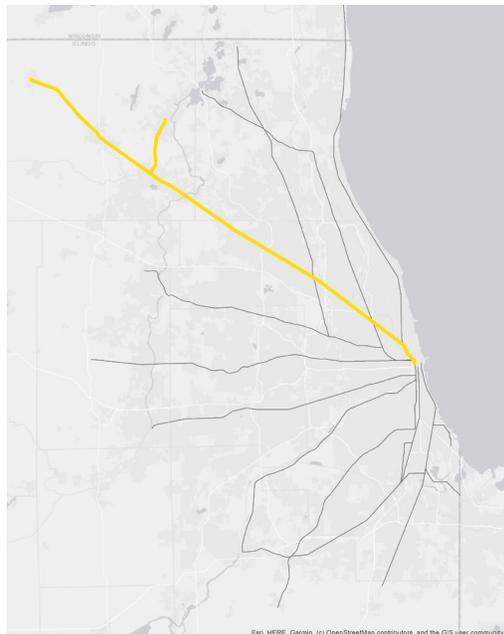




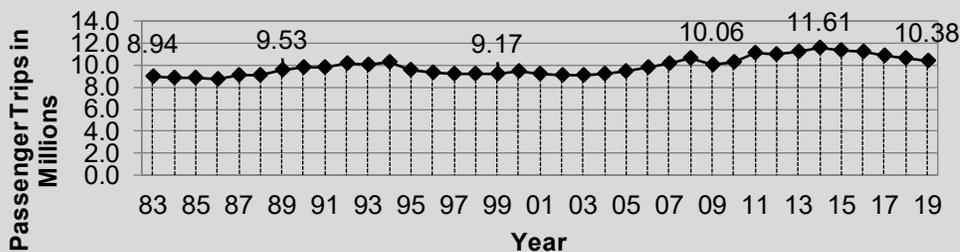
Union Pacific - Northwest Line



Line at a Glance

- › Average Trip Length (2019) : 24.7 miles
- › Average Fare Paid (2019) : \$4.60
- › Number of Stations: 23
- › Route Length: Main Line: 63.1 miles; McHenry Branch: 7.4 miles
- › Number of Weekday Trains (Nov 2019): 65
- › On-Time Performance (2019): 93%
- › 56% of UP-NW riders drive to their boarding station.
- › 6% more people live along the UP-NW than did in 2010.
- › 5% more people work along the UP-NW than did in 2010.

Figure 1: Annual UP-NW Ridership



The data included in this document predates the onset of COVID-19, which has greatly impacted Metra's riders and operations. This information is presented to inform the public about Metra's historic and recent operational environment but may not be illustrative of Metra's current or future operations. For the latest information, visit Metra's Operations and Ridership Data webpage at metrarail.com.



Schedules as of Dec 2019

- › 22 trains in the AM Peak
- › 12 trains in the Midday
- › 20 trains in the PM Peak
- › 11 trains in the Evening
- › 34 trains on Saturdays
- › 21 trains on Sundays



- › 2nd highest ridership line
- › 52% of riders board in zones D, E, and F
- › 2nd highest number of intermediate riders



- › Longest line in the system at 63 miles
- › Only line directly serving McHenry County

Chicago to Harvard

Table 1: Metra Capital Investment History	UP-NW (\$m)	System (\$m)
Rolling stock	\$266	\$2,978
Track and structure	\$169	\$1,567
Signal, electrical, and communications	\$99	\$1,137
Facilities and equipment	\$30	\$685
Stations and parking	\$147	\$1,120
Acquisitions, extensions, and expansions	\$6	\$603
Support activities	\$31	\$431
TOTAL	\$748	\$8,521
PERCENTAGE	8.7%	100.0%

Notes: 1) Excludes South Shore, preventative maintenance, new lines, and pending grants. 2) Prior expenses not adjusted for inflation. 3) Data subject to budget revisions, audit adjustments, etc. 4) Project costs without specific locations have been allocated to entire lines where appropriate

Table 2: UP-NW 2018 Weekday Boardings		
Time of Day	Inbound	Outbound
AM Peak	14,919	873
Midday	2,408	1,491
PM Peak	1,216	14,864
Evening	334	1,505
TOTAL	18,877	18,733

Source: 2018 Weekday Station Boardings and Alightings by Time-of-Day and Direction

ON COVID-19 AND HOW TO USE THIS DOCUMENT

The information presented in this chapter is representative of Metra's operations prior to the onset of COVID-19, which upended almost every aspect of daily life. While Metra's pre-COVID services may not be replicated in the same manner going forward, the transportation services Metra continues to provide are essential to the vitality of the Chicago region.

There are certain elements of Metra's situational and operational environment that are unlikely to change in the short or medium term. These are: the location and capacity of each rail line, the location and physical characteristics of each station, the general characteristics of the communities around each station, Metra's history in each community, and Metra's mission to provide safe, reliable, efficient commuter rail service that enhances the economic and environmental health of northeast Illinois. On the other hand, there are operational and situational factors that are likely to be quite different. These may be: the number of riders, the time and duration of peak travel demand, the public's perception of the relative safety of various transportation modes, the way riders access and depart from stations, and the location preferences of people and businesses.

The challenges posed by the pandemic were significant and likely will result in the emergence of a very different operational environment. Even so, understanding Metra's past performance, pre-COVID service levels, and established community baselines is vital to making informed decisions about the reality that is taking shape. Through this process Metra will continue to achieve Metra's mission, realizing its vision, and pursuing its strategic goals.

As part of a regional transportation network, Metra provides safe, reliable, efficient commuter rail service that enhances the economic and environmental health of northeast Illinois.

- Metra's Mission Statement

In this section

- 1 – Annual Passenger Trips
- 2 – UP-NW Overview
- 3 – Present and Future Demand
- 4 – Station Characteristics
- 5 – Mode of Access and Parking
- 7 – Reverse Commute and Non-Downtown Markets
- 7 – Major Capital Projects
- 7 – ADA Accessibility
- 9 – UP-NW Corridor Demographics
- 9 – UP-NW Corridor Household Data
- 9 – UP-NW Corridor Employment Data
- 10 – Proposed Improvements
- 10 – Major Trip Generators

UP-NW OVERVIEW

The UP-NW extends northwest from Ogilvie Transportation Center (OTC) in downtown Chicago to Harvard, serving portions of Cook, Lake, and McHenry Counties. It is the longest line in the Metra system, with 22 outlying stations along its 63-mile route. A 7.5-mile, single-track branch extends north from Crystal Lake to the city of McHenry. While the main line offers a full schedule on weekdays and weekends, this branch only receives service during weekday peak periods. In 2019, passenger trips on the UP-NW totaled 10.4 million, the second-highest of any line in the Metra system.

Because of infrastructure decisions made prior to Metra's creation, UP-NW trains run on the left-hand (or opposite) side of the tracks relative to the Metra system. UP-NW trains operate on two tracks adjacent to the Union Pacific-North Line between OTC and Clybourn Junction (near Armitage and Ashland in Chicago). For the next 29 miles, the UP-NW is triple-tracked from Clybourn to Barrington followed by double-track from Barrington to Harvard (31 miles). The branch line to McHenry is a single-track. Present operations have outbound traffic on one track and inbound traffic on the other track, with the center track in triple-track territory available for express movements in either direction. There is very limited freight traffic on this line. Tables 3 and 4 detail the service, station, and ridership characteristics of the UP-NW.

PRESENT AND FUTURE DEMAND

In 2018, more than 37,000 boardings took place each weekday on the UP-NW, with 79% of boardings occurring on peak-period, peak-direction trains. At UP-NW stations, ridership has increased 16% since 1983 (see Figure 1). However, at the six McHenry County stations built before 2005, boardings increased 61% between 1983 and 2018. Chicago stations have also experienced significant ridership gains, with boardings increasing 96% during the same period. Figure 3 shows the origins of UP-NW riders who board at stations outside the CBD. Overall passenger ridership on the UP-NW totaled

Terms Defined

“Peak-Period Service” refers to trains arriving or departing downtown terminals at times when there is the greatest ridership demand. For Metra, the “AM Peak” starts with the first run of the day and lasts until 9:15am. The “PM Peak” starts at 3:30pm and lasts until 6:45pm.

“Reverse Commuting” refers to riders who regularly travel in the opposite direction of most commuters. For Metra riders, this refers to people who are travelling away from the Loop during the AM Peak and toward the Loop during the PM Peak.

FIGURE 2: METRA STATIONS ON THE UP-NW LINE

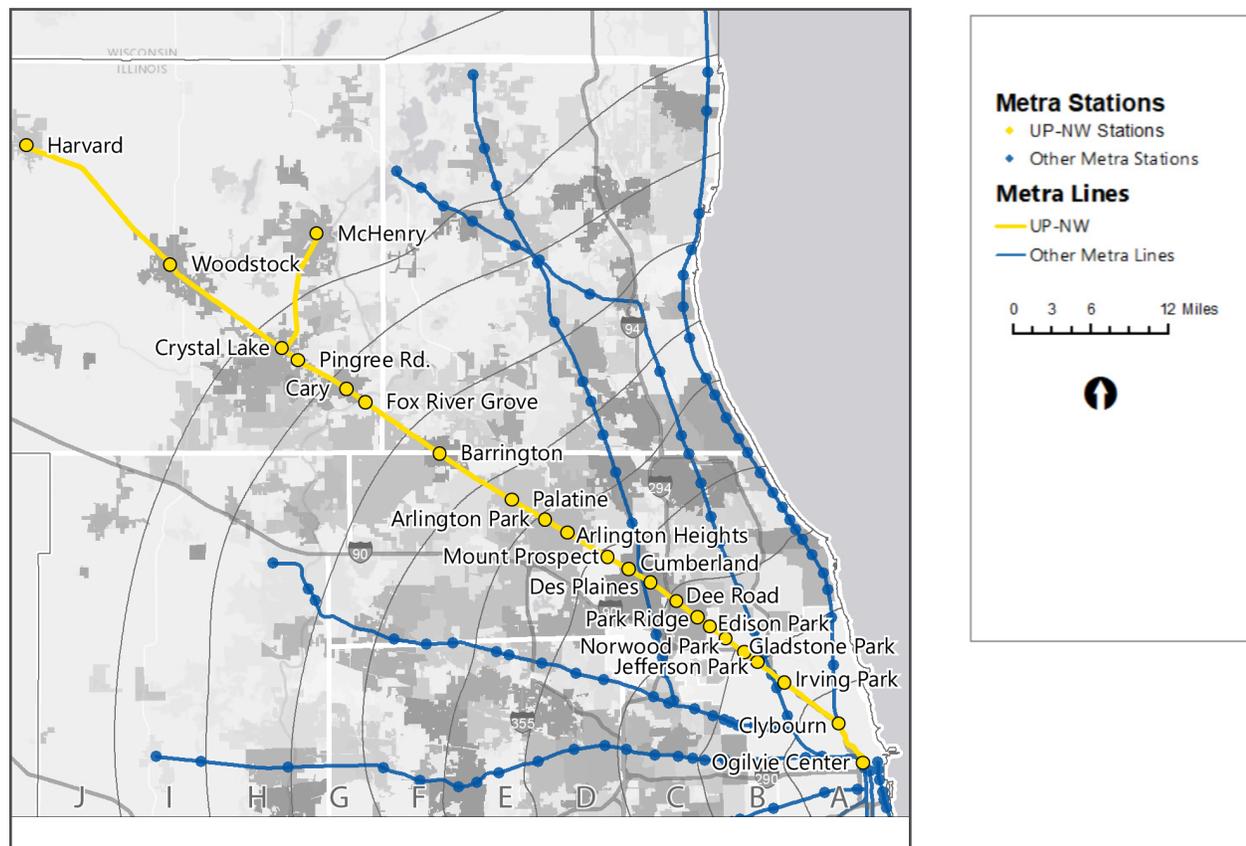


TABLE 3: UP-NW STATION CHARACTERISTICS

Station	Accessibility ¹	Fare Zone	Mile Post	Responsibility and Maintenance			Boardings				Weekday trains serving each station (Dec 2019)
				Platform	Depot	Parking	1983	2006	2016	2018	
Ogilvie Trans. Center	●	A	0.0	Multiple	Multiple	n/a	13,737	14,886	16,395	16,969	65
Clybourn		A	2.9	UPRR	UPRR	Muni	272	769	857	839	62
Irving Park	●	B	7.0	UPRR	UPRR	Muni	175	495	443	439	44
Jefferson Park	●	B	9.1	UPRR	UPRR	Multiple	441	786	656	510	45
Gladstone Park		B	10.1	UPRR	UPRR	Muni	81	103	195	180	15
Norwood Park	●	C	11.4	UPRR	Multiple	Muni	218	289	359	365	41
Edison Park	●	C	12.6	UPRR	Multiple	Multiple	383	536	694	752	42
Park Ridge	●	C	13.5	UPRR	N/A	Muni	908	897	1,043	1,168	48
Dee Rd.	●	C	15.0	UPRR	Metra	Multiple	397	446	515	594	44
Des Plaines	●	D	17.1	UPRR	Multiple	Multiple	1,145	1,085	1,142	1,209	53
Cumberland		D	18.6	UPRR	UPRR	Muni	685	393	455	442	44
Mount Prospect	●	D	20.0	UPRR	Muni	Muni	2,146	1,590	1,816	1,879	49
Arlington Heights	●	E	22.8	UPRR	Multiple	Muni	2,764	2,317	2,578	2,506	52
Arlington Park	●	E	24.4	UPRR	Muni	Private	1,430	1,614	1,697	1,738	54
Palatine	●	F	26.4	UPRR	Metra	Muni	1,632	2,105	2,378	2482	51
Barrington	●	G	31.9	UPRR	Multiple	Muni	1,564	1,724	1,738	1,725	60
Fox River Grove	○	H	37.3	UPRR	UPRR	Multiple	209	422	451	462	46
Cary	●	H	38.6	UPRR	UPRR	Multiple	457	988	941	883	47
Pingree Rd. ²	●	I	41.7	UPRR	Metra	Metra	--	581	751	707	45
Crystal Lake	●	I	43.2	UPRR	UPRR	Muni	907	1,370	1,199	1,138	47
Woodstock	●	J	51.6	UPRR	UPRR	Muni	166	456	317	273	20
Harvard	●	J	63.1	UPRR	Multiple	Multiple	84	274	221	265	20
McHenry	○	J	50.6	UPRR	Multiple	Multiple	101	101	96	85	6
TOTAL UP-NW							29,909	34,227	36,937	37,610	65

¹ Accessibility information is displayed using a three dot system. A complete dot means the station is fully accessible. No dot means that the station is inaccessible. A hollow dot means the station is partially accessible. Customers who use wheelchairs at partially accessible stations will be able to access train platforms from the street. However, ramps, ticket windows, buildings and shelters may not fully conform to ADA guidelines.

² Station opened in 2005

Sources: Metra 1983 Boarding/Alighting Counts. Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006, Spring 2014, and \ Fall 2018. Metra, Origin-Destination Survey, Fall 2019

Note: The data included in this document predates the onset of COVID-19, which has greatly impacted Metra's riders and operations. This information is presented to inform the public about Metra's historic and recent operational environment but may not be illustrative of Metra's current or future operations. For the latest information, visit Metra's Operations and Ridership Data webpage at metrarail.com.

TABLE 4: 2019 MODE OF ACCESS AND 2018 COMMUTER PARKING AT UP-NW METRA STATIONS

Station Name	Mode of Access (2019)					Station Parking (2019)		
	Walk/Bike	Drive ²	Dropped Off ³	Transit	Other	Capacity	Effective Use ⁴	Observed Use ⁵
Ogilvie Trans. Center ¹	47%	4%	8%	30%	11%	0	n/a	n/a
Clybourn ⁶	49%	11%	7%	21%	12%	29	79%	79%
Irving Park	57%	9%	15%	16%	3%	100	81%	81%
Jefferson Park	34%	29%	4%	31%	1%	137	96%	96%
Gladstone Park	68%	29%	3%	0%	0%	19	74%	74%
Norwood Park	38%	40%	20%	2%	0%	100	51%	51%
Edison Park	53%	39%	7%	0%	1%	271	81%	81%
Park Ridge	41%	42%	16%	0%	1%	523	79%	75%
Dee Rd.	32%	50%	15%	2%	1%	173	100%	100%
Des Plaines	55%	31%	12%	2%	0%	320	82%	74%
Cumberland	25%	55%	19%	1%	0%	265	77%	77%
Mount Prospect	27%	51%	19%	2%	1%	664	98%	92%
Arlington Heights	26%	51%	21%	0%	1%	1,966	94%	72%
Arlington Park	6%	74%	19%	0%	1%	1,053	72%	72%
Palatine	15%	67%	17%	0%	1%	1429	75%	62%
Barrington	13%	70%	17%	0%	1%	938	67%	59%
Fox River Grove	11%	75%	14%	0%	0%	330	52%	52%
Cary	11%	71%	18%	0%	0%	493	53%	46%
Pingree Rd.	7%	81%	11%	0%	0%	723	38%	38%
Crystal Lake	6%	75%	18%	0%	1%	1,116	46%	46%
Woodstock	16%	64%	19%	1%	0%	460	31%	31%
Harvard	13%	60%	26%	0%	2%	287	38%	38%
McHenry	1%	79%	19%	0%	0%	114	38%	38%
TOTAL UP-NW⁷	24%	56%	16%	2%	1%	11,510	69%	62%
SYSTEM TOTAL	26%	54%	16%	4%	1%			

¹ Includes riders boarding on all Metra lines departing from station

² Includes carpool drivers

³ Includes carpool passengers

⁴ Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

⁵ Observed use: spaces physically occupied during parking survey

⁶ Parking area at this station serves UP-N and UP-NW Lines

⁷ Line total does not include downtown terminal

Sources: Metra, Origin-Destination Survey, Fall 2019; Metra Station and Parking Capacity and Use Survey, 2019

The data included in this document predates the onset of COVID-19, which has greatly impacted Metra's riders and operations. This information is presented to inform the public about Metra's historic and recent operational environment but may not be illustrative of Metra's current or future operations. For the latest information, visit Metra's Operations and Ridership Data webpage at metrarail.com.

10.38 million in 2019.

Approximately 11,200 parking spaces serve the riders of the UP-NW. According to parking counts conducted in 2018, many of the existing parking lots serving the UP-NW Line are at or near capacity. At eight stations, effective parking utilization exceeds 85%, indicating a demand for increased parking, since Metra considers lots over 85% occupied to be approaching full capacity. Due to residential growth in the UP-NW corridor, the demand for parking is expected to grow. Expanded parking is vital to Metra’s success in distant suburbs, as 70% of Metra riders who board at UP-NW stations more than 25 miles from downtown Chicago drive to the station (compared to the systemwide average of 54%).

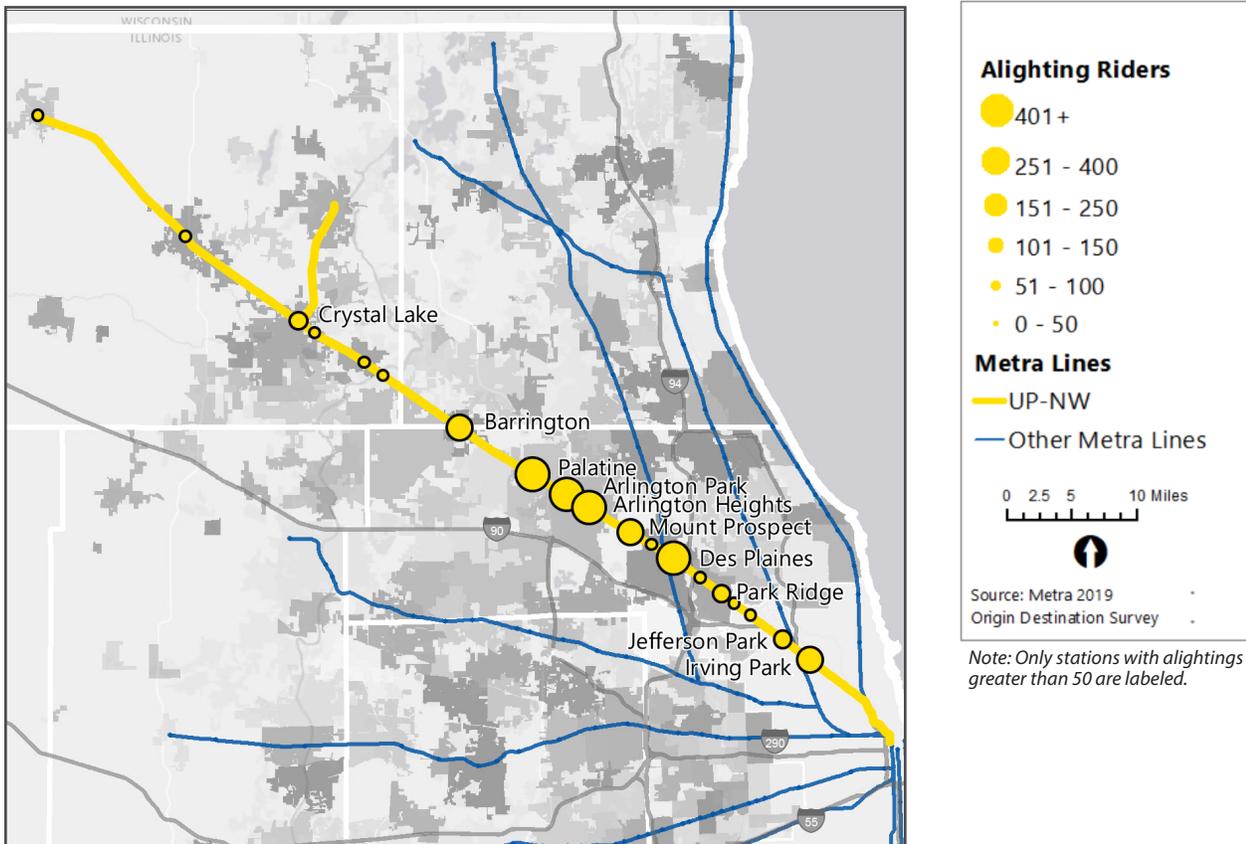
A number of indicators suggest that demand for commuter rail service will continue to rise in the UP-NW corridor, as shown in Tables 5, 6, and 7. The corridor has grown in population and households in recent decades, and demographic forecasts anticipate continued growth. The Chicago Metropolitan Agency for Planning (CMAP) forecasts that the UP-NW corridor will attract over 210,000 new residents between 2020 and 2050, an 17% increase. The projected population growth is greatest near the outer edge of the corridor in eastern McHenry County. For instance, population in the McHenry, Woodstock, and Harvard station marketsheds is expected to

Terms Defined

“Peak-Direction Trains” are those that travel in the direction with the most demand from riders. During the “AM Peak,” trains travelling toward the Loop are “Peak-Direction” while trains travelling away from the Loop are “Peak-Direction” during the “PM Peak.”

“Effective Parking Utilization” is calculated by assuming that all parking pass holders will need a parking space at the same time. This ensures that there is always a space for those who hold a parking pass.

FIGURE 3: NON-DOWNTOWN DESTINATIONS DURING AM PEAK



increase 65% by 2050. Though 76,000 jobs were lost in the UP-NW corridor between 2000 and 2010, a period that coincided with a major economic downturn, almost 36,000 new jobs have been created in the decade since. Estimates indicate that an additional 90,000 jobs will be added by 2050, a 12% increase.

REVERSE-COMMUTE AND NON-DOWNTOWN MARKETS

Although Metra's primary market involves commuters who follow the traditional suburb-to-CBD trip pattern, in recent years Metra has seen a demand for city-to-suburb reverse-commute options (Metra's primary commuter market is discussed in the Central Business District Market chapter). The shift of employment to suburban locations has left many commuters with limited transit accessibility to jobs. Figure 3 shows AM alightings at non-CBD UP-NW stations.

A number of substantial employment centers are located near the UP-NW Line. Des Plaines, Mount Prospect, Arlington Heights, Arlington Park, Palatine and Barrington all had more than 100 alighting riders during the AM Peak, making this stretch of the UP-NW one of the busiest for outlying AM alightings in the entire Metra system. At the Des Plaines and Arlington Park stations, bus routes that are part of the Shuttle Bug service connect Metra riders with employers at nearby corporate campuses.

CMAP forecasts job growth in every UP-NW marketshed between now and 2050. Certain areas on the route are projected to experience phenomenal job growth. For instance, employment is expected to rise substantially in Zones I and J between 2020 and 2050. In addition, since the UP-NW is Metra's longest line, it has greater potential for growth of ridership to locations outside of downtown Chicago than other Metra lines. While few riders will choose to travel by train rather than automobile for a short suburb-to-suburb commute, they are more likely to do so for a longer, non-CBD commute. See Table 8 for a list of major trip generators accessible from the UP-NW corridor, including large employers.

MAJOR CAPITAL PROJECTS ALONG THE UP-NW

Since 1985, Metra has invested \$748 million (in year of expenditure dollars) in improvements to the UP-NW corridor. Table 1 indicates the amount of investment in different asset categories. Metra has completed improvements at a number of UP-NW stations since 1985. In the last 20 years, numerous adjustments have been made to the UP-NW's schedule, increasing speed and service, reducing delay and crowding during peaks, accommodating reverse commuters, and improving service reliability.

UP-NW ACCESSIBILITY IMPROVEMENTS

Most UP-NW stations now comply with the accessibility requirements of the Americans with Disabilities Act (ADA), and approximately 94% of UP-NW weekday boardings take place at fully accessible stations. Metra's station compliance program started with designating ten of the busiest UP-NW

Terms Defined

"Mode of Access" refers to the way that riders travel to a station prior to boarding their train (e.g. on foot, by car, as a member of a carpool). See Table 4 for more detailed information.

"Alighting Riders" are those who get off the train. They are the opposite of a "boarding rider."

stations, including OTC in downtown Chicago, as “key stations”, all of which were made fully accessible by 2007. Since 1985, Metra has completed access improvements at a number of non-downtown UP-NW stations, and 17 outlying stations on the line are fully accessible to disabled riders. Metra will bring the remaining stations into full ADA compliance as they are rehabilitated, so that eventually all will be accessible.

FIGURE 4 ORIGINS OF RIDERS USING NON-CBD UP-NW STATIONS

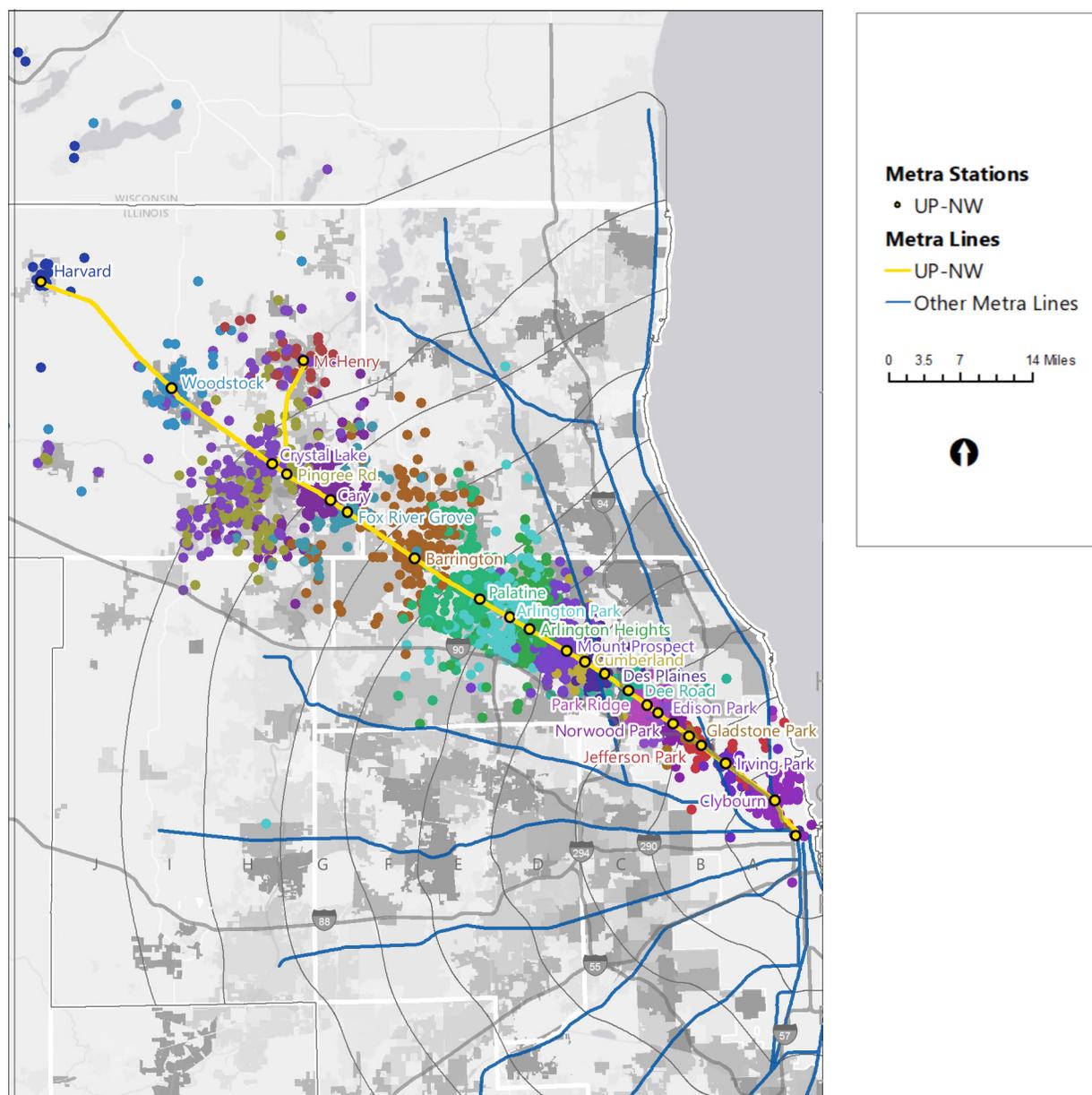


TABLE 5: UP-N CORRIDOR POPULATION

Station	Fare Zone	Area Sq. Mi.	Population in Zone			Percent Change	
			2010	2020	2050	2010 vs 2020	2020 vs 2050
Ogilvie Trans. Center, Clybourn	A	12.1	225,536	258,735	266,025	15%	3%
Irving Park, Jefferson Park, Gladstone Park	B	9.7	152,115	158,122	165,488	4%	5%
Norwood Park, Edison Park, Park Ridge, Dee Rd.	C	17.4	108,083	113,660	127,071	5%	12%
Des Plaines, Cumberland, Mount Prospect	D	15.5	67,048	74,185	83,048	11%	12%
Arlington Heights, Arlington Park	E	37.8	139,587	149,794	167,889	7%	12%
Palatine	F	31.8	94,592	97,594	107,032	3%	10%
Barrington	G	56.8	59,233	61,881	70,486	4%	14%
Fox River Grove, Cary	H	68.2	106,442	101,272	117,026	-5%	16%
Pingree Rd., Crystal Lake	I	85.1	126,161	128,360	165,485	2%	29%
McHenry, Woodstock, Harvard	J	452.0	126,424	129,742	214,378	3%	65%
UP-NW TOTAL		786.2	1,205,221	1,273,345	1,483,928	6%	17%
REGION TOTAL		3,748.0	8,523,863	8,672,509	10,354,840	2%	19%

TABLE 6: UP-N CORRIDOR HOUSEHOLDS

Station	Fare Zone	Area Sq. Mi.	Households in Zone			Percent Change	
			2010	2020	2050	2010 vs 2020	2020 vs 2050
Ogilvie Trans. Center, Clybourn	A	12.1	120,330	141,017	137,988	17%	-2%
Irving Park, Jefferson Park, Gladstone Park	B	9.7	54,708	59,939	63,130	10%	5%
Norwood Park, Edison Park, Park Ridge, Dee Rd.	C	17.4	43,004	46,337	55,197	8%	19%
Des Plaines, Cumberland, Mount Prospect	D	15.5	26,419	30,632	35,776	16%	17%
Arlington Heights, Arlington Park	E	37.8	55,567	61,995	72,335	12%	17%
Palatine	F	31.8	35,673	38,489	42,983	8%	12%
Barrington	G	56.8	19,718	22,583	27,077	15%	20%
Fox River Grove, Cary	H	68.2	35,556	36,640	44,074	3%	20%
Pingree Rd., Crystal Lake	I	85.1	42,382	46,004	63,189	9%	37%
McHenry, Woodstock, Harvard	J	452.0	45,236	50,249	91,109	11%	81%
UP-NW TOTAL		786.2	478,593	533,885	632,858	12%	19%
REGION TOTAL		3,748.0	3,100,987	3,341,064	4,140,227	8%	24%

TABLE 7: UP-N CORRIDOR EMPLOYMENT

Station	Fare Zone	Area Sq. Mi.	Employment in Zone			Percent Change	
			2010	2020	2050	2010 vs 2020	2020 vs 2050
Ogilvie Trans. Center, Clybourn	A	12.1	189,748	274,098	280,712	44%	2%
Irving Park, Jefferson Park, Gladstone Park	B	9.7	39,961	37,331	40,698	-7%	9%
Norwood Park, Edison Park, Park Ridge, Dee Rd.	C	17.4	62,947	47,762	52,834	-24%	11%
Des Plaines, Cumberland, Mount Prospect	D	15.5	40,344	36,758	42,912	-9%	17%
Arlington Heights, Arlington Park	E	37.8	151,668	133,969	147,818	-12%	10%
Palatine	F	31.8	49,946	62,243	68,647	25%	10%
Barrington	G	56.8	30,856	28,716	32,433	-7%	13%
Fox River Grove, Cary	H	68.2	26,621	24,513	30,408	-8%	24%
Pingree Rd., Crystal Lake	I	85.1	45,574	40,573	54,662	-11%	35%
McHenry, Woodstock, Harvard	J	452.0	56,744	44,238	69,518	-22%	57%
UP-NW TOTAL		786.2	694,409	730,201	820,642	5%	12%
REGION TOTAL		3,748.0	4,141,355	4,231,961	4,945,892	2%	17%

The data included in this document predates the onset of COVID-19, which has greatly impacted Metra's riders and operations. This information is presented to inform the public about Metra's historic and recent operational environment but may not be illustrative of Metra's current or future operations. For the latest information, visit Metra's Operations and Ridership Data webpage at metrarail.com.

PROPOSED IMPROVEMENTS

Despite the significant economic and population growth expected to take place within the UP-NW corridor, the line’s capacity is currently constrained on several fronts, including rail capacity, rolling stock capacity, and commuter parking capacity. Operations on the line are affected by the existing track configuration and the lack of a signal system on the McHenry Branch, the aged signal system on other portions of the corridor, and a lack of capacity at the existing outlying yards to support expansion. These limitations prevent further incremental improvements in the system needed to support future demand increases beyond those substantial investments in the UP-NW Line that have been already made by Metra. In order to address these issues, Metra proposed a series of upgrades to the UP-NW Line.

Metra had previously proposed a core capacity upgrade project of the entire UP-NW Line, including a 1.6-mile extension of the McHenry Branch from its existing terminus at McHenry to Johnsburg, the addition of three new stations, the construction of two new coach yards—at Woodstock and Johnsburg, rebuilding the existing Harvard Yard, and rolling stock, signal improvements and track infrastructure improvements. This combination of improvements would allow for expanded service and faster service throughout the line. While Metra is not currently pursuing the full implementation of this entire project, we will continue to look for opportunities to implement elements of this project in the coming years as funding becomes available.

TABLE 8: MAJOR TRIP GENERATORS ACCESSIBLE ALONG THE UP-NW CORRIDOR

Generator Type	Name	Comments	Municipality
Airports	O’Hare International Airport	Second-busiest airport in U.S.	Chicago
Colleges and Universities	DePaul Univ. O’Hare Campus	Branch campus serving adult/continuing education	Chicago
	Northeastern Illinois University	9,500 students	Chicago
	Oakton Community College	9,400 students	Des Plaines
	Columbia College	Branch campus of Mo.-based liberal arts college	Crystal Lake
Culture and Entertainment	McHenry County College	6,400 students	Crystal Lake
	Wrigley Field	Chicago Cubs’ historic ballpark; cap. 41,000	Chicago
	Allstate Arena	Concert/sports venue; cap. 18,500	Rosemont
Shopping	Arlington Park Racecourse	Mile oval horse track; cap. 50,000	Arlington Heights
	Golf Mill Shopping Center	Regional mall	Niles
	Randhurst Village	Lifestyle center	Mount Prospect
	Woodfield Mall/Streets of Woodfield	Woodfield Mall: over 300 stores; 27M visitors/year	Schaumburg