquestionably limited the city's growth a far greater handicap to rapid industrialization developed out of the failure of the St. Louis iron industry. After enjoying an early successful growth blast furnace production in the industrial area virtually disappeared and its disappearance undoubtedly injured St. Louis in all the related lines of the iron and steel industry.

In the years immediately following the Civil War St. Louis appeared to be in very fortunate condition in possessing large iron ore deposits in Missouri. A broad ore belt crossed the state from the Mississippi on the east to the Osage in a direction nearly parallel to the Missouri River. The most spectacular deposit was at Iron Mountain in St. Francois County, ninety miles south of St. Louis.[1] In the seventies Iron Mountain was of more than local importance. Andrew Carnegie used ore from this mine in his first furnaces in the Pittsburgh district and the first steel plant in the Chicago district was located at Joliet instead of Chicago because the former was closer to Iron Mountain.[2]

To St. Louis these rich ore resources promised much. However, the early operation of blast furnaces was greatly handicapped by the inaccessibility of suitable fuel. St. Louis County coal produced a poor and unprofitable iron and in some furnaces Indiana coke was used. In 1868 various Illinois coals were substituted with a considerable degree of success.[3]

In 1878 Carbondale coal from southern Illinois began to be used and after thorough tests proved completely satisfactory.

In spite of early troubles with fuel, important additions were made in 1870 to the iron works in South St. Louis and four establishments went into operation producing about 28,000 tons of pig iron. Half of this production was sold in St. Louis and the balance went to Chicago, Evansville, and other points.[4]

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[1]Conrad, Howard (ed.), Encyclopedia of the History of Missouri (1901), Vol. III, p. 383.

[2]Engineering and Mining Journal, Iron Mountain Mine, Long Idle, Again Produces (June 23, 1923), p. 1121.

[3]Iron Age, St. Louis, Its Place in the Steel Industry (Oct. 19, 1916), p. 877.

[4]Scharf, J. Thomas, History of St. Louis City and County (1883), p. 1269.

In 1874 seven blast furnaces with a capacity of 50,000 tons were being operated in Missouri using charcoal as fuel. In addition four plants using bituminous coal and coke were being operated with a capacity of 110,000 tons. The end of the decade found ten bituminous coal and coke furnaces in operation with a capacity of 224,000 tons and four charcoal furnaces with a capacity of 57,500 tons. The major producers were all operated by St. Louis companies. Their output of Bessemer pig was converted into steel mainly in St. Louis.[1]

There were six rolling mills and steel-works in St. Louis in the early eighties. The Vulcan was built in 1872 as an iron mill, but was changed to steel production in 1876. During 1882 the Vulcan consumed 100,000 tons of pig-iron, producing 90,000 tons of steel rails. The other works included the Granite Iron-Rolling Mills built in 1879 now a part of the National Enameling and Stamping Company's works; the Laclede Rolling Mills, the Melmbacher Forge and Rolling-Mills now a part of the American Car and Foundry Company's Granite City works; the St. Louis Steam Forge and Iron-Works abandoned in 1908; and the St. Louis Bolt and Iron Works still in existence.[2]

During the 1884 depression all the Missouri furnaces suffered severely. Of the seventeen in the state only three remained in blast, and several were shut down permanently. The depression merely brought to the forefront two basic handicaps under which the St. Louis heavy steel industry labored. First, inferior and costly coal continued to check progress of iron making. In 1885 excellent Bessemer pigs were produced at Carondelet but only by using Connellsville coke exclusively. Secondly, the supposedly great wealth in ore resources proved disappointing. In the first years of the nineties it was believed that earlier estimates of the amount of ore at Iron Mountain had been markedly exaggerated and that the Mountain was nearly "worked out". Such, however, was not the case although easily accessible ores may have been in smaller supply than was estimated. The basic fault lay in the relative high cost of Missouri ores. The flood of ores from Lake Superior mines to Chicago revealed the weakness in the St. Louis situation. Ore could not be supplied to the city at prices comparable to those prevailing at Great Lakes points. By 1890 the Chicago area became the third largest steel producing area in the country. Gary, and Indiana Harbor were established exclusively as "steel towns". The Pullman Company built its own city in South Chicago to manufacture railroad cars, while huge blast furnaces and open-hearth furnaces were built up in the Chicago area.

By 1893 the once great iron industry of St. Louis had become a passing phenomenon. In that year the leading company of Missouri dismantled its coke furnaces at Iron Mountain, its charcoal furnace at Pilot Knob, and its Bessemer steel plant at the former of these points.

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[1]Iron Age, St. Louis and Its Place in the Steel Industry (October 19, 1916), p. 879.

[2]Ibid., p. 880.

For sixteen years, 1893-1908, there was no production at Pilot Knob, and Iron Mountain output shrank from a high of 269,480 tons in 1872 down to a low of 8,000 tons. Missouri's rank as an iron producer fell from sixth among the states in 1870 to thirteenth in 1890 and thereafter dropped to a place of comparative unimportance. Small operations were continued by the St. Louis Blast Furnace Company but in 1912 this plant was closed and all pig iron processed in the city was shipped in except for the small production of the Sligo Furnace Company. Thus for the major part, the manufacture of semifinished and finished steel products in St. Louis operated under the handicap of purchasing pig iron from distant sources. St. Louis thereby not only largely lost its blast furnace industry but unquestionably suffered by inevitably slower growth of the light steel industries.

In spite of its lack of pig iron production, St. Louis did manage to develop a varied semi-finished and finished steel industry. By 1885 barbed wire mills, stove foundries, boiler works and other establishments engaged in the secondary manufacture of iron and steel were in full operation. In that year one of the largest pipe foundries in the country was at St. Louis, but the concentration of furnaces making foundry irons at Chattanooga and Birmingham encouraged the transfer of this industry to the latter point. The lack of blast furnace output in St. Louis crippled the St. Louis industry. It cost less to make pipe at Birmingham and to ship it to St. Louis than to ship Birmingham pigs to St. Louis for manufacture of pipe.[1]

Between 1870 and 1890 the production of foundry and machine shop products showed great promise. The Fulton Iron Works established in St. Louis in 1852, and still in existence today, owned and operated its foundry and machine shop at 2nd and Carr Streets until 1912 when it built its present plant. The company was a pioneer builder of steamboats and stationary engines. It continued the manufacture of engines and began a very successful manufacture of sugar mill machinery about 1890 and stationary Diesel engines in 1912.[2]

The manufacture of street cars is one of the most interesting industries in St. Louis partly because of its humble beginnings and partly because its rapid growth showed the ability of the city to overcome the fundamental handicaps of its lack of cheap pig iron. Car manufacture had its beginning in 1858 when a skilled ornamental painter by the name of Andrew Wight established a shop for building omnibuses. Wight subsequently abandoned the manufacture of omnibuses and began to turn out street cars. By 1897, the company had grown and was known as the Brownell Car Co.[3]

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[1]Clark, Victor, History of Manufactures in the U.S. (1928), Vol. II., p. 346.

[2]In 1923, it was reported that Fulton sugar mill machinery was in use in nineteen foreign countries and Fulton machinery installed in the West Indies, Mexico, and Central and South America ground more than fifty per-cent of the sugar cane produced in these countries.

[3]Conrad, Howard Levis, ed. Encyclopedia of the History of Missouri (1901), Vol. IV, p. 180.

St. Louis street cars were shipped to New Zealand and Japan, as well as to many of the leading European countries. The healthy growth of the industry is apparent in the record of the late period, 1910-1940, shown in Part III of this study.

In the last decade of the 19th century, St. Louis industrialists invested capital in the other two members of the "tri-cities" - Granite City and Madison. Both of the cities had been corn and wheat centers until near the present century. In 1891, Wm. F. Niedringhaus bought 3,000 acres in Granite City, and the National Enameling and Stamping Co., along with scores of two-family flats, was constructed in 1892. Shortly afterwards, the Niedringhaus interests built a rolling mill and in 1893, the American Steel Foundry was established. Workers, merchants, and real estate dealers gravitated to Granite City overnight. The Enameling and Stamping plants at that time were dependent upon eastern mills for their main materials, such as sheets and tin plate, which, of course, involved appreciable transportation charges. Having in mind the advantages of a low priced scrap market and the reduction of transportation charges, a small open-hearth plant with finishing mills was started in conjunction with their other plants. The steel plant of the National Enameling and Stamping Company in 1908 had an annual capacity of 150,000 tons which was increased in 1916 to 300,000 tons.[1]

Madison, second largest of the tri-cities is like Granite City a product of the steel industry. One of the important steps in its development came with the building of the American Car and Foundry plant in 1891.[2]

The manufacture of basic open-hearth steel castings for which St. Louis claims first place, had its foundation in new conditions, and had not been related to the earlier iron and steel industry of the state. Although St. Louis gained its reputation as a leading steel casting center during World War I, the industry had its origin in the latter part of the 1870-1910 period and may properly be described in this period. The following table shows the finished tonnage of basic steel castings annually produced in the district, including St. Louis proper, Granite City, East St. Louis, and St. Charles.

	Annual Production, 1915
American Steel Foundries (Granite City)	78,000 tons
American Steel Foundries (E. St. Louis)	54,000
Commonwealth Steel Co.[a]	60,000
Scullin Steel Co.	54,200
Warren Steel Casting Co.	1,200
St. Louis Steel Foundry, St. Louis	4,500
St.Louis Frog and Switch Co., St.Louis	3,300
	255,200 tons

[a]Now General Steel Castings.

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[1]Federal Writers Project, Illinois, p. 489.

[2]Ibid.

In 1915, the country's production of basic castings was 333,103 tons, less than 100,000 tons greater than that of the St. Louis district. In September, 1916, at its Granite City plant, the American Steel Foundries made 6000 tons of castings, the largest individual plant output ever attained in one month by a basic open-hearth foundry. In addition to the steel made at St. Louis for castings, the Laclede Steel Co., at its Alton works, produced 75,000 tons of ingots annually. It is noteworthy that this great steel castings industry has had its entire growth almost within two decades.[1] The Granite City plant of the American Steel Foundries was built in 1894; the Scullin Steel Company's first operations as the Scullin-Gallagher Iron and Steel Co. began in 1899; and the Commonwealth Steel started in 1902.

The rolling mill industry of St. Louis, a direct descendant of early developments, is centered in the American Car and Foundry Company's Helmbacher mill and the National Enameling and Stamping Company's Granite City plant. In addition to these organizations, the active rolling mill operators in the St. Louis district included, during World War I, the Laclede Steel Co., the St. Louis Screw Co., and the Hirsch Rolling Mill Co. Plant capacities and products of each in 1915 were:[2]

		Tons
National Enameling and Stamping Co.		
Granite Iron Rolling Mills, built 1879.		
Black and galvanized sheets		24,000
Granite City Steel Works, built 1895.		
Ingots, billets, sheet and tin plate bars, universal plates, blue annealed and black sheets		120,000
American Car and Foundry Co.		
Madison Car Works.		
Steel and wood freight cars	15,000	
Cast iron car wheels	350,000	
Madison Rolling Mill, built 1900.		
Merchant bars		60,000
Mo. Car and Foundry Works.		
Steel and wood freight cars	20,000	
Cast iron wheels	250,000	
Gray iron-castings (tons)	17,500	
Helmbacher Forge & Rollings Mills, built 1858.		
Bar, rod and band iron		60,000
Laclede Steel Co.		
Madison Works, built 1911-12.		
Rail-carbon bars		40,000
Alton Works, built 1913.		
Ingot, billets, bars, strip steel		100,000
St. Louis Screw Co.		
Rolling mill built 1914-15.		
Merchant bars		45,000
Hirsch Rolling Mill Co., - built 1900.		
Merchant and refined iron and steel bars		30,000
Total rolled production		479,000

[1] Today there are three open hearth furnaces in the St. Louis area: Scullin, American Steel Foundry, and General Steel Casting.

[2] Iron Age, St. Louis. Its Place in the Steel Industry, (Oct 19, 1916), pp. 877-880.

The St. Louis district developed in the late years of the 1870-1910 period and brought to full development in the twenties a considerable mill capacity for the production of such rolled forms as plates, standard structural shapes up to and including 10 inch sizes, merchant bars and small shapes, reinforcing bars, tin plate, black, blue annealed and galvanized sheets, stripes, tie plates, etc. No rails or tubes were rolled in the region.[1]

The territory which the mills of St. Louis area considered as their logical distributing area extended east to Indianapolis, north to the central part of Illinois, the southern part of Iowa and Kansas, all of Oklahoma, Arkansas, and the northern part of Texas.

Steel requirements of St. Louis represented one of the largest outlets of locally produced steel. Some of the products into which this material entered before World War I or in the twenties were enameled and stamped ware, furnaces, stoves, ranges and heaters, auto bodies and parts, electrical machinery and metal products of various descriptions. St. Louis obtained and continued to hold a high position in American manufacturing of enameled ware. The stove and range industry in which St Louis continued to have pre-eminence by a wide margin as to both market extent and volume of output over any other city in the country absorbed a large tonnage of blue annealed and black sheets. The stove industry became particularly well-entrenched in Belleville.

Next to Trenton, St. Louis became the largest manufacture of wire rope in the country. One company in St Louis making wire rope originated the colored strand now used widely to identify different grades and qualities of wire rope. By 1924, St. Louis was reported as supplying 20 percent of national wire rope production.[2] The range of other articles of wire became extensive, consisting of wire mesh, industrial screws of all kinds, fencing, grill and lattice work, etc.

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[1]In 1924, the most important branch of the casting industry in the St. Louis industrial area was the manufacture of open hearth steel castings. About 350,000 tons were produced annually, the greatest part being in the form of castings for steel railroad cars, locomotive tender frames, bolsters, freight and passenger car frames, driving wheels, etc.

[2]Backert, A. O., Iron Trade Review (Aug. 21, 1924) supplement, pp. 5-6.

Value of Manufactures, 1870-1910

The over-all commercial standing of St. Louis is only partially a product of its growth as an industrial center. Nevertheless, most of its varied jobbing and wholesale activities rest in large or small measure on production in the city or in the industrial area. As the foregoing narrative of its commerce and industry shows, the city developed in this period to the point where it could claim many "firsts":

> "The biggest chemical manufacturing plant in America and the country's most important cracker factory are at St. Louis; it has the largest tobacco factory in the world and the biggest brewery in America. The largest shoe house in the world is located in St. Louis, and this city is one of the most important points in the world for the manufacture and wholesale output of shoes. It has also the largest horse and mule market, and its saddlery market is one of the leading marts in the world. In the manufacture of white lead and jute bagging this city takes the lead. It has the largest brick works; the largest sewer pipe factory and the largest electric plant on the continent, and it manufactures more street cars than any city in the world, shipping the same to all sections of the globe."[1]

In the period under consideration, 1870 to 1910, St. Louis manufactures showed large increases which were in general consistently developed except in one decade - the nineties. In the first decade, the seventies, census figures show a decline in the total value of manufacture for 1880 relative to 1870 but the figures for 1870 are not trustworthy. Certain of the figures were challenged when 1880 returns were recorded,[2] and probably the best estimate for value of manufacture for 1870 would be arrived at by taking the growth from 1860 to 1880 and assigning two fifths of it to the sixties (as was done earlier with population data) and three fifths of it to the seventies. This would give a figure of fifty-eight million dollars for 1870 and a growth of thirty millions in the preceding ten years. This growth of over one hundred percent (the 1860 value of manufactures being reported as $27,000,070) appears to be the maximum that can reasonably be assumed in view of all other industrial and commercial records of the city for the decade of the sixties.[3]

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[1]White, Marian A., The Greater West (1906), Vol. II, p. 61.

[2]cf. Stevens, Walter B., St. Louis The Fourth City, 1764-1909 (1909), p. 989.

[3]The Census figures reported the following value of manufactures of St. Louis - 1860 - $ 27,000,070
1870 - 158,761,013
1880 - 104,383,587

Assigning a manufacturing value of fifty-eight millions to 1870 leaves a growth of approximately forty-six millions for the seventies to reach the census figure for 1880 of one hundred and four million dollars.[1]

The decade of the eighties is one of very marked growth for the city, the decennial census of manufactures showing value of manufactures of $114,333,000 in 1880 and $229,157,000 in 1890. The largest gains were made in manufacture of steam and street railroad cars, men's clothing, foundry and machine shop products, furniture, malt liquors, brick, stone and tile masonry, printing and publishing, meat packing, and tobacco products. The increases shown among this group ranged between three millions and ten millions, and, assisted by smaller gains in a number of other fields, gave St. Louis a greater industrial growth than was made by the nation as a whole. The city turned out 2.1 percent of the total value of manufactures in the United States in 1880 and 2.4 percent in 1890.

Comparison of 1890 and 1900, however, shows no such comparable gain. For the city, manufactures increased only one percent but from this time on figures limited to the city proper increasingly fail to show the growth of the St. Louis area. The Census of Manufactures noted this fact in 1900 and it has been of growing significance since then:

> "That the increase in the value of St. Louis is small, is due, in part to the removal of manufacturers to more favorable localities, for fuel and transportation, notably to East St. Louis, Madison and Granite City, manufacturing points situated opposite St. Louis on the Mississippi River, and to the West."[2]

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[1] It is obvious that comparisons of the relative importance of various cities in 1870 rest on very unfirm ground. If the foregoing estimate for the city is approximately correct and if major mistakes are not present in figures for other cities, St. Louis began the period with value of manufacture well below that of the leading cities.

New York[a]	$393,800,193	Baltimore	$ 59,220,000
Philadelphia	322,005,000	St. Louis	58,000,000
Boston	111,381,000	Buffalo	27,447,000
Chicago	92,519,000	Cleveland	27,049,000
Cincinnati	78,906,000	Detroit	26,218,000

[a] Figures are for the county in which designated cities are found; New York includes figures for New York, Kings, Queens, and Richmond Counties.

[2] U. S. Census of Manufactures, 1900, Part 3.

For the St. Louis Industrial District[1] the growth from 1890 to 1900 is slightly under two percent. In general the nineties were poor years for the nation as a whole and the small gain made in the St. Louis Industrial District is almost precisely that shown by the figures for national manufactures.

In addition to the injury done by generally depressed business conditions was the specific injury done to St. Louis by the 1896 tornado. On May 27, 1896 in the short span of fifteen minutes a tornado struck the southwestern section of the city, rushed over Lafayette Park and left a path of destruction nearly seven miles long. Eighty-five hundred buildings were reported as suffering varying degrees of damage and debris from destroyed property was piled high in the streets.[2] The monetary loss to the city was placed by various estimates all the way between ten million and one hundred million dollars.[3]

Some spectacular gains were still made by some individual industries during the nineties, particularly noticeable in the following list being the nearly four million dollar growth of the boot and shoe industry and the ten million gain of tobacco production.

	Value of Manufacture		Ratio
	1890	1900	1900 to 1890
Boots and Shoes	$ 4,927,000	$ 8,742,000	177
Steam and Street Railway Cars	5,641,000	8,737,000	155
Women's Clothing	1,718,000	3,714,000	216
Coffee and Spices	2,466,000	4,766,000	193
Iron and Steel	1,716,000	3,274,000	191
Tobacco Products	14,354,000	24,411,000	170

Except for the iron and steel industry, material growth was shown by all these industries in the eighties and their large increases as shown above are healthy continuations of the gains made in the previous decade. Analysis of the situation in which the iron and steel industry found itself by 1890 has explained the relatively low production of that year. Growth through the nineties marks the successful reorientation of the industry toward finished and semi-finished products.

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[1]The St. Louis Industrial Area consists of St. Louis City, St. Louis County in Missouri and St. Clair and Madison Counties in Illinois.

[2]Shoemaker, F. C., Missouri Day By Day (1942), Vol. I, pp. 363-4.

[3]cf. Devoy, John, History of the City of St. Louis (1898), p. 61; Haas Publishing and Engraving Co., Photographic Views of the Great Cyclone at St. Louis (1896), p. 1.

The small gain made in total manufactures during the nineties is partially accounted for by losses exceeding one million dollars in five industry groups.

	Value of Manufacture		Amount of Decline
	1890	1900	1890 to 1900
Boxes, Paper and Wood	$ 1,797,000	$ 413,000	$ 1,384,000
Flouring and Grist Mill Products	12,456,000	4,004,000	8,452,000
Liquors, Malt	16,186,000	11,674,000	4,512,000
Masonry, Brick, Stone and Tile	9,123,000	5,134,000	3,989,000
Saddlery and Harness	2,804,000	1,495,000	1,309,000

The rise of Minneapolis as the dominant flour milling center of the country is unquestionably a factor in the loss suffered in flour milling. However, the Census of 1900 ascribed it to the opening up of new territory and the development of "country mills".

> "The decrease in St. Louis 1890-1900 is accredited to the opening up of less developed country to the west and southwest by railway facilities, which connect the great grain-producing centers with the markets by shorter freight lines. One milling firm in St. Louis, which prior to 1890 shipped annually 150,000 barrels of flour to Texas, now manufactures 1,200 barrels daily in that state. In other instances the manufacture of flouring and grist mill products is carried on either near markets or the grain centers".[1]

Decennial census figures do not show flour milling in St. Louis city regaining its 1890 output until 1919. However, in 1929, the first year for which comparisons can be made, flour manufacture in the St. Louis Industrial District was valued at $25,956,000 and in the city itself at $10,025,000 showing that only forty percent of the industry of the St. Louis area is located within the corporate limits. As a result, the value of flour manufacture for 1900 and 1909 for the city proper, the only figure available, seriously understates the actual importance of the area. And relative to previous years also understates the importance of 1900 and 1909 production since increasing proportions of the industry had been developing outside the corporate limits.[2]

The decline in building materials appears to be nothing more than a reflection of the influence of general business conditions on building construction. The number of building permits issued in St. Louis for brick and stone buildings was high from 1888 to 1897, the annual average being nearly 2,650.[3] A sharp drop occurred in each of the succeeding three years, reaching a low of 1330 in 1900.

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[1] U.S. Census of Manufactures, 1900, Part 2, p. 475.

[2] In 1929, 61 percent of the manufacture of flour in the St. Louis Industrial Area occurred outside the limits of the city.

[3] St. Louis Merchants' Exchange, Annual Reports of 1898, 1893, 1913.

Building materials showed a continuation of the drop of the nineties in 1909 but a substantial recovery for 1919. And manufacture of saddlery and harness apparently has stabilized at the lower level of one and one-half million dollars reached in 1900.

Although the value reported in 1900 for malt liquors shows a serious decline the census in commenting on the decrease stated that St. Louis showed an increase in the physical volume of production and in the number of operating establishments.[1] Lower sales prices accounting for the drop in value of production came from two sources. Cost of materials in 1900 relative to 1890 was nearly twenty percent lower due to very low prices for barley, hops, and corn. And production costs were very favorably affected by improved methods of manufacture allowing more thorough extraction and by more efficient refrigeration.

In general the first decade of the present century was one of general prosperity for the major industries of the city with fifteen showing particularly large gains.

	Value of Manufactures in 1909	Increase Over 1900
Boots and Shoes	$ 33,970,000	$ 25,228,000
Bread and other Bakery Products	8,624,000	3,806,000
Boxes, Paper and Wood	2,165,000	1,752,000
Carriages and Wagons	6,328,000	2,294,000
Coffee and Spice, Roasting and Grinding	9,514,000	4,748,000
Food Preparations (not otherwise specified)	4,455,000	3,165,000
Foundry and Machine Shop Products	14,591,000	2,963,000
Leather Goods	5,143,000	4,247,000
Malt Liquors	23,147,000	11,473,000
Lumber Products	7,367,000	4,437,000
Patent Medicines	6,846,000	4,247,000
Printing and Publishing	17,164,000	7,348,000
Slaughtering and Meat Packing	26,601,000	13,658,000
Tinware, Copperware and Sheet-Iron Ware	5,060,000	2,880,000
Wirework; including Rope and Cable	3,323,000	2,309,000

No specific figure was reported for tobacco products but from 1900 to 1919 the industry increased the value of its production from $24,411,000 to $45,948,000 and it is probable that a considerable part of this twenty million dollar growth had occurred by 1909.

A number of other industries showed smaller gains than those recorded by the above but the bulk of the city's advance from $233,630,000 to $328,495,000 was made by this group. Gains made by the boot and shoe industry and meat packing are particularly striking and show the ability of the city to sell its products on a nation-wide scale. Malt liquors with

[1] U. S. Census of Manufactures, 1900, Part 3.

an increase of eleven millions showed marked recovery from the not altogether satisfactory position of 1900. The increase shown for coffees and spices, equal to nearly one hundred percent of the 1900 production, appears all the more remarkable when it is remembered that the 1900 figure represents a doubling from the previous decade.

Only two of the major industry groups for which data are reported show declines. Flour milling dropped from four to three and one half millions showing the continued effects of adverse factors appearing in the previous decade. Brick, and stone building materials dropped from $5,134,000 to $3,778,000 in spite of a relatively high number of building permits for brick and stone buildings in 1908 and 1909.[1]

Attention has previously been drawn to the importance of production in adjacent counties. For total manufactures this production was of markedly increasing importance after 1890. City and county production figures making up the total for the St. Louis Industrial Area show the following totals and percentage distribution of the totals in the decennial census from 1880 to 1920 except for 1909 which is not available.

	1880	1890	1900	1919
	(in thousands of dollars)			
Total Value of Manufacture St. Louis Industrial Area	139,519	253,299	295,599	1,358,839
Percentage Distribution of Total Value				
St. Louis City (Mo.)	81.9%	90.5%	79.0%	64.2%
St. Louis County (Mo.)	0.4	0.1	0.5	2.0
St. Clair County (Ill.)	12.4	6.8	14.2	20.7
Madison County (Ill.)	5.3	2.6	6.3	13.1

Source: U. S. Census of Manufactures.

It is obvious that after 1890 the city proper with its fixed corporate limits and high property values from relatively crowded conditions was not growing as rapidly as the industrial area surrounding it. Growth in the industrial area is particularly marked in St. Clair County after 1890. The drop in percentage importance of this county in 1890 was

[1] St. Louis Merchants' Exchange, Annual Report of 1913, p. 67.

occasioned by no change in its value of production while the total for the whole area was increasing. However, very marked growth occurred after 1890 to raise the county's figure from seventeen millions in that year to over two hundred and eighty millions in 1919.

The 1929 Census for the first time reported in full on manufacturing for the St. Louis Industrial Area and shows for most of the individual industries the values for the city proper and for the whole industrial area. Only sixty-six percent of the total manufactures of the area is a product of plants in the city proper. The following industries are those in which a material proportion of the development has occurred outside the limits of the city.

Industry	Percentage of Total Value of Manufactures of Industrial Area Outside of St. Louis Proper
Boxes, Paper and Wood	32%
Men's Clothing	30
Flouring and Grist Mills	61
Food Preparations	35
Foundry and Machine Shops	30
Furniture	17
Iron and Steel	92
Lumber and Planing Mills	15
Paints and Varnishes	40
Stoves and Furnaces	40
Soap and Candles	53
Tinware, Copperware, Sheet-Iron Ware	58

The development of the flour milling and iron and steel industries has obviously taken place to a very large extent in the surrounding counties but for all the above major industries as well as for many smaller ones important plants have been built in the surrounding industrial area.

PART III

Commerce and Industry 1910-1945

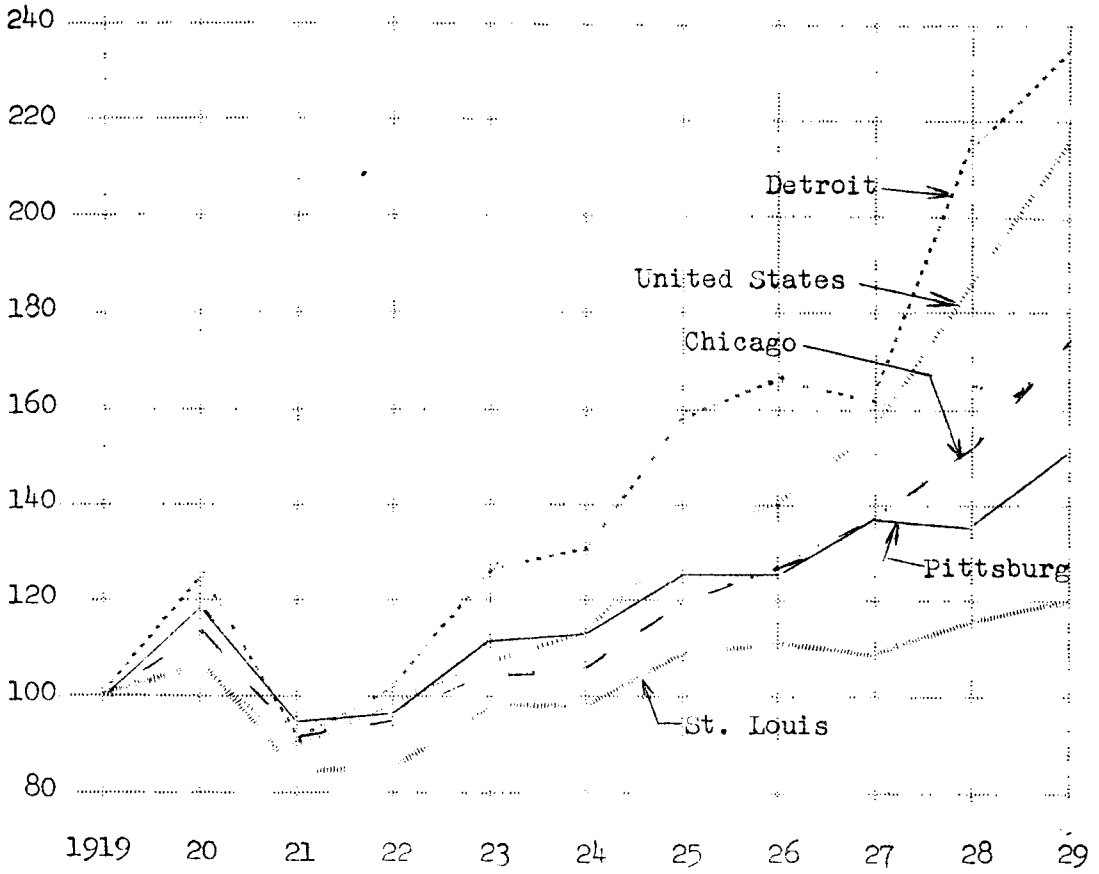
General Business Conditions.

The years 1910 to 1945 exposed the economy of the nation to possibly greater stresses than any comparable period in history. Two world wars, a major boom and a uniquely severe depression were crowded into the thirty-five years. These inevitably had very important effects for the commercial and industrial activity of St. Louis but review of the period shows that the basic economic pattern of the city was not profoundly altered. The city continued to show a large preoccupation with its jobbing and wholesale trade, a widely diversified industry, and a generally less violent change in population and economic indices than is apparent in many other large cities of the country.

The relative economic stability of St. Louis is apparent in various indices of business activity. Annual figures needed to construct a general index of economic activity for the St. Louis Industrial Area are not available and it is necessary to use more limited indices with care. Nevertheless, at least an approximate reflection of the city's reaction to all the dynamic forces of the period are apparent in the following graph of debits to deposit accounts of Federal Reserve Banks of St. Louis.

For the years prior to 1919, debits to deposit accounts have not been assembled, but bank clearings from 1910 to 1919 reflect clearly the influence of the war. With 1910 figures as 100, bank clearings show a steady increase to 1913 when the index was 111. Generally uncertain business conditions in 1914, particularly after the outbreak of war in Europe, reduced the 1914 index to 104 from where it climbed each year to reach 220 in 1919. In this latter year and the following year St. Louis showed the trade conditions which were common over the country as a whole. In spite of the continuance of government restrictions through most of 1919 and a severe railway car shortage, business boomed as consumer buying pressures accumulated during the war were released and as a spectacular monetary inflation occurred.

Index of Debits to Deposit Accounts of Federal Reserve Banks - 1919-1929
(Index - 1919 = 100)



The calamitous break in commodity prices in 1920, led by sugar prices which had been artificially inflated, hurt St. Louis not only in immediate losses from tremendous cancellations of speculative orders but from the general loss of buying power in the raw material areas constituting an important part of the city's market. As with other crops, cotton planting in 1920 was done at very high cost and the crop was marketed after sharp price declines.[1] Planters took enormous losses which along with credit difficulties led to stagnation in merchandising in the cotton areas.[2] The postwar recovery was

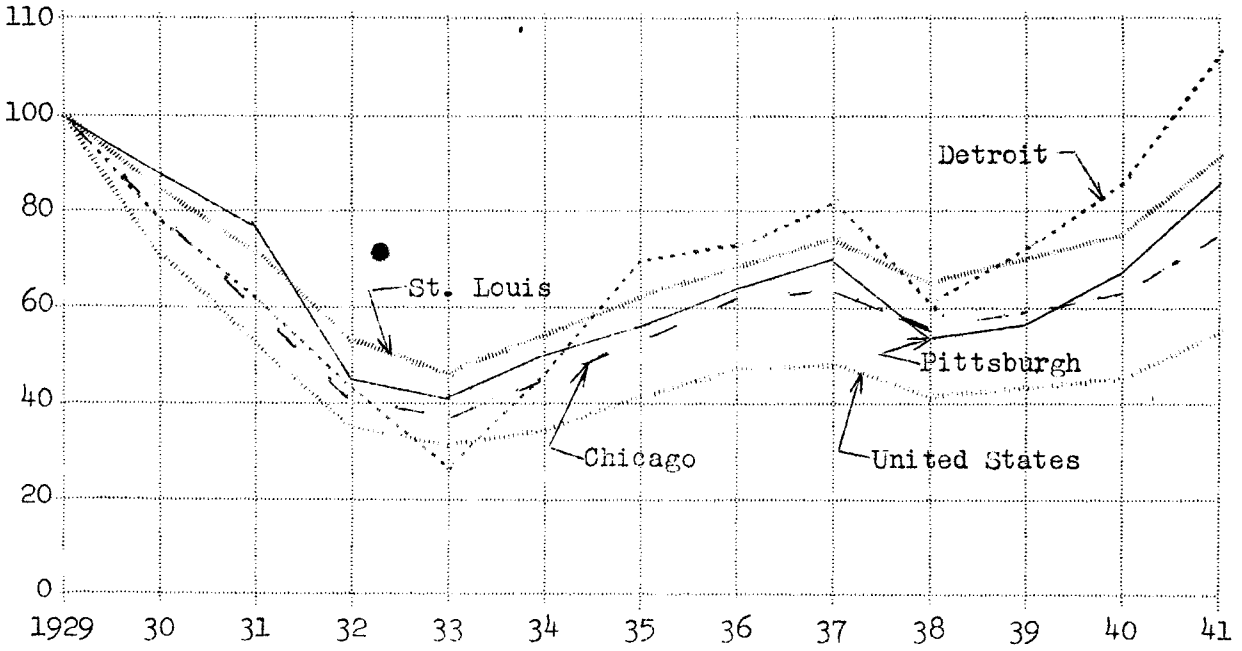
[1]The Research Bureau of the Chamber of Commerce has estimated that a change of one cent in the price of cotton changes the buying power of the St. Louis trade territory by over seventy million dollars. (St. Louis Chamber of Commerce News, Aug. 30, 1932)

[2]For discussions on trade conditions see St. Louis Merchants' Exchange, Annual Reports of 1914-1923.

slower by almost a year in coming to St. Louis than to the country as a whole and to the three other cities for which indices are shown in the above graph. St. Louis shows a fairly steady but moderate growth through the twenties with the index increasing from 84 in 1921 to 120 in 1929; for the country as a whole the two comparable indices are 90 and 212. Detroit showed an advance larger than the national average while Chicago and Pittsburgh increased somewhat less than the country as a whole but materially above St. Louis.

The lack of large boom gains in the late twenties allowed St. Louis to weather the post-1929 depression with much smaller shock than was the case for the country as a whole or for those cities shown above as making large gains in the late twenties.[1] The following graph uses the 1929 figures for debits to deposit accounts as 100 and shows the fluctuation from 1929 to 1941.

Index of Debits to Deposit Accounts of Federal Reserve Banks - 1929-1941
(Index - 1929 = 100)



[1] The St. Louis Industrial Area ranked seventh in the country in 1931 but advanced to sixth place in 1933 when products valued at $664,584,124 were manufactured (St. Louis Chamber of Commerce News, July 16, 1935.)

Probably because it lacked any tremendous boom growth in the late twenties St. Louis suffered a materially smaller decline between 1929 and 1933 than the country as a whole or the three other cities for which indices are shown. Unquestionably a very broadly diversified industry and the large importance of the jobbing business of the city also account for much of the stability shown by the St. Louis index. The increased activity of the city from 1933 to 1941 has been very good. It was nearer to its 1929 activity than Pittsburgh or Chicago or the country as a whole in 1941 and it has not shown the Detroit "boom or bust" extremes.

Figures for debits to deposit accounts were placed on a new basis after 1941 and are not strictly comparable with the data for 1929-1941. They show the marked increases resulting from wartime production and the St. Louis increases, while striking, were moderate compared with Chicago and Detroit and the nation as a whole. From 1942 to 1945 the debits increased 52 percent for the United States, 40 percent for Chicago, 25 percent for St. Louis and 21 percent for Pittsburgh.

Population Trends.

Population in the St. Louis area shows the same moderate, apparently stable growth from 1910 to 1940 as is shown in the previous period 1870 to 1910.

Population of St. Louis Industrial District and Metropolitan District

Year	St. Louis City Mo.	St. Louis County Mo.	Madison County Ill.	St. Clair County Ill.	Total St. Louis Industrial District	St. Louis Metropolitan Area*
1910	687,029	82,417	89,417	119,870	979,163	
1920	772,897	100,737	106,895	136,520	1,117,049	
1930	821,960	211,593	143,830	157,775	1,335,158	1.293,516
1940	816.048	274,230	149.349	166 899	1,406,526	1 367,977

*Reported by the Census for 1930 and 1940 only, the Metropolitan Area includes a portion of St. Clair, Madison, and Monroe Counties in Illinois and a portion of St. Charles County and all of St. Louis County and St. Louis City in Missouri.

Source: U. S. Census of Population.

The increase for the St. Louis Industrial District of 427,000 from 1910 to 1940 is equal to forty-four percent of the 1910 figure, a rate of growth slightly greater than shown by the total United States population. In 1910 the Industrial District contained 1.065 percent of the nation's population and by 1940 this figure had risen to 1,068 percent.[1]

For February 15 1944 the total civilian population of the United States was estimated as being 128,730 000 a decline of two percent from the 1940 figure.[2] Comparatively the St. Louis Industrial District made a good showing. It not only gained sufficient additions to overcome losses to the armed forces but showed an actual increase over 1940 of 4.2 percent so as to raise its total to 1.089 percent of the national total.

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[1]In Growth of American Industrial Areas (1938), pp. 54-55, Glenn E. McLaughlin presented the following data on population growth of 33 industrial areas:

Area	1900-10	1910-20	1920-30	1900-30
U. S.	21.0%	14.9%	16.1%	61.6%
Total, 33 industrial areas	32.9	25.3	26.3	110.3
Chicago area	31.5	27.9	32.8	123.4
Detroit "	47.7	118.1	65.7	433.6
Pittsburgh area	35.8	19.6	15.0	86.7
St. Louis "	26.1	14.1	19.5	71.9
Los Angeles "	196.0	85.8	135.8	1196.8
Cincinnati "	13.1	8.4	21.6	49.0
Minneapolis "	38.4	18.3	21.8	99.5
Kansas City "	40.6	26.4	25.1	122.2

[2]Estimated from registration figures of the Office of Price Administration and reported in Sales Management, May 10. 1946.

Commercial Trends 1910-1940

The commercial activities of St. Louis continue as in its earlier history to bulk large in the total economic life of the community. Before 1929 only estimates of the value of the trade of the city are available but for that year and several succeeding years U. S. Census figures on wholesale trade were compiled and show the relatively large place held by commercial activities in St. Louis economic affairs. Figures include not only transactions of wholesale and jobbing interests but also sales by manufacturers' own outlets when such are used. Census data for 1939 show that among cities of over 500,000 population the wholesale trade of St. Louis is large in per capita terms and large compared with its manufactures.

	Wholesale Trade per Capita	Ratio of Value of Wholesale Trade to Value of Manufactures[1]	Value of Wholesale Trade
San Francisco	$2171	1.41	$1,377,614,000
Boston	2121	1.15	1,634,784,000
New York	1738	1.86	12,954,252,000
St. Louis	1426	1.07	1,164,102,000
Pittsburgh	1239	.55	832,069,000
Chicago	1201	.95	4,080,415,000
Cleveland	1078	.84	946,653,000
Los Angeles	854	1.05	1,285,265,000
Philadelphia	840	.71	1,622,100,000
Detroit	803	.48	1,304,451,000
Buffalo	747	.47	430,270,000
Milwaukee	702	.55	412,000,000
Baltimore	673	.67	578,628,000
Washington, D.C.	524	4.36	347,772,000

[1]Value of manufactures for metropolitan industrial areas.
Source: Census of Business, Wholesale Trade, 1939.

In terms of the value of wholesale trade, St. Louis ranks eighth. However this figure in no way reflects the relative importance of the several cities as a center for wholesale trade for a territory outside the city. Unfortunately statistical records differentiating between the wholesale trade going to the city itself and to market areas outside the city are not available. The wholesale trade per capita for each city, nevertheless, indicates in at least very approximate terms the relative standing of the cities in terms of their sales in market areas outside the city:large per capita sales suggests large sales outside the city if consumption standards are about the same and if the volume of visitors to each city is of about the same relative importance to total city population.

Although San Francisco is fifth in terms of total value of whol - sale trade a considerable preoccupation w th jobbing and wholesaling is suggested by its very high sales per capita and by the high ratio of wholesale trade to manufactures. New York shows its pre-eminence in wholesaling with the largest value and with a high ratio of wholesale trade to manufactures. With the exception of Los Angeles and Washington the cities listed below St. Louis show a much greater emphasis on manufacturing relative to wholesale trade than does St. Louis.

The trade pattern of the city was altered very little by the effects of World War I. The commodities of outstanding importance in the trade of the city in 1923 are very generally the same as during the previous two decades.

Value of Sales of Leading Commodities
Excluding Grain Products

	1903	1913	1923
Groceries & kindred lines	$78,000,000	$80.000,000	$125,580,000
Drygoods & notions	50.000,000	75,000,000	150,000,000
Lumber	not reported	50,000.000	134,200,000
Boots and shoes	45,000,000	70,102.000	210,000,000
Tobacco and cigars	36,000,000	52,000,000	60,000,000
Hardware	35,000,000	48,000,000	96,575,000
Railway Supplies	25,000,000	15,000.000	not reported
Furniture	25,000,000	24,000,000	25,000,000
Drugs and chemicals	21,500,000	26,000,000	58,000,000
Meat packing products	not reported	not reported	53,000,000
Vehicles and implements	21,500 000	25,000,000	49,048,000
Flour and mill feeds	not reported	not reported	41,600,000
Beer	17,000,000	not reported	not reported
Iron and steel wagon material	15,000,000	not reported	not reported
Railway and street cars	15,000,000	30,000,000	9,000 000
Woodenware	12,000,000	22,000,000	not reported
Paints, paint oils, etc.	10,000,000	15,000.000	17,250,000
Bakery goods	not reported	10,000.000	10,000,000
Clothing (men's & women's)	7,000,000	15,000,000	62,000,000
Paper, stationery, envelopes	6,950.000	12,500,000	27,750,000
Stoves, ranges, furnaces	4,000,000	11,000,000	10,000 000
Electric Industries	7,000,000	20,000,000	60,000,000
Furs	5,000.000	10,000,000	30,000,000
Steel castings, foundry, machine shop products	5,000,000	21,000,000	110,000,000
Soaps & candles	not reported	11,000,000	41,500,000
Tin, enameled, galvanized ware	not reported	11,000,000	42,000,000

Sources: 1903 and 1913 data from St. Louis Merchants' Exchange, Annual Reports of 1903 and 1913; 1923 data from Greater St. Louis, Jan., 1924, issued by St. Louis Chamber of Commerce and American Retailers Association.

These data are estimates prepared by two different representatives of the commercial interests of St. Louis and probably are only usable for approximate comparisons. They show, however, that with few exceptions the leading business lines are the same. The lack of reporting for some items does not mean, except in the instance of beer in 1923, a lack of sales or necessarily even very small sales but a mere failure of the reporting agency to include the particular line.

Through this whole period as in previous periods St. Louis marketed over the west and southwest not only its own manufactures of groceries and a variety of foodstuffs but food products from every section of the country. Thirty large wholesale houses handle the bulk of this business and while they find important markets in over a dozen states their major territory is found within a 200-mile circle about the city covering much of Missouri, Arkansas, Kentucky, and Illinois.[1] In addition to acting as the hub for direct distribution of groceries the city is the center for a number of wholesale establishments that operate through branch houses in the same distribution territory.[2] A number of specialty houses add to the trade volume in foods.

The city continues to be one of the large centers for manufacture of jams and jellies which are shipped regularly to thirty-six states. In 1928 one of these companies shipped forty-four carloads of preserves, jelly and apple butter, totalling about one million jars and found a market in almost every state in the Union.[3] The bulk of the shipments went to southern states but the whole trade territory extended from Las Vegas, N.M. in the southwest to Philadelphia and Boston in the northeast. Many other specialty lines such as pecans, coffee, as well as a large candy trade continued to flourish in these later years and to add to the stature they attained before 1910.[4]

Drygoods, generally ranking second to grocery lines, is marked in this period by the development of more and more local manufacturing to support the wholesale distribution which has always been important to the city. In the early thirties nearly one quarter of the sales of local jobbers consist of goods manufactured in their own plants and the trend toward less dependence on eastern manufactures seems well-established.[5]

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[1] Know St. Louis Weekly, Nov. 6, 1927.
[2] Mace, H., "St. Louis - The Wholesale Grocery Center", Greater St. Louis, (May, 1921).
[3] Know St. Louis Weekly, March 11, 1928.
[4] Ibid., May 1, 1927.
[5] St. Louis Chamber of Commerce News, April 7, 1931
Greater St. Louis, (February 1925).

The same development is apparent in the millinery business of the city. At the beginning of this period the city could find only two wholesale millinery establishments within its borders. In the first half of the twenties, however, marked expansion was apparent. By 1925 more than forty companies could be found in the hat trade and in allied lines such as feathers, frames, linings, etc. While many of these companies were small, one of them was rated as the largest of its kind in the world.[1] And a trade territory extending over virtually the whole country was served.

Of considerable importance to the city is the warehousing and distributing it does for something over two thousand chain or home-owned variety stores scattered through ten states. A considerable part of the one hundred million dollar sales of five cent to one dollar merchandise of these stores is supplied by St. Louis wholesalers.[2]

In all the old traditional lines such as boots and shoes, lumber, tobacco, drugs and chemicals, woodenware, paints, men's clothing, paper and hardware, the city continued to hold its place suffering less than many other cities in depression years and building steadily and firmly if not spectacularly in good years. In various lines innovations are made. From a position of relative unimportance St. Louis developed as a wholesale flower center supplying the southwest and southeast. By 1925 this business was amounting to over fifteen million dollars a year and the city had moved up from tenth place to fourth among flower centers of the country.[3]

One other innovation that must not be ignored resulted in a revolutionary change in the position of the city in women's dressware. For years many of the dress manufacturers were inadequately capitalized, business was very uncertain, style pirating was commonplace and the city's claims as a style center had to be very modest as it largely depended on the east for styles and for a material amount of the products handled by city jobbers. Frequently dresses for St. Louis style shows were purchased in New York. In the depths of the depression this creaking marketing structure was completely rebuilt. In conjunction with students in a dress designing course at Washington University a leading women's wear store developed the now nationally known "Junior Miss" styles. Close collaboration continues between the Washington University School of Fine Arts and manufacturers and retailers. A style registration system was organized so as to prevent style pirating, an exclusive distribution system prevents duplication of dress copies in any one retail area, and style shows have been so revitalized that buyers from eastern centers are common visitors.[4]

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[1] Greater St. Louis, February 1925.
[2] Cunningham, B. W., "Variety Stores Now A Major Local Industry", St. Louis Commerce, Oct. 26, 1938.
[3] Greater St. Louis, February 1926.
St. Louis Star, December 29, 1928.
[4] Gross, Blanche, The Awakening of An Industry (1943).

In normal business years sixty manufacturers of women's, misses, and juniors' suits, coats and dresses are found enjoying a profitable business selling over the whole nation:

> "It is literally true that every state in the Union is an active market for our women's apparel. There are single manufacturers here who have accounts in all states; there are others whose output goes largely to local or out-of-town jobbers who concentrate on a more limited territory.
>
> All the states bordering on the Mississippi are good St. Louis outlets. Missouri and Illinois are the nearest states and sales in them are most concentrated; but even in distant California, women have ample opportunity to purchase St. Louis made garments."[1]

Jobbers in the city handling products of local dress manufacturers and eastern manufacturers were, before the war, doing an annual business between eight and ten million dollars and employing over three hundred people.

There are also considerable changes in the relative position of other products in 1923 relative to the earlier years particularly noticeable being the rise of steel castings, foundry and machine shop products from $5,000,000 in 1903 to $110,000,000 in 1923. Also between the same two years the percentage change upward is large in drygoods, boots and shoes, men's and women's clothing the electric industries, furs, and probably in soaps and candles, and tin, enamel and metal ware. Also a notable increase is apparent in lumber sales, reported at $50,000,000 for 1913 and $134,200,000 for 1923. Declines of any importance are shown only for the sale of railway supplies from 1903 to 1913 and railway and street cars from 1913 to 1923. Beer sales declined badly even before Prohibition. One large St. Louis company which sold $18,000,00 of beer in 1913 fell to $6,500,00 by 1919. The arrival of Prohibition was a severe blow to not only the brewing companies but to the city as a whole. Anheuser-Busch was reduced to making near beer and Bevo and found neither one profitable.[2]

The grain trade contributed its increases to the growing commerce of the city during and following World War I. Receipts of wheat for twelve years ending in 1923 were at an annual average of 36,981,000 bushels compared with an average of 20,977,000 in the preceding twelve years.[3] The receipt of 48,716,000 bushels in 1921 stood well above the largest annual receipts between 1867 and 1923; the year 1902 had shown receipts of 30 667,000 and the next largest year had been 1891 with 25,523,000.

Shipments of wheat from 1910 to 1923 ranged between five and ten million bushels less than receipts, indicating a larger processing in the city then in the previous two decades when shipments more nearly balanced receipts.

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[1] Sapin, J. N. "The Women's Apparel Industry", St. Louis Commerce, July 20, 1938.

[2] "King of Bottled Beer; Anheuser-Busch Returns", Fortune, Vol. 12 July 1935.

[3] Appendix B.

The downward trend in corn receipts after 1890 was arrested in the first decade of the century and from 1910 till the end of the war, receipts were stable averaging about twenty million bushels a year. Between 1918 and 1923, however, a very definite improvement is apparent which raised the average for 1921-1923 to over thirty millions. With this increase, corn shipments also grew so that shipments maintained their typical prewar relationship to receipts being very commonly eight to ten million bushels less than receipts.

Both receipts and shipments of oats have continued to be important in the city's grain trade. From 1910 to 1923 the annual receipts ranged between nineteen and thirty-six million bushels compared to the range of seventeen million to forty-nine million for wheat and seventeen million to thirty-three million for corn. Shipments of oats comprise a larger percentage of receipts than is the case for wheat and corn being generally only six to nine million bushels less than receipts.

Rye and barley receipts have always been relatively small compared with the other three grains. Only three times since 1867 have rye receipts reached one million bushels and the average for the five years 1919-1923 was approximately a half million bushels with shipments averaging about 350,000 bushels. From 1880 and until World War I barley receipts fluctuated around two million bushels annually with relatively small amounts being shipped out. From 1919 to 1923 the receipts dropped to about one million bushels with one third being reshipped.

Since 1924 reporting of grain receipts and shipments was not continued by the St. Louis Merchants' Exchange and for shipments no statistics are now available.[1] However, although the old statistical series reported by the Merchants' Exchange cannot be strictly compared with Grain Receipts at Primary Markets reported by the Department of Agriculture this latter reporting shows the receipts of wheat, corn and oats at St. Louis since 1923.

From 1923 to 1931 the volume of wheat receipts at St. Louis ranged between 53,231,000 bushels in 1928 and 29,697 000 in 1925. After 1931 and continuing until 1937 the volume is much lower ranging between 17,989,000 bushels and 14,825 000. After 1937 a general and marked improvement is shown with the total reaching 45,273 000 bushels in 1942 and 79,009 000 in 1943.[2] Corn receipts show much the same fluctuation. Generally good receipts after 1923 reached a high of 38,108 000 bushels in 1928 and thereafter declined to a low of 10,612,000 in 1934. Some recovery was made in succeeding years but major improvement did not come until 1941. In 1942 and 1943 the figure rose still further to reach a recent high of 31,834,000 in 1942. Oats showed the same decline in receipts, starting from a high point in 1923 of 35,001,000 bushels and dropping sharply and continuously to reach 5,717,000 in 1931. Thereafter the annual figure remained at about that level until 1943 when 10,439,000 bushels were received. Receipts of all grains in this latter year totalled 75 649,000 bushels which was second only to the all-time high of 81,000,00 bushels in 1928. Local consumption is approximating 25,000,000 bushels annually. A conservative estimate would place the value of the city's grain receipts at $100,000,000.[3]

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[1] Northwestern Miller, April 28, 1937 p. 58.
[2] U. S. Department of Commerce, Statistical Abstract of the United States, 1931, 1934, 1944-45.
[3] Schwarz, O. H., "The St. Louis Grain Industry", St. Louis Commerce, June 21, 1944.

In 1943 St. Louis was fourth among the twelve primary markets in receipts of wheat being exceeded by only Minneapolis, Duluth and Kansas City. For corn receipts the city was second to Chicago. And for oats was in fourth place following Minneapolis, Chicago and Duluth.[1]

Reason for the low receipts in the thirties is to be found both in losses of some handling of these grains to other cities and in decline in the total receipts at all primary markets. From 1923 to 1931 when the city's receipts of wheat were large St. Louis received approximately nine percent of total receipts at all primary markets. In spite of some change in the character of the reporting after 1931 that confuse comparisons, the figures indicate some decline in the city's comparative importance but also show some of its loss came from smaller total crops.[2] In 1942 and 1943 compared to other primary markets the city is in as strong a position as any time in the preceding twenty years. In respect to corn the situation seems much the same and increase of St. Louis receipts in 1942 and 1943 restored to it the relatively favorable position it had held between 1923 and 1927. After 1925 the total receipts of oats at all primary markets declined very sharply and St. Louis not only suffered from this drop but also from handling smaller percentages of the totals, approximately eight percent in 1933, four percent in 1941, and, as some considerable improvement, eight percent in 1943.

These varied developments in the commercial activities of the city supported the city relatively well during the bad years of the thirties and brought it back to a relatively good position by 1939. Among the four cities of the Middle West shown in the following table St. Louis did comparatively well in terms of total wholesale trade in the low year of 1935 and in the later year 1939.

City	Wholesale Trade (in millions of dollars)			Index		
	1929	1935	1939	1929	1935	1939
St. Louis	1 395	882	1,164	100	63	83
Kansas City	1,382	650	762	100	47	55
Cincinnati	691	477	647	100	69	94
Chicago	5,697	3,270	4,080	100	58	72

Source: U. S. Census of Wholesale Trade, 1940.

[1] For receipts at 12 primary markets, 1933 to 1943 see Appendix X.

[2] U. S. Department of Commerce, "Grain Receipts at Primary Markets", Statistical Abstract of the United States, 1929, 1934, and 1944-45.

In 1935 the city suffered far less severe losses than Kansas City and Chicago relative to 1929, and by 1939 was back to eighty-three percent of the 1929 figure compared with fifty-five and seventy-two percent for Kansas City and Chicago. Cincinnati managed even better than St. Louis dropping only about thirty percent from 1929 to 1935 and recovering by 1939 all but six percent of the 1929 total.

A re-arrangement and enlargement of these same data on wholesale trade shows the relative position of a number of cities in the nation's trade and their changing importance from 1929 to 1939.

Wholesale Trade of Selected Cities, 1929, 1935 and 1939

	1929		1935		1939	
	Value in millions of dollars	Percent of total U. S. wholesale trade	Value in millions of dollars	Percent of total U. S. wholesale trade	Value in millions of dollars	Percent of total U. S. wholesale trade
United States	67.0	100.0%	42.8	100.0%	55.3	100.0%
St. Louis	1.4	2.1	0.9	2.1	1.2	2.1
Chicago	5.7	8.5	3.3	7.6	4.1	7.4
Boston	2.3	3.4	1.3	3.1	1.6	3.0
Detroit	1.4	2.1	1.0	2.2	1.3	2.4
Los Angeles	1.3	2.0	0.9	2.2	1.3	2.3
Kansas City	1.4	2.1	0.6	1.5	0.8	1.4
Cincinnati	0.7	1.0	0.5	1.1	0.6	1.2

Source: U. S. Census of Wholesale Trade, 1939.

While St. Louis was precisely retaining its same position in the total wholesale trade of the country Detroit Los Angeles, and Cincinnati were improving their position and Chicago Boston and Kansas City were suffering declines considerably more severe than occurred over the country as a whole giving them a markedly smaller percentage of the total in 1939 than they had possessed in 1929.

The relatively poor showing of Kansas City develops in considerable part out of the very large dependence of the city on the grain trade. As the following table shows over one third of its trade was in farm raw materials consisting of grains, feeds and seeds, hides, skins etc.

Wholesale Trade, 1939
(in millions of dollars)

	St. Louis	Kansas City	Cincinnati	Chicago
Clothings and furnishings	138.6	6.2	7.1	88.8
Groceries	126.5	98.8	98.1	619.4
Automotive	97.8	93.5	57.1	162.1
Metal and metal products	88.2	15.7	61.2	425.5
Machinery-equipment and supplies	76.8	44.1	39.1	289.1
Drygoods	75.8	4.1	8.6	146.1
Farm products-raw materials[a]	53.2	276.7	32.5	413.4
Farm products-consumer goods[b]	48.4	27.0	33.3	336.8
Electrical goods	44.2	29.1	30.8	180.0
Lumber and construction goods	33.9	25.5	30.0	140.1
Drugs and drug sundries	30.1	13.5	6.2	65.4
Hardware	26.3	8.2	3.3	43.2
Paper and paper products	20.7	6.8	24.2	140.6
Tobacco	17.4	9.3	11.1	56.8
Chemicals and paints	15.6	8.2	10.6	114.3
Total - all products	1,164.1	762.1	647.2	4,080.4

[a]Grains feeds, seeds, skins, cattle horses and mules.
[b]Dairy and poultry products, fresh fruits and vegetables.

The commodity groupings are listed in their order of importance to St. Louis and the outstanding place held by clothings and furnishings and groceries is perfectly apparent. The lead which the city enjoys over the other three centers in clothings and furnishings is striking and reflects both the importance of St. Louis' manufacturers in these lines and the city's very important place in their wholesale distribution. In view of population differences in the two cities the ninety-seven million dollar sales of automotive equipment in St. Louis places it in very favorable position relative to Chicago which is shown with sales that are only two thirds larger. Sales of metal and metal products and machinery in fourth and fifth places for St. Louis reveal the healthy growth of a light metal industry in spite of the failure of local resources needed to build up the heavy steel industry in the city. Although the forty-four million dollar sales in electrical goods fall far short of Chicago's sales they are well above Kansas City and Cincinnati and indicate both a healthy manufacture and an active jobbing interest in St. Louis. In drugs and drug sundries the relatively large figure for the city reflects the long continued growth of a manufacturing and trade interest that was an important feature of the city a hundred years before. With the exception of three or four groups this same feature is apparent for the trade of the city - its present position is founded not on a few special lines but on the long continued growth of its old lines of trade. Innovations have been added in important measure but these are still only additions. Old lines have in many details assumed new forms but fundamentally the hundred years have seen no revolutionary change in the trading character of the city.

The St. Louis Trade Area

In earlier sections it has been seen that the St. Louis trade area had been set during the era of the steamboat in the broad territory reached by the Upper and Lower Mississippi, the Illinois, and Missouri Rivers. With the decline of river traffic this market area was constricted to the north as St. Louis no longer possessed natural advantages in the valley of the Upper Mississippi. The city, however, continued to hold strong commercial ties in Missouri and southern Illinois and in the territory lying south of these states.

The importance of this latter market in the southwest has not diminished for St. Louis. Information on the destination of 184.294 package or merchandise cars forwarded from St. Louis in 1941 prepared by the Transportation Bureau of the St. Louis Chamber of Commerce serves as a rough indicator of the city's market area and shows the continuing importance of this southwestern market. The Chamber of Commerce designates a region consisting of fourteen states as the city's Major Distributing Area which in 1941 received eighty-two percent of the package cars forwarded from the city.[1]

Major Distributing Area	No. of Package Cars (12 months - 1941)	Average No. Per Day (300 Day Year)	Percent of Total
Missouri	41,875	139.58	22.7
Illinois	24.693	82.31	13.4
Texas	19,191	63.97	10.4
Arkansas	10 565	35.22	5.7
Kansas	9,983	33.28	5.4
Oklahoma	9 391	31.30	5.1
Tennessee	6,858	22.86	3.7
Louisiana	5 437	18.12	3.0
Indiana	4,659	15.53	2.5
Ohio	4,386	14.62	2.4
Iowa	3,921	13.07	2.1
Alabama	3 674	12.25	2.0
Kentucky	3,552	11.84	1.9
Mississippi	3 259	10.86	1.8
Total	151,444	504.81	82.1

[1] Industrial Bureau of St. Louis Chamber of Commerce. Industrial Report on St. Louis (1945), p. 9.

The states to the east and west of St. Louis along with Iowa are obviously important markets for St. Louis merchants. But the city continues to hold the region of the lower Mississippi and Gulf in a place of marked importance as it did in much earlier days. The area tied to St. Louis by river traffic in steamboating days constitutes an important market where St. Louis commercial connections are still strong.

Spreading in all directions around the major market area of the city are seven other states where St. Louis manufacturers and jobbers sell important parts of their products. California stood at the forefront of this secondary market area taking in 1941 a slightly larger number of merchandise cars from St. Louis than did Iowa, equal to two percent of the total of 184,294.

Secondary Market Area	No. of Package Cars (12 months - 1941)	Average No. per Day (300 Day Year)	Percent of Total
California	3,776	12.59	2.0
Pennsylvania	3,262	10.87	1.8
New York	2,788	9.29	1.5
Georgia	2,610	8.70	1.4
Nebraska	2,308	7.69	1.3
Florida	2,204	7.35	1.2
Minnesota	2,000	6.67	1.1
Total	18,948	63.16	10.3

These seven states received ten percent of the merchandise shipments compared with eighty-two percent for the Major Distributing Area of the city but, in receiving between twelve and six cars per day from St. Louis they appear as important markets for the city. Although the states comprising the group are located at considerable distances from St. Louis they obviously make up an area where the city's distributors make sizable sales. Seventeen other states were recorded as receiving between one and five cars per day. At the head of this group are found Colorado, North Carolina, Washington, Utah, and Wisconsin.

In general a more local but very important distribution service is performed by motor truck service. In addition to a number of independent trucking companies and individual truckers there are 261 truck lines operating out of the city. Through service is performed to many relatively distant points such as Detroit, Buffalo, New York, Louisville, New Orleans, Dallas, Fort Worth and Houston, Wichita, Omaha and even Pacific Coast points.[1] The major market area served by those lines, however, is that lying within a 150 mile radius of the city.

Study of the commerce of St. Louis between 1870 and 1910 revealed that the river, on which the city had depended so much in earlier decades, ceased to be of noticeable value as a commercial artery. All the handicaps of inadequate channels continued after 1870 to add to the inevitably difficult position in which waterway transportation had fallen. Improvements undertaken almost wholly in the present century have altered the waterway picture. Today channel depths of nine feet or more are found from the mouth

[1] Industrial Bureau, St. Louis Chamber of Commerce, Industrial Report on St. Louis (1945), p. 51.

of the Mississippi to Minneapolis and Chicago with approximately six feet from St. Louis to Kansas City and four to six feet from the latter city to Sioux City.[1] From New Orleans the Intracoastal Canal offers a twelve foot channel west to Corpus Christi and east to Apalachicola. Connections are made at Mobile with the nine foot channel of the Tombigbee-Black Warrior System reaching Birmingham.

Improvement in waterway channels do not promise to be an unadulterated advantage to St. Louis. A relatively new type of 2000-ton barge is being operated capable of handling three times the cargo carried in the older 500-ton barges. Even in years when the channel above St. Louis has suffered from abnormally low water these barges have moved through from the head of navigation on the Upper Mississippi to New Orleans with no trans-shipment at St. Louis. Large development of this traffic would injure a variety of port interests in the city and possibly various rail carriers serving the city.[2]

The Federal Barge Lines and Mississippi Valley Barge Lines have extensive operations on the river system. The former operates from Minneapolis and St. Paul, Chicago and Kansas City to New Orleans, and the Mississippi Barge Line offers regular scheduled services between St. Louis, Cincinnati and New Orleans. In addition to these two major operators the American Barge Line and the Union Barge Line offer less regular service to St. Louis.[3]

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[1]U. S. Army, Chief of Engineers, Annual Report of 1943, Part 2.

[2]Hartsough, M. L., From Canoe to Steel Barge on the Upper Mississippi (1934), pp. 253-4.

[3]In its issue of Oct. 24, 1946 the St. Louis Globe Democrat noted the operation of the first towboat in fifty years between St. Louis and Omaha.

> "In a scene reminiscent of the heyday of the river traffic of the 1880s a heavily loaded barge pushed by the towboat Franklin D Roosevelt, docked at the port of Omaha Neb., yesterday after a trial run up the Missouri River from St. Louis.
>
> The 280-foot steel barge was loaded with Brazilian coffee; iron and steel from Chicago St. Louis and Kansas City; beer from St. Louis and Peoria, bottles from St. Louis machinery from Cincinnati, and agricultural implements from Chicago.
>
> A return trip to St. Louis will get underway Saturday. The barge will stop at Nebraska City, Neb., en route, to pick up 600 tons of grain and several carloads of canned goods."

The river traffic at St. Louis has grown materially since 1934 the first year in this recent period for which reliable statistics are available.

River Traffic at St. Louis, 1934-1945

Year	Receipts (tons)	Shipments (total)	Total (tons)
1934	394,441	303,858	698,299
1935	410,730	327,008	737,738
1936	421,800	362,596	784,396
1937	417,027	508,493	925,520
1938	512,056	806,193	1,318,249
1939	484,105	683,682	1,167,787
1940	525,858	776,756	1,302,614
1941	602,579	774,693	1,377,272
1942	523,040	592,612	1,115,652
1943	467,346	513,198	981,544
1944	710,720	650,845	1,361,565
1945	599,117	796,652	1,395,769

Source: Industrial Bureau, St. Louis Chamber of Commerce, Industrial Report on St. Louis (1945).

Tonnage figures for the receipts and shipments at St. Louis in the heyday of river traffic are not available but the above figures can be compared with receipts and shipments for 1883 shown in Appendix Z. River receipts in that year totalled 629,000 tons and shipments 677,000 for an aggregate of 1,306,000 tons. This figure is very close to the larger tonnage developed in the last decade and is materially larger than the total receipts and shipments of 259,000 tons reported for 1913 by the St. Louis Merchants' Exchange.[1] River tonnage today is, of course, tremendously less important in the total receipts and shipments by all forms of transport than in 1883 but in limited measure at least the river continues its old tendency to orient the city toward the south and southwest.

[1]See Appendix Z for shipments and receipts 1883 to 1923.

Foreign markets have offered an increasingly greater trade area to St. Louis jobbers and manufacturers during the last three decades. In 1900 there were thirty-three exporting houses in the city and steady growth over the next two decades more than trebled this figure. During the twenties one hundred and fifty houses were handling annual sales of sixty million dollars with Cuba and Mexico being the largest single buyers.[1] An important portion of the total went to South America.

Even before World War I Latin America trade journals carried advertisements for a tremendous variety of St. Louis products including wire rope and cables, tin ware, bicycles, beer, leather products hardware, paints and oils, furniture, candy, soap, woodworking machines, electrical appliances and supplies, ladies' garments, chemicals, china and glassware, caskets, surgical instruments and a variety of other articles too long to mention.[2]

In the decade of the thirties the interest of St. Louis in foreign markets is not diminishing and over three hundred firms are actively engaged in the business. Exports finding their way to almost one hundred foreign countries were estimated as aggregating at least fifty million dollars.[3]

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[1]Murray, Chris L., "St. Louis Expands Her Export Range All Over the World", St. Louis Globe Democrat, February 27, 1927.
St. Louis Chamber of Commerce News, April 30, 1929.

[2]"The Foreign Trade of St. Louis", a report of the Foreign Trade Committee of the Business Men's League of St. Louis (1912), pp. 5-6.

[3]Gephart, W. P., "St. Louis and Foreign Trade", St. Louis Commerce, May 25, 1938.

Manufacturing, 1910-1945.

The Industrial District of St. Louis has developed in eight rather well-defined industrial areas. Seven of the eight are found on the west side of the river in the following sections:[1]

North Broadway Industrial Section - lumber, woodworking, Mallinckrodt Chemical Works, Mississippi Glass Co. - grain elevators - meat packing - boiler works - machine shops.

South Broadway Industrial Section - smelters, chemical plants, foundries - American Car & Foundry - Monsanto Chemical Works - boiler works - Anheuser-Busch brewery.

Mill Creek - railroads occupy floor of valley - MP, StLSF and Terminal - two largest St. Louis meat packing plants - glue works - foundries.

River des Peres - MP and Frisco serve valley - brick, tile, terra cotta clays - Scullin Steel - More-Jones Brass Foundry - National Lead Co.

Oak Hill - clay products mainly - served by branch line of MP - light manufactures.

Northwest - in Harlen Creek drainage basin - two large brick plants - Terminal Railroad along the valley - Chevrolet and Fisher Body Works - Pullman Car Shops - United Drug - Bridge and Beach Stove Co.

Carondelet - delta of River des Peres and Mississippi - steel smelters, foundries, railroad yards and shops - one large grain elevator.

Downtown St. Louis Section - manufacture of shoes, hats, clothing chemicals, drugs, etc. - commercial and financial district.

On the east side of the river are steel foundries, smelters, refineries, the Aluminum Corporation of America, chemical plants, flour and feed mills and many miscellaneous processing plants. National City has four hundred acres covered with stockyards and meat packing plants. Madison and Granite City concentrate on iron and steel foundries and stamping mills. Between Madison and National City are the creosoting yards of the Kettle River Company and the Barver Asphalt Company with a large cotton-seed cake mill nearby.

In the period from 1870 to 1910 the east side industrial area was of growing importance in the total manufacturing of the St. Louis District. Data are not available in the 1910 Census to show the situation in 1909 but comparisons of recent years with 1900 shows the city proper declined in relative importance until after 1919 when it apparently worked toward at least a temporarily stable place in the industrial activity of the whole district.

[1]cf. Holsen, James N., Economic Survey of St. Louis (1927).

Value of Manufacture - St. Louis Industrial District
(millions of dollars)

Year	St. Louis City		St. Louis County		St. Clair County, Ill.		Madison County, Ill.		Total
	Amount	Percent of total	Amount	Percent of total	Amount	Percent of total	Amount	Percent of total	Amount
1900	233.6	79.0	1.4	0.5	42.0	14.2	18.6	6.3	295.6
1909	328.5	a	a	a	a	a	a	a	a
1919	871.7	64.1	26.7	2.0	281.5	20.7	179.0	13.2	1,358.8
1929	1,022.7	66.3	45.4	2.9	215.0	13.9	258.8	16.9	1,542.0
1939	716.7	66.0	45.8	4.2	169.8	15.6	154.4	14.2	1,086.6

[a]Not available.
Source: U. S. Census of Manufactures.

St. Louis County held to a relatively stable volume of products in 1929 and 1939 and its greater percentage importance in 1939 comes from this stability. A great deal of the growth of the whole area in the first two decades of the century developed in St. Clair County containing East St. Louis and Belleville, and in Madison County containing Madison, Granite City, Wood River and Alton. The two counties, however, did not hold the gains made up to 1919 and show a considerable drop from a combined importance of 33.9 percent of the total in 1929 to 29.8 percent in 1939. It is particularly notable that much of the loss in St. Clair County came between 1919 and 1929 when all the other component parts of the area were showing quite healthy increases.

At times St. Louisans have shown some alarm at the growth of the Illinois towns found in St. Clair and Madison Counties. However, it has come to be rather generally recognized that the products manufactured in these towns would normally be excluded at least in part from a large city of fixed limits by economic forces and by modern ideas of city planning.[1]

From 1900 to 1939 the value of manufactures of the St. Louis Industrial District showed a growth from $296,000,000 to $1,087,000,000. At the opening of the century the St. Louis figure represented 2.27 percent of total U. S. value of manufactures and in 1939 had fallen to 1.91. This loss occurred between 1929 and 1939 as the previous decennial censuses show the city with almost precisely the same percentage importance from 1900 to 1929. This same phenomenon, however is apparent in most of the leading cities of the country:

[1]cf. Goodrich, E. P., St. Louis Industrial Survey (1918), pp. 612-13.

Value of Manufactures in Selected Cities, 1929 and 1939

	1929		1939	
	Value of manufacture (in millions)	Percent of total	Value of manufacture (in millions)	Percent of total
United States	$ 67,994		$ 56,843	
St. Louis	1,542	2.3	1,087	1.9
Chicago	5,558	8.2	4,278	7.5
New York, Newark, New Jersey	9,424	13.9	6,948	12.2
Philadelphia-Camden	2,981	4.4	2,293	4.0
Cincinnati	933	1.4	703	1.2
Cleveland	1,505	2.2	1,123	2.0
Pittsburgh	2,015	3.0	1,501	2.6
Detroit	2,014	3.0	1,583	2.8
Boston	1,950	2.9	1,425	2.5
Kansas City	741	1.1	484	0.8
Los Angeles	1,319	1.9	1,219	2.1

Source: U. S. Census of Manufactures.

Relative to 1929 all the 1939 figures in the above table show losses but even more they show that for St. Louis and for nine of the ten other cities the losses were proportionately greater than for the United States as a whole. Los Angeles shows a smaller value of production in 1939 than in 1929 but its share in the total national production rose from 1.9 to 2.1 percent. It is possible that the relative 1939 situation of these large cities reflects some influences from the dispersion of industry which has been recognized as a developing phenomenon in American industrial organization but the data are obviously too limited to support any conclusions of that nature. In large part they probably reflect pecularities of the year 1939 that had more depressive effects for the manufacture of the large centers than for the country as a whole.

Data for St. Louis for the whole decade of the thirties show that in general the poorer position of St. Louis in 1939 relative to 1929 represents a relatively slow recovery from the low points of 1933.

Manufacturing and Manufacturing Wage Earners In St. Louis Industrial District, 1929-1939

Year	Wage Earners		Value of Manufactures	
	Number	Percent of U. S. Total	Value in millions	Percent of U. S. Total
1929	154,321	1.84	1,542.0	2.26
1931	118,334	1.92	894.6	2.25
1933	102,354	1.77	664.6	2.18
1935	116,683	1.62	887.7	1.97
1937	140,876	1.64	1,202.7	1.98
1939	126,831	1.61	1,086.6	1.91

Source: U. S. Census of Manufactures.

The relatively slow recovery of these over-all figures for St. Louis by 1935 and the weakening in 1939 after a slight show of improvement in 1937 is apparent in the experience of several of the individual, major manufacturing lines. In 1939 these leaders and their percentage of total value of manufacture for the Industrial District and the fluctuations shown from 1929 to 1939 are depicted in the following table.

Fluctuation in National Importance of Leading St. Louis Industries, 1929-1939

Industry	Wage Earners as Percent of Total Wage Earners in St. Louis Industrial District, 1939	Value of Product in St. Louis Industrial District as Percent of Total Value of Product For U. S.				
		1929	1931	1935	1937	1939
Footwear (except rubber)	6.8%	4.8%	3.0%	3.2%	3.3%	3.3%
Electric machinery, apparatus and supplies	5.6	2.1	2.8	2.8	2.6	2.7
Steel works and rolling mills	5.1	1.9	1.1	1.0	1.7	1.3
Meat packing (wholesale)	4.9	5.3	5.8	5.5	5.7	5.2
Malt Liquors	2.9	a	8.4	5.4	6.6	7.8
Boot and shoe cut stock and findings	2.7	21.9	b	b	19.6	17.8

[a]Prohibition.
[b]Not available.
Source: U. S. Department of Labor, Impact of the War on the St. Louis Area, Appendix Table E.

Electric machinery, apparatus and supplies produced in the St. Louis Industrial District gained importance relative to the country as a whole increasing from 2.1 percent in 1929 to 2.7 percent in 1939. In meat packing the area virtually held its own showing mild gains or losses relative to the United States' totals in the different years. Also for malt liquors the situation of the local industry is satisfactory or more than satisfactory. Its lessened percentage importance in 1935 resulted largely from restoration of brewing in other areas but its increased importance in 1937 and 1939 speaks well for the strength of the local industry. The losses among these leaders are found in Footwear, Boot and Shoe Cut Stock and Findings, and Steel Works and Rolling Mills.

Immediately prior to World War II the footwear industry was employing over 10,000 persons and producing shoes valued at over forty-six million dollars. But the industry has not fulfilled all that it had promised a decade earlier. In 1930 the St. Louis Chamber of Commerce News pridefully noted:[1]

> "This city produced 87,000,000 pairs of shoes in 1929 to beat the 78,000,000 figure of 1928. But not only did St. Louis register an increase in its production figures for 1929 over 1928, but the rate of production by local manufacturers increased at a greater rate than the total United States output".

[1]St. Louis Chamber of Commerce News, Feb. 18, 1930.

However, discussing the same matter almost ten years later, Business Week noted that for years St. Louis had been fighting a losing battle to retain her important shoe factories. One after another they had moved to small communities in Illinois and Missouri because of the customary inducements: "tax-free land, free building sites, part or all of building costs, and, of course, cheaper labor with open-shop prevailing". Among the major losses to the city were the construction of new plants by the Brown Shoe Co., International Shoe and McElroy-Sloan in outlying towns such as Charleston, Mount Vernon, and Vandalia in Illinois.

The important attraction found in small towns is the generally more favorable labor relations found in them. Probably the wage differentials favoring small-town manufacture will be appreciably lessened in the near future but other labor advantages will persist at least for some time. One feature in St. Louis' shoe manufacture which should strengthen its position has been the broadening of the variety of shoes produced. In former years, St. Louis had specialized in the making of coarse shoes, but after 1914 a number of its firms entered the field of novelty and specialty shoes. In 1915, Johansen Bros. took first prize in the specialty line at the San Francisco Panama Pacific Exposition. From this time on, St. Louis increasingly manufactured more lines of shoes[1] and if the disadvantage of the city relative to labor conditions in small towns can be overcome the future of the industry seems to be a very promising one. Estimates of expected postwar employment prepared by producers in the leather and leather products field, of which over half the products is boots and shoes, are encouraging. They forecast an increase of over twenty-five percent in the postwar employment in the industry relative to employment in 1940.[2]

It is apparent that quite diverse reasons explain the decline in relative importance of St. Louis in these major lines of manufacture. Equally varied and frequently unique explanations for declines in each of various other fields of industry would be revealed by examination of the individual fields. Not simple generalized causes but individual factors peculiar to a particular field will largely explain the rises and falls which occur from time to time. For example, as was seen in the period 1870-1910 flour production in St. Louis was injured by change in demand for different types of flour and the rise of milling in the grain areas. Even these developments offer only a very generalized explanation of the change from 1929 to 1939. Full explanation can only be found in isolating all the varied consumption, production, and transportation features that led to increases in flour milling in 1939 relative to 1929 in Wichita and Salina while Kansas City declined; increases in Portland, Oregon, while Tacoma lost ground and Seattle barely held its own; and small increases in Buffalo while Minneapolis output was cut in half.[3]

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[1]Vogt, Herbert J., The Boot and Shoe Industry of St. Louis (1929), p. 40.

[2]St. Louis District Committee For Economic Development, The Outlook For Postwar Employment (1944), p. 20.

[3]The Northwestern Miller, April 30, 1946, p. 26.

It is apparent that industrially St. Louis as well as the whole country was exposed to many adverse influences in the decade of the thirties. However for the whole period 1900 to 1940 industrial growth for the United States has been phenomenal and St. Louis has played its part, contributing a value of manufacture of $295,600,00 in 1900 and $1,086,600,000 in 1939. Over the span of these years changes made in the industrial classifications used in the Census of Manufactures prevents the tracing of this growth from Census data. Commercial and industrial records of the city, however, supply a wealth of detail covering the diverse influences which have aided or retarded the growth of the individual industries that make up the over-all manufacturing strength of the industrial area.

In 1920, St. Louis had hopes of becoming an important automobile manufacturing center but various influences were to place that industry on the Great Lakes.[1] The city's automobile manufacturing was destined to become an assembly industry, illustrating in a new field the old advantages possessed by the city as a distributing center. Along with the assembly industry there grew up a varied and extensive manufacture of automobile parts as a number of manufacturers turned out piston rings, valves, spark plugs, electric starters and various electric equipment.[2] Before World War I, piston rings alone supported nine factories, including two of the largest such plants in the country and demands of the army and navy during 1917 and 1918 added materially to the business of these companies.[3]

Most of the manufacturing lines of the city benefited during the war years 1915 to 1918 but more frequently expansion was supported by generally large consumer buying at high prices rather than from direct war purchases. Even in production of cast iron and foundry projects where war orders were large the major lift to the industry came from orders, such as the large orders for car wheels, that were indirect results of the war.[4]

While most industrial activity benefited from the war, flour milling and brewing were injured. Price regulations and control over grain movements hurt flour milling and severely rising costs and heavy taxes militated against expansion of brewing. Rising costs however, was a mild complaint compared to Prohibition which virtually closed the industry for fifteen years. The repeal of the Eighteenth Amendment meant much to St. Louis. It not only restored a very important industry to the city but brought material secondary benefits. The rehabilitation of ten breweries was reported as resulting in the expansion of ten existing industries and the employment of over two thousand additional persons. Among the indirect benefits of the end of the long drouth were expansions of bottle manufactures, pretzel production and beer case and box manufacture.

A number of old lines of manufacture almost take on the appearance of new industries in the years after 1910 owing to the definite development they enjoyed. The printing ink industry, for example, came to the city in 1885 but relatively recent growth has pushed the city as a newcomer among the few leading centers manufacturing the product.[5]

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[1] "Third Largest Automobile Center in U.S.A.", Greater St. Louis, Feb. 1929, p. 4.

[2] Thomas, L. F., The Localization of Business Activities in Metropolitan St. Louis, (1927), pp. 75-6.

[3] St. Louis Merchants' Exchange, Annual Report of 1918, p. 51.

[4] St. Louis Merchants' Exchange. Annual Report of 1917.

[5] Hill, Adolph B., "St. Louis Ideal For Ink Manufacturing", St. Louis Commerce, Nov. 23, 1918.

In 1938 St. Louis production was reported as two million dollars out of a national production of thirty-five million. The advantage which the city has enjoyed is its central location and increased needs of the south as industrial and economic growth has come to the south and southwest.

Another old industry, dating back to the days of steamboating, was revitalized in 1933 when Herman Pott purchased the old Carondelet ways and established the St. Louis Shipbuilding and Steel Company. Since that date the company has turned out 810 hulls not including a number constructed for the Navy between 1942 and 1944 by it or its subsidiary, the Missouri Shipbuilding Corporation. In addition, during World War II St. Louis produced various parts for many invasion craft in some seventy-two plants in the industrial area.[1]

Before the war St. Louis continued to hold the leading position in the country as a manufacturer of sugar mill machinery. As was seen earlier this equipment was going to Hawaii, Porto Rico and Cuba before 1900 and the important start made then has been well maintained so that now St. Louis sugar mill machinery is sold in over twenty foreign countries.[2]

During this period the electric supply industry of the city also gained increased stature, reaching a production of nearly fifty million dollars in 1939.[3] Four-fifths of this production was in "generating, distributing, and industrial apparatus not otherwise classified".[4] Five nationally known companies had their headquarters in St. Louis. These were the Century Electric Emerson Electric, Knapp-Monarch, Moloney Electric and Wagner Electric companies.

Moloney Electric Company is nationally known for its industrial transformers; the Wagner Electric Company for its industrial transformers and also for its household appliances in the popular price range and Century Electric Company has specialized in producing small motors.

Emerson Electric underwent notable expansion after 1938, At that time William S. Symington became president of the Company. "Within two years he converted Emerson from a thing fit for the flies into a robust small business. He expanded its electrical line, took it into war work, making bomber turrets. Most important of all his improvements were in labor relations. Largely because of them Emerson today has only a nominal relationship with the company that used to be."[5]

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[1] St. Louis Commerce, Oct. 18, 1944.
[2] St. Louis Commerce, Oct. 16, 1940.
[3] United States Department of Labor, Impact of the War on the St. Louis Area (1944), p. 37.
[4] United States Department of Labor, Impact of the War on the St. Louis Area (1944), p. 6.
[5] "Yaleman and a Communist; Worked things out together for the good of Emerson Electric -- and the war", Fortune, Vol. 28, Nov. 1943, p. 146.

St. Louis' meat packing industry continues as one of the five most important in the country. "Chicago is first, and St. Paul, St. Louis, Kansas City, Omaha are approximately tied for second honors. On the basis of the number of head received, St. Louis led in calves, was second in hogs, fourth in cattle and ninth in sheep."[1]

Production fell from $183,130,000 in 1929[2] to $86,000,000 in 1933.[3] The drop was largely the result of price declines and the St. Louis industry gained in proportion to the total United States production for the industry. In 1933 it packed five and eight-tenths percent of the United States meat products, as compared with five and five-tenths percent in 1929. And meat packing became more important to St. Louis itself, during the early depression years when St. Louis meat packers employed half again as many manufacturing workers as they did in 1929. Throughout the 1930's the packers never fell below their 1929 position, relative to the rest of the industry.[4]

Asbestos production and insulation contract companies are other lines tributary to the building construction industry of the city, which developed by 1939 to the point of employing over a thousand men with payrolls exceeding a million dollars annually.[5]

In the manufacture of women's hats St. Louis can boast of more than mere growth. For an industry frequently troubled with marked instability the development of the last two decades has created as stable a group in St. Louis as can be found in the United States. Growth has come also. The four million dollar business of 1939 was nearly five percent of the national total.[6]

Many other examples of the healthy, but usually unspectacular growth which has characterized much of St. Louis industry can be found in such diverse lines as manufacture of photographic supplies, production of railway ties printing and engraving, the milling of feeds, patent medicines, soaps, cosmetics, bottles and plate glass, and even the processing of horseradish.[7] In this latter field St. Louis supplies the needs of most of the nation. And older lines such as barrel manufacture, rope making, stove manufacture have grown and changed with the times.

A detailed record of the varied and growing industries of St. Louis are found in monthly statements on new industries and expansions of old industries published in the St. Louis Chamber of Commerce News. The following summary prepared from these data shows an added industrial investment of eighty-three millions in 1929, very much smaller additions in 1931 and 1932 and then an annual average from 1933 to 1939 of over thirteen millions. The average annual additions of employes during these latter seven years was forty-six hundred.

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[1]Rainey, E. T.. "Our Number 1 Industry -- Meat Packing", St. Louis Commerce, June 22, 1938, p. 3.

[2]Fourteenth United States Census (1930)

[3]United States Department of Labor, Impact of the War on the St. Louis Area, (1933), p. 37.

[4]Rainey, E. T., "Our Number 1 Industry -- Meat Packing", St. Louis Commerce, June 22, 1938.

[5]Kindorf, George, "The Asbestos Industry in St. Louis", St. Louis Commerce, Dec. 13, 1939.

[6]"Your Lady's Hat", St. Louis Commerce, Nov. 13, 1940.

[7]For detailed notes on a great variety of St. Louis industries see issues of St. Louis Commerce over the past ten years and Annual Reports of the St. Louis Merchants' Exchange until 1924.

Industrial Development of St. Louis Industrial Area

Year	Number of new companies	Number of expansions	Total new companies and expansions	Added number of employes	Industrial investment
1928	63	80	143	5,388	$ 21,899,000
1929	80	135	215	6,281	83,261 000
1930	57	a	a	3,873	a
1931	71	75	146	2,767	4,951 000
1932	115	103	218	2,326	4,639,550
1933	115	109	224	8,935[b]	15,911,187[b]
1934	102	120	222	8,052	7,122,950
1935	85	114	199	1,873	10,924,400
1936	90	141	231	3,324	16,897,300
1937	76	161	237	3,746	12,800,175
1938	99	125	224	2,675	8,532,675
1939	91	194	285	3,658	21,114,762
1940	88	236	324	14,118[c]	58 775,053[c]
1941	77	187	264	5,232	124,741,860
1942	30	131	161	d	d
1943	29	98	127	d	d
1944	60	165	225	d	d
1945	56[e]	160[e]	216[e]	d	d

[a]Not compiled.
[b]Estimated on basis of 9 months.
[c]Estimated on basis of 11 months.
[d]Not reported account military censorship.
[e]Estimated on basis of 10 months.

Although the added investment was more than four times greater in 1940 than the annual average of the immediately preceding years it still did not reach or surpass the 1929 figure until 1941. In that year nearly $125,000,000 of investment was added to increase employment by over 5,000. It is notable that since 1941, years for which the added investment is not reported, the growth has largely been in expansions of old plants and in lesser measure from the appearance of new companies.

The individual industries affected by the appearance of new companies or by expansion of old companies are too numerous to list but the following descriptions for January of 1934, 1939, and 1944 are illustrative of the broad, varied growth of the city.

January, 1934.[1]

"Eighteen new industries located in the St. Louis industrial district during January, and there were eight expansions of existing enterprises. Eight of the industries and companies represent new wine and liquor interests.

The new industries and expansions require the service of 840 additional employes, represent an added industrial investment of $523,900.

New industries: manufacturer of cloth and engineers' caps, manufacturer of junior frocks, manufacturer of women's undergarments, manufacturer of novelty mirrors, distributor of barb wire, manufacturer of children's shoes, manufacturer of dresses distributor of wine and liquors, two distilleries, brewery supply firm.

Expansions: window displays, manufacturer of shoes, truck terminal, manufacturer of champagne, manufacturer of envelopes, liquor distributor, manufacturer of children's shoes, manufacturer of furniture."

January, 1939[2]

"During the month of January ten new industries and twelve expansions of established enterprises were reported in the St. Louis industrial district. These new industries and expansions, requiring the services of 161 additional employes, represent an added industrial investment of $1,076,500...

New industries: manufacturer of vending machines, manufacturer of beauty shop furniture, forwarding company, manufacturer of paints, distributor of a drink, distributor of stationery, distributor of ladies' hosiery, bakery distributor of shoes, manufacturer of shoes.

Expansions: manufacturer of steel products distributor of metal goods, auto body repair Post Office, manufacturer of lighting equipment, manufacturer of lamps, Carter Carburetor distributor of autos, motor transportation. Board of Education, supply yard of a construction company, railway company."

January, 1944.[3]

"Six new industries and 14 expansions.

New industries: manufacturer of dresses, finishing of magnesium castings, manufacturer of boys' wear, petroleum company, manufacturer of sportswear, resident buying office.

Expansions: plating company, salvage company, advertising agency, manufacturer of aircraft parts, Missouri Permi-Tac, dealers in women's wear, Goodyear, distributor of bicycle equipment, manufacturer of cosmetics, manufacturer of stokers, distributor of hosiery, manufacturer of envelopes, laundry, ice and cold storage."

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[1] St. Louis Chamber of Commerce News Feb. 27, 1934, pp. 7-8.
[2] St. Louis Commerce, Feb. 22, 1939, p. 10.
[3] St. Louis Commerce, Feb. 23, 1944, p. 11.

An over-all survey of the industry groups comprising St. Louis manufactures in 1939 shows Food and Kindred Products, Chemical and Allied Products, and Iron and St el with a commanding lead among the following nineteen industry groups found in the 1939 Census of Manufactures.

Value of Manufactures, 1939
(In millions of dollars)
1939

Group no.		St. Louis industrial area	Chicago industrial area	Kansas City industrial area	Cincinnati industrial area
1	Food and kindred products	286.9	931.2	202.0	123.2
9	Chemicals and allied products	111.2	279.3	39.3	77.3
14	Iron and steel (except machinery)	99.5	917.3	33.4	88.7
4	Apparel and other finished products	58.7	176.9	28.2	31.3
12	Leather and leather products	57.5	60.5	1.0	16.8
15	Nonferrous metals and their products	50.4	148.7	4.1	35.3
16	Electrical machinery	46.7	161.0	3.2	14.8
8	Printing, publishing and allied lines	43.4	311.6	23.1	43.6
17	Machinery except electrical	35.5	277.2	6.4	68.7
13	Stone, clay, and glass products	30.1	56.2	4.4	9.4
7	Paper and allied products	27.9	94.6	8.9	62.7
6	Furniture and finished lumber products	23.0	94.3	8.1	9.9
2	Tobacco Manufactures	18.5	0.6	a	a
20	Miscellaneous industries	13.8	127.9	1.9	17.0
19	Transportation equipment except autos	13.5	42.4	0.6	a
3	Textile-mill products and others	9.0	41.5	a	7.0
11	Rubber products	4.6	a	a	a
5	Lumber and timber basic products	4.1	10.5	2.0	11.2
10	Products of petroleum and coke	3.9	305.8	32.6	28.7
18	Automobiles and automobile equipment	a	77.8	a	42.4
	Unclassified				
	Groups 5, 10 and 18 combined	149.2			
	" 2, 6, 11, 16 and 19 combined		168.2		
	" 11, 18, 19, 2 3, 10 combined			84.5	
	" 2, 11 and 19 combined				15.6
	Total	1,087.3	4,283.7	483.8	703.5

[a]See unclassified.

In the case of each of the cities, Food and Kindred Products stands first among the general groups. Only in the case of Cincinnati, does Chemical and Allied Products rank high in the list as it does for St. Louis. Among the groups for which St. Louis production compares favorably with the other three cities are Tobacco Manufactures; Apparel; Leather and Leather Products; Stone, Clay and Glass Products; Nonferrous Metals; Electrical Machinery; and Furniture and Finished Lumber Products. St. Louis exceeds Kansas City and Cincinnati in every line except Lumber, Paper and Paper Products, Products of Petroleum and Coke, and Machinery (other than electrical). In the case of printing and publishing, St. Louis and Cincinnati are virtually equals. In terms of total manufacture, the St. Louis industrial district is one quarter the size of the comparable Chicago area but it

maintains something better than this relationship in the production of Food and Food Products; Apparel; Lumber; Chemicals and Allied Products; Leather and Leather Products; Stone, Clay, and Glass Products; and Nonferrous Metals. St. Louis falls definitely short of maintaining a one to four ratio with Chicago in Printing and Publishing, Petroleum and Coke Products, Iron and Steel Products, and Machinery (other than electrical).

The St. Louis Metropolitan Committee for Economic Development reported among other things on the postwar employment plans of manufacturing companies in the industrial area. Compilation of the reports from individual companies revealed a very generally optimistic outlook on the part of St. Louis industrial groups. Totals show the expected postwar employment in manufacturing to be fifty-three percent greater than on April 1, 1940. Admittedly such forecasts are very uncertain things and carry within them very important implied assumptions regarding general business conditions. Obviously the forecasts rest on a generally prosperous "postwar" period. While forecasts of the amount of growth for all industry or for different manufacturing groups could be seriously upset by the presence of unfavorable phases of the business cycle, the relative growth which is forecast for different industry groups can be used to show where St. Louis industrialists expect the greatest postwar gains. Out of eighteen industry groups (as used in Census of Manufactures) there are seven in which the growth forecasted is greater than average. Starting with the group for which greatest growth was forecast and presenting them in relative order these are: Transportation Equipment (other than automobiles); Chemicals and Allied products; Electrical Machinery; Machinery other than electrical; Stone and Clay and Glass products; Textiles and Textile Products and Apparel; and Food and Kindred Products. Growth below the average for all industry was indicated for Tobacco Manufacturers, Leather and Leather Products, and Non-ferrous Metals and their products. No growth was forecast for Printing and Publishing Rubber Products and Miscellaneous Industries.

As has been suggested the precise measure of growth that may be expected in the St. Louis Industrial Area in any immediate period is dependent on factors which are still being appraised by disagreeing experts. However, the results of the survey conducted by the C.E.D. committee show an obvious optimism among the business of the industrial area and a "deep faith in the future of St. Louis".[1]

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[1]St. Louis District Committee For Economic Development, The Outlook For Postwar Employment.

APPENDICES

Value of Manufactures, St. Louis, 1870 and 1875

Commodity	1870	1875
Bags and Bagging	$ 433,600	$ 2,254,750
Beer and Ale	3,557,553	4,003,315
Boiler Makers	405,207	387,000
Boots and shoes	1,475,717	1,704,780
Bread and crackers	1,925,585	1,503,220
Brick	666,630	1,538,210
Brushes and brooms	476,082	183,200
Candy and confectionery	1,270,336	1,322,500
Cigars	1,151,250	2,019,280
Cooperage	1,651,629	1,478,080
Cotton Goods	587,950	660,000
Drugs and chemicals	300,000	850,000
Flour and meal	11,686,440	13,632,500
Foundries, brass	168,030	110,500
Furnaces,rolling mills, foundries and machine shops	4,840,240	6,132,310
Glass	399,500	861,000
Lard refineries	165,000	1,426,600
Malt	476,200	782,000
Marble and monumental works	260,966	381,500
Matches	474,200	352,000
Mill machinery	225,000	514,000
Nuts and bolts	260,000	370,000
Planing mills, sash & door factories	3,657,290	2,771,170
Pork Products	7,929,700	11,000,000
Quarries	371,500	1,500,000
Rectifiers	1,563,392	2,330,000
Soaps and candles	2,869,100	3,127,800
Soda & Mineral Waters	82,320	290,500
Stores	2,479,000	2,889,600
Sugar	3,678,250	5,900,000
Tanneries	210,030	426,500
Tobacco	3,094,083	3,662,475
Type	104,000	142,760
Vinegar and cider	109,660	424,000
Wagons and carriages	960,206	1,420,540
White lead and oil	1,633,500	2,925,000
Wine	801,214	1,250,000
Wire and wire goods	94,230	425,000
Wooden ware	314,000	2,266,100
Zinc	24,000	250,000
Total	$ 62,832,570	$ 85,468,190

Source: Union Merchants' Exchange, Annual Report of 1875 (1876), p. 16.

Receipts and Shipments of Grain - St. Louis, Mo., 1867-1923

Year	Wheat (Bu.)		Corn (Bu.)		Oats (Bu.)		Rye (Bu.)		Barley (Bu.)		Year
	Receipts	Shipments	Receipts	Shipments	Receipts	Shipments	Receipts	Shipments	Receipts	Shipments	
1867	3,571,593	321,888	5,155,480	4,318,937	3,445,388	2,244,756	250,704	56,076	705,215	55,720	1867
1868	4,353,591	542,231	2,800,277	1,611,618	3,259,132	1,925,579	367,961	192,553	634,591	64,426	1868
1869	6,736,454	1,715,005	2,395,713	1,298,863	3,461,814	2,903,002	266,056	110,947	757,600	57,134	1869
1870	6,638,253	636,562	4,708,838	3,637,060	4,519,510	3,144,744	210,542	100,254	778,518	70,451	1870
1871	7,311,910	1,048,532	6,030,734	4,469,849	4,358,099	2,484,582	374,336	138,756	876,217	62,843	1871
1872	6,007,987	918,477	9,479,387	8,079,739	5,467,800	3,467,594	377,587	150,208	1,263,486	87,566	1872
1873	6,185,038	1,210,286	7,701,187	5,260,916	5,359,853	3,215,206	356,580	206,652	1,158,615	125,604	1873
1874	8,255,221	1,938,841	6,991,677	4,148,556	5,296,957	3,027,663	288,743	166,133	1,421,406	227,418	1874
1875	7,604,265	1,562,453	6,710,263	3,523,974	5,006,850	2,877,035	275,200	134,960	1,171,337	146,330	1875
1876	8,037,574	2,630,007	15,249,909	12,728,849	3,660,912	1,932,983	399,826	304,192	1,492,985	223,680	1876
1877	8,274,151	2,410,190	11,847,771	9,309,014	3,124,721	1,550,665	472,907	397,183	1,326,490	188,251	1877
1878	14,325,431	6,900,802	9,009,723	6,382,712	3,882,276	1,792,801	845,932	757,621	1,517,292	244,799	1878
1879	17,093,362	7,302,076	13,360,636	8,311,005	5,002,165	2,154,026	713,728	423,720	1,831,507	260,422	1879
1880	21,022,275	11,313,879	22,298,077	17,571,322	5,607,078	2,541,613	468,755	276,041	2,561,992	155,113	1880
1881	13,243,571	6,921,630	21,259,310	15,390,180	6,295,050	3,222,858	469,769	304,761	2,411,723	187,064	1881
1882	20,774,987	12,446,060	14,541,555	9,376,975	8,138,516	4,410,011	403,707	344,870	1,818,968	86,245	1882
1883	15,000,704	6,430,765	20,001,450	15,199,849	6,452,757	3,047,559	532,270	393,557	2,860,798	180,900	1883
1884	16,368,809	7,177,982	19,607,325	16,533,259	7,036,951	3,082,360	585,218	700,526	2,625,841	169,781	1884
1885	10,690,677	2,332,609	26,114,782	20,491,416	7,383,529	3,680,829	726,798	636,640	3,017,362	210,340	1885
1886	12,309,364	2,429,462	16,387,071	11,848,995	7,426,915	2,764,922	447,842	337,018	2,529,731	215,377	1886
1887	14,510,315	6,238,268	16,576,386	13,841,172	9,768,545	3,780,729	236,726	175,352	2,932,192	291,337	1887
1888	13,010,108	4,412,506	20,269,499	15,904,759	10,456,760	5,414,764	421,514	275,233	3,044,961	324,083	1888
1889	13,810,591	5,351,141	34,299,781	30,049,187	11,347,340	6,803,877	679,364	809,072	3,070,807	352,173	1889
1890	11,730,774	3,688,015	45,003,681	40,616,333	12,229,955	7,191,868	501,054	467,360	2,794,880	230,155	1890
1891	25,523,183	14,977,215	21,530,940	14,881,603	12,432,215	7,772,858	1,149,490	1,089,403	2,108,546	173,663	1891
1892	27,483,855	14,333,534	32,030,030	22,606,756	10,604,810	4,972,928	1,189,153	1,032,374	2,691,249	188,563	1892
1893	14,642,999	7,836,684	33,809,405	29,656,427	10,056,225	4,084,276	583,799	586,238	1,986,746	122,613	1893
1894	10,003,242	3,140,172	23,546,945	18,163,853	10,196,605	3,909,809	140,285	120,036	2,083,438	78,871	1894
1895	11,275,885	7,878,613	8,779,290	6,981,369	10,466,160	4,605,274	224,821	173,296	2,104,126	45,351	1895
1896	12,651,248	6,650,578	24,763,445	20,042,730	11,491,310	5,395,687	296,930	247,529	1,931,611	106,624	1896
1897	12,057,735	7,460,084	31,077,440	25,817,631	12,147,225	5,360,630	712,428	939,491	1,605,811	125,121	1897
1898	14,240,252	11,026,765	26,733,965	27,869,091	10,725,380	5,975,364	571,707	670,022	2,001,911	52,933	1898
1899	10,428,163	4,908,427	23,344,475	20,241,932	12,606,835	6,184,585	454,790	491,642	1,409,474	77,572	1899
1900	19,786,614	12,473,366	25,613,410	22,682,765	13,257,925	7,588,703	475,385	431,778	2,011,500	121,460	1900
1901	20,860,805	17,012,659	20,834,060	17,718,656	15,728,130	10,511,305	686,810	490,517	1,939,993	92,201	1901
1902	30,667,212	22,276,507	16,024,715	13,698,459	20,570,245	11,657,939	940,396	905,905	2,234,504	65,417	1902
1903	23,533,800	18,806,761	20,990,245	20,639,651	20,409,930	14,079,148	1,327,890	1,086,416	2,633,119	293,095	1903
1904	23,148,133	24,040,540	18,246,325	16,770,368	17,109,295	12,880,310	674,185	767,297	3,163,000	493,803	1904
1905	21,001,852	18,240,660	18,067,905	14,547,717	19,278,365	16,066,120	569,706	492,266	2,921,183	287,681	1905
1906	17,646,005	13,792,358	30,725,825	22,571,655	28,522,420	22,269,290	543,159	534,535	2,834,300	232,534	1906

Receipts and Shipments of Grain - St. Louis, Mo., 1867-1923

Year	Wheat (Bu.)		Corn (Bu.)		Oats (Bu.)		Rye (Bu.)		Barley (Bu.)		Year
	Receipts	Shipments	Receipts	Shipments	Receipts	Shipments	Receipts	Shipments	Receipts	Shipments	
1907	17,775,947	15,249,491	35,117,920	26,137,718	30,195,600	21,393,665	420,964	464,445	2,964,158	49,180	1907
1908	19,097,395	16,310,986	22,867,110	15,822,605	25,717,905	20,017,470	319,691	338,515	2,965,639	333,555	1908
1909	21,432,317	19,585,010	22,719,025	15,814,957	18,582,670	15,612,955	243,949	235,940	2,837,700	487,080	1909
1910	19,702,989	15,173,132	22,349,390	14,616,393	22,286,520	15,106,450	335,059	338,345	2,475,165	119,138	1910
1911	17,076,505	12,163,785	23,621,410	13,187,370	20,343,850	12,956,330	237,315	174,330	2,302,917	152,470	1911
1912	30,541,673	21,196,225	25,979,030	15,231,215	21,529,690	14,130,325	186,663	80,430	1,760,254	130,580	1912
1913	31,258,471	25,148,065	22,189,045	11,593,360	24,363,480	16,140,365	432,734	286,515	2,254,964	100,060	1913
1914	33,569,047	25,626,870	17,105,825	10,739,410	24,944,650	20,116,250	389,000	288,130	2,390,580	360,230	1914
1915	35,250,404	28,179,270	18,917,185	9,921,320	19,402,855	13,702,300	495,463	285,160	1,463,170	196,310	1915
1916	40,606,332	31,435,720	18,460,195	9,435,550	19,237,985	13,887,760	813,714	704,380	1,580,920	149,910	1916
1917	30,359,894	25,060,400	22,249,732	13,425,400	30,842,635	26,890,800	460,432	365,290	1,726,644	160,310	1917
1918	37,731,818	21,065,500	25,707,161	16,589,260	32,884,465	27,271,340	418,333	286,820	905,883	480,680	1918
1919	43,725,847	31,749,920	20,636,170	12,071,105	32,711,190	23,025,360	355,277	190,070	1,161,600	387,900	1919
1920	35,974,738	26,204,150	26,386,499	14,971,170	30,676,185	22,354,695	483,989	328,060	1,145,746	302,585	1920
1921	48,716,393	36,246,540	29,515,548	21,424,045	26,940,085	19,891,990	391,593	147,880	829,627	254,440	1921
1922	39,457,251	32,246,230	33,376,434	24,131,470	29,336,425	22,545,170	552,589	288,175	836,800	285,400	1922
1923	36,577,938	28,850,035	32,400,484	20,541,495	36,223,180	29,517,695	851,351	895,675	1,224,000	401,340	1923

Source: St. Louis Merchants' Exchange, Annual Reports of 1893, p. 145; 1903, p. 152; 1923, p. 74.

Receipts of Leading Commodities at St. Louis, Mo., 1859-1883

Commodity	Unit	1859	1861	1863	1865	1867	1873	1883
Bacon	Cks.,tcs.,bbls.	10,380	22,610	16,014	10,171	12,384	14,362	a
"	Pieces	18,356	106,000	230,092	62,496	58,004	97,122	a
Barley	Bushels	242,262	201,484	182,270	846,229	705,215	1,158,615	2,860,798
Beans	Sks. & bbls.	18,973	32,602	52,227	18,118	10,751	10,294	39,592
Beans, castor	Pkgs.	1,119	-	1,806	13,752	32,998	18,988	a
Beef	Tcs. & bbls.	5,645	-	2,427	3,008	6,798	6,534	1,918
Bran	Sacks	55,592	-	3,606	55,347	86,581	69,564	232,665
Brooms	Doz.	21,641	13,105	6,391	17,144	8,427	3,669	-
Butter	Pkgs.	27,250	24,062	18,327	36,288	21,326	62,990	a
Cattle	Head	31,208	-	33,171	94,307	74,164	279.678	405,090
Cheese	Boxes	39,389	23,500	22,404	49,846	76,118	58,770	133,687
Coffee	Bags	144,202	91,850	25,824	66,016	98,617	142,963	205,573
Corn	Bushels	1,639,579	4,515,040	1,361,310	3,162,310	5,155,480	7,701,187	20,001,450
Cotton	Bales	-	-	26,833	89,215	40,508	83,439	382,369
Dried Fruit	Pkgs.	29,776	37,840	22,828	21,093	24,023	37,384	128,568
Flax Seed	Pkgs.	2,579	-	10,031	21,851	20,347	21,457	a
Flour	Bbls.	484,715	484,000	689,242	1,162,038	944,075	1,296,457	1,585,670
Grease	Pkgs.	3,891	3,130	4,556	853	1,437	4,911	a
Gunnies	Bdls.	8,877	-	1,947	9,622	3,252	1,413	-
"	Bales	6,970	-	1,996	6,226	9,044	5,235	-
Hay	Bales	58,064	114,745	171,138	266,511	178,992	272,761	a
Hemp	Bales	68,796	28,568	56,337	40,846	30,750	16,860	2,084
Hides	Pcs.	237,662	159,196	147,637	202,211	146,421	165,917	a
"	Bdls.	-	-	-	-	11,910	83,234	a
Lard	Tcs. & Bbls.	44,471	40,108	33,489	23,591	21,666	35,496	a
"	Kegs	9,025	11,815	2,717	2,084	13,567	3,159	a
Lead	Pigs	264,380	115,250	79,823	116,636	144,555	356,037	1,114,235
Malt	Sacks	9,880	-	12,794	45,004	39,171	31,283	18,488
Molasses	Bbls.	60,778	11,605	6,872	12,863	9,103	23,742	58,201
Nails	Kegs	164,767	92,948	55,167	89,336	190,634	266,028	600,209
Oats	Bushels	1,267,624	1,735,157	3,845,876	4,173,229	3,445,388	5,359,853	6,452,757
Onions	Sks. & Bbls.	38,044	19,135	19,875	102,970	40,315	22,556	a
Pig Iron	Tons	16,778	8,780	16,165	21,704	30,027	61,088	92,895
Pork	Bbls.	96,230	116,445	34,256	66,822	92,071	57,476	9,656
"	Pkgs.	12,895	11,358	6,299	16,144	11,486	13,497	a
"	Pcs.	804,888	751,313	865,287	338,223	730,461	1,497,090	a
Potatoes	Sks. & Bbls.	214,111	160,300	120,161	323,190	173,865	a	a
Rope	Coils	64,198	22,000	4,887	8,911	15,844	-	52,450
Rye	Bushels	123,058	117,080	205,918	217,568	250,704	356,580	532,270
Salt	Bbls.	36,083	-	89,683	170,814	141,674	379,699	336,175
"	Sacks	328,280	-	56,118	83,221	79,025	149,861	a
Sugar	Hhds.	53,172	33,750	9,028	16,889	19,730	33,532	43,354
"	Bbls.	9,096	-	6,459	8,199	19,819	35,314	191,754
"	Boxes & Bags	6,695	8,069	-	29,410	29,924	70,391	26,560
Tallow	Pkgs.	3,619	3,130	3,606	10,874	7,875	12,000	a
Tobacco	Hhds.	9,006	8,510	19,325	16,483	18,584	19,062	24,457
Wheat	Bushels	3,568,732	2,654,738	2,621,020	3,452,722	3,571,593	6,185,038	15,000,704
Whiskey & Wines	Bbls.	100,092	72,790	54,862	38,014	37,455	-	60,561
Wool	Pkgs.	5,121	2,860	6,259	10,559	1[illegible],040	17,806	a

[a]Not reported.

Source: St. Louis Merchants' Exchange, Annual Reports of 1865, p. 80; 1867, p. 86.

Receipts of Leading Commodities at St. Louis, Mo., 1865

Commodity	Unit	Received by Boat					Total River	Received by Rail						Total Rail	Total River & Rail
		From Upper Mississippi River	From Missouri River	From Lower Mississippi River	From Illinois River	From Ohio River		From St.Louis, Alton and Terre Haute R.R.	From St. Louis, Alton and Chicago R.R.	From Ohio and Mississippi R.R.	From Pacific R.R.	From Iron Mountain R.R.	From North Missouri R.R.		
Apples	Bbls.	44,758	-	1,934	16,660	-	63,352	-	-	-	17,787	-	12,308	30,095	93,447
Bacon	Pieces	18,323	50,239	-	-	-	68,562	-	-	-	34,291	-	-	34,291	102,853
"	Pkgs. or csks	-	-	-	-	-	-	-	-	-	1,225	-	-	1,225	1,225
Barley	Sacks	140,195	-	21,705	12,010	-	173,910	-	-	-	35,521	-	-	35,521	209,431
"	Bushels	-	-	-	297,645	-	297,645	-	-	-	-	-	-	-	297,645
Beans, castor	Sacks	-	-	7,356	-	-	7,356	-	-	-	-	-	-	-	7,356
Boots and shoes	Cases	-	-	-	-	-	-	9,707	5,165	2,341	-	-	-	17,213	17,213
Bran	Sacks	-	-	-	22,492	-	22,492	-	-	-	-	-	-	-	22,492
Bread	Boxes	-	-	-	20,233	-	20,233	-	-	-	-	-	-	-	20,233
Canned Fruit	Boxes	-	-	-	-	-	-	19,445	-	22,894	-	-	-	42,339	42,339
Cattle	Head	14,006	-	-	-	-	14,006	-	-	-	-	-	-	-	14,006
"	Cars	-	-	-	-	-	-	-	-	-	2,839	-	-	2,839	2,839
Cement	Bbls.	-	-	3,669	-	9,491	13,160	-	-	-	-	-	-	-	13,160
Cheese	Boxes	-	-	-	-	-	-	23,295	-	18,973	-	-	-	42,268	42,268
Coffee	Sacks	-	-	-	-	-	-	36,161	15,236	15,184	-	-	-	66,581	66,581
Cooperage	For flour	-	-	5,206	-	-	5,206	-	-	-	-	-	-	-	5,206
"	For beer	-	-	13,346	-	-	13,346	-	-	-	-	-	-	-	13,346
Corn	Sacks	426,187	-	54,280	536,739	-	1,017,206	112,658	160,678	12,472	10,362	-	-	296,170	1,313,376
"	Bushels	-	-	-	205,854	-	205,854	27,703	3,900	-	400	-	-	32,003	237,857
Cotton	Bales	-	-	83,128	-	-	83,128	-	-	-	266	-	-	266	83,394
Cotton	Sacks	-	-	2,896	-	-	2,896	-	-	-	1,562	-	-	1,562	4,458
Fish	Kits	-	-	-	-	-	-	5,144	-	479	-	-	-	5,623	5,623
"	Pkgs.	-	-	-	-	-	-	9,296	35,874	-	-	-	-	45,170	45,170
"	Bbls.	-	-	-	-	-	-	-	-	1,234	-	-	-	1,234	1,234
Flax Seed	Bbls.	-	-	-	-	-	-	31	-	51	-	-	-	82	82
Flax Seed	Sacks	-	-	-	-	-	-	3,967	-	5,825	-	-	-	9,792	9,792
Flour	Bbls.	177,490	-	86,343	146,769	-	410,602	314,242	65,143	132,726	11,137	-	-	523,248	933,850
"	Sacks	-	-	-	52,243	-	52,243	11,381	3,683	10,634	3,715	-	-	29,413	81,656
Furniture	Pieces	-	-	-	-	57,994	57,994	-	-	-	-	-	-	-	57,994
Glassware	Pkgs.	-	-	-	-	67,867	67,867	-	-	-	-	-	-	-	67,867
Hay	Bales	79,847	-	-	48,875	-	128,722	56,638	43,218	-	-	-	-	99,856	228,578
Hemp	Bales	-	36,772	-	-	-	36,772	-	-	-	-	-	-	-	36,772
Hides	Pieces	24,953	67,112	25,374	-	-	117,439	-	-	-	46,972	9,019	10,733	66,724	184,163
"	Bdls.	-	-	-	-	-	-	-	-	-	775	101	-	876	876
Hogs	Head	-	8,370	-	-	-	8,370	-	-	-	-	-	-	-	8,370
Household Goods	Pkgs.	-	-	-	-	51,823	51,823	-	-	-	-	-	-	-	51,823
Iron, pieces	Pcs.	-	-	-	-	109,136	109,136	-	-	-	-	-	-	-	109,136
"	Bdls.	-	-	-	-	87,833	87,833	-	-	-	-	-	-	-	87,833
Iron, pig	Tons	-	-	1,649	-	2,019	3,668	-	-	-	2,026	12,165	-	14,191	17,859
Lead	Pigs	-	-	6,923	-	-	6,923	2,876	-	16,581	5,232	45,382	-	70,071	76,994

Receipts of Leading Commodities at St. Louis, Mo., 1865

Commodity	Unit	Received by Boat					Total River	Received by Rail						Total Rail	Total River & Rail
		From Upper Mississippi River	From Missouri River	From Lower Mississippi River	From Illinois River	From Ohio River		From St.Louis, Alton and Terre Haute R.R.	From St. Louis, Alton and Chicago R.R.	From Ohio and Mississippi R.R.	From Pacific R.R.	From Iron Mountain R.R.	From North Missouri R.R.		
Leather	Rolls	-	-	-	-	-	-	3,508	2,212	12,749	-	-	-	18,469	18,469
Lumber	Cars	-	-	-	-	-	-	-	-	-	-	803	-	803	803
Malt	Sacks	-	-	-	-	-	-	-	-	25,433	-	-	-	25,433	25,433
Merchandise	Pkgs.	-	-	-	-	28,882	28,882	-	-	-	-	-	-	-	28,882
Mixed Agriculture & Animal Products	-	-	-	-	-	-	-	Relatively small	Small	Small	-	Very small	Small	-	-
Molasses	Bbls.	-	-	5,904	-	-	5,904	-	-	-	-	-	-	-	5,904
Mules	Head	-	-	-	-	4,738	4,738	-	-	-	-	-	-	-	4,738
Nails	Kegs	-	-	-	-	69,122	69,122	10,843	7,578	1,820	-	-	-	20,241	89,363
Oats	Sacks	475,119	-	-	575,575	-	1,050,694	78,411	44,807	15,794	-	-	15,417	154,429	1,205,123
Oats	Bushels	-	-	-	276,088	-	276,088	18,683	1,100	-	-	-	-	19,783	295,871
Oil	Bbls.	-	-	-	-	14,257	14,257	-	-	11,861	-	-	-	11,861	26,118
Onions	Sacks	95,456	-	-	-	-	95,456	-	-	-	-	-	-	-	95,456
"	Bbls.	17,234	-	-	-	-	17,234	-	-	-	-	-	-	-	17,234
Ore, iron	Cars	-	-	-	-	-	-	-	-	-	-	502	-	502	502
Paper	Bdls.	-	-	-	-	12,273	12,273	13,252	5,332	67,591	-	-	-	86,175	98,448
Pork	Bxs. or Csks.	9,962	-	-	-	-	9,962	Small amount	139	-	-	-	-	139	10,101
"	Bbls.or Csks.	37,391	-	-	23,239	-	60,630	Small amount	2,787	1,072	39	-	-	3,898	64,528
"	Pieces	147,143	57,764	-	56,388	-	261,295	17,332	-	16,080	5,252	-	-	38,664	299,959
"	Pkgs.	-	428	-	2,925	-	3,353	-	-	-	-	-	-	-	3,353
Potatoes	Bbls.	27,639	-	-	8,158	-	35,797	18,888	18,938	84	-	-	-	37,910	73,707
"	Sacks	183,012	-	-	64,760	-	247,772	1,504	19,419	851	-	-	-	21,774	269,546
Pots and Kettles	Pieces	-	-	-	-	8,486	8,486	-	-	-	-	-	-	-	8,486
Rye	Sacks	60,586	-	-	25,601	-	86,187	-	-	-	-	-	-	-	86,187
Salt	Sacks	-	-	36,349	28,969	-	65,318	8,111	2,042	-	-	-	-	10,153	75,471
Salt	Bbls.	-	-	-	107,567	18,866	126,433	11,906	14,889	418	-	-	-	27,213	153,646
Sheep	Head	10,226	-	-	-	-	10,226	-	-	-	-	-	-	-	10,226
Stoves	Pieces	-	-	-	-	4,394	4,394	-	-	-	-	-	-	-	4,394
Sugar	Boxes	-	-	22,328	-	-	22,328	2,438	2,968	2,039	-	-	-	7,445	29,773
"	Hhds.	-	-	8,611	-	-	8,611	3,633	3,146	334	-	-	-	7,113	15,724
Sugar	Bbls.	-	-	890	-	-	890	3,471	1,696	2,500	-	-	-	7,667	8,557
Sundries	Pkgs.	-	-	-	-	27,625	27,625	-	-	-	-	-	-	-	27,625
Tobacco	Hhds.	-	4,668	-	-	-	4,668	-	-	-	1,952	-	3,516	5,468	10,136
"	Pkgs.	-	-	-	-	-	-	-	-	-	386	-	-	386	386
"	Boxes	-	-	-	-	-	-	-	-	-	1,268	-	-	1,268	1,268
Wheat	Sacks	590,203	27,386	44,327	352,724	-	1,014,640	64,294	22,076	21,287	45,424	-	83,246	236,327	1,250,967
"	Bushels	249,623	-	-	128,873	-	378,496	-	-	-	-	-	-	-	378,496
"	Bbls.	-	743	-	9,698	-	10,441	-	569	-	251	-	-	820	11,261
Whiskey	Bbls.	10,367	-	584	13,647	-	24,598	3,582	1,941	3,965	-	-	-	9,488	34,086
Wine Glass	Boxes	-	-	-	-	77,852	77,852	-	-	-	-	-	-	-	77,852
Wood	Cars	-	-	-	-	-	-	-	-	-	3,147	2,569	201	5,917	5,917
Wool	Bales	-	4,384	-	-	-	4,384	-	-	-	-	-	-	-	4,384

Source: Union Merchants' Exchange, Annual Report of 1865 (1866) pp. 87-96.

St. Louis Receipts By River and Rail, 1873

Commodity	Unit	Total Receipts River and Rail	Total Receipts by River	Receipts by Individual Waterways							
				Upper Mississippi	Lower Mississippi	Illinois	Missouri	Arkansas and White	Cumberland and Tennessee	Ohio	Red and Ouachita
Apples	Bbls.	80,451	40,830	19,584	5,259	14,273	1,405	-	-	309	-
Bacon	Cks. & Tcs.	9,151	6,436	5,905	122	146	258	-	3	1	1
"	Boxes	3,343	1,344	1,212	17	54	61	-	-	-	-
"	Pkgs.	1,765	976	644	30	117	185	-	-	-	-
"	Pieces	97,122	11,300	2,364	409	1,582	6,945	-	-	-	-
Barley	Sacks	155,385	90,287	80,554	9,302	399	32	-	-	-	-
"	Bushels	785,950	-	-	-	-	-	-	-	-	-
Beans, castor	Sacks	18,978	1,639	25	1,561	-	53	-	-	-	-
Boots and shoes	Cases	89,605	270	-	270	-	-	-	-	-	-
Bran	Sacks	69,565	2,224	580	602	478	564	-	-	-	-
Butter	Pkgs.	62,998	9,982	9,437	246	279	20	-	-	-	-
Cattle	Head	279,678	9,788	6,018	692	1,038	2,040	-	-	-	-
Cement	Bbls.	79,793	59,472	2,345	190	2,890	-	-	-	54,047	-
Cheese	Boxes	58,771	2,978	2,518	390	64	-	-	-	6	-
Coal	Bushels	29,058,795	1,535,511	-	-	35,511	-	-	-	1,500,000	-
Coffee	Sacks	142,963	9,328	62	9,266	-	-	-	-	-	-
Cooperage	For flour	2,319	1,352	1,257	95	-	-	-	-	-	-
"	For pork	50,631	21,388	5,416	11,215	2,826	-	-	-	1,931	-
"	For whiskey	51,406	10,868	342	4,455	1,147	60	310	-	4,554	-
"	For lard-tcs.	50,757	30,399	23,543	2,424	3,926	-	-	-	506	-
Cooperage	For lard-kegs	8,982	4,349	104	174	4,071	-	-	-	-	-
Corn	Sacks	401,075	319,371	149,257	3,944	75,207	90,963	-	-	-	-
"	Bushels	6,622,413	819,013	22,000	-	797,013	-	-	-	-	-
Cotton	Bales	83,439	32,375	-	32,161	-	-	141	7	-	66
"	Sacks	864	98	-	98	-	-	-	-	-	-
Fish	Bbls.	8,473	25	-	25	-	-	-	-	-	-
"	Half Bbls.	7,671	40	-	40	-	-	-	-	-	-
"	Kits	8,476	92	-	92	-	-	-	-	-	-
"	Boxes	26,781	14	-	14	-	-	-	-	-	-
Flax Seed	Sacks	21,457	121	84	-	-	37	-	-	-	-
Flour	Bbls.	1,250,250	213,883	94,172	88,895	19,440	11,259	-	-	112	5
Furniture	Pkgs.	39,252	9,536	4,551	454	-	240	-	-	4,291	-
Glassware	Pkgs.	101,668	68,571	15,546	4,907	35	-	-	-	48,073	10
Hay	Bales	272,761	72,512	71,388	-	710	414	-	-	-	-
Hemp	Bales	16,860	8,133	307	51	-	7,775	-	-	-	-
Hides	Pieces	165,917	33,738	4,746	20,038	3,683	1,845	730	92	10	2,594
"	Bundles	83,234	14,809	4,047	9,120	962	507	8	1	22	142
Hogs	Head	973,512	46,888	20,080	2,645	8,583	15,580	-	-	-	-
Iron & Steel	Bundles	171,934	76,524	-	26,583	-	-	-	377	49,510	54
" "	Pieces	211,587	84,905	218	3,053	-	-	-	397	81,237	-

St. Louis Receipts By River and Rail, 1873

Commodity	Unit	Total Receipts River and Rail	Total Receipts by River	Receipts by Individual Waterways							
				Upper Mississippi	Lower Mississippi	Illinois	Missouri	Arkansas and White	Cumberland and Tennessee	Ohio	Red and Ouachita
Iron & Steel	Tons	12,408	3,348	2,049	719	87	77	-	-	310	106
Iron, pig	Tons	61,088	15,767	-	12,735	1,298	-	-	1,047	687	-
Lead	Pigs	356,037	6,384	6,120	92	-	172	-	-	-	-
Leather	Rolls	26,153	1,774	29	1,160	2	-	-	298	122	163
Lumber	Cars	7,749	-	-	-	-	-	-	-	-	-
Lumber	M. Ft.	13,050	13,050	231	7,100	309	889	-	426	4,095	-
Malt	Sacks	31,283	11,860	11,343	467	50	-	-	-	-	-
Mdse. & Sundries	Pkgs.	1,057,779	160,309	70,401	56,049	6,275	7,417	218	872	17,070	2,007
" "	Cars	9,360	22	21	-	1	-	-	-	-	-
Molasses	Bbls.	23,742	4,797	7	4,701	8	-	-	-	80	1
Nails	Kegs	243,100	181,415	. 82	2,706	-	-	-	-	178,627	-
Oats	Sacks	433,564	304,272	288,372	266	9,846	5,788	-	-	-	-
"	Bushels	3,358,400	39,900	-	-	39,900	-	-	-	-	-
Oils, petroleum	Bbls.	64,910	21,939	250	132	-	-	-	-	21,557	-
" other	Bbls.	17,504	3,594	3,117	210	-	-	-	-	267	-
Onions	Sacks	8,063	2,023	1,646	330	-	47	-	-	-	-
"	Bbls.	14,494	9,325	6,982	2,298	37	8	-	-	-	-
Ore, Iron	Tons	349,357	-	-	-	-	-	-	-	-	-
Pork,	Bbls.	57,476	41,093	20,396	36	20,622	39	-	-	-	-
"	Bxs. or Csks.	12,529	2,127	1,669	9	439	10	-	-	-	-
Pork	Pkgs.	968	63	57	-	6	-	-	-	-	-
"	Pieces	1,497,090	371,165	280,328	-	86,905	3,932	-	-	-	-
Potatoes	Sacks	81,911	58,471	49,588	2,230	5,997	656	-	-	-	-
"	Bbls.	35,820	14,160	4,475	9,061	116	53	-	-	405	50
"	Bushels	450,955	5,000	-	-	5,000	-	-	-	-	-
Rye	Sacks	48,534	33,111	27,509	30	3,906	1,642	-	-	24	-
"	Bushels	237,300	7,000	-	-	7,000	-	-	-	-	-
Salt	Sacks	149,861	149,131	-	149,131	-	-	-	-	-	-
"	Bbls.	379,699	339,188	55	30	110	-	-	-	338,993	-
Sheep	Head	86,439	11,853	9,079	427	1,198	1,149	-	-	-	-
Sugar	Hhds.	33,532	21,410	-	21,359	-	-	-	-	-	51
"	Bbls.	35,314	401	-	401	-	-	-	-	-	-
"	Boxes	50,656	49,846	-	49,846	-	-	-	-	-	-
"	Bags	19,735	19,595	-	19,595	-	-	-	-	-	-
Tobacco	Hhds.	19,062	6,367	1,990	404	3	3,955	-	6	9	-
Tobacco	Bxs. & Pkgs.	54,309	18,541	16,682	1,655	72	43	-	22	4	63
Wheat	Sacks	1,041,817	863,436	289,621	151,854	204,820	217,095	-	-	46	-
"	Bushels	3,530,275	134,175	123,875	-	10,300	-	-	-	-	-
Wool	Pkgs.	17,806	2,625	1,409	619	60	491	3	-	1	42
Window Glass	Boxes	72,592	41,816	-	40	-	-	-	-	41,776	-

Source: Union Merchants' Exchange, Annual Report of 1873 (1874) pp. 100-103.

St. Louis Receipts By River and Rail, 1873

Commodity	Unit	Total Receipts by Rail	Receipts by Individual Railroads													
			Ohio & Mississippi R.R.	Chicago, Alton & St.Louis R.R.	Indianapolis & St.Louis R.R.	Missouri Pacific	St. Louis, Kansas City & Northern	St. Louis, Iron Mountain & Southern	St. Louis & Vandalia	Atlantic & Pacific	Rockford, Rock Island & St.Louis	Belleville & Southern Illinois	Toledo, Wabash & Western	St. Louis & Southeastern	Illinois & St. Louis	Missouri-Kansas & Texas	Cairo & St.Louis
Apples	Bbls.	39,621	2,286	7,221	2,273	4,669	3,366	381	4,387	80	723	438	13,288	254	-	93	162
Bacon	Cks. & Tcs.	2,715	300	404	1	369	1,208	27	295	7	40	-	27	24	-	13	-
"	Boxes	1,999	121	108	-	1,097	377	18	72	34	-	2	12	126	-	31	1
"	Pkgs	789	19	70	-	355	161	17	43	26	-	25	12	49	-	12	-
"	Pieces	85,822	2,527	1,472	-	48,343	26,858	-	2,802	1,386	-	-	384	1,862	-	188	-
Barley	Sacks	65,098	2,028	4,039	18	16,973	19,333	1,326	1,918	299	17,863	-	316	360	-	625	-
"	Bushels	785,950	900	66,600	-	340,000	179,550	-	112,050	-	83,250	-	1,350	-	-	2,250	-
Beans, castor	Sacks	17,339	3,429	-	-	1,395	1,008	593	1,428	135	-	3,607	50	3,211	-	1,225	1,258
Boots & shoes	Cases	89,335	6,053	6,493	72,734	281	24	74	1,262	9	-	-	2,350	19	-	31	5
Bran	Sacks	67,341	1,592	9,148	2,058	5,514	3,700	-	2,918	200	184	13,273	297	24,020	3,760	-	677
Butter	Pkgs.	53,016	763	11,402	602	2,449	5,599	36	30,104	237	232	31	931	185	-	428	17
Cattle	Head	269,890	2,030	1,534	1,512	53,319	73,205	1,012	432	70,722	1,053	585	200	1,976	-	62,310	-
Cement	Bbls.	20,321	4,049	506	1,400	-	-	140	9,210	-	360	-	4,211	445	-	-	-
Cheese	Boxes	55,793	25,421	18,359	2,483	93	1,003	20	6,591	20	50	-	1,753	-	-	-	-
Coal	Bushels	27,523,284	5,118,375	75,000	388,350	8,475	-	4,250	3,597,200	-	-	9,995,925	461,025	3,155,975	4,535,734	-	182,975
Coffee	Sacks	133,635	64,351	408	3,007	3,302	21,077	20,070	8,846	13	-	-	12,546	15	-	-	-
Cooperage	For flour	967	600	-	-	-	-	367	-	-	-	-	-	-	-	-	-
"	For pork	29,243	15,646	918	1,200	-	778	-	4,545	-	2,550	890	2,061	655	-	-	-
"	For whiskey	40,538	16,971	150	2,075	611	965	247	2,755	-	-	-	14,692	2,062	-	-	10
"	For lard-tcs.	20,358	8,878	3,763	537	104	2,850	-	1,590	-	1,110	162	150	1,214	-	-	-
Cooperage	For lard-kegs	4,633	2,633	300	740	-	-	-	405	-	-	55	500	-	-	-	-
Corn	Sacks	81,704	1,337	673	4,033	53,403	17,403	84	2,513	-	367	-	646	1,085	-	160	-
"	Bushels	5,803,400	99,600	1,592,200	344,800	1,626,000	1,014,600	-	120,000	34,000	235,200	-	687,200	17,800	-	32,000	-
Cotton	Bales	51,064	130	-	-	1,317	6	28,425	70	2,287	-	280	-	5	-	18,544	-
"	Sacks	766	-	-	-	53	-	130	-	551	-	-	-	-	-	32	-
Fish	Bbls.	8,448	2,875	611	1,174	-	95	20	516	-	-	-	3,157	-	-	-	-
"	Half Bbls.	7,631	800	3,117	139	35	234	-	619	-	-	-	2,687	-	-	-	-
"	Kits	8,384	2,467	1,027	1,276	35	-	-	318	-	-	-	3,261	-	-	-	-
"	Boxes	26,767	2,372	1,443	5,995	-	6,378	-	179	-	-	-	10,400	-	-	-	-
Flax Seed	Sacks	21,336	1,177	32	21	13,356	3,655	17	257	10	-	161	-	8	-	2,567	75
Flour	Bbls.	1,036,367	73,124	84,301	40,732	111,694	88,259	497	83,772	3,530	48,097	126,696	38,588	193,096	49,164	10,965	83,852
Furniture	Pkgs.	29,716	18,819	1,965	796	24	-	154	6,127	-	-	59	1,249	523	-	-	-
Glassware	Pkgs.	33,097	4,480	2,780	1,966	14	53	219	19,352	-	-	-	4,233	-	-	-	-
Hay	Bales	200,249	27,792	24,668	39,530	15,537	53,426	16	17,462	180	7,014	169	2,560	735	-	11,160	-
Hemp	Bales	8,727	24	-	3	4,121	4,514	-	2	16	-	-	-	-	-	47	-
Hides	Pieces	132,179	2,565	2,509	40	43,779	20,965	16,624	3,080	2,020	34	1,053	1,782	2,101	-	34,488	1,139
"	Bundles	68,425	2,967	4,862	89	31,347	5,380	9,070	1,023	3,296	39	1,283	2,488	1,861	-	4,541	179
Hogs	Head	926,624	16,165	32,475	29,286	230,026	357,804	564	25,069	32,476	42,309	3,864	39,922	11,634	-	105,024	6
Iron & Steel	Bundles	95,410	22,506	13,869	1,464	-	253	24,133	23,415	-	-	-	9,202	516	52	-	-
" "	Pieces	126,682	50,776	12,681	5,680	36	140	5,649	34,103	-	-	615	16,404	598	-	-	-

St. Louis Receipts By River and Rail, 1873

Commodity	Unit	Total Receipts by Rail	Receipts by Individual Railroads														
			Ohio & Mississippi R.R.	Chicago, Alton & St.Louis R.R.	Indianapolis & St.Louis R.R.	Missouri Pacific	St. Louis, Kansas City & Northern	St. Louis, Iron Mountain & Southern	St. Louis & Vandalia	Atlantic & Pacific	Rockford, Rock Island & St.Louis	Belleville & Southern Illinois	Toledo, Wabash & Western	St.Louis & Southeastern	Illinois & St. Louis	Missouri-Kansas & Texas	Cairo & St.Louis
Iron & Steel	Tons	9,060	891	820	200	770	1,850	2,276	223	400	140	380	550	420	-	140	-
Iron, pig	Tons	45,321	736	760	140	390	-	31,249	150	11,786	10	50	-	50	-	-	-
Lead	Pigs	349,653	-	63	-	92,830	59,037	123,142	-	74,571	-	-	10	-	-	-	-
Leather	Rolls	24,379	10,720	3,434	841	104	83	1,377	2,563	15	-	-	4,553	689	-	-	-
Lumber	Cars	7,749	129	969	11	81	117	5,284	179	13	8	367	48	521	7	7	8
Lumber	M.Ft.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malt	Sacks	19,423	750	9,262	-	2,480	661	90	4,975	-	-	-	-	896	319	-	-
Mdse.& Sundries	Pkgs.	897,470	150,623	127,241	99,220	93,364	63,260	22,391	177,522	7,555	3,235	4,552	115,387	16,425	11,942	3,506	1,247
" "	Cars	9,338	665	2,435	169	1,913	858	1,169	301	92	123	216	246	635	417	12	87
Molasses	Bbls.	18,945	13,620	537	573	-	54	828	303	72	35	-	2,923	-	-	-	-
Nails	Kegs	61,685	21,013	1,573	1,457	200	400	4,869	9,636	-	-	2,547	1,881	7,981	10,128	-	-
Oats	Sacks	129,292	2,397	419	1,611	46,919	46,062	27	23,944	711	1,814	28	888	309	-	3,698	465
"	Bushels	3,318,500	106,600	289,250	65,650	816,400	1,472,500	-	191,100	13,650	179,400	7,150	42,250	23,400	-	111,150	-
Oils, petroleum	Bbls.	42,971	24,126	955	4,760	-	101	141	5,326	-	-	50	7,512	-	-	-	-
Oils, other	Bbls.	13,910	4,912	374	706	5	424	5	4,341	-	103	290	2,574	176	-	-	-
Onions	Sacks	6,040	10	1,277	4	591	2,966	27	564	35	460	2	60	25	-	19	-
"	Bbls.	5,169	188	2,332	42	235	613	109	721	3	448	2	409	51	-	16	-
Ore, iron	Tons	349,357	-	10	-	-	-	280,265	-	69,082	-	-	-	-	-	-	-
Pork	Bbls.	16,383	93	9,129	250	1,208	2,599	-	2,544	-	180	-	374	1	-	-	5
"	Bxs. or Csks.	10,402	24	762	-	1,621	7,335	2	36	450	-	-	172	-	-	-	-
Pork	Pkgs.	905	510	2	19	-	24	-	350	-	-	-	-	-	-	-	-
"	Pcs.	1,125,925	1,845	276,989	-	271,743	424,039	-	58,087	7,158	59,725	-	25,150	1,189	-	-	-
Potatoes	Sacks	23,440	971	2,339	851	4,271	5,978	395	1,476	19	1,361	439	4,516	388	22	383	31
"	Bbls.	21,660	4,778	2,689	280	780	647	2,412	264	-	926	140	8,645	44	-	35	20
"	Bushels	445,955	9,100	16,100	3,205	85,050	277,900	350	16,800	1,050	5,950	700	22,050	1,050	-	5,950	700
Rye	Sacks	15,423	103	869	51	2,968	9,465	-	523	-	843	-	50	157	-	394	-
"	Bushels	230,300	-	33,600	1,400	52,500	104,300	-	2,100	-	28,700	-	4,200	-	-	3,500	-
Salt	Sacks	730	-	-	-	-	-	730	-	-	-	-	-	-	-	-	-
"	Bbls.	40,511	4,521	775	-	-	-	1,185	415	-	-	-	33,615	-	-	-	-
Sheep	Head	74,586	870	1,353	1,199	9,009	25,115	580	1,289	16,628	1,046	412	87	748	-	16,153	97
Sugar	Hhds.	12,122	5,527	-	795	-	-	4,321	131	-	-	-	1,348	-	-	-	-
"	Bbls.	34,913	27,169	34	421	-	138	16	612	-	-	-	6,523	-	-	-	-
"	Boxes	810	118	-	-	-	-	692	-	-	-	-	-	-	-	-	-
"	Bags	140	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tobacco	Hhds.	12,695	1,497	395	49	1,361	7,918	397	136	870	-	12	1	22	-	37	-
Tobacco	Bxs. & Pkgs.	35,768	20,752	1,289	1,555	1,055	3,621	3,425	1,717	1,038	-	587	399	160	1	163	6
Wheat	Sacks	178,381	1,530	2,863	2,802	76,955	66,430	9,028	3,044	3,679	6,801	622	646	1,288	-	1,060	1,633
"	Bushels	3,396,100	42,350	397,950	116,200	1,433,300	529,900	9,450	85,750	46,200	393,750	33,950	41,300	55,650	-	191,100	19,250
Window Glass	Boxes	30,776	3,483	7,564	2,929	-	-	-	11,100	-	352	-	5,348	-	-	-	-
Wool	Pkgs.	15,181	186	529	17	4,393	6,127	911	228	882	7	29	161	258	6	1,387	60

Source: Union Merchants' Exchange, Annual Report of 1873 (1874) pp. 100-103.

Commodity	Unit	Ohio and Mississippi R.R.	Chicago, A.&St.L. R.R.	St.Louis, Alton & Terre Haute R.R.	Total Railroad	New Orleans Boats	Total by River	Total River and Rail
Apples	Bbls.	318	1,867	141	2,511	53,438	88,264	90,765
Bacon	Csks.	544	88	878	2,544	12,171	33,753	36,297
"	Sacks & Pkgs.	33	17		1,339	3,715	26,616	27,955
"	Pieces				156		991	1,147
Bagging	Pieces		119	48	296	2,498	10,812	11,108
Barley	Sks.	789	273	1,869	4,570	376	6,240	10,810
Beans	Sks.	142	29		614	1,042	2,185	2,799
"	Bbls.	50			497	2,241	6,617	7,114
Beans, castor	Sks.	631			a			a
Beef	Tcs.				125	1,723	3,222	3,347
"	Bbls.		64	11	297	9,061	11,789	12,086
Bran	Sks.				4,427	33,516	156,278	160,705
Bread	Bxs. & Bbls.				1,780	161,817	310,693	312,473
Brooms	Doz.				72	13,061	23,426	23,498
Butter	Pkgs.				50	5,363	14,447	14,497
Candles	Bxs.	7,085	151	868	9,669	27,133	50,923	60,592
Cattle	Cars)	120	125		a			a
"	Head)				12,043	23,558	34,669	46,712
Cement	Bbls.					175	a	a
Cheese	Bxs.	37	130	154	2,979	7,351	20,763	23,742
Coffee	Bags & Sks.	85	375	729	14,367	2,402	42,596	56,963
Corn	Sks.	71		100	71,982	443,686	1,076,326	1,148,308
"	Bushels				-		8,364	8,364
Corn meal	Bbls.				615	20,493	37,548	38,163
" "	Sks.				940	638	2,941	3,881
Cotton	Bales	10,091	12,765	49,534	72,553	378	760	73,313
Crackers	Pkgs.		181	267	6,103		53,550	59,653
Crockery	Bxs.					21,208	a	a
Eggs	Pkgs.				82	3,093	8,094	8,176
Fish	Pkgs.					4,719	a	a
Flour	Bbls.	59,161	35,286	84,852	212,752	875,605	1,210,492	1,423,244
"	Sks.				46,618	4,189	230,125	276,743
Fruit, dried	Pkgs.	235		1,018	1,888	325	10,741	12,629
Furs & Pelts	Bdls. & Pkgs.	48	373	2,844	3,550	281	1,205	4,555
Glass	Bxs.			98	-	428	14,952	14,952
Grease	Bbls.			332	279		309	588
Gunnies	Bales	53	782	666	1,673		3,557	5,230
"	Bdls.		145	350	2,013		20,598	22,611
Hay	Bales				18,123	98,371	147,295	165,418
Hemp	Bales	1,648	1,483	6,297	11,619	4,906	16,801	28,420
Hides	Pcs.	30,478	42,235	25,021	105,948	51,773	161,171	267,119
Hogs	Head				5,750	7,518	12,119	17,869
Hops	Bales			88	88	225	283	371
Horses	Head					1,826	a	a
Iron	Pcs.			3,921	a			a
"	Bdls.			769	10,033		18,671	28,704
"	Slabs				33,629		36,957	70,586
"	Tons				-		16,131	16,131
Lard	Bbls.	274	507	98	2,551	2,718	5,964	8,515
"	Tcs.	3,612	509	6,118	9,076	2,559	3,103	12,179
Lard	Kegs	310	(990	309	-	4,459	8,205	8,758
"	Pkgs.		(		-	5,371	7,050	7,924
Lead	Pigs	1,057		40	a		a	a
Leather	Rolls	138	661	436	4,494		6,229	10,723
Lumber	M. Feet				13,570		4,734	18,304
Malt	Sks.	299	464	402	3,999	8,205	30,914	34,913
Merchandise	Pkgs.				169,958	211,907	1,001,412	1,171,370
Molasses	Bbls.		98	65	930	539	8,449	9,379
"	Half Bbls.				291		1,839	2,130
"	Kegs			43	886	216	10,209	11,095
Mules	Head					763	a	a
Nails	Kegs	193	79	957	15,388	5,613	47,595	62,983
Oats	Sks.			83	48,184	369,826	710,625	758,809
"	Bushels				-	34,800	48,628	48,628
Oils	Bbls.	3,147	1,723	3,078	10,733	5,886	20,705	31,438
Onions	Sks.		(161	(744	1,985	21,336	51,590	53,575
"	Bbls.		(		362	14,637	21,242	21,604
Paper	Rolls & Bdls.		117	1,074	8,429	1,181	116,093	124,522
Plows						743	a	a
Pork	Bbls.	2,341	2,088	3,326	9,333	45,030	100,369	109,702
"	Casks	236			177	902	3,326	3,503
"	Pkgs.	536			1,091	2,165	5,858	6,949
"	Pcs.				-		525	525
Potatoes	Sks.	212	(547	643	4,906	74,079	137,452	142,358
"	Bbls.	216	(	706	5,806	57,302	100,311	106,117
Powder	Kegs & Bbls.				3,566	3,546	14,899	18,465
Rags	Pkgs. & Bdls	5,518		1,024	7,169		1,695	8,864
Rope	Coils	1,102	2,874	4,191	8,707	52,644	80,075	88,782
Rye	Sks.	4,101			4,545	2,204	9,875	14,420
Salt	Bbls.	62	(108	1,091	48,289	2,739	60,959	109,248
"	Sks.		(	411	9,528	531	14,800	24,328
Seed	Sks.	34			1,171		534	1,705
"	Bbls.				241		782	1,023
Sheep	Head				350	4,683	8,330	8,680
Shipstuffs	Sks.				1,684	1,226	4,707	6,391
Shot	Sacks	2,361	136		2,497		a	a
Soap	Bxs.	1,003	50	361	8,807	21,140	59,649	68,456
Sugar	Hhds.		85	36	369	14	1,483	1,852
Stores						2,563	a	a
Sugar	Bbls.	121	762	1,136	9,670	1,979	43,399	53,069
"	Bxs. & Bags				1,565		8,950	10,515
Tallow	Bbls.	69	54		189		302	491
Tobacco	Hhd.	3,354	3,382	5,487	12,504	1,534	2,785	15,289
"	Bxs.				11,322	20,635	44,465	55,787
"	Pkgs.	5,843	3,321	6,913	12,882	11,208	33,434	46,316
Wheat	Sks.			19,585	25,007		4,961	29,968
Whiskey	Bbls.	121	524	939	7,265	9,502	33,457	40,722
White Lead	Kegs	1,526	12,900	2,964	21,572	2,698	38,885	60,457
Wool	Pkgs.	1,751	717	6,376	8,714		680	9,394

[a]Not available.

Source: Merchants' Exchange, Annual Report of 1865 (1866), pp. 106-116.

St. Louis Shipments by River and Rail, 1873

Commodity	Unit	Totals River & Rail	Total River	Total Rail	Commodity	Unit	Totals River & Rail	Total River	Total Rail
Apples	Bbls.	52,832	29,228	23,604	Malt	Sacks	103,932	44,414	59,518
Ale & Beer	Pkgs.	167,495	95,989	71,506	Merchandise	Pkgs.	5,390,320	1,583,753	3,806,567
Bacon	Cks. & Tcs.	93,899	64,286	29,613	"	Cars	36,679	-	36,670
"	Boxes	10,419	4,575	5,844	Molasses	Bbls.	19,251	5,181	14,070
"	Pkgs.	21,869	7,408	14,461	"	1/2 bbls.	6,037	2,485	3,552
Bacon	Pieces	132,104	24,906	107,198	Molasses	Kegs	20,472	7,599	12,873
Bagging	"	84,228	55,343	28,885	Oats	Sacks	650,195	567,155	83,040
Barley	Sacks	21,746	3,571	18,175	"	Bushels	289,329	-	289,329
"	Bushels	74,865	-	74,865	Onions	Pkgs.	20,390	11,407	8,983
Beans	Pkgs.	8,766	3,878	4,888	Ore	Tons	179,079	115,327	65,752
Beef	Bbls. & Tcs.	28,595	2,393	26,202	Pig Iron	Tons	57,571	15,474	42,097
Bran	Sacks	471,447	213,729	257,718	Pork	Bbls.	105,876	93,736	12,140
Candles	Boxes	71,413	31,314	40,099	"	Csks. & Tcs.	34,229	7,379	26,850
Castor Beans	Sacks	11,167	31	11,136	"	Boxes	4,192	374	3,818
Cattle	Head	180,662	7,732	172,930	"	Pkgs.	3,164	1,308	1,856
Cheese	Boxes	60,294	23,596	36,698	Pork	Pieces	342,565	6,260	336,305
Coffee	Sacks	142,778	20,825	121,958	Potatoes	Pkgs.	153,893	68,040	85,853
Corn	Sacks	1,024,629	786,894	237,635	Rice	Pkgs.	12,019	2,771	9,248
"	Bushels	2,699,344	1,373,969	1,325,375	Rope & Cordage	Coils	42,312	15,589	26,723
Corn Meal	Bbls.	358,736	331,563	23,173	Rye	Sacks	37,220	25,225	11,995
Cotton	Bales	70,949	1,616	69,333	Rye	Bushels	122,907	-	122,907
Dried Fruit	Pkgs.	42,006	12,027	29,979	Salt	Sacks	35,978	20,468	15,510
Eggs	Pkgs.	30,606	14,915	15,691	Salt	Bbls.	230,939	68,315	162,624
Flour	Bbls.	2,506,215	1,272,209	1,234,006	Sheep	Head	18,902	6,688	12,214
Grease	Bbls.	10,778	2,767	8,011	Sugar	Hghds.	3,566	884	2,682
Hay	Bales	136,314	114,048	22,266	Sugar	Bbls.	152,198	31,303	120,895
Hemp	Bales	6,096	440	5,656	"	Bags	25,168	1,313	23,855
Hides	Pcs.	102,252	1,204	101,048	Soap	Boxes	91,431	42,598	48,833
"	Bndls.	158,162	1,824	156,338	Tallow	Tcs. & Bbls.	12,517	546	11,971
Hogs	Head	224,873	9,794	215,079	Tobacco	Hghds.	19,708	2,762	11,946
Lard	Tcs.	96,976	31,518	65,458	Tobacco-Mfgrd.	Pkgs.	252,034	70,014	182,020
"	Bbls.	4,958	3,192	1,766	Wheat	Sacks	59,848	18,696	41,152
"	Kegs	59,820	48,967	10,853	"	Bushels	1,075,628	17,200	1,058,428
"	Pkgs.	39,863	24,430	15,433	Whiskey	Bbls.	89,201	40,397	48,804
Lead	Pigs	216,040	13,228	202,812	White Lead	Pkgs.	327,867	122,398	105,469
Lumber	Cars	7,549	-	7,549	Wool	Bales	17,915	845	17,070
"	M. Feet	4,396	4,396	-	Zinc	Slabs	43,598	-	43,598

Source: Union Merchants' Exchange, Annual Report of 1873 (1874) pp. 98-99.

Receipts and Shipments of Cattle, Sheep, Hogs, Horses and Mules - St. Louis, 1867-1923

Year	Receipts				Shipments				Year
	Cattle	Sheep	Hogs	Horses & Mules	Cattle	Sheep	Hogs	Horses & Mules	
1867	74,146	62,974	298,241	a	26,799	19,022	28,627	a	1867
1868	115,352	79,315	301,560	a	37,277	6,415	16,277	a	1868
1869	124,565	96,626	344,848	a	59,867	12,416	39,076	a	1869
1870	201,422	94,477	310,850	a	129,748	11,649	17,156	a	1870
1871	199,527	118,889	633,370	a	130,018	37,465	113,913	a	1871
1872	263,404	115,904	759,076	a	164,870	29,540	188,700	a	1872
1873	279,678	86,434	973,512	a	180,662	18,902	224,873	a	1873
1874	360,925	114,913	1,126,586	27,175	226,678	35,577	453,710	30,202	1874
1875	335,742	125,679	628,569	27,516	216,701	37,784	126,729	28,675	1875
1876	349,043	157,831	877,160	22,271	220,430	67,886	232,876	26,301	1876
1877	411,969	200,502	896,319	22,652	251,566	87,569	314,287	25,157	1877
1878	406,235	168,095	1,451,634	27,878	261,723	74,433	528,627	30,867	1878
1879	420,654	182,648	1,762,724	33,289	226,255	88,083	686,099	36,947	1879
1880	424,720	205,969	1,840,684	46,011	228,879	93,522	770,769	44,416	1880
1881	503,862	334,426	1,672,153	42,365	293,092	170,395	889,909	43,794	1881
1882	443,169	443,120	846,228	42,718	188,486	245,071	264,584	46,255	1882
1883	405,090	398,612	1,151,785	44,913	249,523	217,370	609,388	44,543	1883
1884	450,717	380,822	1,474,475	41,870	315,433	248,545	678,874	39,544	1884
1885	386,220	362,858	1,455,535	39,385	233,249	233,391	789,487	35,610	1885
1886	377,550	328,985	1,264,471	42,032	212,958	202,728	520,362	39,798	1886
1887	464,828	417,425	1,052,240	57,048	277,406	287,018	324,735	59,222	1887
1888	546,875	456,669	929,230	58,458	336,206	316,676	294,869	61,192	1888
1889	508,190	358,945	1,120,930	78,104	297,879	255,375	420,310	65,399	1889
1890	629,014	358,496	1,359,789	82,071	361,705	251,728	665,471	79,030	1890
1891	779,499	402,989	1,380,569	55,975	464,794	277,886	704,378	66,891	1891
1892	801,111	376,922	1,310,311	45,759	465,328	248,035	715,969	49,077	1892
1893	903,257	397,725	1,105,108	46,834	473,966	231,476	575,846	55,931	1893
1894	773,571	359,896	1,489,856	59,822	281,260	90,526	642,699	67,564	1894
1895	851,275	510,660	1,440,342	77,820	274,738	119,768	605,319	81,926	1895
1896	955,613	632,872	1,997,895	121,722	350,037	254,602	885,462	121,202	1896
1897	960,763	660,380	2,065,283	105,570	367,664	212,759	838,319	97,548	1897
1898	795,611	477,091	2,136,328	128,542	254,619	127,184	573,951	117,603	1898
1899	766,032	432,566	2,147,144	130,236	224,177	97,722	578,067	103,772	1899
1900	795,800	434,133	2,156,972	169,082	207,998	65,199	513,561	147,463	1900
1901	969,881	534,115	2,236,945	149,716	252,749	77,476	406,024	119,938	1901
1902	1,181,628	540,443	1,494,395	122,697	342,191	74,241	162,394	98,425	1902
1903	1,209,121	565,836	1,785,873	137,711	338,493	83,978	267,000	117,135	1903
1904	1,261,532	746,109	2,361,623	193,669	349,434	102,900	412,776	171,076	1904
1905	1,254,236	690,378	2,407,336	190,191	377,072	92,362	529,078	170,480	1905
1906	1,314,826	650,784	2,411,191	173,331	392,872	110,873	627,513	159,488	1906
1907	1,323,208	622,213	2,572,126	124,490	426,555	97,198	817,527	114,679	1907
1908	1,293,564	724,781	3,199,922	120,853	436,954	130,680	838,890	105,539	1908
1909	1,418,005	835,973	3,076,065	130,519	494,235	118,523	985,210	116,044	1909
1910	1,356,232	776,665	2,548,480	136,724	452,111	81,522	689,239	123,069	1910
1911	1,206,423	1,024,402	3,634,851	177,338	341,668	110,737	905,444	157,955	1911
1912	1,298,295	1,052,208	3,023,739	171,133	335,776	96,899	678,844	155,356	1912
1913	1,181,201	976,122	3,102,421	167,206	381,432	71,822	954,330	151,456	1913
1914	1,073,386	777,776	2,871,558	162,360	317,745	46,724	1,016,172	147,205	1914
1915	1,045,660	690,180	2,985,144	321,450	298,673	97,108	1,019,247	305,308	1915
1916	1,251,304	700,601	3,647,367	290,841	330,534	99,858	1,118,617	275,849	1916
1917	1,436,464	561,741	3,362,041	291,445	322,824	71,010	1,037,743	268,692	1917
1918	1,542,757	545,053	3,616,087	248,125	350,509	65,667	945,775	239,390	1918
1919	1,522,221	723,071	3,863,137	254,020	394,216	112,209	1,211,780	223,674	1919
1920	1,275,258	614,857	3,690,124	145,962	372,151	97,065	1,295,680	138,211	1920
1921	1,116,175	649,631	3,891,016	69,687	455,311	161,467	1,419,765	61,362	1921
1922	1,448,952	632,692	4,086,563	96,018	688,273	144,939	1,676,487	88,995	1922
1923	1,467,292	575,934	5,389,177	102,432	652,547	126,988	2,110,684	99,026	1923

[a]Not reported.

Source: St. Louis Merchants' Exchange, Annual Reports of 1893, p. 193; 1923, p. 175.

Value of Manufactures, in Leading Industries St.Louis City and St.Louis Industrial Area For Selected Years

Industries	St. Louis City							St.Louis Industrial Area[b]	
	1880	1890	1900	1909	1919[c]	1929[c]	1939[c]	1929[c]	1939[c]
Automobiles, incl. bodies & parts, incl. repairs	$ -	$ -	$ -	$ 1,302,283	$ 10,115,181	a	a	a	a
Boots & Shoes, incl. custom work & repairing	1,634,594	4,926,692	8,741,872	33,970,372	88,554,268	a	$ 21,159,692	$ 46,035,958	$ 23,925,581
Bags, other than paper	a	a	a	a	27,970,073	$ 12,549,369	9,202,942	12,549,369	9,202,942
Bread & other bakery products	2,575,350	3,597,392	4,817,756	8,623,641	21,047,650	29,658,283	24,235,836	32,631,938	26,989,501
Boxes, fancy and paper and wood	231,600	1,797,379	413,198	2,164,768	13,013,728	12,254,671	a	16,518,362	16,497,912
Carpentering	3,005,411	10,364,922	11,057,162	a	a	a	a	a	a
Cars, railroad, street and repairs	1,100,809	5,641,262	8,736,597	a	a	27,993,507	a	a	a
Carriages and wagons	1,614,236	3,603,735	4,033,799	6,328,164	3,217,189	a	a	a	a
Clothing, men's	3,425,167	9,630,688	8,755,697	9,687,421	29,821,949	22,098,217	7,423,501	31,784,906	22,757,453
Clothing, women's	483,000	1,717,972	3,713,618	4,886,052	17,415,571	22,492,813	4,584,012	22,492,813	14,974,332
Confectionery and ice cream	1,158,185	2,462,037	2,997,685	3,848,422	13,432,819	11,296,444	8,358,091	12,141,604	8,978,560
Cooperage	1,431,405	1,912,779	1,698,862	2,592,092	4,096,704	2,279,987	a	2,567,786	1,843,924
Coffee & spice, roasting and grinding	568,000	2,466,392	4,765,564	9,513,595	21,956,572	17,741,483	a	17,741,483	a
Drugs and chemicals	1,166,743	3,027,663	3,523,060	a	15,504,823	a	a	39,615,000	31,410,525
Electrical machinery,apparatus & supplies	-	674,950	1,061,440	2,080,635	14,847,552	a	a	49,687,060	46,746,727
Flouring and grist mill products	13,783,178	12,456,000	4,004,062	3,551,470	12,928,163	10,025,227	a	25,956,169	9,756,777
Food preparations,not otherwise specified	30,840	662,160	1,290,260	4,454,774	15,239,112	14,176,630	3,963,305	21,821,153	18,974,913
Foundry & machine shop products	5,952,770	11,945,493	11,628,140	14,590,834	31,309,271	29,942,632	a	43,029,344	8,566,729
Furniture, including upholstering	2,128,410	4,847,046	4,448,054	6,110,965	13,958,300	12,065,823	7,079,204	14,615,612	7,359,898
Iron and steel	3,950,530	1,715,627	3,274,448	a	3,745,668	5,959,139	a	75,191,549	49,363,391
Iron work, architectural and ornamental	67,610	2,023,526	1,768,693	a	a	a	a	a	a
Leather goods, incl. leather, tanned, curried and finished	682,380	2,047,630	895,755	5,143,110	a	a	1,811,253	a	1,811,253
Liquors, malt	4,535,630	16,185,560	11,673,599	23,147,250	20,591,404	a	a	a	a
Lumber, planing mill products, incl. sash, door and blinds	1,948,606	3,061,178	2,930,435	7,366,976	7,434,254	5,901,425	7,952,207	6,970,386	10,781,459
Masonry, brick and stone and tile	575,700	9,122,952	5,133,589	3,778,120	7,219,458	1,975,294	2,097,156	2,174,177	4,312,974
Paints and varnishes	2,570,860	3,238,317	3,695,678	5,564,021	10,864,510	16,499,330	a	27,449,077	8,955,032
Painting and paperhanging	1,255,552	2,841,041	2,642,667	a	a	a	a	a	a
Patent medicines and compounds	1,145,090	2,186,416	2,599,010	6,846,391	12,575,220	a	a	32,405,432	19,373,137
Printing and publishing	3,668,287	8,555,450	9,816,455	17,164,143	30,700,799	46,588,879	32,504,852	48,895,259	36,416,361
Petroleum refining	a	a	a	a	a	a	a	77,386,538	a
Nonferrous Metal Alloys & products	a	a	a	a	a	a	a	30,331,300	27,803,280
Saddlery and harness	2,364,858	2,803,961	1,495,430	a	1,532,155	a	a	a	a
Stoves & furnaces, incl. gas & oil stoves	a	a	a	5,923,388	13,569,872	13,648,375	9,620,354	22,620,810	14,298,434
Slaughtering and meat packing	8,424,064	12,048,114	12,943,376	26,600,956	96,044,220	86,301,064	63,242,193	183,129,577	137,620,972
Soap and candles	1,607,541	1,203,406	3,437,735	a	a	a	a	a	a
Tinware, copperware, and sheet-iron ware	1,095,959	2,369,540	2,180,434	5,060,190	7,133,527	4,064,188	a	9,684,634	4,289,834
Tobacco, chewing, smoking and snuff	4,813,769	14,354,165	24,411,307	a	45,947,990	a	a	a	a
Wirework, incl. wire rope and cable	371,600	501,235	1,014,330	3,323,043	7,438,233	8,539,408	5,838,094	8,539,408	5,838,094
Total selected industries	$ 79,367,734	$165,992,680	$175,599,767	$223,623,076	$619,226,235	$ 414,052,188	$229,072,692	$ 913,966,704	$ 568,849,995
Other value of manufactures classified by industry	21,243,108	41,164,279	42,013,679	13,868,097	66,973,437	87,543,882	55,856,585	218,899,276	114,910,062
Value of manufactures, not classified by industry	13,722,533	22,000,384	16,016,287	91,004,140	185,500,766	521,117,420	431,754,320	409,087,674	402,835,684
Total all industries	$114,333,375	$229,157,343	$233,629,733	$328,495,313	$871,700,438	$1,022,713,490	$716,683,597	$1,541,953,654	$1,086,595,741
Percent selected industries of all industries	69.42	72.44	75.16	68.07	71.04	40.49	31.96	59.27	52.35

[a]Not reported separately.

[b]St. Louis Industrial Area consists of St. Louis City and County, Mo. and Madison and St. Clair Counties, Illinois.

[c]After 1909 the large value of manufactures in the unclassified group prevents use of the individual industry figures for comparisons with previous years. A breakdown of the large unclassified figure into general industry groups is available for 1939 only.

Source: Tenth to Fifteenth Census of the United States.

Summation By Industry Groups of Value of Manufacture for 1939 Not Included
In Value of Manufacture Reported For Specific Industries

Group No.	Industries	1939 St. Louis Industrial Area				1939 St. Louis City	
		Number of establishments	Persons employed	Value of products	Value added by manufacture	Number of establishments	Value of products
1	Food and kindred products	36	1,622	$ 19,069,661	$ 7,062,419	53	$ 60,506,679
2	Tobacco manufactures	7	1,656	18,285,285	5,892,298	12	a
3	Textile mill products and other fibre manufactures	25	2,403	8,979,157	4,665,368	20	8,227,999
4	Apparel and other finished products made from fabrics and similar materials	38	1,262	4,347,362	1,742,706	142	20,473,604
6	Furniture and finished lumber products	18	883	3,859,182	2,237,401	37	4,277,427
7	Paper and allied products	18	1,858	10,274,094	4,377,301	50	18,828,799
8	Printing, publishing and allied industries	13	103	295,561	222,806	25	2,000,509
9	Chemicals and allied products	58	4,956	41,140,882	21,157,974	148	61,669,792
11	Rubber products	11	621	4,571,623	1,436,500	a	a
12	Leather and leather products	23	1,736	10,066,987	3,738,285	a	a
13	Stone, clay and glass products	28	4,380	21,289,463	13,836,905	23	5,338,360
14	Iron and steel and their products, except machinery	48	4,175	15,854,765	9,446,888	95	29,575,841
15	Nonferrous metals and their products	23	2,357	27,803,280	5,265,010	44	16,241,757
16	Electrical machinery	43	8,948	46,746,727	25,685,032	39	33,110,501
17	Machinery (except electrical)	41	2,759	13,226,110	8,184,574	69	19,628,532
19	Transportation equipment except automobiles	6	739	2,076,959	1,456,121	a	a
20	Miscellaneous industries	44	1,683	5,787,025	3,375,218	61	6,955,585
18	Automobiles and automobile equipment	17	4,781)			a	a
5	Lumber and timber basic products	2)	4,581)	149,161,561	43,894,092	3	706,183
10	Products of petroleum and coal	6)	)			a	a
2	Tobacco manufactures	a	a	a	a	12)	
10	Products of petroleum and coal	a	a	a	a	6)	
11	Rubber products	a	a	a	a	10)	144,212,752
12	Leather and leather products	a	a	a	a	42)	
18	Automobiles and automobile equipment	a	a	a	a	15)	
19	Transportation equipment except automobiles	a	a	a	a	9)	
	Total	505		$ 402,835,684		903	$ 431,754,320
	Total all industries	2,787		$1,086,595,741		2,341	$ 716,683,597

[a]Not reported separately.

Source: Sixteenth Census of the United States, 1940.

Cotton Compressed at St. Louis,
1875-1923

Year	Receipts (bales)	Shipments (bales)	Stock (bales)
1875	94,308	96,571	246
1876	159,810	157,836	2,220
1877	167,927	168,646	1,501
1878	205,861	206,537	825
1879	237,437	237,101	1,161
1880	358,124	351,818	7,467
1881	317,195	316,537	8,225
1882	259,151	265,637	1,739
1883	304,300	301,451	4,588
1884	228,414	231,484	1,518
1885	203,584	203,493	1,609
1886	240,183	231,868	9,924
1887	258,234	264,110	4,140
1888	256,809	257,044	3,910
1889	270,848	274,246	512
1890	231,288	231,266	574
1891	309,273	299,112	10,735
1892	310,344	274,677	46,402
1893	177,834	204,734	19,502
1894	168,571	170,201	17,899
1895	161,219	171,451	7,549
1896	111,617	100,838	17,873
1897	109,297	119,493	7,677
1898	120,605	103,205	25,077
1899	124,906	97,219	46,962
1900	67,597	111,558	8,803
1901	92,231	66,656	34,378
1902	173,713	196,376	11,715
1903	57,016	67,466	1,265
1904	57,487	52,360	6,392
1905	91,923	87,539	10,776
1906	71,274	68,549	13,501
1907	112,621	121,799	4,312
1908	69,593	64,032	9,770
1909	105,786	104,924	10,632
1910	64,330	24,312	650
1911	70,158	68,159	2,649
1912	137,510	122,378	3,937
1913	77,969	75,708	6,198
1914	94,005	86,082	14,121
1915	105,807	103,795	16,133
1916	68,524	55,242	19,415
1917	99,158	104,568	4,005
1918	73,635	66,271	11,774
1919	49,891	54,868	11,311
1920	47,192	39,832	14,157
1921	81,973	58,889	33,042
1922	49,465	59,230	13,694
1923	47,163	51,768	5,600

Source: St. Louis Merchants' Exchange, Annual Reports of 1878, pp. 61-63; 1883, pp. 109-111; 1893 pp. 117-119; 1894, p. 146; 1903, pp. 125-127, 1913, pp. 93-95; 1923, pp. 51-53.

Population of St. Louis and Chicago Industrial Districts, 1840-1940

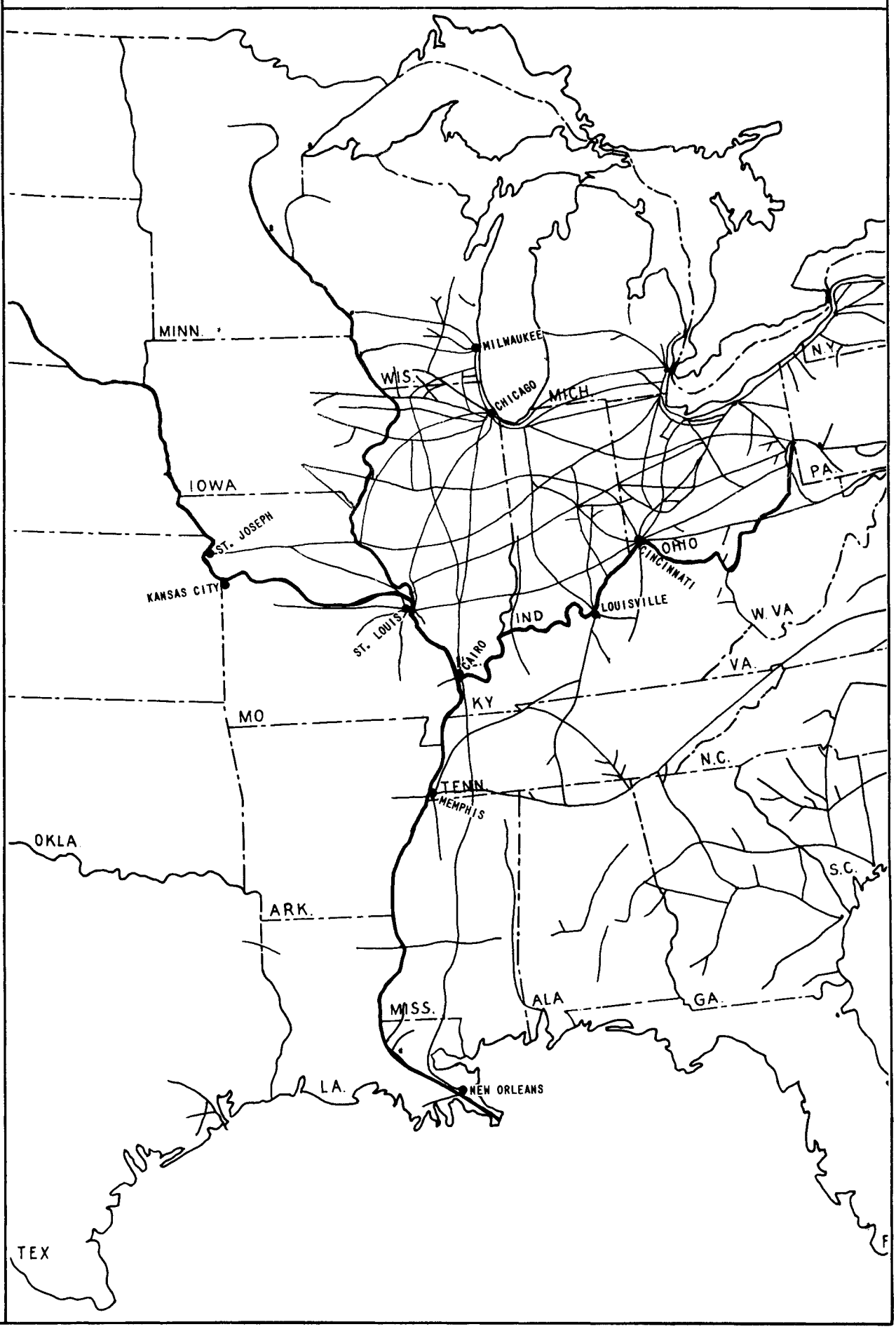
	1840	1850	1860	1870[a]	1880	1890	1900	1909	1919	1929	1939
St. Louis Industrial District											
St. Louis City	16,469	77,860	160,773	236,671	350,518	451,770	575,238	687,029	772,897	821,960	816,048
St. Louis County[b]	19,510	27,118	29,751	30,605	31,888	36,307	50,040	82,417	100,737	211,593	274,230
Madison County	14,433	20,441	31,251	44,131	50,126	51,535	64,694	89,847	106,895	143.830	149,349
St. Clair County	13,631	20,180	37,694	51,068	61,806	66,571	86,685	119,870	136,520	157,775	166,899
Total	64,043	145,599	259,469	446,388	494,338	606,183	776,657	979,163	1,117,049	1,335,158	1,406,526
St. Louis Metropolitan District										1,293,516	1,367,977
Chicago Industrial District											
Lake County, Ill.	2,634	14,226	18,257	21,014	21,296	24,235	34,504	55,058	74,285	104,387	121,094
Cook County	10,201	43,385	144,954	349,966	607,524	1,191,922	1,838,735	2,405,233	3,053,017	3,982,123	4,063,342
DuPage County	3,535	9,290	14,701	16,685	19,161	22,551	28,196	33,432	42,120	91,998	103,480
Lake County, Ind.	1,468	3,991	9,145	12,339	15,091	23,886	37,892	82,864	159,957	261,310	293,195
Total	17,838	70,892	187,057	400,004	663,072	1,262,594	1,939,327	2,576,587	3,329,379	4.439,818	4,581.111
Chicago City (included in Cook County)				298,977	503,185	1,099,850	1,698,575	2,185,283	2,701,705	3,376,438	3,396,808
Chicago Metropolitan District										4,364,755	4,499,126

[a]Falsification which occurred in the St. Louis Census for 1870 makes the reported figures for that year worthless. For the whole county a population of 351,189 was reported in 1870 compared to 190,524 in 1860 and 382,406 in 1880. A correct figure for 1870 would probably place the population about two-fifths of the way between the 1860 and 1880 figures and the estimated figure of 236,671 for the city and 30,605 for the rest of the county was based on that assumption. (See Stevens, Walter B., St. Louis The Fourth City 1764-1909 (1909), p. 989.)

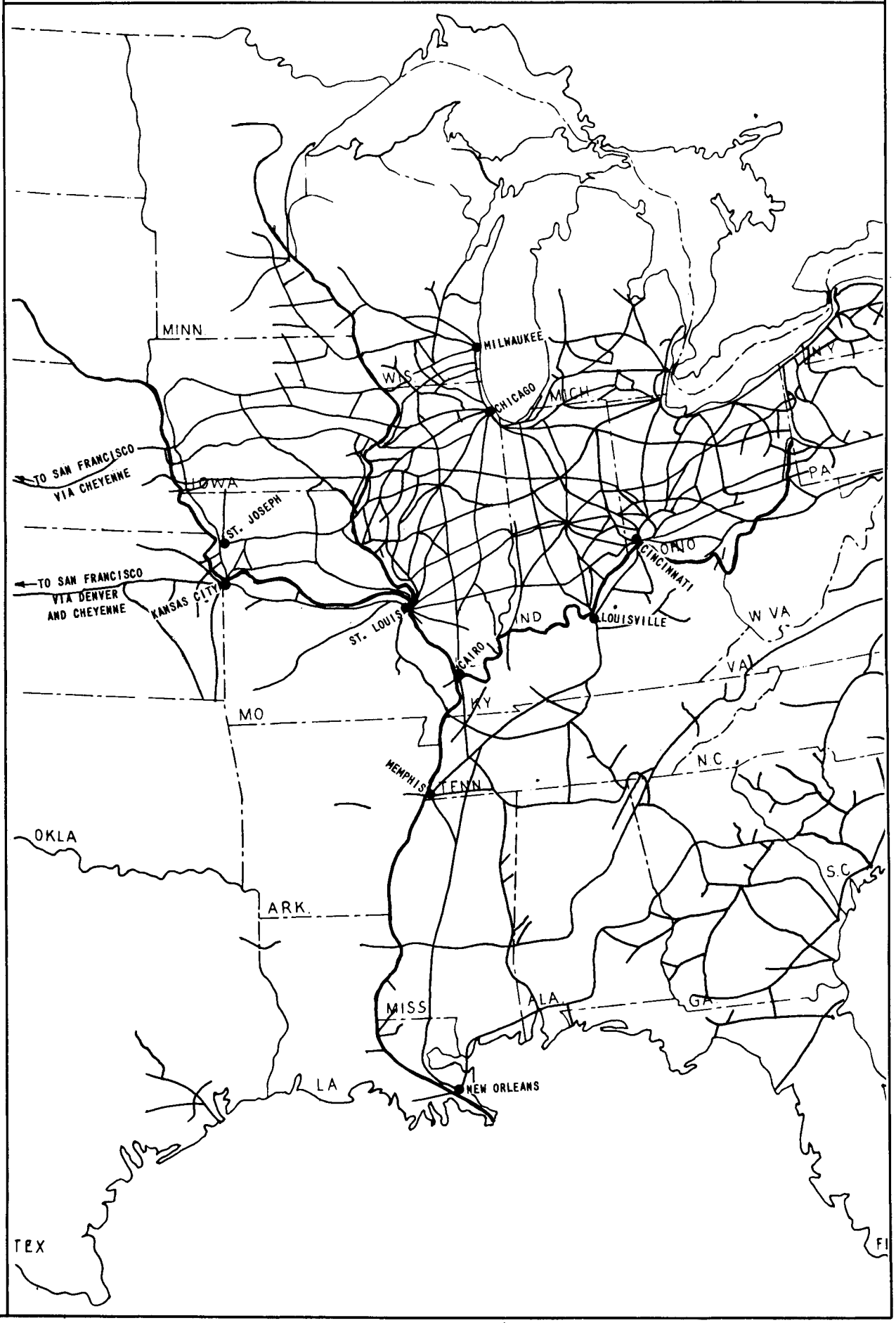
[b]Excluding St. Louis City.

Source: U. S. Census of Population except for St. Louis, 1870; see note a.

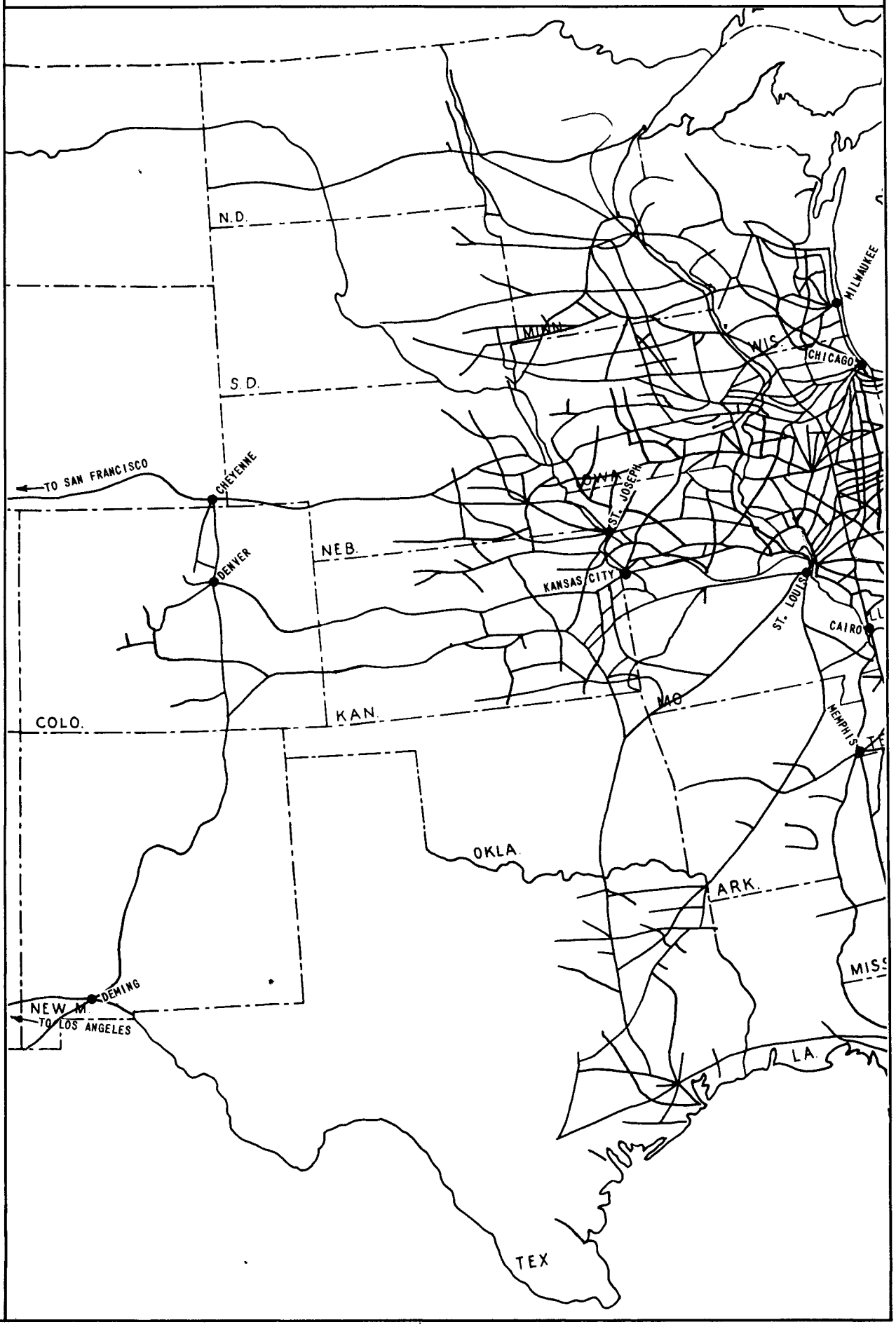
RAILROADS, 1860



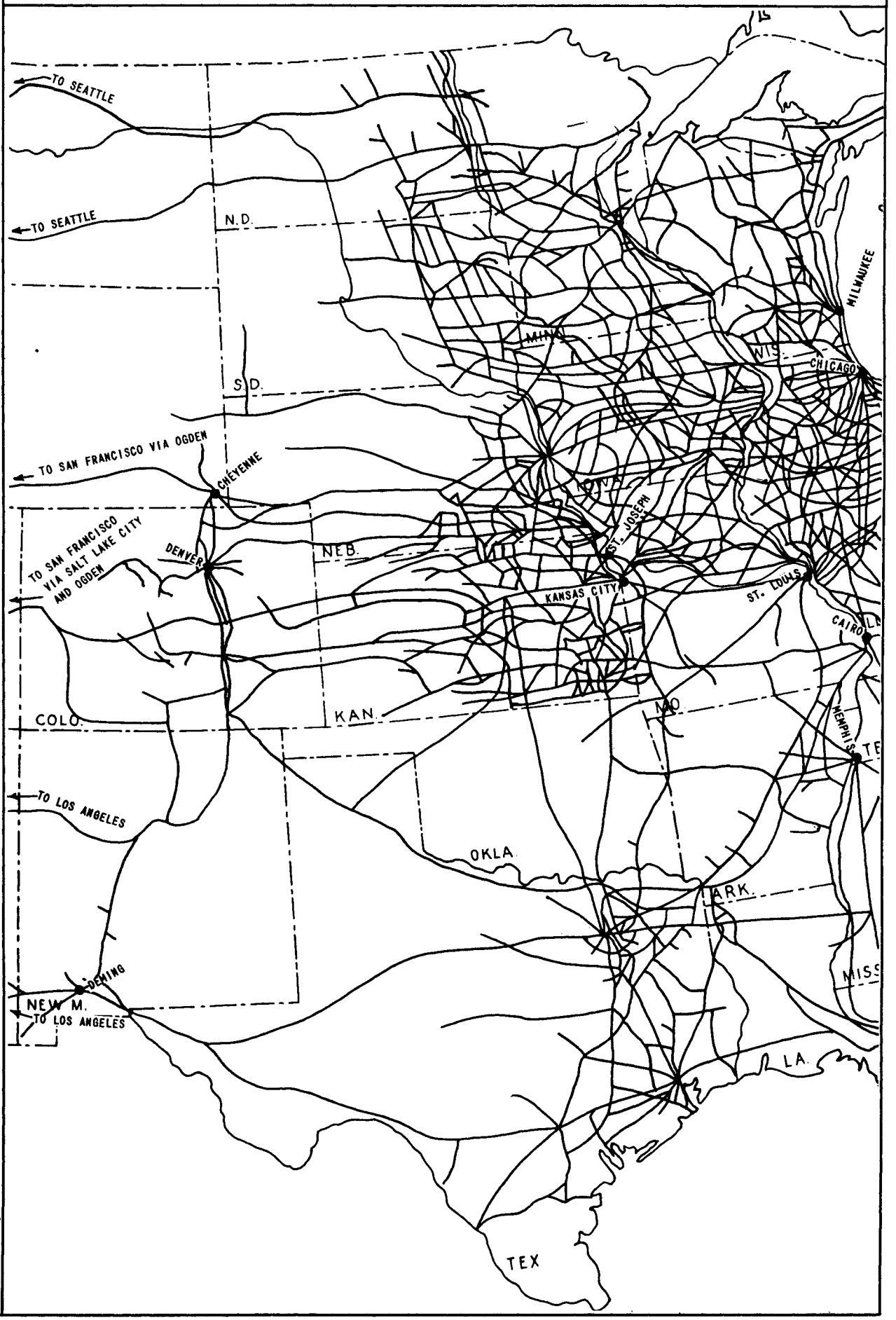
RAILROADS, 1870



RAILROADS, 1880



RAILROADS, 1890



Gross and Net Receipts of Cotton at St. Louis, 1871-1923[1]

Year	Gross Receipts (bales)	Through Shipments (bales)	Net Receipts (bales)
1871	36,421	19,715	16,706
1872	59,709	25,494	34,215
1873	103,741	24,323	79,418
1874	133,969	39,679	94,290
1875	244,598	84,788	159,810
1876	217,734	69,258	148,476
1877	248,856	61,561	187,295
1878	335,799	117,083	218,716
1879	496,570	172,286	324,284
1880	398,939	97,586	301,353
1881	369,579	129,060	240,519
1882	456,858	160,098	296,760
1883	297,122	80,599	216,523
1884	291,056	103,312	187,744
1885	472,682	246,017	226,665
1886	411,832	167,698	244,134
1887	520,292	271,028	249,264
1888	584,572	323,619	260,953
1889	538,910	311,823	227,087
1890	706,469	400,454	306,015
1891	723,628	425,737	297,891
1892	474,024	301,186	172,838
1893	635,421	462,032	163,389
1894	926,285	781,694	144,591
1895	565,683	474,796	90,887
1896	570,413	455,516	114,897
1897	899,229	771,712	127,517
1898	989,959	814,330	175,629
1899	802,769	648,695	154,074
1900	973,497	733,869	239,628
1901	841,258	619,578	221,680
1902	742,618	679,971	62,647
1903	521,881	465,677	56,204
1904	677,658	574,115	103,543
1905	551,091	482,215	68,876
1906	815,871	707,791	108,080
1907	481,742	404,756	76,986
1908	688,018	554,028	133,990
1909	457,322	372,256	85,066
1910	533,276	449,654	83,622

Gross and Net Receipts of Cotton
at St. Louis, 1871-1923[1]

Year	Gross Receipts (bales)	Through Shipments (bales)	Net Receipts (bales)
1911	668,579	527,195	141,384
1912	595,428	514,175	81,253
1913	578,832	495,287	83,545
1914	749,547	644,948	104,599
1915	813,963	747,926	66,037
1916	1,042,783	959,893	82,890
1917	1,201,628	1,138,155	63,473
1918	606,635	555,421	51,214
1919	822,698	770,666	52,032
1920	847,673	775,052	72,621
1921	782,997	726,859	56,138
1922	736,312	694,648	41,664
1923	-	-	-

[1]Figures for gross and net receipts are for cotton crop year; for example, figures shown for 1871 are for crop year 1871-72.

Source: St. Louis Merchants' Exchange, Annual Reports of 1878, pp. 61-63; 1883, pp. 109-111, 1893, pp. 117-119; 1894, p. 146; 1903, pp. 125-127; 1913, pp. 93-95; 1923, pp. 51-53.

Receipts, Manufactures and Shipments of Flour - St. Louis, Mo., 1851-1923

Year	Receipts (bbls.)	Manufactures (bbls.)	Shipments (bbls.)	Year	Receipts (bbls.)	Manufactures (bbls.)	Shipments (bbls.)
1851	184,715	408,099	a	1888	887,173	2,016,619	2,682,405
1852	132,050	383,184	a	1889	1,168,603	2,066,442	2,859,389
1853	201,487	455,076	a	1890	1,229,975	1,872,005	2,880,324
1854	192,945	503,157	a	1891	1,353,640	1,748,190	2,767,906
1855	226,450	603,353	a	1892	1,455,342	1,623,371	2,313,738
1856	323,446	678,496	a	1893	1,171,025	1,669,048	2,044,727
1857	573,664	662,548	a	1894	1,261,309	1,656,645	2,168,388
1858	687,451	825,651	a	1895	1,013,344	1,740,026	2,145,659
1859	484,715	663,446	a	1896	1,348,601	1,333,986	1,946,081
1860	443,196	839,165	a	1897	1,329,050	1,080,916	1,618,683
1861	484,000	694,110	a	1898	1,358,088	1,054,875	1,584,112
1862	647,419	906,860	a	1899	1,514,315	1,166,439	2,027,631
1863	689,242	758,422	a	1900	1,869,070	1,346,059	2,535,206
1864	815,144	782,560	a	1901	2,170,548	1,505,234	2,961,563
1865	1,161,038	743,281	1,521,465	1902	2,217,685	1,322,530	2,684,451
1866	1,208,725	818,300	1,700,740	1903	2,340,695	1,112,316	3,127,096
1867	844,075	765,298	1,450,475	1904	2,355,560	1,102,980	3,306,198
1868	808,836	895,154	1,499,337	1905	2,529,780	1,285,537	3,472,609
1869	1,310,555	1,068,592	2,172,761	1906	2,404,745	1,010,120	2,677,945
1870	1,491,626	1,351,773	2,690,739	1907	2,855,015	1,189,949	3,201,341
1871	1,428,408	1,507,915	2,676,520	1908	2,763,700	965,832	3,192,790
1872	1,250,933	1,494,798	2,447,040	1909	2,695,350	926,029	3,004,210
1873	1,296,457	1,420,287	2,506,215	1910	2,678,040	969,545	2,888,448
1874	1,683,898	1,573,202	2,981,760	1911	2,683,775	1,055,416	2,842,530
1875	1,300,381	1,484,821	2,480,877	1912	3,032,330	1,030,704	3,079,570
1876	1,071,434	1,441,944	2,217,578	1913	3,266,375	1,036,761	3,890,940
1877	1,157,932	1,517,921	2,295,657	1914	3,514,750	1,579,079	4,309,645
1878	1,305,336	1,916,290	2,670,740	1915	3,952,190	1,678,463	4,905,490
1879	1,607,236	2,142,929	3,045,035	1916	4,490,775	1,750,686	5,288,930
1880	1,703,874	2,077,625	3,292,803	1917	3,893,922	1,619,256	5,412,710
1881	1,620,996	1,718,429	2,696,245	1918	2,965,320	1,398,283	3,951,120
1882	2,003,424	1,850,215	3,305,765	1919	4,284,780	1,798,298	5,320,660
1883	1,585,670	1,892,633	2,751,182	1920	4,120,730	1,441,183	4,794,200
1884	1,456,153	1,960,737	3,014,105	1921	5,266,070	1,505,765	6,013,955
1885	1,032,506	1,841,529	2,551,499	1922	4,476,310	1,518,042	6,080,410
1886	848,417	1,807,956	2,243,361	1923	4,930,920	1,758,077	6,234,585
1887	1,049,864	1,985,717	2,594,881				

[a]Not reported.

Source: St. Louis Merchants' Exchange, Annual Reports of 1874, pp. 49-51; 1903, p. 140; 1923, p. 59.

Receipts and Shipments of Bran and Mill Feed -
St. Louis, 1867-1923

Year	Receipts		Shipments	
	In sacks	In bulk (cars)	In sacks	In bulk (cars)
1867	94,560	-	226,262	a
1868	72,999	-	232,047	a
1869	85,317	-	313,585	a
1870	102,906	-	444,450	a
1871	120,183	-	457,908	a
1872	103,385	-	386,321	a
1873	82,773	-	471,447	a
1874	194,345	-	558,696	a
1875	207,219	-	578,062	a
1876	179,990	-	561,458	a
1877	220,564	-	680,565	a
1878	148,844	336	499,481	1,058
1879	118,605	463	539,443	1,185
1880	123,374	447	602,103	1,936
1881	143,753	644	560,115	1,228
1882	244,814	1,121	686,498	1,934
1883	232,665	1,032	711,571	1,361
1884	198,700	857	800,881	1,699
1885	175,662	847	880,395	908
1886	110,763	366	767,856	335
1887	102,548	302	622,650	226
1888	171,145	560	814,474	558
1889	145,010	940	891,539	820
1890	149,432	905	866,521	736
1891	220,663	941	746,646	903
1892	383,152	842	743,093	765
1893	373,842	633	762,483	1,011
1894	390,111	480	See note	
1895	434,863	267	707,787	340
1896	537,933	492	1,000,575	446
1897	306,795	464	651,309	662
1898	676,911	582	579,690	809
1899	1,035,842	469	936,685	1,260
1900	848,080	400	1,073,887	808
1901	740,083	438	841,665	1,552
1902	1,250,260	358	1,206,460	821
1903	1,823,740	486	1,981,593	690
1904	1,568,410	669	1,874,070	1,312
1905	1,009,150	1,065	1,122,145	1,096
1906	907,170	909	1,292,940	1,351

Receipts and Shipments of Bran and Mill Feed -
St. Louis, 1867-1923

Year	Receipts		Shipments	
	In sacks	In bulk (cars)	In sacks	In bulk (cars)
1907	1,497,755	957	1,947,380	4,424
1908	1,450,220	564	2,373,980	4,077
1909	1,253,310	761	2,842,870	3,292
1910	1,394,845	1,001	3,148,950	3,714
1911	972,830	1,262	3,104,975	6,297
1912	1,146,570	1,720	3,224,935	7,819
1913	1,134,990	872	5,227,465	4,365
1914	826,070	293	1,489,545	259
1915	1,808,440	496	1,523,750	48
1916	1,443,240	983	1,005,230	17
1917	1,032,690	630	982,270	786
1918	668,780	-	1,023,290	-
1919	1,313,400	-	2,106,520	-
1920	1,276,970	-	1,548,075	-
1921	1,186,790	-	1,487,530	-
1922	1,163,330	-	1,337,750	-
1923	924,890	-	1,513,770	-

[a]Not reported.

Note: Table at p. 132 in 1913 report is in error. Figures reported for shipments for 1887 are actually for 1886, and figures for each year up to and including 1894 are for the preceding year, therefore no figure is reported for 1894.

Source: St. Louis Merchants' Exchange, Annual Reports of 1867 (1868) p. 82; 1868 (1869) p. 73; 1883 (1884) p. 106; 1893 (1894) p. 159; 1913 (1914) p. 132; 1923 (1924) p. 67.

Receipts and Shipments of Hay,
St. Louis, 1867-1923

Year	Receipts	Shipments	Year	Receipts	Shipments
	Bales			Tons (contd)	
1867	178,992	128,513	1895	195,582	69,046
1868	147,455	92,608	1896	230,352	107,980
1869	181,149	56,124	1897	178,516	64,067
1870	177,538	129,142	1898	160,350	46,488
1871	186,160	76,499	1899	175,820	64,333
1872	275,079	157,653	1900	234,256	120,777
1873	272,761	136,314	1901	251,132	117,557
1874	315,429	108,986	1902	213,224	89,028
1875	386,416	168,579	1903	298,246	114,441
1876	299,770	111,991	1904	269,560	119,984
1877	322,344	134,793	1905	246,945	90,130
1878	339,981	178,674	1906	242,980	101,336
1879	461,979	165,801	1907	290,645	149,042
1880	676,268	266,739	1908	238,605	109,255
			1909	188,565	66,015
	Tons				
			1910	242,481	87,455
1881	98,091	34,390	1911	253,372	126,890
1882	99,099	32,389	1912	246,443	132,125
1883	82,540	22,438	1913	250,525	123,560
1884	78,798	25,273	1914	291,780	177,030
1885	97,975	38,826			
			1915	247,825	130,715
1886	85,078	30,006	1916	192,270	79,945
1887	85,394	23,861	1917	238,946	147,070
1888	107,884	34,665	1918	216,926	159,060
1889	116,346	53,522	1919	205,108	95,395
1890	114,092	40,247			
			1920	260,542	111,355
1891	141,398	38,253	1921	135,344	47,705
1892	131,148	32,078	1922	125,195	48,385
1893	141,238	30,095	1923	141,296	62,945
1894	159,969	41,238			

Source: St. Louis Merchants' Exchange, Annual Reports of 1883, p. 132; 1893, p. 213; 1903, p. 234; 1923, p. 176.

Shipments of Bulk Grain by River
From St. Louis to New Orleans, 1874-1893

Year	Wheat (Bu.)	Corn (Bu.)	Rye (Bu.)	Oats (Bu.)	Total (Bu.)
1874	365,252	1,047,794	-	10,000	1,423,046
1875	135,961	172,617	-	-	308,578
1876	37,142	1,737,237	-	-	1,774,379
1877	351,453	3,578,057	171,843	-	4,101,353
1878	1,876,639	2,857,056	609,041	108,867	5,451,603
1879	2,390,897	3,585,589	157,424	30,928	6,164,838
1880	5,913,272	9,804,392	45,000	-	15,762,664
1881	4,197,981	8,640,720	22,423	132,823	12,993,947
1882	5,637,391	2,529,712	15,994	150,320	8,333,417
1883	1,435,043	9,029,509	205,430	389,826	11,059,508
1884	1,318,688	4,496,785	344,864	487,221	6,647,558
1885	50,000	8,180,039	36,093	401,787	8,667,919
1886	743,439	7,501,730	-	598,755	8,834,924
1887	3,973,737	7,365,340	-	217,722	11,556,799
1888	1,247,952	5,844,042	-	160,584	7,252,578
1889	1,651,950	12,398,955	17,432	89,707	14,158,046
1890	1,409,440	8,717,849	-	89,960	10,217,244
1891	6,940,215	1,482,731	45,600	-	8,468,546
1892	5,149,708	3,228,645	-	36,587	8,414,940
1893	3,710,360	3,293,808	-	75,430	7,079,598

Source: St. Louis Merchants' Exchange, Annual Report of 1893, p. 113.

Receipts and Shipments of Wool,
St. Louis, 1867-1913

Year	Receipts	Shipments	Year	Receipts	Shipments
	Packages			Pounds	
1867	12,040	11,928	1890	20,540,503	23,226,444
1868	17,756	18,530	1891	21,975,954	21,464,552
1869	14,905	20,738	1892	25,850,690	27,450,379
1870	13,486	17,882	1893	15,024,436	15,726,165
1871	23,197	16,235	1894	24,861,455	24,430,971
1872	23,206	16,686	1895	21,593,780	20,526,100
1873	17,806	17,915	1896	15,139,840	15,939,579
1874	24,947	23,138	1897	30,865,410	34,303,700
	Pounds		1898	23,710,715	21,266,999
			1899	28,491,625	32,517,076
1875	4,249,307	3,756,518	1900	17,000,790	15,057,290
1876	6,025,108	5,887,979	1901	25,877,110	27,311,375
1877	15,521,975	17,094,428	1902	26,378,080	30,072,350
1878	16,469,816	16,161,725			
1879	20,786,742	19,619,258	1903	18,766,250	21,031,610
			1904	18,751,770	27,540,775
1880	12,387,089	10,492,524	1905	24,296,130	22,887,270
1881	11,198,272	9,817,534	1906	15,775,330	17,749,420
1882	16,019,836	14,845,897	1907	14,712,560	17,097,750
1883	18,868,729	20,903,974			
1884	12,391,806	17,665,858	1908	23,123,340	27,829,200
			1909	22,649,110	30,023,350
1885	21,193,031	25,145,815	1910	21,044,440	20,548,250
1886	18,563,614	17,825,630	1911	26,773,770	33,039,000
1887	17,347,186	17,392,858	1912	23,390,150	39,819,200
1888	19,626,629	21,463,998	1913	14,671,660	18,647,200
1889	21,018,920	18,239,236			

Source: St. Louis Merchants' Exchange, Annual Reports of 1883, p. 141, 1893, p. 212; 1903, p. 233, 1913, p. 235.

St. Louis Receipts and Shipments of Lead, 1867-1923

Year	Receipts	Shipments	Year	Receipts	Shipments
	Number of 80 lb. pigs	Number of 80 lb. pigs		Number of 80 lb. pigs	Number of 80 lb. pigs
1867	144,555	18,674	1896	1,946,139	1,406,327
1868	185,823	40,358	1897	2,280,548	1,389,436
1869	228,303	57,281	1898	2,183,012	1,466,905
1870	237,039	62,674	1899	1,611,112	1,105,131
1871	229,961	50,660	1900	1,577,443	1,072,992
1872	285,769	62,862	1901	1,800,235	1,243,956
1873	356,037	216,040	1902	2,007,725	1,354,119
1874	479,448	218,538	1903	2,407,605	1,979,554
1875	579,202	320,668	1904	2,373,540	1,387,042
1876	665,557	404,300	1905	2,137,935	1,538,780
1877	790,028	473,281	1906	2,048,890	1,426,750
1878	764,357	523,964	1907	1,985,875	1,484,945
1879	817,594	408,123	1908	1,998,370	1,495,080
1880	764,887	495,036	1909	2,357,300	1,524,920
1881	925,406	625,266	1910	2,639,740	1,659,130
1882	1,197,395	687,219	1911	2,399,190	1,538,950
1883	1,114,235	552,330	1912	2,472,440	1,748,355
1884	1,044,012	625,336	1913	1,314,250	2,100,530
1885	1,110,738	637,710	1914	3,611,510	2,231,800
1886	1,138,854	561,544	1915	3,801,190	2,283,830
1887	1,442,054	766,807	1916	3,520,750	1,874,490
1888	1,853,781	1,293,919	1917	4,893,524	2,742,020
1889	2,018,483	1,433,087	1918	2,158,910	2,896,760
1890	1,756,850	1,057,486	1919	1,726,790	1,913,880
1891	1,739,977	982,477	1920	2,645,710	1,751,475
1892	1,526,484	1,070,538	1921	2,517,440	1,167,830
1893	1,348,544	968,411	1922	4,057,030	2,230,400
1894	1,436,229	1,084,280	1923	2,442,070	1,751,110
1895	1,500,923	956,572			

Source: St. Louis Merchants' Exchange, Annual Reports of 1893, p. 210; 1913, p. 232; 1923, p. 179.

Tobacco Manufactured First Missouri Internal Revenue Collection District
1873-1913

Year	Pounds	Year	Pounds
1873	5,441,872[a]	1894	57,097,445
1874	4,794,985[a]	1895	57,447,310
1875	6,324,408[a]	1896	53,134,513
1876	4,928,147[a]	1897	62,588,229
1877	5,484,431	1898	64,398,621
1878	5,990,801	1899	66,873,197
1879	8,670,466	1900	79,294,959
1880	12,889,784	1901	82,010,863
1881	17,234,869	1902	82,593,541
1882	17,170,190	1903	80,875,428
1883	23,835,729	1904	65,832,529
1884	22,631,104	1905	65,001,781
1885	28,517,401	1906	71,715,288
1886	32,448,936	1907	65,984,081
1887	40,284,675	1908	72,759,588
1888	40,009,303	1909	74,565,081
1889	44,964,667	1910	74,871,724
1890	51,792,102	1911	74,852,140
1891	50,384,439	1912	71,381,336
1892	57,677,351	1913	73,089,871
1893	50,465,647		

[a]Fiscal year - balance of data for calendar year.

Source: St. Louis Merchants' Exchange, Annual Reports of 1883, p. 128; 1893, p. 198; 1903, p. 222; 1913, p. 230.

Receipts and Shipments of Hog Products - St. Louis 1867-1913

Year	Receipts			Shipments		
	Pork (bbls.)	Hams and Meats (lbs.)	Lard (lbs.)	Pork (bbls.)	Hams and Meats (lbs.)	Lard (lbs.)
1867	92,071	47,623,450	7,229,670	138,226	70,095,130	14,318,210
1868	85,127	46,753,360	5,941,650	130,268	58,229,270	12,945,490
1869	78,236	47,225,140	7,778,410	120,002	75,755,450	13,322,900
1870	77,398	44,494,770	6,215,150	115,236	77,501,130	15,507,840
1871	88,442	57,804,350	10,093,460	131,732	123,665,060	30,750,470
1872	60,207	63,434,860	11,288,890	114,329	147,141,960	33,943,860
1873	57,476	50,071,760	8,981,820	105,876	184,392,770	37,156,810
1874	55,453	52,104,380	6,877,560	90,343	133,486,380	27,112,270
1875	46,547	51,556,146	6,732,320	95,503	105,809,598	24,145,176
1876	45,632	50,290,716	6,067,325	86,141	106,803,076	29,292,879
1877	45,482	48,203,972	7,087,001	108,768	119,955,382	34,725,726
1878	52,200	58,611,064	7,019,741	112,375	125,602,088	40,452,505
1879	32,113	92,983,380	8,415,176	89,385	159,398,870	38,925,903
1880	13,658	77,376,418	8,248,208	79,416	146,362,997	38,004,829
1881	17,692	77,736,968	16,526,606	71,826	139,012,260	43,449,768
1882	78,502	92,217,813	18,480,610	100,139	140,785,135	39,829,146
1883	9,656	119,365,201	9,975,552	75,239	163,150,959	43,740,073
1884	9,050	78,946,821	10,742,561	57,194	132,563,029	50,445,090
1885	6,632	81,454,040	8,906,586	66,316	128,709,562	47,137,038
1886	6,667	67,853,334	11,924,131	46,816	117,302,729	48,710,130
1887	5,275	94,579,080	18,986,881	38,281	143,934,139	69,406,458
1888	6,431	133,588,847	15,187,970	24,901	163,352,336	78,154,931
1889	2,679	189,601,764	24,869,848	29,447	228,336,860	80,878,803
1890	5,528	269,769,823	32,463,302	40,989	294,392,724	77,575,403
1891	3,658	254,647,388	37,417,835	26,521	273,174,494	80,382,032
1892	10,220	237,703,808	24,696,352	20,369	282,827,819	82,713,571
1893	3,516	185,886,620	23,436,285	10,683	211,618,018	71,675,953
1894	36,640	201,513,000	27,878,000	15,668	252,425,847	90,088,732
1895	2,965	187,696,200	26,939,100	15,186	241,814,093	94,731,066
1896	4,235	171,969,400	23,707,600	17,492	212,163,700	84,875,547
1897	4,175	307,193,900	67,222,900	10,176	230,914,601	98,828,778
1898	10,111	228,626,300	57,577,100	17,718	212,028,070	90,175,130
1899	13,343	269,519,100	52,792,420	12,880	275,971,730	106,906,215
1900	11,380	303,847,500	47,994,410	14,011	272,274,710	115,009,655
1901	6,028	336,635,900	55,573,380	10,526	295,528,405	98,655,501
1902	4,970	248,632,500	43,195,000	7,836	295,044,005	77,135,565
1903	3,055	180,622,600	26,797,590	4,282	313,386,590	79,065,870
1904	6,050	237,891,300	50,813,200	4,930	396,259,745	104,618,920
1905	3,945	321,003,400	116,341,000	6,073	481,290,932	127,133,300
1906	4,073	238,236,900	45,577,700	4,623	323,882,155	91,332,360
1907	-	199,075,600	13,906,100	5,571	337,760,550	68,966,860
1908	-	206,396,300	12,891,600	1,620	337,839,100	85,982,040
1909	-	125,732,000	9,076,700	2,370	330,314,100	80,073,200
1910	100	154,069,900	9,858,100	19,190	349,283,100	61,000,050
1911	870	154,778,500	742,600	19,000	440,536,000	84,886,400
1912	-	120,545,600	10,942,100	-	366,931,620	85,032,250
1913	-	117,632,380	32,712,300	-	15,296,110	87,674,910

Source: St. Louis Merchants' Exchange, Annual Reports of 1893, p. 175; 1903, p. 206; 1913, p. 211.

Hogs Packed in the West and at St. Louis and East St. Louis, 1878-1912

Year	Total packed in West	Total packed in St.Louis and East St.Louis
1878-1879	10,858,792	771,261
1879-1880	11,001,699	927,793
1880-1881	12,243,354	884,159
1881-1882	10,551,449	556,379
1882-1883	9,342,999	532,180
1883-1884	9,183,100	607,122
1884-1885	10,519,108	711,901
1885-1886	11,263,567	613,134
1886-1887	12,083,012	721,914
1887-1888	11,532,707	683,381
1888-1889	10,798,974	682,457
1889-1890	13,545,303	739,602
1890-1891	17,713,134	648,100
1891-1892	14,457,614	664,188
1892-1893	12,390,630	530,634
1893-1894	11,605,006	578,873
1894-1895	16,003,645	869,458
1895-1896	15,010,635	837,377
1896-1897	16,928,978	1,089,533
1897-1898	20,201,260	1,238,810
1898-1899	23,651,695	1,580,286
1899-1900	22,200,821	1,507,951
1900-1901	23,600,674	1,566,550
1901-1902	25,411,676	1,725,407
1902-1903	20,605,571	1,262,358
1903-1904	22,375,686	1,579,744
1904-1905	23,918,423	1,908,592
1905-1906	25,574,760	1,777,657
1906-1907	25,430,555	1,765,592
1907-1908	27,981,997	1,853,279
1908-1909	28,996,635	2,244,861
1909-1910	24,162,295	1,978,860
1910-1911	21,755,566	1,896,076
1911-1912	29,918,498	2,791,388
1912-1913	25,583,834	2,102,329

Source: St. Louis Merchants' Exchange, Annual Reports of 1878, p. 66; 1883, p. 117, 1893, p. 188; 1903, p. 209; 1913, pp. 211-214.

Total Value of Manufactures By Decades 1880-1940 For
The St. Louis Industrial Area With a Breakdown
By Component Areas

Year	St. Louis City, Mo.	St. Louis County, Mo.	St. Clair County, Ill.	Madison County, Ill.	Total St. Louis Industrial Area
1880	$ 114,333,375	$ 567,722	$ 17,319,819	$ 7,298,568	$ 139,519,484
1890	229,157,343	268,124	17,361,219	6,512,177	253,298,863
1900	233,629,733	1,441,463	41,965,632	18,562,580	295,599,408
1910	328,495,313	a	a	a	a
1920	871,700,438	26,688,812	281,455,508	178,994,722	1,358,839,480
1930	1,022,713,490	45,442,197	214,992,985	258,804,982	1,541,953,654
1940	716,683,597	45,782,637	169,764,260	154,365,247	1,086,595,741

[a]Not reported.

Source: Census of the United States.

Wheat, Corn, and Oats--Receipts at Primary Markets,
By Crop Years: 1933 to 1943
(All Figures in Millions of Bushels)

Year beginning	Total 12 markets	Chicago	Milwaukee	Minneapolis	Duluth	St. Louis	Kansas City	Peoria	Omaha	Indianopolis	Sioux City	St. Joseph	Wichita
						Wheat							
July 1:													
1933	200.2	13.7	3.0	49.4	37.6	17.8	38.9	1.4	13.3	4.2	1.5	5.6	13.9
1934	157.5	22.9	3.7	37.9	17.0	14.8	28.2	1.5	10.7	4.7	1.2	4.2	10.7
1935	232.1	22.6	4.1	67.4	20.1	16.4	53.8	1.4	15.1	4.7	2.2	6.5	17.9
1936	218.2	24.1	3.6	38.3	11.1	16.3	65.0	2.4	19.9	3.9	1.7	7.7	24.0
1937	330.0	39.4	8.5	53.2	33.1	25.2	102.4	2.2	22.5	3.8	2.4	12.9	24.2
1938	384.3	29.4	3.9	84.8	57.6	23.3	110.5	2.6	24.6	3.7	3.1	11.6	29.2
1939	339.9	26.4	4.5	105.3	58.5	24.6	65.4	2.3	15.4	5.6	2.4	8.9	20.5
1940	356.0	28.3	4.6	103.1	42.9	25.5	90.0	3.0	16.8	5.4	2.6	9.2	24.6
1941	373.0	19.9	1.2	140.4	70.3	14.7	66.6	3.6	17.8	5.2	5.4	7.7	20.1
1942	513.5	30.0	1.8	182.8	70.9	45.3	98.1	8.9	22.8	9.8	7.2	12.2	23.8
1943	707.8	70.6	8.9	214.8	110.5	79.0	110.1	17.6	34.5	17.5	7.1	15.1	22.0
						Corn							
Oct. 1:													
1933	217.2	70.2	12.7	19.5	5.8	14.8	22.9	16.8	20.2	17.8	3.9	10.5	2.1
1934	104.6	26.2	5.2	4.0	-	10.6	20.6	13.2	5.9	13.4	1.8	3.4	0.4
1935	194.2	60.3	6.6	11.6	2.8	19.2	19.4	20.7	18.7	24.1	4.8	5.7	0.3
1936	131.8	54.2	3.5	4.7	0.4	17.4	8.7	14.6	10.8	12.1	3.2	2.0	0.2
1937	322.1	122.1	10.6	30.6	29.4	36.4	14.0	27.5	18.2	20.4	6.9	5.7	0.2
1938	231.9	94.1	8.7	19.2	14.1	13.6	11.8	22.9	16.4	21.2	5.5	4.2	-
1939	238.0	94.4	10.9	20.4	12.8	14.3	13.3	20.6	22.4	18.8	4.9	5.2	0.1
1940	257.9	103.5	10.6	18.8	18.8	12.1	12.0	33.0	13.0	25.1	5.6	5.2	-
1941	307.5	97.0	11.1	20.5	18.4	22.4	29.0	43.4	24.3	25.0	9.3	7.0	-
1942	317.7	104.2	9.7	13.3	5.7	31.8	32.7	39.0	35.5	20.7	14.4	10.6	-
1943	253.1	87.2	8.1	9.7	0.3	30.5	30.0	29.9	28.9	14.5	4.0	10.0	0.1
						Oats							
July 1:													
1933	77.0	19.5	5.3	16.6	9.2	6.2	2.2	4.1	1.8	7.7	0.5	3.8	0.2
1934	40.6	10.8	2.2	7.7	1.7	5.1	1.9	1.0	2.6	3.3	0.8	3.3	0.2
1935	113.1	24.5	1.9	32.8	17.1	7.4	4.8	3.2	8.7	4.9	1.6	6.1	0.1
1936	68.0	17.6	0.6	15.0	1.3	8.0	2.5	2.2	8.2	5.6	2.2	4.7	0.1
1937	96.4	27.3	1.6	22.7	12.6	5.0	3.3	4.4	5.3	9.3	1.1	3.7	-
1938	92.6	27.5	1.0	20.2	15.0	4.2	3.4	2.9	5.1	7.2	1.3	4.8	-
1939	78.1	17.3	0.7	27.0	12.3	4.0	1.4	3.8	3.3	3.5	1.7	3.2	0.1
1940	61.4	17.7	0.4	22.0	3.5	2.8	1.5	2.4	1.1	5.2	1.2	3.5	-
1941	91.9	22.4	0.9	37.1	2.1	3.5	3.8	2.3	4.8	6.7	2.2	6.2	-
1942	117.5	19.0	0.2	53.2	3.3	7.5	6.8	2.6	8.9	4.4	5.9	5.8	-
1943	134.7	17.8	0.4	52.1	15.7	10.4	7.0	3.5	8.9	4.3	8.5	5.8	0.2

Source: Department of Agriculture, Bureau of Agricultural Economics. Compiled from Chicago Daily Trade Bulletin through May 1942; Chicago Journal of Commerce beginning June 1942. (Reported in Statistical Abstract 1944-45, p. 719.)

Building Permits Issued - St. Louis,
1875-1913

Year	Brick and Stone Buildings	Frame Buildings	Total Buildings	Cost
1875	1,774	198	1,972	$ 5,662,930
1876	1,361	464	1,825	3,496,582
1877	1,677	438	2,115	3,229,726
1878	1,318	369	1,687	2,579,772
1879	1,430	534	1,964	3,821,650
1880	1,507	347	1,854	3,790,650
1881	-	-	1,966	4,448,552
1882	1,646	715	2,361	5,010,554
1883	1,881	520	2,401	7,123,878
1884	1,989	620	2,609	7,316,685
1885	2,160	510	2,670	7,376,519
1886	1,733	491	2,224	7,030,819
1887	1,842	648	2,490	8,162,914
1888	2,145	841	2,986	8,029,501
1889	2,453	1,091	3,544	9,765,700
1890	2,665	1,329	3,994	13,652,700
1891	2,976	1,459	4,435	13,259,950
1892	3,496	1,286	4,782	16,976,978
1893	2,748	1,089	3,837	12,857,667
1894	2,977	876	3,853	11,844,700
1895	2,862	780	3,642	14,381,060
1896	2,343	686	3,029	10,034,908
1897	2,549	771	3,320	9,471,640
1898	1,861	796	2,657	7,833,889
1899	1,539	961	2,500	8,249,565
1900	1,330	1,183	2,513	5,916,984
1901	1,898	1,824	3,722	13,207,991
1902	2,266	2,236	4,502	12,854,035
1903	2,177	2,625	4,802	14,544,430
1904	2,654	3,306	5,960	14,075,794
1905	3,971	4,314	8,285	23,434,734
1906	4,142	4,846	8,988	29,938,693
1907	3,942	4,612	8,553	21,893,167
1908	4,270	4,849	9,119	21,190,369
1909	4,386	4,893	9,279	23,733,272
1910	4,336	5,083	9,419	19,600,063
1911	5,871	2,281	8,152	18,607,255
1912	5,948	2,645	8,593	20,675,804
1913	5,412	2,890	8,302	15,340,012

Source: St. Louis Merchants' Exchange, Annual Reports of 1878, p. 18; 1870, p. 25; 1883, p. 18; 1893, p. 53; 1913, p. 67.

Trend of Receipts and Shipments by Rail and River,
St. Louis, 1883-1923
(1,000 tons)

Receipts Via:	1883	1893	1903	1913	1923
Upper Mississippi River	126	112	33	28	22
Lower Mississippi River	202	216	160	11	111
Illinois River	94	51	12	6	11
Missouri River	34	8	1	5	-
Ohio River	155	33	112	152	-
Cumberland and Tennessee	18	53	18	9	1
Red, Ouachita, Arkansas & White	-	-	-	-	-
Lumber and Logs by raft	-	126	5	-	-
Total River	629	599	341	211	145
Total Railways	6,941	10,408	21,580	32,222	53,392
Grand Total	7,570	11,007	21,921	32,433	52,537

Shipments Via:	1883	1893	1903	1913	1923
Upper Mississippi River	60	54	45	9	9
Lower Mississippi River	535	343	146	20	254
Illinois River	5	6	9	7	4
Missouri River	19	13	2	7	-
Ohio River	56	-	-	-	3
Cumberland and Tennessee	a	21	10	5	-
Red, Ouachita, Arkansas & White	2	-	-	-	-
Total River	677	437	212	48	270
Total Railways	3,468	5,554	12,971	22,129	35,423
Grand Total	4,145	5,991	13,183	22,177	35,693

[a]Less than 1,000 tons

Source: St. Louis Merchants' Exchange, Annual Reports of 1883, p. 40; 1893, pp. 87-102-103; 1903; 1913, pp. 78-79; 1923, pp. 44-45.

Business of St. Louis Bridges
and Ferries, 1883-1923

Year	Tons West to East	Tons East to West
1883	1,762,824	4,118,052
1884	-	-
1885	1,650,725	3,626,586
1886	1,628,530	4,068,165
1887	1,729,481	4,474,531
1888	2,104,140	4,226,761
1889	2,144,524	4,481,842
1890	2,735,595	4,897,358
1891	3,007,359	5,820,766
1892	2,942,386	5,289,810
1893	2,818,669	5,291,175
1894	2,690,222	4,873,742
1895	2,825,077	5,627,882
1896	2,984,450	5,096,966
1897	3,643,187	5,446,074
1898	4,159,809	5,984,533
1899	4,814,136	6,659,621
1900	5,425,044	6,415,096
1901	5,377,208	7,933,560
1902	5,630,756	8,943,159
1903	5,368,462	9,538,096
1904	5,526,745	9,541,764
1905	6,508,884	9,653,892
1906	7,324,424	10,929,224
1907	7,241,198	13,063,128
1908	5,808,332	10,616,601
1909	6,019,684	11,908,361
1910	6,263,285	13,410,941
1911	6,540,934	13,103,072
1912	7,676,973	14,776,329
1913	7,896,939	14,257,864
1914	7,667,189	12,731,914
1915	8,065,252	12,304,019
1916	10,107,075	15,470,785
1917	10,595,287	15,625,602
1918	11,585,214	15,006,598
1919	10,286,264	13,857,375
1920	11,093,830	15,462,712
1921	9,408,925	11,326,964
1922	9,992,069	11,804,368
1923	12,261,304	14,134,316

Source: St. Louis Merchants' Exchange, Annual Reports of 1883, p. 42; 1893, p. 101; 1903, p. 96; 1913, p. 77; 1923, p. 43.

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