

The 20 “Top Transit Suburbs” of Metropolitan Chicago

An Index Approach

Chaddick Institute for Metropolitan Development



DEPAUL UNIVERSITY

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Abstract

This report develops an index consisting of 47 measurable factors used to identify the “top transit suburbs” of metropolitan Chicago. It evaluates the region’s suburbs on the basis of their attractiveness to those with lifestyles oriented toward the use of public transportation. The study’s index considers the station facilities, amenities and services available to those traveling without a car, the vibrancy of retail areas adjacent to commuter-rail stations, and a community’s public transportation culture as demonstrated by the number and share of residents who walk or bike to the train.

Scores for each community are derived from published data for all 250 suburbs in the metropolitan Chicago region and data collected on a series of field visits to the 25 suburbs selected as finalists. The report provides index scores of each finalist and a ranking of the 20 suburbs most worthy of recognition for their transit-friendly characteristics.

This ranking is not only a useful tool for prospective homeowners and real estate professionals, but also planners, designers and developers seeking to create attractive suburban environments that reduce reliance on private automobile travel.

Note: The study did not consider the transit qualities of "city suburbs" with CTA rapid-transit service to their downtowns, such as Evanston and Oak Park. Such communities offer extensive transit service but in a more urban context. The study's methodology also places heavy emphasis on amenities such as station parking and dedicated Kiss & Ride facilities, which are common in more decentralized suburban environments but less prevalent in communities on the rapid-transit system.

Top Transit Suburbs of Metropolitan Chicago

Location Map of the 25 Finalists



Section I: Introduction

Suburban communities throughout metropolitan Chicago compete vigorously on the basis of the amenities and services they provide current and prospective residents. In addition to investing in libraries, parks, and schools, many suburbs differentiate themselves from their neighbors by creating environments conducive to the use of public transportation. Some invest in high-quality stations and complementary facilities, such as park-and-ride areas, while others focus on creating vibrant pedestrian and retail areas adjacent to downtown stations. Still other communities work to protect and expand the residential choices available to commuters who travel by bus or train.

Such efforts have contributed to metropolitan Chicago's reputation as having one of the country's premier public transportation systems. A greater share of workers in downtown Chicago arrive at their jobs using public transportation as compared to those in the central business districts of any other city in the country, except New York. The region's commuter rail system stretches almost 500 miles and is commonly regarded as one of the most comprehensive and best performing systems in North America.

This study evaluates the attractiveness of the suburbs of metropolitan Chicago for those with lifestyles oriented toward the use of public-transportation. By evaluating data on the amenities and services available to those traveling without a car, the vibrancy of retail areas adjacent to transit nodes, and the community's public transportation culture, it seeks to identify those suburbs most worthy of recognition for their "transit-friendliness."

The report uses an index approach, which focuses exclusively on the characteristics relevant to the public transportation experience. Rather than being a scientifically-based tool, the index should be regarded primarily as a mechanism to raise public awareness of the factors that can support transit-oriented lifestyles and to guide planners, designers, and developers seeking to improve the transit friendly qualities of their communities. Primary emphasis is placed on the amenities and conveniences for those using public transportation to reach destinations in downtown Chicago. The index, as such, focuses heavily on the transit experience for those reliant on region's commuter rail routes, which radiate from the city and account for a dominant share of transit trips in most suburbs.

The approach used tends to recognize communities that have the resources to create and sustain transit-friendly environments, particularly well-maintained stations and pedestrian-friendly surroundings. Nevertheless, the index does not attempt to incorporate such ancillary factors as parks, schools, and taxes—all of which are beyond the scope of the present study. In addition, it should be noted that if affordability and diversity were added to the mix, the rankings would likely be much different.

A summary of the approach used to create the index can be found in Section II. This is followed by a review of the process used to select 25 finalists for intensive study in Section III. Section IV, provides a ranking and discussion of the region's top 20 transit suburbs. Readers interested in details about the study's origin and some of the measurement criteria used should consult the Appendix. A website accompanying this study, *The 20 "Top Transit Suburbs" of Metropolitan Chicago*, provides an interactive map featuring the top-ranking suburbs, as well as descriptions and photographs highlighting the distinctive characteristics of each town.

Section II: Conceptual Orientation

Several prominent studies illustrate the complex interactions between the attributes of public transportation service and community development, housing values, and social equity (Mathur and Ferrell, 2009; Bartholomew and Ewing, 2012, and others have used economic (hedonic) analysis to assess the effects of public transportation on suburban land values. The Center for Neighborhood Technology's widely cited "H&T Index" measures the balance between housing and transportation costs throughout the Chicago metropolitan region (2012). The Regional Transportation Authority has also developed an index to measure the demand for bus and rail service through the suburban region (2012). These and other studies are listed in the Reference section at the end of this report.

This study augments this existing research by evaluating transit services in the Chicago region from the vantage point of the consumer aspiring to have a transit-oriented lifestyle. It selects suburbs that have a high level of commuter-rail service and measures the quality of local attributes that can support transit-oriented lifestyles using clearly articulated criteria. It assembles an index based on 47 variables in four categories:

- 1. station buildings and adjoining platforms;**
- 2. grounds surrounding the station/platform;**
- 3. downtown amenities adjacent to the station; and**
- 4. degree of "community connectivity" to public transportation**

The index is not intended to measure the feasibility of living without access to an automobile. A presumption is made that residents will have access to a motor vehicle but seek to leverage public transportation to enjoy greater flexibility and convenience, and potentially to support personally-held environmental goals. One might interpret the results, for example, as illustrative of the relative attractiveness of various suburbs for couples seeking to live with only a single car, thereby making a transit-oriented lifestyle a priority.

These categories, weighted equally in the index as shown in Figure 1, are briefly summarized below.

1. Station building and adjoining platforms *(35 variables considered)*

The quality of the station building and platforms are obvious to public-transportation users. Over the course of their lifetimes, some commuters likely visit a station upwards of 15,000 times. Such users of public transportation spend hundreds of hours inside the depot waiting for friends and family members, buying tickets, passing the time due to late arriving or missed trains, and finding shelter due to inclement weather.

The index developed below considers such details as: the scale and design of both the station building and platform; station amenities, such as heat lamps, wind shelters, and available seating; and conditions, including the quality of the waiting room, restrooms, and facilities for the disabled (Table 1).

The index also rewards communities attending to "the small things" that, while perhaps inconsequential in isolation, may in the aggregate significantly affect the passenger experience. The team of data collectors considers, for example, whether the stations have cell phone signals, newspaper boxes, free public Wi-Fi, a water fountain, and power outlets. They also

evaluate whether the stations have appropriate signage and are free of graffiti, and even perform a “white glove test” to check for accumulated dirt and grime. Communities also receive credit for such factors as available freshly brewed gourmet coffee, convenience of waiting-room hours (a surprising number close at 1 P.M.), and availability of on-duty ticket agents.

Figure 1: Components of the DePaul Transit Quality Index
With Relative Weights Shown

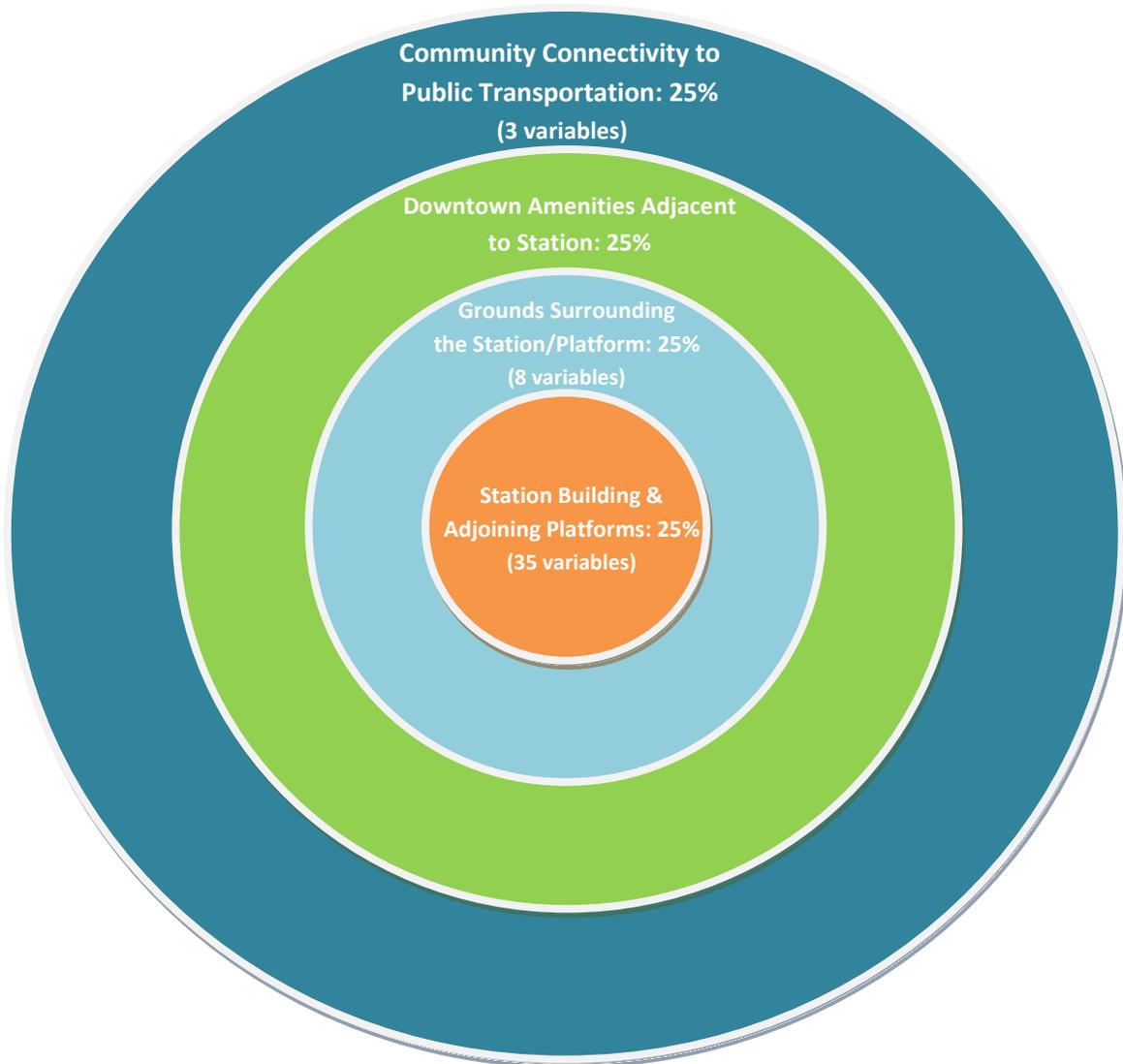


Table 1:
Station Building & Adjoining Platforms: Category Description

Cumulative Value of Category: 25%

Qualities of Station Building and Station Services

Basic amenities and qualities (2 pts or more)

- Agent hours:** Extensiveness of hours, weekdays and weekends
- Coffee:** Quality and availability inside station
- Disabled facilities:** Quality of facilities for disabled/handicapped
- Dust & grime:** Cleanliness of window sills
- Heritage:** Station has display on historic role of railroads/community culture
- Long-distance passenger service:** Amtrak service available from station
- Maintenance:** Absence of broken items/deferred upkeep
- Ramps and Flooring:** Condition of station ramps and flooring
- Retail:** Basic merchandise available in station
- Restrooms:** Clean and available without key
- Signs:** Signage clearly indicating inbound and outbound direction of train
- Station Hours:** Extensive for weekdays and weekends
- Timetables:** Printed Metra times available
- Waiting room – size:** Spacious area inside station
- Waiting room – aesthetics:** Pleasantness of environment

Minor amenities (1 pt or less)

- Baby Changing Station:** Available in restroom
- Drinking Fountains:** Functional and accessible
- Cell phone signal:** High quality signal inside station
- Clock:** Analog and visible inside station
- Map:** Metra system routes on prominent display
- Power outlets:** Available for technology users while seated
- WiFi:** Free public Wifi Available in station

Adjoining Platforms/Immediately Adjacent Areas

- Absence of Graffiti:** On walls and other surfaces
- Absence of Litter:** No signs of litter and garbage on grounds, including railroad tracks
- Devoid of Heavy Advertisements:** Lack of billboards and other advertisements
- Digital signage:** Electronic signage indicating train status
- High-level platforms:** Raised platform level with car doors for ease of boarding
- Newspapers:** Boxes available on site
- Pedestrian crossing over/under tracks:** Tunnel or bridge to opposite platform
- Protection from cold/wind:** Attractive wind barriers/shelters with heat lamps
- Platform condition:** No signs of cracking or breakage
- Platform surface material:** Cushioned surface
- Posted Schedule:** Schedule/timetable posted behind clean transparent surface
- Posted station hours:** Sign on street clearly indicating hours
- Visual Navigation:** Fronts of retail businesses clearly visible from platform

For additional descriptions of these variables and their weight in the index, please refer to Appendix B.

2. Grounds Surrounding the Station/Platform *(eight variables considered)*

Site plan review is recognized by municipal planning professionals as a practical technique to determine whether a building/facility is harmonious with the surrounding properties and community character. Such review also considers whether this design is accommodating to pedestrians, transit users, and travelers in private vehicles.

This category uses elements of site plan review to evaluate the attractiveness and usefulness of the on-site facilities that surround the station and platforms. It consists of eight categories, including: accessibility for the disabled, illumination of the parking lot for nighttime users, the cost of parking, the quality of the parking lot, landscaping, the quality of bicycle storage, the conditions of the “kiss-and-ride facility,” and the bus service connectivity. Reliable data in several areas, particularly safety and security, however, was not available and thus not included in the analysis.

The methods for evaluation are derived from conventional planning and design practice in the Chicago area, using criteria applied by planners in assessing building sites and plans for comparable commercial development. (For example, refer to the Village of Glenview’s “Evaluation of Site Plan” in the Reference section). Scores are assigned on a 10-point scale.

Table 2: Grounds Surrounding the Station/Platform- Category Description

Cumulative Value of Category: 25%

Bicycle Storage (10 pts)

- Safe, convenient, and well maintained bicycle racks with protective covering.
- Bicycle racks are well placed for quick access to train and free of abandoned equipment

Connecting Bus Service (10 pts)

- Extent of Pace connecting bus service available from station (See Notes in Appendix C)

Condition and Proximity of Parking Lot (10 pts)

- Not obvious potholes and puddle areas
- Parking spaces in close proximity to station platforms

Cost of Parking (10 pts)

- Average cost of parking or daily and monthly users (See Notes in Appendix C)

Disabled Accessible (10 pts)

- Station is fully equipped to serve the disabled/handicapped

Parking Lot Illumination (10 pts)

- Adequacy of lighting at night, measured using light meter (See Notes in Appendix C)

Kiss and Ride Facilities (drop-off) (10 pts)

- Kiss and ride design, includes drop-off/pick-up areas, with parking for eight or more cars
- Dedicated facility not requiring negotiating parking lots (See Notes in Appendix C)

Landscaping (10 pts)

- Landscape has an aesthetically pleasing design; screens unsightly activities from public view
- There is a logical and “green” transition to adjoining developed landscape

For additional descriptions of these variables and their weight in the index, please refer to Appendix C.

3. Downtown amenities adjacent to the station *(the Walk Score)*

This third category takes into account the tendency for residents living transit-oriented lifestyles to conduct multiple activities when using public transit. Many run errands, mail letters, pick up coffee, drop off library books, dine out, or shop while *en route* to the bus or train. Vibrant downtowns adjacent to a station provide more opportunities for residents to get more of these activities done without using a private vehicle.

A variety of tools are available to assess the aesthetic and environmental qualities of neighborhoods oriented toward a transit system. Among the most prominent are the LEED Neighborhood Design (LEED-ND) rating system, created by the National Green Building Council, and the Walk Score—developed by a grant-funded organization created for the express purpose of measuring the “walkability” of neighborhoods. Walk Scores are based on an algorithm that uses published real estate information to calculate the distances of services and amenities (such as business, parks, schools and other common destinations) from any given starting point. Lesser weight is assigned to amenities longer distances away than those located nearby.

The Walk Score was deemed most relevant for purposes of this study. The study team recorded the Walk Score—which can range from 0 to 100 and are available at www.walkscore.com— associated with the primary commuter-rail station in each of the region's suburbs. The observed scores range from less than 50 for outlying communities with few amenities to 100 for communities closer-in with vibrant downtowns (Table 3).

**Table 3:
Downtown Amenities Adjacent to the Station**

Cumulative Value of Category: 25%

Walk Scores range from 0 – 100. These scores were recorded for the address of all commuter-rail stations in the metropolitan region. The following table provides a description of the “walkability” of communities in various ranges.

<u>“Walk Score”</u>	<u>Category Description</u>
0 - 49	Car dependent, almost all errands require a car
24 - 49	Car dependent, few amenities within walking distance
50 - 69	Somewhat Walkable
70 - 89	Very Walkable
90 - 100	Walker’s Paradise

The scores for the stations observed, rounded to the nearest integer, ranged from 24 to 98. For additional descriptions of these variables and their weight in the index, please refer to endnote iii.

4. Community connectivity to public transportation (3 variables considered)

This final category consists of a community connectivity score, which illustrates the strength and intensity of the local transit culture. Individuals committed to using rail and bus services not only look for neighborhoods that offer a wide array of housing choices for those using public transportation, but also place value on being in areas where public transportation is prominent in a neighborhood's culture. Interacting with others who have similar transportation habits can add to the richness of a lifestyle reliant on the use of public transportation.

To measure the level of community connectivity, the study examines three measures of the residential population around each station:

- i) the number of residents who walk or bike to the train;
- ii) the number of residents living within ½ mile of the community's commuter rail station; and
- iii) walkers or bikers as a proportion of the population living within ½ mile of train station.

A connectivity score is developed for each community on the basis of these three variables (Table 3). In each of the three categories considered, a community's score was expressed as a percentage of the top-performing finalist in that category. For example, in Highland Park, 235 people walk to the train daily, compared to 579 in the highest-performing community (Wilmette). Highland Park therefore earned an 41 score (since it had 41% of the highest performing category's score) while Wilmette scored 100.

Table 4:
Connectivity Scores: Category Description

Cumulative Value of Category: 25%

Community connectivity was determined by looking at three interrelated variables. These variables are available from publically accessible sources.ⁱⁱ

Number of daily travelers who walk or bike to the train

This category reflects the absolute number of people who walk or bike to the station daily. Communities with higher numbers in this category tend to have more distinctive transit cultures.

Population within ½ mile of train station

This category measures the extent to which spatial patterns of residential development in the community are supportive of transit. Communities with relatively dense populations within ½ mile of the train station tend to be more strongly oriented toward transit use than those with more decentralized development patterns.

Walkers or bikers as a proportion of the population living within ½ mile of train station

This category reflects the extent to which the people who live within relatively easy walking or biking distance of the train actually do so.

Each of the three categories was assigned equal weight. Thus, the composite score represents the community's percentile rank across the three categories. For additional descriptions of these variables and their weight in the index, please refer to endnotes ii and iii.

Section III: Selecting Finalists and Developing Scores

All suburbs with stations on metropolitan Chicago's commuter-rail system, whether they are located in Illinois or Indiana, are considered for analysis except those classified as city suburbs, such as Evanston, Forest Park, and Oak Park, which have CTA rapid transit service to their downtown districts. Gary, Hammond, and Whiting, Indiana, also are generally considered cities or city suburbs rather than conventional suburbs, because all of these communities have distinct urban qualities. To assure meaningful and fair comparisons, these communities were not included in the study.

All communities meeting the following three criteria were selected as finalists:

- 1) commuter-rail service available seven days a week, with at least 14 inbound departures on weekdays, including some express trains;
- 2) at least 150 people who walk or bike to the train daily; and
- 3) a Walk Score of at least 65 on a 100-point scale at its primary downtown station (putting it near the middle of the category, described as "somewhat walkable").

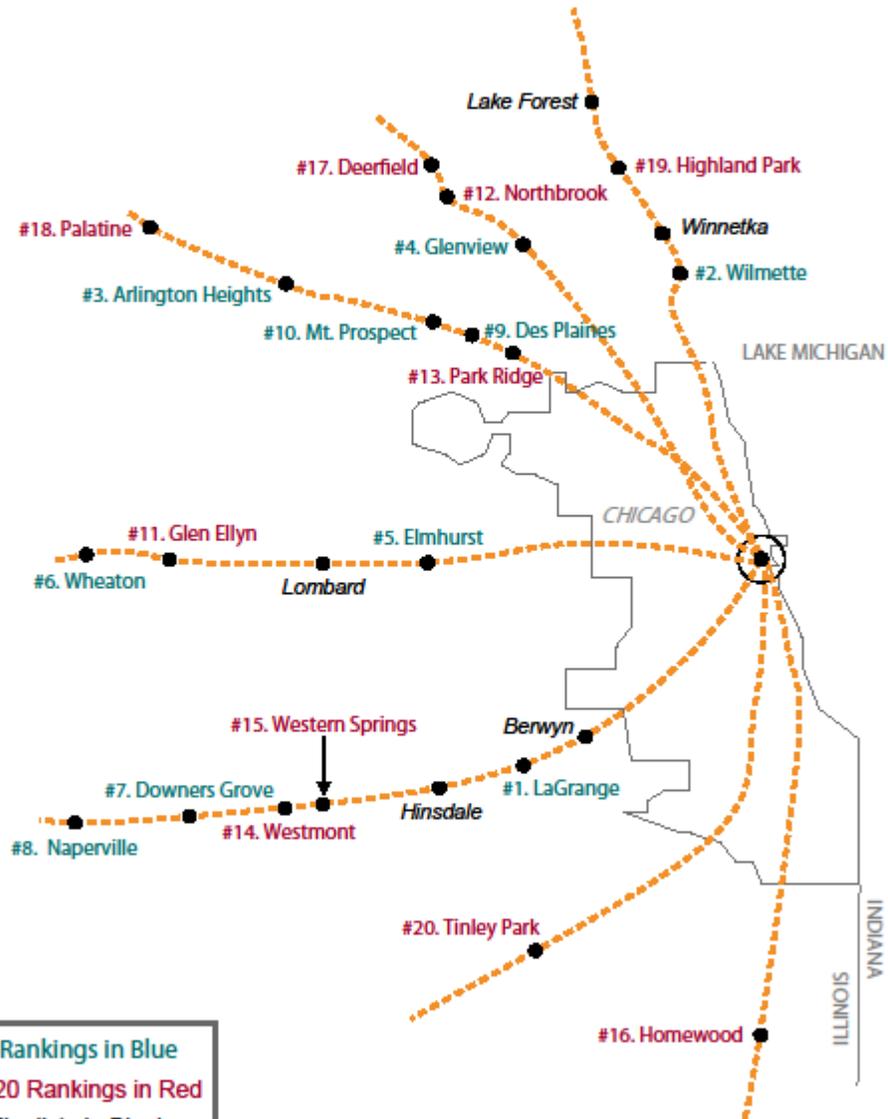
The approach used also focused exclusively on the environments surrounding the *primary downtown stations* in each community on the commuter rail system. Secondary stations outside of the central business district, such as those in Glenview, Tinley Park, and Winnetka, were not included in the analysis.

Twenty-five communities, all on the Metra system, met these three criteria (Figure 2). All were adjacent to downtown districts that support a transit-oriented lifestyle and tend to have a transit culture that many find appealing. Numerous communities, such as Buffalo Grove, Lockport, and Orland Park, were not eligible because they do not currently meet the first criteria, relating to train frequency. Some smaller suburbs, such as Flossmoor, Kenilworth and Glencoe, while heavily oriented toward transit, lack diversified downtown amenities and the services of larger stations, and therefore did not have published Walk Scores above the minimum threshold of 65.

To collect data from each community in a systematic way, a three-member survey team visited each finalist and assigned scores for Category 1 (the station/platform) and Category 2 (station grounds) between March 20 and July 6, 2012. The team used a consensus-based approach to developing scores, with the team leader visiting all 25 communities to assure consistency in scoring. At least three visits were made to each community to collect the necessary information. This process is described in greater detail in Appendix D. As shown in the following section, one surprising result is that no community earned the top score in more than one category.

The Top Transit Suburbs of Metropolitan Chicago

The 25 Finalists



Top 10 Rankings in Blue
#11 - #20 Rankings in Red
Other Finalists in Black

Section IV: Rankings

Station Building and Adjoining Platforms: Scores and Rankings

The scores for the quality of station buildings and platforms ranged from 45 to 71 points out of a possible 80. Tinley Park earned the highest score (71), followed by Wilmette (69) and Palatine (69), Western Springs (67), and Glenview (66). Wheaton, Deerfield, Arlington Heights, LaGrange, Naperville, Winnetka, and Elmhurst all scored 60 points or higher. All of the top 10 stations shown on Table 1 boasted an impressive range of amenities, generally including in-station retail services and spacious, well-maintained waiting rooms.

The relatively lower scorers, such as Berwyn, Downers Grove, Glen Ellyn, and Lombard tend to lack significant in-station amenities. (Note that major renovations will soon be underway in Berwyn). Homewood has a visually attractive station but suffers from limited amenities, including restrooms and ticket agents intended only for Amtrak travelers. This category, like the others, accounted for 25% of a community's composite score.

Downtown Amenities Adjacent to the Station (*the Walk Score*): Scores and Rankings

The highest ranking communities in this category were Elmhurst, LaGrange, and Northbrook (all tied at 98), followed by Downers Grove and Glen Ellyn (95), and Park Ridge, and Westmont (92). Each earned scores high enough to put them in the index’s “Walker’s Paradise” category. Among the 25 finalists, only Tinley Park scored below 70. Some communities with highly attractive station designs, such as Palatine, Tinley Park, and Winnetka, suffered from an absence of certain types of retail businesses near the station. A greater share of residents living within ½ mile of the station walk or bike to the train than all but a few North Shore suburbs—putting Homewood among the 12 in this category and creating a vibrant pedestrian environment that supports commuter-oriented retail businesses.

Table 7: Category 3 Scores: *the Walk Score*

	Walk Score	Description
LaGrange	98	"Walkers Paradise"
Northbrook	98	"Walkers Paradise"
Elmhurst	98	"Walkers Paradise"
Downers Grove	95	"Walkers Paradise"
Glen Ellyn	95	"Walkers Paradise"
Westmont	92	"Walkers Paradise"
Park Ridge	92	"Walkers Paradise"
Arlington Heights	89	"Very Walkable"
Mt. Prospect	89	"Very Walkable"
Highland Park	89	"Very Walkable"
Homewood	88	"Very Walkable"
Glenview	86	"Very Walkable"
Wheaton	86	"Very Walkable"
Wilmette	86	"Very Walkable"
Des Plaines	85	"Very Walkable"
Lake Forest	85	"Very Walkable"
Naperville	82	"Very Walkable"
Hinsdale	82	"Very Walkable"
Deerfield	80	"Very Walkable"
Lombard	80	"Very Walkable"
Berwyn	77	"Very Walkable"
Palatine	77	"Very Walkable"
Western Springs	77	"Very Walkable"
Winnetka	74	"Very Walkable"
Tinley Park	68	"Somewhat Walkable"
Maximum Score	100	

Community Connectivity to Public Transportation: Scores and Rankings

“Community connectivity” scores ranged from 53.7 to 88.1 out of a possible 100. Wilmette, Arlington Heights, LaGrange, and Downers Grove earned the highest scores, with more than 500 residents making weekday walking or biking trips to and from their downtown train stations. In each community except LaGrange, the number of walks/bicycle users exceeds 10% of the population living within ½ mile of the station. (In LaGrange, the percentage is slightly lower at 9.8%).

Inner ring suburbs tended to earn the highest scores in this category, due in part due to their higher residential densities near the station. Nevertheless, Arlington Heights (556 walkers/bicycle users), Downers Grove (512), Glen Ellyn (430) and Naperville (411) posted impressive scores in spite of being at least 21 miles from downtown Chicago. Lake Forest had far fewer walkers than the others (196), but the *percentage* of the population living near the station (12.1%) is noteworthy.

Table 8: Category 4 Scores: Community Connectivity

	Miles to Downtown	(i) Number walk/bike to train	(ii) Population within .5 miles of Metra station	(iii) Walkers/bikers as a proportion of population within .5 miles of station	Connectivity Score
Wilmette	14	579	4,786	12.1%	88.1
Arlington Heights	23	556	5,190	10.7%	85.6
LaGrange	14	541	5,510	9.8%	84.5
Downers Grove	21	512	4,301	11.9%	83.5
Des Plaines	17	456	6,275	7.3%	80.0
Western Springs	16	459	3,954	11.6%	79.5
Berwyn	10	258	8,200	3.2%	78.4
Glen Ellyn	22	430	3,866	11.1%	76.8
Glenview	14	403	3,500	11.5%	75.4
Naperville	29	411	3,907	10.5%	74.6
Elmhurst	16	385	5,693	6.8%	73.3
Wheaton	25	382	3,665	10.4%	72.3
Hinsdale	17	341	2,953	11.5%	71.2
Mt. Prospect	20	382	4,171	9.1%	71.0
Palatine	26	337	3,337	10.1%	68.3
Lake Forest	28	196	1,621	12.1%	62.8
Lombard	20	295	4,387	6.7%	62.7
Homewood	24	262	2,606	10.1%	62.3
Winnetka	17	264	3,388	7.8%	59.2
Northbrook	21	251	3,398	7.4%	57.6
Park Ridge	14	224	4,729	4.7%	57.3
Highland Park	23	235	3,554	6.6%	55.6
Westmont	20	222	4,115	5.4%	55.1
Deerfield	24	224	3,785	5.9%	54.6
Tinley Park	24	209	4,066	5.2%	53.7

Comprehensive Scores: Chicago’s “Top Transit Suburbs”

The comprehensive scores illustrate considerable variation among the finalists, with the range extending from a high of 85.0 and a low of 68.2. Less than eight points on a scale of 100 separated the top seven communities. LaGrange, the top transit suburb, received a score of 85.0, followed by Wilmette (82.6), Arlington Heights (81.0), Glenview (80.1), Elmhurst (79.8), Wheaton (77.4), and Downers Grove (77.2).

	<u>Community</u>	<u>Score</u>
1	LaGrange	85.0
2	Wilmette	82.6
3	Arlington Heights	81.0
4	Glenview	80.1
5	Elmhurst	79.8
6	Wheaton	77.4
7	Downers Grove	77.2
8	Naperville	77.0
9	Des Plaines	74.8
10	Mt. Prospect	74.43
11	Glen Ellyn	74.40
12	Northbrook	74.1
13	Park Ridge	72.1
14	Westmont	71.63
15	Western Springs	71.62
16	Homewood	70.7
17	Deerfield	70.0
18	Palatine	69.9
19	Highland Park	69.5
20	Tinley Park	68.2

Other finalists not ranked: Lake Forest (67.9), Hinsdale (66.45), Winnetka (66.41), Berwyn (66.0), and Lombard (63.2). As previously noted, the study does not consider “city suburbs” with CTA rapid-transit service to their downtown districts, such as Evanston and Oak Park. The transit qualities of these more urbanized communities would need to be evaluated using a different methodology.

Readers will find in Appendix A a tabular summary of a community’s scores by category. Illustrative examples of each community’s distinctive qualities can be found on the *The 20 “Top Suburbs of Metropolitan Chicago* web site maintained by the Chaddick Institute. This site includes photographs and details of the suburbs’ most notable attributes.

Several observations about the geographic distribution of the top “transit suburbs” warrant emphasis. Three of the five stations with the most favorable stations and adjoining platforms—Tinley Park, and Palatine (each more than 25 miles via rail from downtown Chicago)—earned comprehensive scores placing them no higher than 12th. Although they offer abundant station amenities and efficient designs, their “transit culture,” particularly when it comes to walking and biking to the train, tends to be less pronounced than that in close-in suburbs. As discussed below, none of the top 10 finalists were in the southern part of the region, although several were

southwest of the city. Tinley Park's 20th place ranking is notable considering that it had the highest combined scores in the first two categories considered (the station buildings and adjoining platforms and the grounds surrounding the station/platform).

Observations

The reputation of Chicago's suburbs as being "transit friendly" is borne out in the numbers described above. Many suburbs earned high scores as the result of a sustained commitment to effective planning and investment in both the commuter rail stations and the downtown districts as a whole. Citizens who put a premium on public transportation have a plethora of attractive options in the suburbs.

Communities in the northern and northwestern parts of the region tended to outperform those in the southern parts, with much of the differences due to their published Walk Scores. Similarly, communities on the outer periphery of the region tend to have lower scores due to the tendency for the density of development to decline as one moves farther from downtown Chicago. As a result, both Walk Scores and connectivity to transit tended to be lower in far-out suburbs than closer-in ones.

The index is designed to reward communities that have the resources to create and sustain transit-friendly environments, such as well-maintained stations and pedestrian-friendly surroundings. Planners in other regions, or those evaluating city neighborhoods, may find the Tindex a useful starting point for developing indexes of their own. The index did not require using proprietary data, as is therefore a versatile tool that could be easily expanded or modified to place greater or less emphasis on specific variables.

Future enhancements to the index could include detailed measurements of the comprehensiveness, reliability, and speed of transit service as well as the length of the intervals between buses and trains. Additional consideration could also be given to destinations accessible on local Pace Suburban Bus services, the affordability of housing, crime and security at stations, and the diversity of the residential population adjacent to major transit centers. Some of these enhancements would create new complexities, however, as they presumably would require measuring not only the extent of the services available but the varying attractiveness of the downtown rail terminus used by the different Metra lines. Consideration could also be given to the presence of multiple commuter-rail station in some suburbs.

In addition to providing a tool for consumers and real estate professionals, this index can help guide the work of planners, designers, and development professionals eager to create environments that lessen reliance on private automobiles. Many communities have developed costly and integrated programs to create mixed-use development around their commuter-rail stations. Others have attended to the "simple things", such as keeping a station's waiting room clean and posting relevant information to transit users. All have taken steps to add to the convenience and efficiency of transit-oriented lifestyles.

Appendix A: Cumulative Scores by Category

The scores for category 1 and 3 were normalized using a simple formula to assure that the means and standard deviations of scores within the various categories were roughly the same. This was necessary to guarantee that a community's relative performance in one category had roughly the same effect on final scores as the other categories. These adjustments resulted in "adjusted scores" in each category to range from 63.2 to 85.0.ⁱⁱⁱ (Additional details are provided in endnote iii).

Table 9: Adjusted Scores by Category

	Category 1 - Station Bldg/Platform	Category 2 - Grounds	Category 3 - Walkable Amenities	Category 4 -Community Connectivity	Cumulative Score
LaGrange	79	80	97	84	85.0
Wilmette	86	79	77	88	82.6
Arlington Heights	79	78	82	86	81.0
Glenview	83	86	77	75	80.1
Elmhurst	75	74	97	73	79.8
Wheaton	81	79	77	72	77.4
Downers Grove	59	75	92	83	77.2
Naperville	79	85	70	75	77.0
Des Plaines	63	82	75	80	74.8
Mt. Prospect	70	75	82	71	74.43
Glen Ellyn	56	73	92	77	74.40
Northbrook	65	77	97	58	74.1
Park Ridge	71	73	87	57	72.1
Westmont	64	81	87	55	71.63
Western Springs	84	62	62	79	71.62
Homewood	69	72	80	62	70.7
Deerfield	80	79	67	55	70.00
Palatine	86	64	62	68	69.99
Highland Park	71	69	82	56	69.5
Tinley Park	89	84	47	54	68.2
Lake Forest	69	65	75	63	67.9
Hinsdale	66	58	70	71	66.45
Winnetka	79	71	57	59	66.41
Berwyn	60	64	62	78	66.0
Lombard	58	66	67	63	63.2

Appendix B: Notes on Category I Scores Station Buildings & Adjoining Platforms

Basic amenities and qualities (2 pts. or more)

Agent and Station Hours: Points were awarded for the hours in which the station was open and the agent was on duty on the following basis:

<u>Hours</u>	<i>Points Awarded</i>	
	<u>Agent Hours</u> (4 pts. max)	<u>Station Hours</u> (10 pts. max)
Weekdays through noon/no weekends	2	5
Weekdays through noon + weekends	3	6
Weekdays through 5:30 p.m./no weekends	4	4
Weekdays through 5:30 p.m. + weekends	4	4
Weekdays through 9 p.m./no weekends	--	8
Weekdays through 9 p.m./weekends	--	10
Open at all times/24 hr.	--	10

- Agent Hours:** Extensiveness of hours, weekdays and weekends [2 pts]
- Coffee:** Available inside station: (Gourmet coffee available under \$1.50? Vending only?) [2 pts]
- Disabled Facilities:** High-quality amenities for disabled/handicapped (signage, ramps, electric doors, etc.) [4 pts]
- Dust & Grime:** Cleanliness of window sills (“white glove test”) [2 pts]
The level of accumulated dust and grime was determined by applying the “white glove test”, i.e., sliding a glove or white cloth on a window still inside the station to determine the amount of accumulated dust and grime.
- Heritage:** Display of historic role of railroads or community history/culture inside station [2 pts]
- Long-distance passenger service:** Amtrak service available from station [2 pts]
- Maintenance:** Absence of broken items/deferred maintenance [4 pts]
- Ramps and Flooring:** Condition of station ramps and flooring [2 pts]
- Retail:** Basic merchandise available in station [2 pts]
- Restrooms:** Modern and clean. Accessible without key. [2 pts]
- Signs:** Signage clearly indicating inbound and outbound direction of train [2 pts]
- Station Hours:** Station building hours are extensive [2 pts]
(See Notes in Appendix C)
- Timetables:** Printed Metra timetable/schedule [2 pts]
- Waiting Room, Size:** Spacious waiting room area inside station [2 pts]
- Waiting Room, Aesthetics:** Pleasant environment (Would you want to spend 45 minutes there?) [4 pts]

Minor amenities (1 pt or less)

- Baby Changing Station:** Available in restroom [.5 pt]
- Drinking Fountain:** Functional water foundation inside station [1 pt]
- Cell Phone Signal:** High quality cell phone signal [1 pt]
- Clock:** Analog clock visible inside station with 100% accurate time (digital clock only?) [1 pt]
- Map:** Map of Metra system on prominent display [1 pt]
- Power Outlets:** Available and working power outlets for technology users while seated [1 pt]
- WiFi:** Free public WiFi availability in station [1 pt]

Station Platform/Immediately Adjacent Areas

Absence for Graffiti: No graffiti at all locations, including on transparent surfaces	[4 pts]
Absence of Litter: No litter on grounds, including railroad tracks (e.g., cigarette butts)	[4 pts]
Digital signage: Electronic signage indicating train status	[2 pts]
Devoid of Heavy Advertisements: No large unsightly advertisements outside station	[2 pts]
High-level Platforms: Equipped with high-levels platforms for ease of boarding	[2 pts]
These platforms (akin to those on the CTA rapid-transit system, eliminate the need for using steps to board trains and greatly facilitate the ease of boarding. These are presently found only on the Metra Electric routes, and thus, among the finalists, were present only in Homewood.	
Newspapers: Newspaper boxes offering both Chicago and suburban papers	[2 pts]
Pedestrian Crossing Over/Under Tracks: Tunnel or bridge reach opposite platform w/o crossing tracks	[2 pts]
Protection from Cold/Wind: Attractive wind barriers/shelter with heat lamps on platform	[4 pts]
Platform Condition: No signs of cracking or breakage on station platform	[2 pts]
Platform Surface Material: Cushioned (rubberized) on at least part of platform	[2 pts]
Posted Schedule: Schedule/timetable posted (glass clean/unscratched if behind transparent surface)	[2 pts]
Posted Station Hours: Sign on street clearly indicating hours that station is open	[1 pt]
Visual Navigation: Fronts of retail businesses clearly visible from platform (an enticing setting)	[2 pts]

Appendix C: Notes on Category II Scores Grounds Surrounding the Station/Platform

This section provides additional details regarding the scoring of variables in Category II.

Kiss and Ride Facilities:

Stations were awarded points as noted in the following descriptive categories. Communities earning the highest scores had dedicated facilities that did not require driving through parking lots, which are subject to congestion and traffic delays.

9.5-10 Points:

- Dedicated Kiss & Ride on both sides of track
- Kiss & Ride spacious enough for >8 vehicles
- At least 2 lanes wide for passing; turnaround possible

8-9.4 Points:

- Standing lane or Kiss & Ride <6 car capacity
- No turnaround; standing lane
- No dedicated Kiss & Ride
- Only one side of tracks contains Kiss & Ride amenities

6-8 Points:

- Requires driving through parking lot network
- Parking only on one side
- Small standing lane, but dedicated facility that serve as Kiss & Ride

4-5.5 Points:

- No dedicated or near dedicated Kiss & Ride
- Areas possible for drop-off but no standing room
- Station bordered fully by parking and or main streets

3 Points:

- No dedicated facilities for Kiss & Ride
- Short-term parking; requires driving through a street network

Pace Suburban Bus Service:

Points were awarded for Pace service on the basis of the number of routes provided from the station.

<u># Routes</u>	<u>Points</u>
1	4
2	5
3	6
4	7
5	8
6	9
7+	10

Parking lot lighting:

The illumination of the parking lot was evaluated using a standard light meter. Readings were collected during the late-evening hours between June 23 and July 5, 2012 at three locations in the main parking lots:

- 1) locations directly under light poles (which tend to be the best illuminated parts of the lots);
- 2) locations midway between the light poles (which tend to be among the most poorly illuminated parts of the lot); and
- 3) tangential locations, 20 and 25 feet perpendicular to the alignment of light poles and directly adjacent to the poles (in some cases, these areas having lighting provided from lamps on adjacent streets).

At least three readings were collected for category 1 and at least two readings were collected for categories two and three.

There is no widely accepted standard on parking lot lighting that balances aesthetics and security. Research suggests, however, that lighting of 35 or more lumens is preferable, but at a minimum, 10 lumens is necessary for proper pedestrian activity and safety. Scores of parking lot illuminate were based on a relative scale, as noted below. In effect, the scales grades on a “curve”, resulting in a relatively equal distribution of high and low scores for each category. In several instances, Category 3 readings were not possible due to the configuration of the parking lot. In these instances, final scores were determined by averaging the Category 1 and 2 scores.

Points Scale for Readings for Average Light (in lumens)

<u>Under light</u>	<u>Midpoint</u>	<u>Tangential</u>	<u>Points</u>
30+	10+	25+	10
25-29.9	9-9.9	15-24.9	9
20-24.9	7-7.9	10-14.9	8
15-19.9	5-6.9	7-9.9	7
10-14.9	4-4.9	6-6.9	6
9-9.9	3-3.9	5-5.9	5
7-8.9		4-4.9	4
5-6.9	2-2.9	3-3.9	3
3-4.9		2-2.9	2
1-2.9	1-1.9	1-1.9	1
<1	<1	<1	0

The following table shows the average light observed by communities. The study team evaluated only the lots in close proximity to the station building. In most (but not all) communities, this involved in surveying one or two lots.

Light Measurements by Suburb

	No. of <u>lots surveyed</u>	-----Average light in lumens-----			<u>Total Points</u>
		<u>Under light</u>	<u>Midpoint</u>	<u>Tangential</u>	
Arlington Heights	2	13.5	3.8	4.5	5.2
Berwyn	1	21	12	59	9.6
Deerfield	1	54	2.5	22.5	7
Des Plaines	1	35.3	13	9	9.4
Downers Grove	1	2.1	1.25	0	0.8
Elmhurst	1	8.7	9	17.5	7
Glen Ellyn	1	5.6	3	10	4.8
Glenview	3	53.4	11.6	3.5	8.6
Highland Park	1	14	2	3.5	4.2
Hinsdale	1	7.7	3.5	4.5	4.4
Homewood	2	35.5	10.5	15	9.8
LaGrange	2	28.3	5	3.75	7
Lake Forest	1	13	1.5	3.5	3.4
Lombard	2	32.1	9	13.3	9.2
Mount Prospect	1	31.7	4.5	14.5	8
Naperville	1	88.7	14	37.8	
Northbrook	2	39	14.7	25	10
Palatine	1	4.7	5.5	2	4
Park Ridge	1	5	2	0	4
Tinley Park	1	37	9	10	9.2
Western Springs	1	0.5	0.85	0	0
Westmont	1	30.3	1	7.5	5.8
Wheaton	2	75.7	6	0	6.8
Wilmette	1	27.3	10	16.5	9.4
Winnetka	2	11.8	0.75	8	3.8

Price of Parking:

An index of the cost of parking was created by computing the simple average of the daily **parking** rate—based on 20 days of use per month— and the monthly or quarterly rate. For example, if the daily rate was \$2, the average monthly rate was estimated to be \$40. If the monthly or quarterly rate was \$30, the average cost was determined to be \$35. The necessary information to compute the average was gathered individually from each community, and scores were assigned as follows:

<u>Monthly cost</u>	<u>Points</u>
>\$50	4
\$45 – 49.49	5
\$40 - \$44.49	6
\$37.5 - \$39.99	7
\$32.5 – 37.49	8
\$30 - \$32.49	9
<\$30	10

Parking Fees by Suburb

	<u>Daily Rate</u>	<u>Monthly Rate*</u> <u>(For Residents)</u>
Arlington Heights	\$1.50	\$30
Berwyn	\$3	\$30
Deerfield	\$1.50	\$25
Des Plaines	\$1.50	\$30
Downers Grove	\$3	\$26.67
Elmhurst	\$2	\$35
Glen Ellyn	\$1.50	\$28.33
Glenview	\$2	\$25
Highland Park	\$2	\$60
Hinsdale	\$3	\$51.67
Homewood	\$3	\$35
LaGrange	\$3	\$25-\$50
Lake Forest	\$3	\$30
Lombard	\$1.25	\$25
Mt. Prospect	\$1.50	\$30
Naperville	\$2	\$36.67-\$40
Northbrook	\$1	N/A
Palatine	\$2	\$40
Park Ridge	\$1.50	\$29.17-\$41.66
Tinley Park	\$1.50	\$30
Western Springs	\$2	\$25
Westmont	\$2	\$25
Wheaton	\$1.50	\$20
Wilmette	\$2	N/A
Winnetka	\$3	\$16.67

**In some communities, parking is sold on quarterly rather than monthly basis. In these cases, quarterly fees were pro-rated by month.*

Appendix D: Project Timeline

This Top Transit Suburb project was conducted in three phases:

Phase 1: The first phase of the project, launched in 2009, encompassed in-person interviews with planners in 15 high-performing transit suburbs to assess strategies used to nurture transit-friendly environments. These interviews were conducted using a semi-structured interview design.

Phase 2: The second phase, conducted in 2010 and 2011, encompassed exploratory visits to 20 communities and the creation of a preliminary “scorecard” of station amenities. This effort, managed by graduate student Kendela Davis, was instrumental to the creation of the comprehensive index described in Phase 3. .

Phase 3: This final phase encompassed the development of a comprehensive index to measure a community’s transit qualities and three or more visits to each of the finalists for direct observation. At least two visits occurred on weekdays during daytime hours, and one occurred during the evening to measure the adequacy of lighting in parking lots. These visits were conducted between March 20 and July 6, 2012.

All field observations were conducted by a team of four: Luiza Santo (team leader), Mark Patoska, Jenny Delumo, and Stephen Woodring. At least three team members visited each community. Santos visited all 25 to assure consistency in scoring. Patoska collected all data on the illumination of parking lots.

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ⁱ Crime statistics are not comprehensively available for the areas surrounding suburban Metra stations and thus could not be included in the index. This information is collected individually by suburbs and not published in a systematic way.

ⁱⁱ Data for these measures taken from Regional Transportation Authority Mapping and Statistics, RTAM's interactive website: <http://www.rtams.org/rtams/home.jsp>. Data on walking and biking to the train is for the year 2006 (this is the most recent information that has been collected), while population is based on the 2010 U.S. Census data.

ⁱⁱⁱ The raw scores in Category 1 are divided by 70 and the resulting ratio is multiplied by 100. For example, a community scoring 78 earned an adjusted score of 82.9 ($78 \times 70 \div 100$) as a result of this multiplication. Raw scores in Category 2 are divided by 70 and the resulting ratio is multiplied by 100. Raw scores in Category 3 are transformed in a different way: by converting them to reflect their relative position on a scale between 40 and 100. For example, a raw score midway in this range (70) earns a score of 50. Statistically, this adjustment is made by subtracting 40 from each raw score and multiplying the result by 1.667