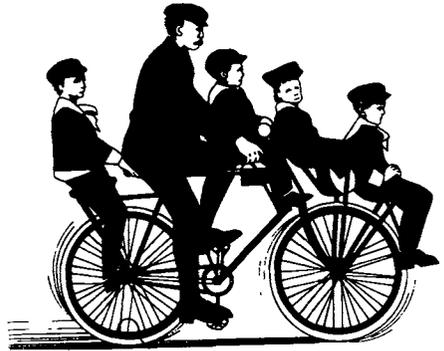


THE BICYCLE BOOM OF THE 1890'S:
THE DEVELOPMENT OF PRIVATE
TRANSPORTATION AND
THE BIRTH OF THE MODERN TOURIST

BY GARY ALLAN TOBIN



Americans did not make an abrupt switch from using horses to driving automobiles for personalized transport. Between the late 1880's and early 1900, the United States experienced a bicycle craze with millions of Americans buying and riding two-wheelers. This boom had many dimensions. While bicycle enthusiasts awakened a national interest in good roads,¹ they also attended racing events in "crowds comparable to present-day baseball."² Women's dress fashions and leisure activities changed dramatically.³ Contemporary observers also linked the bicycle to changing consumption patterns and social activities: dropping church attendance, new courting standards for the young, and even a decline in piano playing were all attributed to the bicycle.⁴

Although the bicycle had existed in one form or another since the beginning of the nineteenth century, a long series of technological improvements were made before it could meet the needs of a mass market.⁵ The "safety," a bicycle with equal sized wheels, was introduced in 1886. Two years later a rubber tire filled with air appeared on the market.⁶ With these two innovations, producers provided a machine that was safe, comfortable, and easy to ride. Steady improvements were made in the bicycle's construction in the 1890s. But by 1895, *Outing Magazine* reported that "the limit of the bicycle has practically been reached."⁷ Once the bicycle was safe and comfortable, the riding fad erupted. Women, children and old people were able to mount, pedal, and dismount the safety with the skill and ease that once was possible for only young, athletic men.⁸ It seemed to the bicycle enthusiast that a bicycle "fever" had infected the nation.⁹ Clubs, parties, clothes, and language all had cycle origins. After the fad was dying in 1901, one observer described the extent of the bicycle's influence in the 1890s:

. . . Bicycle-parties were fashionable. Bicycle-language was spoken as extensively as the language of golf is spoken to-day. Go where you would you could hear nothing but talk about different models and 'century runs' and the condition of the highways; while map-makers reaped a small fortune by publishing little guides and roadbooks for the use of the bicycle fiend. Even the crowded streets of the city swarmed with riders. Business men rode down to their offices on bicycles, and many of them took spins in the Park before breakfast. The great avenues of our larger cities were made extremely picturesque in the dusk of evening by the endless line of bicyclists whose lanterns in the darkness produced the vivid effect of a river of coloured fire.¹⁰

Isaac Potter, serving as president of the League of American Wheelmen, discussed the economic magnitude of the bicycle boom. He estimated the total bicycle economy to be around \$75,000,000. With pride he described the boom in 1896:

There are probably 2,500,000 bicycle riders in the United States, and it is estimated that a million wheels will be sold during the present year. Take into account 250 bicycle factories, 24 tire makers, and 600 concerns dealing in bicycle sundries, all representing a combined investment of \$75,000,000, and the bicycle question seems to gain proportions. Add the number and value of repair-shops, race-tracks, and club-houses, and the aggregate jumps again. Consider the fact that this country contains about 30,000 retail bicycle-dealers and about 60,000 persons employed in the 'sundry' factories, and that these numbers are every day growing apace. . . .¹¹

The growth of the bicycle industry in the 1890's gives credence to the impressions of the contemporary commentators. In 1890, only 27 establishments produced bicycles—for a total product value of \$2,568,326.¹² Output in 1890 was only 40,000 machines.¹³ By 1899, the census showed 312 producers, a growth of 1100%. Product value jumped to \$31,915,908, an increase of nearly 1300%.¹⁴ About 1,200,000 bicycles were produced in 1896, a jump of 3000%.¹⁵ Employment in the industry grew from under 2000 to over 20,000.¹⁶

The bicycle economy encompassed much more than just the production of the machines. Over 6,300 repairs establishments operated in 1899 with a product value of \$6,760,000.¹⁷ Combined with the production value of the bicycles themselves, the total value of manufacture and repair was over \$38,000,000. The manufacture of bicycles consumed over \$16,000,000 in materials for production. These figures do not reveal the significant multiplier effect the bicycle produced in the economy. New clothes were manufactured for bicycle riders along with the sundries designed for the pedaling traveler.¹⁸ The economic spin-offs of the bicycle also included club expenditures, tourist industries, and map production.¹⁹ Adding these industries, the total would approximate Potter's estimate.

The bicycle boom was huge, but ownership was far from universal. The urban middle and upper classes formed the bulk of the bicycle market. Most farmers were not part of the bicycle craze for two reasons. First, bicycles were not within their economic reach. The peak years of bicycle popularity were also years of severe depression. Annual farm wages fell from \$238 in 1892 to \$214 in 1894, rising only to \$224 in 1897.²⁰ Cash was so scarce for many farmers that they were advised "to plan so that little money will be required for table supplies."²¹ Second, even if the farmer could afford a bicycle, there was no place for him to ride it. In 1904, of a total of 2,151,379 miles of rural roads, only 144 miles were high typed surface.²² Long rides over bad roads powered by human energy provided poor transportation. A horse served the farmer much more efficiently than a bicycle.

The League of American Wheelmen was the largest and most influential bicycle organization.²³ League records demonstrate both the urban and middle class nature of the bicycle boom. With each publication, *Good Roads Magazine* listed the name, state, city, and street address of each individual who applied to become a League member. Since occupation was listed in many city directories along with names and addresses, it was also possible to trace the employment status of League applicants. Most club members lived in big cities, some resided in smaller cities, and a few members came from small towns.²⁴ Virtually all League members had middle and upper class employment: clerks, bookkeepers, businessmen, and professionals comprised the bulk of League membership.²⁵

Total League enrollments in 1897 reveal that the urbanized regions of the country were the bicycle riding centers.²⁶ The state of Massachusetts had more than twice the number of League members in its clubs than were enrolled from the 26 states of the Plains, Rocky Mountains, South and Southwest combined. About 60% of the League members were enrolled in the Middle Atlantic states, while the New England and Midwestern states accounted for another 30% of the enrollment. Pennsylvania, New York, New Jersey, Massachusetts, Ohio, and Illinois accounted for about 75% of the total national enrollment of League members.

Location of bicycle repair shops indicate bicycle riding was restricted primarily to the urbanized states. The United States census of 1900 listed the number and location of bicycle repair shops by state.²⁷ Calculating the number of persons per repair shop gives an indicator of which states had large numbers of bicyclists and which did not.²⁸ Urbanized states such as Massachusetts and Connecticut had one repair shop for every 4,610 and 5,700 people respectively. Rural states such as Arkansas and Mississippi had one repair shop for every 109,200 and 129,400 people respectively.²⁹ Differences between regional location of repair shops were also substantial. The New England states had one repair shop for every 5,621 people while the Southern states had only one repair shop for every 50,558 people.³⁰

The urban middle classes found the bicycle so appealing because it was the first transportation mode that was both private and within their economic grasp. The price of new bicycles ranged from \$100 to \$150 in 1893 and averaged \$80 in 1897. Used bicycles were also available at cheaper prices.³¹ By

1902 the demand had dropped for new bicycles and they cost only \$3 to \$15.³² Horses, however, cost \$150 to \$200 and the price continually increased throughout the 1890s. Minimal upkeep was over \$150 annually, with stabling problems making horse ownership impossible for most urbanites.³³

In an era of growing dissatisfaction with public modes, the urbanite placed high value on inexpensive, private transportation. The street railway was intolerable for most riders, and hardly an ideal for recreational use.³⁴ Railroad travel had never been popular.³⁵ Horse travel was private, but even those who could afford horses considered them inefficient, subject to fits of wildness, and easily fatigued.³⁵ The bicycle, however, was never tired, and quit only when the rider did.

The bicycle grew in popularity as enthusiasts became even less tolerant of other transportation modes. Commentators in both the American and British journals read in the United States coupled their desire for private and self-scheduled travel with vigorous condemnations of public transportation or travel by horse. One author detailed his love for the bicycle in an 1897 article:

. . . the cyclist is far more free to make an outdoor picture than the man cooped up, wedged in the over-crowded seats of the 'diligence,' or else at the mercy of the driver of his own carriage, and the unreliable horses that must be got in due time to the next stage on the route. *The cyclist need think of no one but himself: he is the perfection of selfishness*—the real Ruskin on tour. He can loaf by the wayside whenever he chooses, until he has all the loveliness of the land by heart. . . . And as he rides on, there is absolutely nothing to shut out the prospect; no fellow passengers to dispute it with him, no carriage top to obscure it, no silly driver to intrude inane remarks.³⁷

The cyclist escaped the schedules and the confinement of rail travel. Bicycling avoided the "rush to a railway station" and "preliminary wading through time tables." Away from all external restraints, the cyclist was free to travel with "no anxiety of any kind."³⁸ The individual who rode the two-wheeler could travel routes beyond the corridors of the railroad and also experience the joys of motion. The bicyclist could have both "independence of movement" and "freedom from the annoying little limitations of time and space."³⁹ For some, it was the "next thing to flying."⁴⁰

Equally important as freedom from schedules was the cyclist's option to choose his fellow travellers or ride alone if he wished. The cyclist avoided being "oppressed" with "unseasonable companions."⁴¹ If a rider found those moving alongside him objectionable, he could take another road, or simply ride ahead or behind other travellers. And even though one rode in a crowd, each person was astride his own private machine: direction, pace, and stops were all self-selected. Bicycling then, allowed the unique opportunity in travel to have either privacy, companionship, alternating choices, or even both simultaneously.

The most significant facet of the bicycle boom occurred as the two-wheeler

enthusiasts used their private transport vehicles to create new recreational patterns. During the 1890s the middle classes and the wealthy began bicycle touring en masse. The result was the creation of a tourist service sector in the national economy. The building of these tourist services has been attributed to the automobile, but actually had its inception during the hegemony of the bicycle.

With the creation of the tourist service sector, the bicyclist established new patterns of urban leisure. Although the bicyclists desired freedom from railroad schedules and unwanted companions, they did not want to travel haphazardly. Danger, discomfort, or risk were never components in the bicyclist's conception of adventure. Although the cyclist was free from the restrictions of other transit modes, he did not want to be lost, hungry, or injured. With the advent of mass touring, a recreation service industry was built to fit the cyclist's specific needs and tastes. The arbitrary restrictions of railed schedules, routes, and companions gave way to amenities designed specifically for the touring cyclist. Upon their private vehicles with conceptions of fun strictly defined, the bicyclists were the first generation of the modern tourist.

The bicycle tour became a great escape. Urban cyclists left "the psychic and moral void of the city" by the millions and headed for the countryside.⁴² *Outing Magazine*, the journal for sportsmen, was saturated with articles that described tours through the Jersey Pines, Yellowstone Park, Florida Sands, Rocky Mountains, and scores of other scenic areas.⁴³ Touring articles also appeared in the other popular journals as well as in *Good Roads Magazine*, the journal for bicyclists.⁴⁴ Newspapers regularly ran stories which described a tour within bicycling range of the city.⁴⁵ On the surface, the tenor of this vast literature suggested that the urbanite was seemingly driven by a dislike for the city to seek escape to nature.⁴⁶ But a much more subtle phenomenon was occurring than some overt expression of anti-urbanism. In fact, the bicycle tourist demonstrated an overt pro-urban predilection.

The tourist was generally willing to cycle down the open road inhaling fresh air as long as the roads were not too rough and steep or there was not much chance of getting lost. To insure safe and comfortable routes, the bicyclist was served by a complex system of aids. Detailed touring maps and guides appeared regularly in *Outing Magazine*, *The Journal of the League of American Wheelmen*, and the big-city newspapers. These maps and guides indicated the best roads to travel and how to avoid routes that were too hilly.⁴⁷ From origin to destination, towns, intersections, and landmarks such as churches were described to guide the tourist. Many of the guides were so specific that even trees or rocks served as markers.⁴⁸

The tourist who liked roughing it did not want the trip to become rough. Not only did the maps and guides identify smooth terrain and preferred corridors, but also points where railroad stations and tracks were accessible along the tourist routes.⁴⁹ This information was essential since the return trip to nature was made partly by railroad. The tourist might take the railroad to avoid fatigue, time-consuming stretches of poor road, or bad weather.⁵⁰ He might also take the railroad to a spot to begin or end his tour. In 1894, the railroads carried over 430,000 bicycles "going to or coming from some point from which a cyclist

was about to start on a tour, or to which he had returned, having completed it."⁵¹ The tour guides gave hints about times to ride the railroad and about which railroads carried bicycles as baggage at no extra charge.⁵²

In addition to published materials, the tourist was well guided on the road.⁵³ The League of American Wheelmen "had in every district a road patrol whose duty it was to post mileage boards and danger signals on all roads used by tourists."⁵⁴ These road signs helped the traveller to remain on the best route, avoiding unknown towns or wild country. The cyclist wished to view nature, not wander off into its inhospitable uncertainty.

Most tourists were not only heistant to become lost in nature; by choice they also refused to eat and sleep in the open spaces.⁵⁵ Panoramic views and beauty were appealing, but so were a hot meal and comfortable bed. Although some bicycle enthusiasts advocated camping out, most tourists preferred to stay in hotels and dine at inns. One traveller explained his opposition to overnight camping:

A friend with whom I once made a bicycle tour believes that the expense of such trips could be much reduced by eliminating the hotel, and camping out. His plan necessitates the carriage of some sort of tent, cooking utensils, and food to last for a meal or two. . . . The objections to this scheme are apparent, and except to show upon how few cents a day one may enjoy the pleasures of travel, I have my doubts about it. To make a comfortable bed on the ground will require much clothing, which again means weight. There is also the danger of catching cold, the difficulty of getting washing done, etc.⁵⁶

The urban tourists demanded that the inns and hotels that served them meet their middle and upper class standards of quality. They wished not only to avoid risks with the natural environment, but with the human environment as well. Many tourists despised "the abomination of desolation, the American country tavern" where he was lost in "a wilderness of flapjacks and fried pork."⁵⁷ But as tourism flourished, so did the businesses designed to serve it. The tourist found bicycle-related establishments "over favorite routes and often through sparsely settled tracts" and the traveller "seldom wanted for a decent meal or a repair shop."⁵⁸

The roads which became tourist routes and the associated hotels, shops, and inns that dotted the way, sometimes became the bicyclist's sovereign domain. Many tours were announced and arranged, or news of some choice route was distributed to large numbers of bicyclists simultaneously.⁵⁹ An article appearing in the *New York Times* in 1895 described the process that transformed a road into a bicyclist's tourist corridor:

The truck farmers, whose produce-laden wagons could formerly be seen at any time in great numbers stopping at the various road houses, now hurry over this portion of their cityward journey, or take other routes to avoid 'them dern bicycle fellers.' . . . Bicycle riders, the road house keepers have found,

are a better class to cater to than the vegetable raisers who drive to the city with their produce. Not only are their numbers greater, but they spend money more freely. . . . Hence they have altered the character of their hotels entirely. The names once so common of 'Farmer's Home,' 'Marketman's Hotel,' etc., have been supplanted by 'Bicyclers' Retreat,' 'Wheelman's Rest,' and similar names. Every hotel keeper has supplied himself with a foot pump and repair kit for the use of the wheelmen.⁶⁰

Just as the tourist did not want to travel routes in a haphazard way, neither did he wish to pick hotels nor inns at random. To assist the tourist, the League of American Wheelmen devised an evaluation system that served as both a directory for the tourist and advertising for business establishments. This process included both a certification and discount procedure. A League member described the system:

About 7000 official League hotels have been selected and granted official certificates by the League of American Wheelmen within the past five years. The proprietor of each of these hotels is required to supply good food and clean, comfortable lodging to all travellers, and to accord a certain percentage of discount or rebate from regular prices to all members of the League of American Wheelmen on presentation of membership tickets for the current year. In exchange for this concession, the League publishes a list of all official hotels in the road books, tour books, and hotel books issued for the use of wheelmen; and in this manner the patronage of the hotels is encouraged, the wheelmen are brought together at common stopping places, and a direct benefit is secured to the organization.⁶¹

The evaluation process was made more intricate by a sign-in procedure. Tourists staying at a particular hotel or inn left their remarks in the register to encourage or discourage other tourists from patronizing the establishment. If a hotel was negligent in serving the tourists, the news would be spread even before the publication of the next tour guide. While a hotel was marked as a League-approved hotel, the proprietor was forced to keep his standards up to the tourists' expectations as described in an 1890 article:

The proprietor of each of these [League] hotels is required by his contract to display a certificate in a conspicuous place in his office showing that his house is a League hotel, the certificate to remain as long as the establishment continues to be such. In each of these hotels will be kept a record book intended for the use of L.A.W. members who choose to enter upon its pages information which may be of benefit to those who come after, and it is expected that these entries will be of great assistance in the preparation of the road books which are issued

from time to time.⁶²

The touring apparatus constructed by and for the bicyclist provided the tourist with three basic amenities. First, the traveller was able to combine a controlled contact with nature with a maximum of urban comfort. Overland recreation routes away from the city gave the tourist the feeling he was communing with nature, even as the guides, maps, hotels, railroads, and signs insulated him from nature's uncertainty. Back to the open spaces became a process of grasping some visual and other sensual gratification while passing through or stopping at natural scenic attractions. Thus, the tourist was able to mingle with nature without suffering because of it. The urbanite, then, redefined the concept of nature to mean those aspects of the non-human environment that were enjoyable in some way. Bad weather, thorns, and dangerous animals were excluded.

Second, the tourist felt assured that his need for middle class services were available wherever he went. Clean beds, good food, and businesses attendant to his vehicle were primary requisites for an enjoyable tour. Travellers would leave the city only if the same degree of urban comfort were available throughout most of his trip.

Third, by travelling set routes, tourists encountered primarily other bicycle riders. Going to any given city, event, or attraction, a traveller was likely to contact other map-carrying tourists. This companionship would be the result of either planned schedules or the chance meeting on the road. In addition, the cyclists would tend to patronize the same inns and hotels. Not only was the tourist insulated from too much contact with nature, but also from other social groups that might be undesirable. The touring apparatus allowed middle-class urbanites to meet and stay with their own kind. The bicycle allowed transport isolation while the touring route provided social privacy.

Touring with private vehicles in corridors designed for the traveller defined a new form of urban growth. The city bicyclist erased the spatial boundaries which separated urban and rural America. Wherever the tourists went, a service corridor was built to serve them. Incorporated into these travel corridors were the urban amenities for physical comfort and social segregation plus abundant open space. The tourist could see flowers, stop and reflect on the green grass, breathe fresh air and still have sociable company and comfortable lodging. On limited sprees the tourist enjoyed a form of urban leisure made possible by the creation of the ideal city: spacious, beautiful, well ordered, and comfortable. The pathology of urban life was eliminated in the tourist city, or at least made minimal.

The bicyclists initiated a type of touring that the autoists would perfect. The tourist would wish "a machine so built" that they would "ride more easily, faster, and further."⁶³ The traveller began demanding a mode that could "carry more luggage" and make hills "level" and prevent the "head winds" from blowing.⁶⁴ As the bicycle era ended, the tourist desired not only urban amenities where he travelled, but for the mode itself to meet the criteria of comfort and isolation. The tourist wished to see more, faster, with urban comfort and social isolation built into his machine. Born on the bicycle, the modern tourist would mature in his automobile.

NOTES

¹For a detailed analysis of the wheelman's efforts to secure good roads, see Phillip P. Mason, "The League of American Wheelmen and the Good-Roads Movement." (Unpublished Doctoral Dissertation, University of Michigan, 1957).

²Clarence P. Hornung, *Wheels Across America* (New York: A. S. Barnes & Co., 1959), p. 250.

³"The Bicycle as a Moral Agent," *New York Times*, November 3, 1895, p. 26; Sylvester Baxter, "Economic and Social Influences of the Bicycle," *Arena*, VI (October, 1892), 578-583; Margueritte Merington, "Woman and the Bicycle," *Scribner's Magazine*, XVII (June, 1895), 702-704.

⁴Baxter, *op. cit.*, 578-583; "Bicycles and Bicycle Riders," *Public Opinion*, XIX (September, 1895), 342-343; Joseph B. Bishop, "Social and Economic Influence of the Bicycle," *Forum*, XXI (August, 1896), 680-689; J. West Roosevelt, "A Doctor's View of Bicycling," *Scribner's Magazine*, XVII (June, 1895), 708-713; Robert Lew Seymour, "The Bicycle—Its Pleasures and Perils," *The Chautauquan*, XX (March, 1895), 703-706; James B. Townsend, "The Social Side of Bicycling," *Scribner's Magazine*, XVII (June, 1895), 704-708.

⁵For a summary of the bicycle's history before the post 1886 boom, see Norman L. Dunham, "The Bicycle Era in American History." (Unpublished Doctoral Dissertation, Harvard University, 1956).

⁶Descriptive summaries of the technological development of the bicycle include, Arnold, Schwinn, & Company, *Fifty Years of Schwinn-Built Bicycles: The Story of the Bicycle and Its Contribution to Our Way of Life* (Chicago: Arnold, Schwinn, and Company, 1945); J. K. Starley, "The Cycle," *New Review*, XII (March, 1895), 312-316; Chauncey M. Depew, *One Hundred Years of American Commerce* (New York: D. O. Haynes & Co., 1895), pp. 549-553.

⁷"Monthly Record," *Outing Magazine*, XXVI (May, 1895), 39.

⁸Phillip G. Hubert, Jr., "The Bicycle: The Wheel of To-day," *Scribner's Magazine*, XVII (June, 1895), 694; "Grand Exhibit of Bicycles," *New York Times*, January 7, 1894, p. 10; G. Lacy Hiller, "The Cycle Market," *Contemporary Review*, LXXII (August, 1897), 184.

⁹H. T. P., "The Return of the Horse," *Bookman*, XIII (July, 1901), 425.

¹⁰*Ibid.*

¹¹Isaac B. Potter, "The Bicycle Outlook," *Century Magazine*, LII (September, 1896), 789.

¹²U. S. Department of the Interior, Census Office, *Census Reports Volume X. Twelfth Census of the United States, Taken in the Year 1900. Manufactures Part IV Special Reports on Selected Industries (continued)*. William R. Merriam, Director. Prepared under the Supervision of S. N. D. North. Washington: United States Census Office, 1902, p. 325.

¹³Dunham, *op. cit.*, p. 468.

¹⁴*Census Reports Volume X, op. cit.*

¹⁵Dunham, *op. cit.*, p. 468.

¹⁶*Census Reports Volume X, op. cit.*

¹⁷U. S. Department of the Interior, Census Office, *Census Reports Volume*

VII. *Twelfth Census of the United States Taken in the Year 1900. Manufactures Part I United States by Industries*. William R. Merriam, Director. Prepared under the Supervision of S. N. D. North. Washington: United States Census Office, 1902, pp. 78-85.

¹⁸"Tonic for Cyclists," *New York Times*, January 17, 1897, p. 11; "Advertisements," *Outing Magazine*, XXXV (March, 1900), liv-lv; "Advertisements," *Outing Magazine*, XXXVII (May, 1900), liv-lv. Accessories included lamps, tonics, special pens, oilers, seats, bags, and hats. Advertisements for bicycle related consumer goods appeared in scores of popular journals and daily in big city newspapers in the middle 1890's.

¹⁹"On the Old Merrick Turnpike," *New York Times*, July 28, 1895, p. 14; *New York Times*, May 20, 1894, p. 3. These articles describe the luxurious nature of the clubs and the development of tourist oriented businesses. Club activities were closely monitored in both *Good Roads Magazine* and *Outing Magazine* and daily in urban newspapers.

²⁰Charles Hoffman, *The Depression of the Nineties* (Westport: Greenwood Publishing Corporation, 1969), p. 261.

²¹Editorial, "Farm and Household Economy—Getting on a Cash Basis—Prize Articles," *Farm Journal*, XX (October, 1896), 200.

²²Malcom M. Willey and Stuart A. Rice, *Communication Agencies and Social Life* (New York and London: McGraw Hill Book Company, Inc., 1933), p. 41.

²³Peak membership in the League was over 100,000 cyclists in 1897. *L. A. W. Bulletin and Good Roads*, XXVII (February, 1898), 164.

²⁴*Good Roads Magazine* (1890-1905); U. S. Department of the Interior, Census Office, *Census Reports Volume I. Twelfth Census of the United States, Taken in the Year 1900. Population Part I*. William R. Merriam, Director. Prepared under the Supervision of William C. Hunt. Washington: United States Census Office, 1902.

²⁵A random sample of 100 applicants to the League in 1894 and 1895 from St. Louis, Missouri was picked. Of the 100 names chosen, 20 could not be found in the city directory. Of the remaining eighty, 45, or over 55% of the applicants were clerks, secretaries, or bookkeepers. Twenty individuals were businessmen, merchants, managers, or other high white collar jobs. Seven of the 80 were professionals and five men were skilled craftsmen. Only two of the 80 men were laborers and one applicant was listed as a student. In total, 77 of the 80 individuals located had middle- or upper-class employment. *Gould's St. Louis Directory*, (St. Louis: Gould Directory Company, 1894-1897).

²⁶Regions have been defined as follows: New England—Rhode Island, Massachusetts, Connecticut, New Hampshire, Maine, Vermont; Middle Atlantic—District of Columbia, New York, New Jersey, Pennsylvania, Maryland, Delaware; Midwest—Illinois, Ohio, Michigan, Missouri, Wisconsin, Minnesota, Indiana, Iowa; Plains and Rocky Mountain—Colorado, Utah, Montana, Wyoming, Nebraska, Kansas, South Dakota, Idaho, North Dakota; Southwest—Texas, New Mexico, Oklahoma, Arizona; South—Louisiana, Kentucky, Virginia, Florida, Tennessee, Georgia, West Virginia, Alabama, North Carolina, South Carolina, Arkansas,

Mississippi; West—California, Washington, Oregon, Nevada.

²⁷U. S. Department of the Interior, Census Office, *Census Reports Volume VII. Twelfth Census of the United States Taken in the Year 1900. Manufactures Part I United States by Industries*. William R. Merriam, Director. Prepared under the Supervision of S. N. D. North. Washington: United States Census Office, 1902, pp. 78-85.

²⁸U. S. Department of the Interior, Census Office, *Census Reports Volume I. Twelfth Census of the United States, Taken in the Year 1900. Population Part I*. William R. Merriam, Director. Prepared under the Supervision of William C. Hunt. Washington: United States Census Office, p. xviii. This method rests upon the safe assumption that repair shops were located where they served a riding market.

²⁹*Census Reports Volumes I and II, op. cit.*, pp. 78-85, p. xviii.

³⁰The ratios of people per repair establishment were as follows: New England, 5621:1; Western, 7275:1; Middle-Atlantic, 8308:1; Midwestern, 11,322:1; Plains-Rocky Mountain, 20,892:1; Southwest, 43, 279:1; South, 50,558:1. The national ratio was 12,058:1.

³¹Bishop, *op. cit.*, p. 685; "Advertisements," *Outing Magazine*, (1893-1897); "Advertisements," *New York Times* (1893-1897).

³²"Advertisements," *Good Roads Magazine*, XXXII (May, 1902), p. 29.

³³Otis Barnum, "Does it Pay to Have Your Own Horse?" *Country Life in America*, XI (April, 1907), 683.

³⁴For an excellent analysis of the pathology of mass transit, see Glen E. Holt, "The Changing Perception of Urban Pathology: An Essay on the Development of Mass Transit in the United States," in Kenneth T. Jackson and Stanley K. Shultz, *Cities in American History* (New York: Alfred A. Knopf, 1972), pp. 324-342.

³⁵See, August Mencken, *The Railroad Passenger Car* (Baltimore: The Johns Hopkins Press, 1957).

³⁶See, "Bicycle Paradox and Coppee," *New York Times*, September 23, 1894, p. 24; Myrtle Cerf, "The Wheel in California," *Overland Monthly*, XXII (October, 1893), 391.

³⁷J. and E. R. Pennell, "Twenty Years of Cycling," *Fortnightly Review*, LXVIII (August, 1897), 191.

³⁸An Ambler, "The Gentle ART of Cycling," *MacMillan's Magazine*, LXCII (January, 1898), 204.

³⁹Rotifer, "The Wheel in the West," *Overland Monthly*, XXV (June, 1910), 522.

⁴⁰Bishop, *op. cit.*, 680-681.

⁴¹E. H. Lacon Watson, "Bicycle Tours—and a Moral," *Westminster Review*, XLII (1894), 171.

⁴²Editorial, "The Secret of the Bicycle," *Scribner's Magazine*, XX (July, 1896), 132.

⁴³*Outing Magazine* (1890-1905).

⁴⁴*Good Roads Magazine* (1890-1905).

⁴⁵"Road Run to Passaic Falls," *New York Times*, August 13, 1894), p. 3;

"To Bay Bridge by Wheel," *New York Times*, September 1, 1894, p. 3.

⁴⁶Hundreds of articles appeared in scores of popular journals, few before 1890 and few after 1900. Bicycle news was a daily item in the *New York Times* in the middle 1890's. Bicycle coverage dropped substantially in 1898, and only an occasional item appeared after 1902.

⁴⁷"Road Run to Roslyn," *New York Times*, August 6, 1894, p. 3.

⁴⁸*Outing Magazine* (1890-1905); *Good Roads Magazine*, (1890-1905); *New York Times* (1890-1905).

⁴⁹"The Road Run to Newark," *New York Times*, June 27, 1894, p. 13; *New York Times*, May 12, 1895, p. 1.

⁵⁰A major battle between the bicyclists and the railroads was whether or not the bicycle was to be defined as baggage or a vehicle. Cyclists insisted that since the bicycle was essential to their journey, it constituted a piece of luggage and should be carried at no charge. See William Everett Hicks, "Shall We Tax the Human Leg?" *North American Review*, CLXV (October, 1897), 512; W. C. Rodgers, "The Rights, Duties, and Liabilities of Bicyclists," *American Law Review*, XXXII (March-April, 1898), 228-236.

⁵¹"Monthly Record," *Outing*, XXV (October, 1894), 127.

⁵²For railroad listings and guides, see *Good Roads Magazine*, (1890-1905).

⁵³"Blessings of the Bicycle," *New York Times*, May 5, 1895, p. 4.

⁵⁴"How to Take Care of Your Motor Car," *Outing Magazine*, XLVII (December, 1905), 373.

⁵⁵Descriptions of touring by bicycle in hundreds of articles usually were in the following tones: "Up and down the coast, in out-of-the-way little patches of woodland and stretches of plain, there are pictures and everything else to delight the mind of artist or collector." Rotifer, *op. cit.*, 525.

⁵⁶Hubert, *op. cit.*, 701.

⁵⁷"Blessings of the Bicycle," *op. cit.*

⁵⁸"The Mountains, Shore and Wheel," *New York Times*, September 5, 1897, p. 14. A similar idea appeared in the same article: ". . . hotels and restaurants have sprung up almost in the wilderness and along with them the repair shops. . . ."

⁵⁹"A Big Cycling Road Run," *New York Times*, June 5, 1894, p. 5; "A Pretty Trip for City Cyclers," *New York Times*, August 17, 1894, p. 3.

⁶⁰"On the Old Merrick Turnpike," *op. cit.*

⁶¹Potter, *op. cit.*, 789-790.

⁶²Glen McDonough, "The New York Meet," *Outing Magazine*, XV (February, 1890), 378.

⁶³"Other Things and Improvements in Cycles," *Contemporary Review*, LXXVII (January, 1900), 72.

⁶⁴Joseph Pennell, "Cycles and Motors in 1900," *Contemporary Review*, LXXIX (January, 1901), 107.