

Milwaukee District - West



> Average Trip Length (2019): 24.2 miles

> Average Fare Paid (2019): \$5.14

> Number of Stations: 22

> Route Length: 39.8 miles

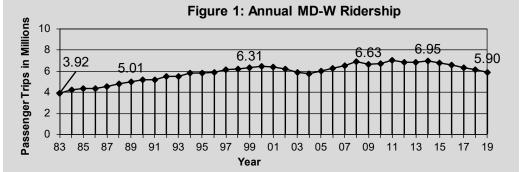
> Number of Weekday Trains (Dec 2019): 58

> On-Time Performance (2019): 95.2%

> 68% of MD-W riders drive to their boarding station.

> 4% more people live along the MD-W than did in 2010.

> 2% more people work along the MD-W than did in 2010.



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Table 1: Metra Capital Investment History	MD-W (\$m)	System (\$m)
Rolling stock	\$227	\$2,978
Track and structure	\$146	\$1,567
Signal, electrical, and communications	\$145	\$1,137
Facilities and equipment	\$92	\$685
Stations and parking	\$67	\$1,120
Acquisitions, extensions, and expansions	\$56	\$603
Support activities	\$43	\$431
TOTAL	\$776	\$8,521
PERCENTAGE	9.1%	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





Schedules as of Dec 2019

- > 19 trains in the AM Peak
- > 12 trains in the Midday
- > 17 trains in the PM Peak
- > 10 trains in the Evening
- > 24 trains on Saturdays
- > 18 trains on Sundays



- > 8th highest ridership
- Schaumburg, Roselle, and Hanover Park are all among the top 30 highestridership, outlying stations



> Largest (tied) share of non-English speakers among Metra lines (15%)



Table 2: MD-W 2018 Weekday Boardings							
Time of Day	Inbound	Outbound					
AM Peak	8,592	351					
Midday	1,177	964					
PM Peak	507	8,357					
Evening	157	729					
TOTAL	10,433	10,401					

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

MD-W OVERVIEW

Metra's Milwaukee District-West (MD-W) Line extends west from Chicago Union Station (CUS or "Union Station") to the city of Elgin. The line serves portions of Cook, DuPage, and Kane Counties with 21 outlying stations along its 40-mile route (see Figure 1). In 2019, 5.9 million trips were taken on the MD-W, the eighth-highest number of Metra's 11 lines.

Both the MD-N and MD-W are operated and maintained by Metra employees. Trains on both lines are dispatched from Minneapolis by Canadian Pacific (CP), which operates freight service over Metra-owned Milwaukee District track. CP owns the track west of the Big Timber Road Station in Elgin.

In this section

- 1 Annual Passenger Trips
- 2 MD-W Overview
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- 4 Station Characteristics
- 5 Mode of Access and Parking
- 7 Reverse Commute and Non-**Downtown Markets**
- 7 Major Capital Projects
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Several other operators provide freight service over portions of MD-W track.

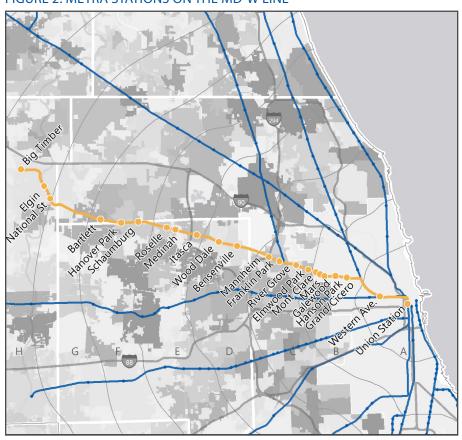
Both Milwaukee District lines as well as Metra's North Central Service (NCS) share the Western Avenue Station in Chicago and Metra's three main tracks for the five miles between CUS and A-5 Junction (where the MD-N splits from the MD-W/NCS). The next seven miles of triple main line track between A-5 and B-12 Junction in Franklin Park (where the NCS diverges toward Antioch) are shared by MD-W and NCS trains. Metra upgraded the third main track between the two junctions for commuter service in 2006, allowing NCS and MD-W trains to run express through this segment. The MD-W is doubletracked from B-12 to Big Timber Road.

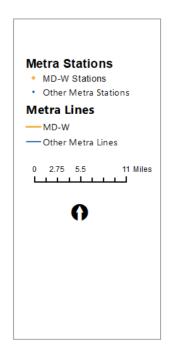
Daytime storage and servicing of all Milwaukee District trains, as well as trains serving the NCS and Heritage Corridor, take place at the Western Avenue Yard, located approximately three miles west of CUS. Nighttime storage and maintenance of trainsets serving the MD-W Line take place at the Elgin Yard, just south of the station in downtown Elgin.

PRESENT AND FUTURE DEMAND

In 2018, 20,800 boardings took place each weekday on the MD-W, with 80% of boardings occurring on peak-period, peak-direction trains. On the MD-W, ridership has increased 50% since 1983 (see Figure 1), with the most

FIGURE 2: METRA STATIONS ON THE MD-W LINE





	.1				oonsibility Iaintenand		Boardings				Weekday trains
Station	rion (5		Mile Post	Platform	Depot	Parking	1983²	2006²	2016²	2018²	serving each station as of Dec 2019
Union Station		Α	0.0				6,548	10,144	10,310	9,766	58
Western Ave.3		Α	2.9	Metra	Metra	Metra	158	372	350	323	57
Grand/Cicero⁴		В	6.5	Metra	Metra				96	80	25
Hanson Park		В	7.7	Metra	Muni	Muni	54	54	60	58	16
Galewood		В	8.6	Metra	Metra	Multiple	202	265	279	246	43
Mars		В	9.1	Metra	Metra	Multiple	75	110	142	144	16
Mont Clare		В	9.5	Metra	Metra	Metra	314	361	335	303	44
Elmwood Park		С	10.2	Metra	Metra	Muni	466	392	405	388	44
River Grove⁵		С	11.4	Metra	Metra	Multiple	222	174	142	144	43
Franklin Park		С	13.2	Metra	Metra	Multiple	446	461	458	392	55
Mannheim		С	14.0	Metra	Metra	Metra	49	37	31	35	12
Bensenville		D	17.2	Metra	Metra	Multiple	439	450	357	414	46
Wood Dale		D	19.1	Metra	Multiple	Multiple	497	639	624	596	48
Itasca		Е	21.1	Metra	Metra	Multiple	444	546	601	555	46
Medinah		Е	23.0	Metra	Metra	Multiple	194	501	573	439	46
Roselle		Е	23.9	Metra	Multiple	Multiple	1,455	1,500	1,455	1,448	50
Schaumburg		F	26.5	Metra	Multiple	Multiple	480	1,698	1,727	1,583	49
Hanover Park		F	28.4	Metra	Multiple	Multiple	738	1,482	1,486	1,238	48
Bartlett		F	30.1	Metra	Multiple	Multiple	669	1,064	1,071	988	49
National St.		Н	36.0	Metra	Metra	Multiple	132	742	642	584	49
Elgin		Н	36.6	Metra	Metra	Metra	390	476	436	411	49
Big Timber Rd.6		Н	39.8	Metra	Metra	Multiple		803	789	699	42
TOTAL MD-W							14,184	22,271	22,369	22,852	58

MDW

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.

¹Accessibility 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.

²Metra, "Commuter Rail System Station Boarding/Alighting Counts," Fall 2006, Spring 2014, and Fall 2018.

³ Parking area at this station serves MD-N, MD-W and NCS Lines

⁴Grand/Cicero Station opened in December 2006, replacing Hermosa and Cragin Stations, which closed the same month

⁵Parking area at this station serves MD-W and NCS Lines

⁶Station opened in 1986

TABLE 4: 2019 MODE OF ACCESS AND COMMUTER PARKING AT MD-W METRA STATIONS

Station Name		Mode	of Access (2019)			Sta	ation Parking (2	2019)
Station Name	Walk/Bike	Drive ¹	Dropped Off ²	Transit	Other	Capacity	Effective Use ³	Observed Use ⁴
Union Station	30%	39%	12%	14%	6%	0		
Western Ave. ⁵	30%	39%	12%	14%	6%	21	100%	100%
Grand/Cicero	48%	22%	26%	4%	0%	0	-	_
Hanson Park	24%	67%	9%	0%	0%	39	85%	85%
Galewood	29%	55%	14%	1%	1%	97	66%	66%
Mars	41%	49%	9%	1%	0%	63	67%	67%
Mont Clare	34%	54%	10%	2%	1%	193	51%	51%
Elmwood Park	41%	41%	16%	2%	1%	116	95%	95%
River Grove ⁶	31%	54%	14%	1%	0%	170	81%	89%
Franklin Park	18%	68%	14%	0%	0%	223	81%	81%
Mannheim	100%	0%	0%	0%	0%	30	0%	0%
Bensenville	39%	46%	12%	2%	1%	167	68%	90%
Wood Dale	8%	76%	12%	0%	4%	425	83%	85%
Itasca	16%	69%	10%	4%	1%	360	71%	84%
Medinah	3%	84%	12%	0%	1%	399	72%	74%
Roselle	9%	72%	18%	1%	1%	977	88%	99%
Schaumburg	6%	77%	16%	1%	1%	1,572	67%	68%
Hanover Park	5%	74%	19%	0%	1%	1,358	61%	83%
Bartlett	11%	66%	22%	0%	1%	720	77%	89%
National St.	3%	82%	13%	1%	1%	425	94%	94%
Elgin	13%	61%	20%	4%	2%	149	94%	94%
Big Timber Rd.	3%	80%	14%	2%	1%	722	61%	61%
TOTAL MD-W	14%	68%	15%	2%	1%	8,226	73%	80%
SYSTEM TOTAL	26%	54%	16%	4%	1%	91,558	70%	63%

¹Includes carpool drivers

Sources: Metra, Origin-Destination Survey, Fall 2019; Metra Station and Parking Capacity and Use Survey, 2018

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²Includes carpool passengers

³ Effective use: all sold permit spaces are assumed to be used, even if unoccupied during parking survey

⁴Observed use: spaces physically occupied during parking survey

⁵Western Ave. Station serves MD-N, MD-W and NCS Lines

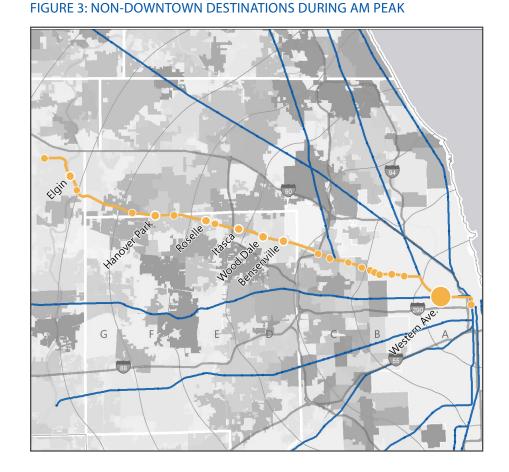
⁶ River Grove Station serves MD-W and NCS Lines

significant ridership gains occurring at stations near the western end of the line. Since 1983, boardings have increased 72% at stations from Wood Dale westward (excluding the Big Timber Road Station, which opened in 1986). Ridership in this segment accounts for 67% of boardings at non-downtown MD-W stations.

Figure 4 shows the origins of MD-W riders who board at stations outside of the Central Business District (CBD). Overall passenger ridership on the MD-W totaled 5.9 million in 2019.

Demographic forecasts suggest that demand for commuter rail service on the MD-W will continue to rise (see Tables 5, 6 and 7). Though most of the corridor experienced relatively little to modest population growth between 2010 and 2020, the Chicago Metropolitan Agency for Planning (CMAP) forecasts that the MD-W corridor will attract 175,000 new residents between 2020 and 2050, an 18% increase. Over 85,000 jobs are projected to be added, another 18% rise.

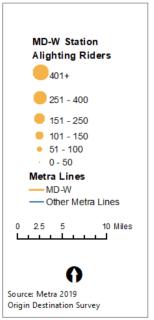
Projected population growth is especially significant at the outer end of the corridor in eastern Kane County. Population in the Elgin station marketsheds (National Street, Elgin, and Big Timber Road) is forecasted to increase 39% from 2020 to 2050. Employment growth in the Elgin area, as well as most



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.



Note: Only stations with alightings greater than 50 are labeled.

marketsheds in the corridor, is expected to be in line with the regional baseline.

Currently, about 8,500 parking spaces serve the riders of the MD-W, as shown in Table 4. According to parking counts conducted in 2019, the effective utilization rate at all stations on the line is 78%. When utilization of station parking areas exceeds 85%, Metra considers that they are approaching full capacity. Five MD-W stations exceed this threshold, indicating a demand for increased parking at these stations. Due to residential growth in the MD-W corridor, the demand for parking is expected to grow.

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 2 shows AM alightings at non-CBD MD-W stations.

According to Metra's 2018 Boarding and Alighting Count, five O'Hare-area stations (Franklin Park, Mannheim, Bensenville, Wood Dale, and Itasca) account for a plurality of MD-W, morning, peak-period, alightings outside central Chicago. Elgin Station is a significant outlying destination during the morning peak as riders travel to Elgin municipal offices, the Grand Victoria Casino, and other significant employers.

As noted above, employment growth is projected in MD-W station marketsheds where 85,000 jobs are expected to be added between 2020 and 2050 (see Table 7). Since employment growth in an area contributes to increased ridership at nearby Metra stations, this projection is an indicator of potential ridership growth on the MD-W Line.

MAJOR CAPITAL PROJECTS ALONG THE MD-W

Since 1985, Metra has invested \$719 million (in year of expenditure dollars) in improvements to the MD-W corridor. Table 1 indicates the amount of investment in different asset categories. Metra has completed improvements at a number of MD-W stations and bridges. Over the years, Metra has partnered with Amtrak, which owns CUS, to complete a number of upgrades to the terminal's commuter facilities. For more information on proposed CUS improvements, see the CBD chapter of this report.

The amounts shown in Table 2 reflect the cost of a number of improvements made in conjunction with the NCS upgrade project, completed in 2006. These improvements included track and signal upgrades, yard expansion, and construction of new station buildings and platforms at five MD-W stations to accommodate new triple-track commuter operation: Hanson Park, Galewood,

Terms Defined

"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.

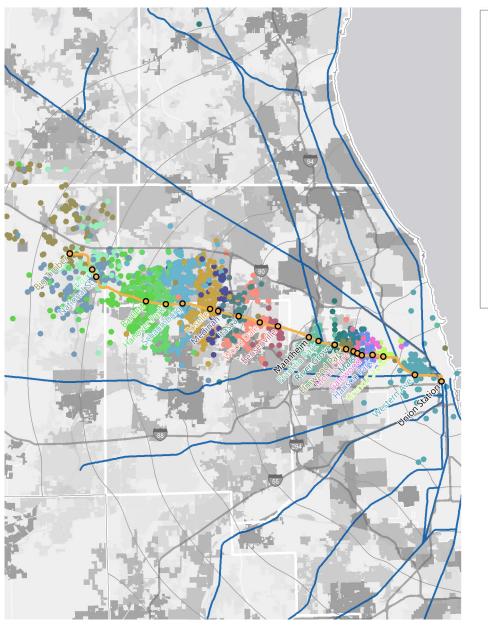
"Alighting Riders" are those who get off the train. They are the opposite of a "boarding rider."

(CBD) (UPN) (MDN) (NCS) (UPNW) (MDW) (UPW) (BNSF) (HC) (SWS) (RI)

Mars, Mont Clare, and Elmwood Park. A new station was built at Grand and Cicero Avenues in Chicago, replacing two adjacent stations. Consolidation has improved operational efficiency, and the new location is more accessible for Chicago Transit Authority bus users and pedestrians.

Much of the signal equipment on the MD-W dates from the 1950s, and replacement of this aging equipment is an ongoing effort with major track, signal, and interlocking upgrades taking place over the last 15 years.

FIGURE 4: ORIGINS OF RIDERS USING NON-CBD MD-W STATIONS



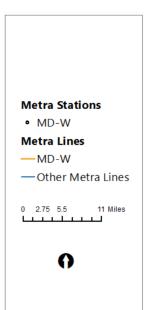


TABLE 5: MD-W CORRIDOR POPULATION

	Fare	Area		Population in Zone	:	Percent	Change
Station	Zone	Sq. Mi.	2010	2020	2050	2010 vs 2020	2020 vs 2050
Union Station, Western Ave.	Α	3.6	60,407	59,736	65,410	-1%	9%
Grand/Cicero, Hanson Park, Galewood, Mars, Mont Clare	В	11.8	186,211	184,776	200,253	-1%	8%
Elmwood Park, River Grove, Franklin Park, Mannheim	С	15.7	97,271	101,564	112,160	4%	10%
Bensenville, Wood Dale	D	21.6	49,831	49,203	56,115	-1%	14%
Itasca, Medinah, Roselle	Е	39.9	123,433	130,154	145,696	5%	12%
Schaumburg, Hanover Park, Bartlett	F	68.1	208,773	218,443	243,563	5%	11%
National St., Elgin, Big Timber Rd.	Н	198.6	226,942	247,541	343,428	9%	39%
MD-W TOTAL		359.3	952,868	991,417	1,166,625	4%	18%
REGION TOTAL		3,748.0	8,523,863	8,672,509	10,354,840	2%	19%

TABLE 6: MD-W CORRIDOR HOUSEHOLDS

	Fare	Area		Households in Zone	2	Percent	Change
Station	Zone	Sq. Mi.	2010	2020	2050	2010 vs 2020	2020 vs 2050
Union Station, Western Ave.	Α	3.6	24,034	27,865	29,730	16%	7%
Grand/Cicero, Hanson Park, Galewood, Mars, Mont Clare	В	11.8	55,244	57,641	64,266	4%	11%
Elmwood Park, River Grove, Franklin Park, Mannheim	С	15.7	35,574	37,437	43,004	5%	15%
Bensenville, Wood Dale	D	21.6	17,115	17,574	20,944	3%	19%
Itasca, Medinah, Roselle	Е	39.9	46,903	52,443	60,483	12%	15%
Schaumburg, Hanover Park, Bartlett	F	68.1	70,809	77,721	88,578	10%	14%
National St., Elgin, Big Timber Rd.	Н	198.6	77,406	87,849	132,605	13%	51%
MD-W TOTAL		359.3	327,085	358,530	439,610	10%	23%
REGION TOTAL		3,748.0	3,100,987	3,341,064	4,140,227	8%	24%

TABLE 7: MD-W CORRIDOR EMPLOYMENT

	Fare	Area Sq. Mi.	E	Employment in Zon	Percent Change		
Station	Zone		2010	2020	2050	2010 vs 2020	2020 vs 2050
Union Station, Western Ave.	Α	3.6	88,493	108,121	116,366	22%	8%
Grand/Cicero, Hanson Park, Galewood, Mars, Mont Clare	В	11.8	25,208	29,032	33,624	15%	16%
Elmwood Park, River Grove, Franklin Park, Mannheim	С	15.7	37,956	39,052	45,139	3%	16%
Bensenville, Wood Dale	D	21.6	91,199	63,444	73,784	-30%	16%
Itasca, Medinah, Roselle	E	39.9	79,059	75,449	84,225	-5%	12%
Schaumburg, Hanover Park, Bartlett	F	68.1	61,649	68,608	80,070	11%	17%
National St., Elgin, Big Timber Rd.	Н	198.6	93,517	102,211	138,223	9%	35%
MD-W TOTAL		359.3	477,081	485,917	571,431	2%	18%
REGION TOTAL		3,748.0	4,141,355	4,231,961	4,945,892	2%	17%

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In addition to the completion of the new Z-100 Bridge over the Fox River in 2020, Metra rehabilitated the Z-112 bridge at Tyler Creek in Elgin in 2017. Fiber optic cable was installed for the transmission of voice, signal data, corporate data, video and Positive Train Control (PTC) data.

Numerous adjustments have been made to the MD-W's schedule over the years, to reduce congestion, improve on-time performance, accommodate reverse commuters, improve bus connections, and add service to meet demand. Two years after the schedule change, boardings at MD-W stations west of Franklin Park had increased 14%.

MD-W ACCESSIBILITY IMPROVEMENTS

All but one MD-W station—Mannheim—complies with the accessibility requirements of the Americans with Disabilities Act (ADA), and over 99% of MD-W boardings take place at ADA-accessible stations. Metra's station ADA-compliance program started with designating six of the busiest MD-W stations, including CUS in downtown Chicago, as "key stations", all of which were made fully accessible by 2002. Metra will bring Mannheim into full ADA compliance when it is rehabilitated, so that eventually all MD-W stations will be accessible.

TABLE 8: MAJOR TRIP GENERATORS ACCESSIBLE ALONG THE MD-W CORRIDOR

Generator Type	Name	Comments	Municipality
Airports	O'Hare International Airport	Second-busiest airport in U.S.	Chicago
Colleges and Universities	Triton College Elgin Community College Judson University	Community college; 11,400 students 9,900 students 1,300 students	River Grove Elgin Elgin
Culture and Entertainment	Medinah Country Club Schaumburg Boomers Stadium Grand Victoria Casino	Past host of 5 major PGA Championships Cap. 7,400 Riverboat casino	Medinah Schaumburg Elgin
Shopping	Woodfield Mall/Streets of Woodfield	Woodfield Mall: over 300 stores; 27M visitors/year	Schaumburg