

Next Stop: **New Jobs**

Table of Contents

2 New Jobs, Better Connections

Identifying Opportunities for Development

4 Stranded Employment Centers

Create Opportunities, Cut Congestion

7 Manufacturing Jobs near Transit

Vast Potential to the South and West

11 Smarter Commuting to Commercial Development

Gauging Market Strength

Ensuring Adequate Buffers and Attracting Mixed Uses

15 Recommendations for Policy and Further Research

Utilize C3 Zoning

Ensure Healthy Competition for Manufacturing Investment

Assess the Viability of Planned Manufacturing Districts

Create, Reinstate and Sustain Key Transit Stops and Routes

Leverage Tax Increment Financing to Assemble Vacant Parcels

Promote Incentives for Better Commuting

Identify Opportunities for “Transit-oriented Nourishment”

19 Conclusion: Transit-friendly Economic Development Opportunities Abound

A-1 Appendix

New Jobs, Better Connections

Chicago is northeastern Illinois' historic center of commerce and employment, yet over the last half century economic activity has continuously dispersed to outlying suburbs. Among large metropolitan areas, Chicago is among the most decentralized with two out of three jobs in the region located more than ten miles from downtown. Many of these outlying employment centers are inaccessible by mass transit, thereby creating strains on road infrastructure, environmental systems, and personal finances due to the costliness of car ownership and its attendant expenses.

Nevertheless, with one out of three jobs located within ten miles of downtown, Chicago continues to be an economic force in the region. Chicago's well-established mass transit system, which includes nearly 400 fixed-rail stations and over 180 bus routes, affords workers the chance to lower the cost of commuting by minimizing or eliminating the need for a car. Convenient and well-utilized public transit reduces congestion and greenhouse gas emissions, and enables job development, as evidenced by the high number of existing jobs concentrated within transit zones.

Transit Zone: the area within a half-mile radius of each transit station; also referred to as a station area.

Nationally, attention to neighborhood development around transit has focused on mixed-use development with residences, street-level retail and, occasionally, office space. This paradigm ignores the fact that much vacant land within station areas is strictly zoned for manufacturing or commercial purposes that could attract businesses offering living wages. Furthermore, job creation near transit can lead to more destinations along a corridor, creating demand for transit outside of the central business district (CBD) and, conceivably, in a reverse-commute direction during peak travel times—both of which spread ridership out along the system and make more optimal use of its carrying capacity.

Identifying Opportunities for Development

This analysis identifies which neighborhood transit zones in Chicago (namely those located outside of the CBD) have the greatest potential to create new manufacturing and commercial employment opportunities. To calculate prospective job creation in each area, CNT utilized its Employment Opportunity Selector Analysis tool (referred to as the Selector throughout this report). This GIS-based statistical application was developed in 2003 and has undergone continuous refinement through projects in metropolitan Chicago and other urban areas.

The Selector quantifies a number of characteristics – transit service, ridership, zoning, land use, population density, and market potential – generally associated with successful developments and then determines which station areas are best suited for manufacturing or commercial uses. Since different ingredients are required in an area to sustain different types of businesses, the Selector utilizes variables specific to each of the employment sectors under analysis. These variables are briefly explained in the body of this report, and are more thoroughly defined in the appendix.



The report highlights over 50 station areas with economic development potential in the manufacturing and commercial sectors. Most opportunities are individual transit zones, but a few are “clusters” comprised of overlapping transit zones. The top prospective sites are listed and mapped within the body of the report. A full listing of high-potential station areas is included in the appendix, as are explanations of the variables used in the Selector analysis.

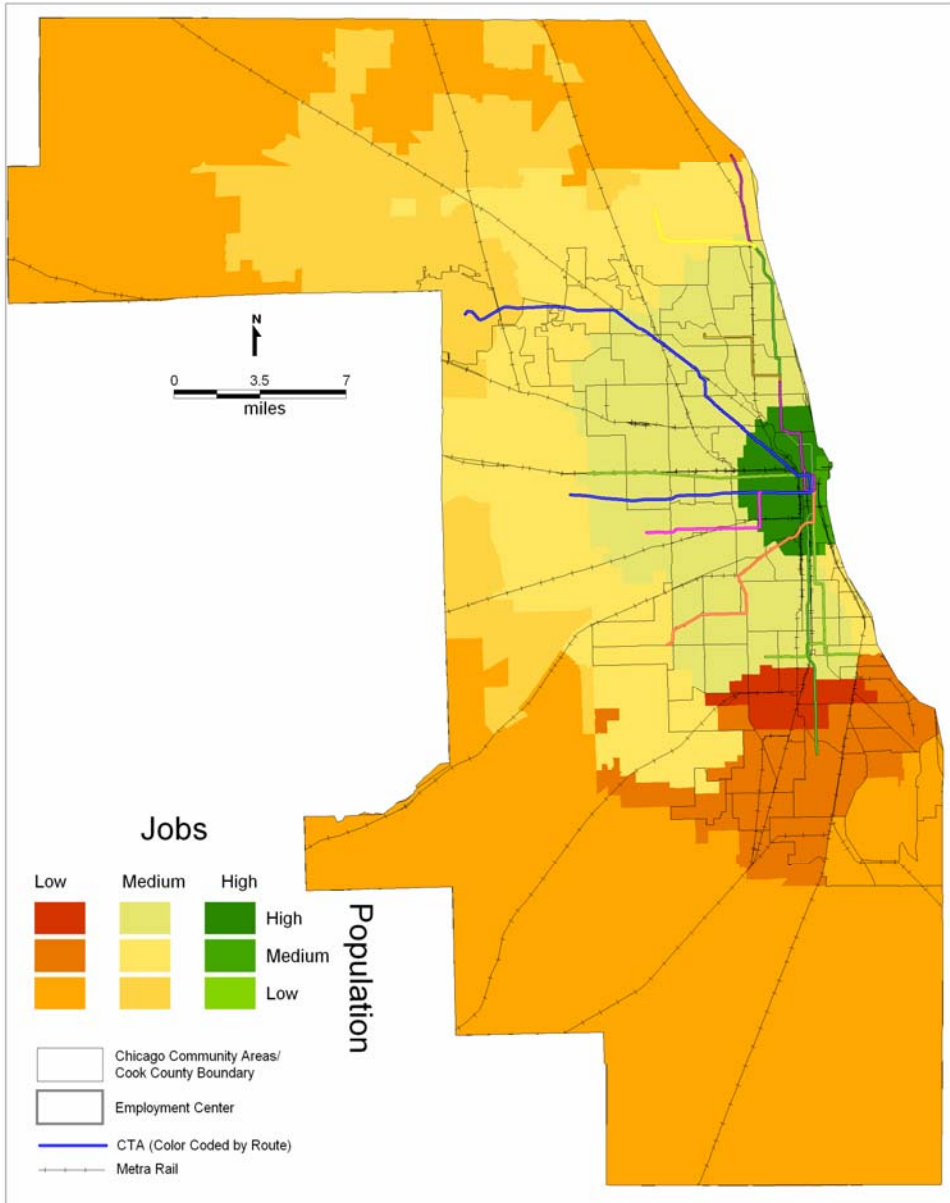
Sites were chosen given the combination of demand and development potential based on land availability, but further market analyses are needed to ensure the most productive use of vacant properties. This report concludes with suggestions for further research and policy decisions to more effectively link employment centers to workers via transit.

Stranded Employment Centers

Almost half (49%) of Chicago’s population, 72% of its jobs, and 66% of its businesses are located within a half-mile radius of transit stations, based on local employment dynamics (LED) data from the US Census and 2004 Bureau of Labor Statistics. According to a 2009 Brookings Institution report, *Job Sprawl Revisited: The Changing Geography of Metropolitan Employment*, the number of Chicago area jobs located within ten miles of the city center declined by an average of 1% between 1998 and 2006, while jobs located 10 miles or more from the city center grew by 2% in the same time frame. This employment growth, mostly occurring in Chicago’s west and northwest suburbs, has not generally matched the location of densely populated residential areas. . .

Figure 1: Jobs-Housing Mismatch

Densely populated areas deprived of jobs provide opportunities for development, yet areas with lower residential densities continue to attract new employment centers, thereby increasing the distance many people must travel to find employment.



. . . Or convenient access to transit.

CNT developed the Transit Access Index (TAI) to assess the level of transit service to which a person can easily walk from a given address. Commuters who do not live within convenient distances of public transportation must drive to work, and even those who do live near transit often find it doesn't link them to their job. This spatial mismatch between workers, jobs and transit results in longer commutes and the need to own a car – a significant burden for lower-income employees.

Figure 2: Transit Access Index (TAI)

The TAI is a CNT measure of the average number of bus and train trips available in a given area. More darkly shaded areas have a higher availability of transit. Locating employment centers in high transit areas can help alleviate the mismatch between jobs and people.





Create Opportunities, Cut Congestion

The Selector utilizes the TAI and other variables to find those transit zones that have market potential and available land for manufacturing and commercial development. Directing new employment opportunities to these station areas will give commuters the option of reaching work by way of more affordable transportation alternatives, thus keeping cars off of Chicago's notoriously clogged roads.

Locating new employment along Chicago's rail lines makes sense given the convenient access to bus and rail, high density of prospective employees and customers, and the synergy that can occur between

complementary businesses. Such a strategy puts vacant infill sites back into productive use – a sustainable alternative to building on environmentally sensitive greenfields with little or no existing infrastructure.



Manufacturing Jobs near Transit

A transit zone's potential for industrial development depends largely on zoning and existing land use, namely the station's proximity to any one of Chicago's 24 Industrial Corridors, which the City's Department of Community Development prioritizes for funding and infrastructure upgrades. The Selector ranked more highly those station areas with larger populations, lower employment, and larger volumes of vacant land zoned for manufacturing and planned manufacturing districts (PMD).

Assembling vacant land can be a costly and time-consuming process for developers, especially when vacant parcels do not adjoin one another. The Selector was designed to highly rank those transit zones containing more contiguous acres of vacant land.



In total, the Selector incorporated 18 variables into the manufacturing analysis. (See appendix for the full list and explanations of each criterion.)

***Manufacturing (M)** is a zoning classification that restricts mixing of industrial uses with incompatible developments such as housing and businesses. There are three manufacturing districts: "limited" industrial operations, including wholesaling, warehousing and distribution activities that occur within enclosed buildings; "light" industrial operations that occur outside of enclosed buildings; and "heavy" industrial operations, such as extractive and waste-related activities (Municipal Code of Chicago, 17-5-0100).*

***Planned Manufacturing District (PMD)** is a zoning classification that preserves existing manufacturing areas of five or more contiguous acres by not allowing rezoning (Municipal Code of Chicago, 17-6-0400). The intended function of PMDs is, in part, to provide living wage jobs for Chicago residents. A 2005 study by the Center for Economic Development analyzed job creation in the Clybourn, Goose Island, and Elston Corridor PMDs, showing a 40% increase in business creation between 1988 and 2004 – from 255 to 356 companies – and growth in total jobs from 6,588 to 7,415. Nevertheless, manufacturing employment declined in all three PMDs, as it has across the US economy. The station areas highlighted below would likely aid in attracting industrial operations and giving Chicago's blue collar workforce more opportunities to realize a higher quality of life.*

Vast Potential to the South and West

The top prospective manufacturing-oriented transit zones are concentrated on Chicago's South and West sides, and they all correlate with stations CTA designated as manufacturing employment districts in its 2009 *Transit Friendly Development Guide*. Most of these are located in areas with a lower TAI (frequency of bus and rail trips) than the potential commercial-



oriented sites discussed later, but they contain larger, less fragmented tracts of land. Additional sites listed in the appendix offer less total vacant acreage zoned for manufacturing, but still provide many opportunities for development.

Locating industrial jobs more closely to affordable housing in the South and West sides will aid in alleviating the mismatch between residential developments and employment centers presented in Figure 1.

Appropriately skilled workers would be given more options for a short, affordable commute via bus, train, bicycle, or even on foot, and manufacturers would increase the prosperity of neighborhoods experiencing economic hardships and high unemployment.

Table 1: Potential Manufacturing-oriented Transit Zones

Each of the transit zones listed, with the exception of Hegewisch and Wrightwood, intersect with at least one other half-mile station area. Therefore, the estimates of vacant industrially zoned acres are to be understood as proxies for development potential in each station area. The community development corporations listed may be helpful in connecting workers to resources and training necessary to obtain employment, and also in providing information to prospective employers regarding area workforce characteristics.

Site	Station	Route	Community Development Corporation	Vacant M- and PMD-zoned Acres
1	Hegewisch	Metra South Shore Line	Southeast Chicago Development Commission; Hegewisch Community Committee	44
2	Kensington/115th Street	Metra Electric; South Shore	Greater Roseland CDC (GRCDC); Calumet Area Industrial Commission (CAIC)	42
3	107th Street	Metra Electric Line	GRCDC; CAIC	49
4	Kedzie	Metra Union Pacific West Line	Bickerdike Redevelopment Corporation	25
5	Pullman/111th Street	Metra Electric Line	GRCDC; CAIC	31
6	Wrightwood	Metra Southwest Service	Greater Ashburn CDC	28
7	California/Lake	CTA Green Line - Lake Branch	Bethel New Life	31
8	Racine Avenue	Metra Electric Line	GRCDC	46
9	West Pullman	Metra Electric Line	GRCDC	39
10	Western	Metra BNSF	Eighteenth Street Development Corporation; The Resurrection Project	9

Figure 3: Potential Manufacturing-oriented Transit Zones

Many sites chosen by the Selector are overlapping, presenting opportunities for synergistic developments among businesses and industry groups. These clusters of high-potential sites should be analyzed by community groups in cooperation with investors and public officials in order to reinvigorate and empower low- and moderate-income communities with expanded employment opportunities.

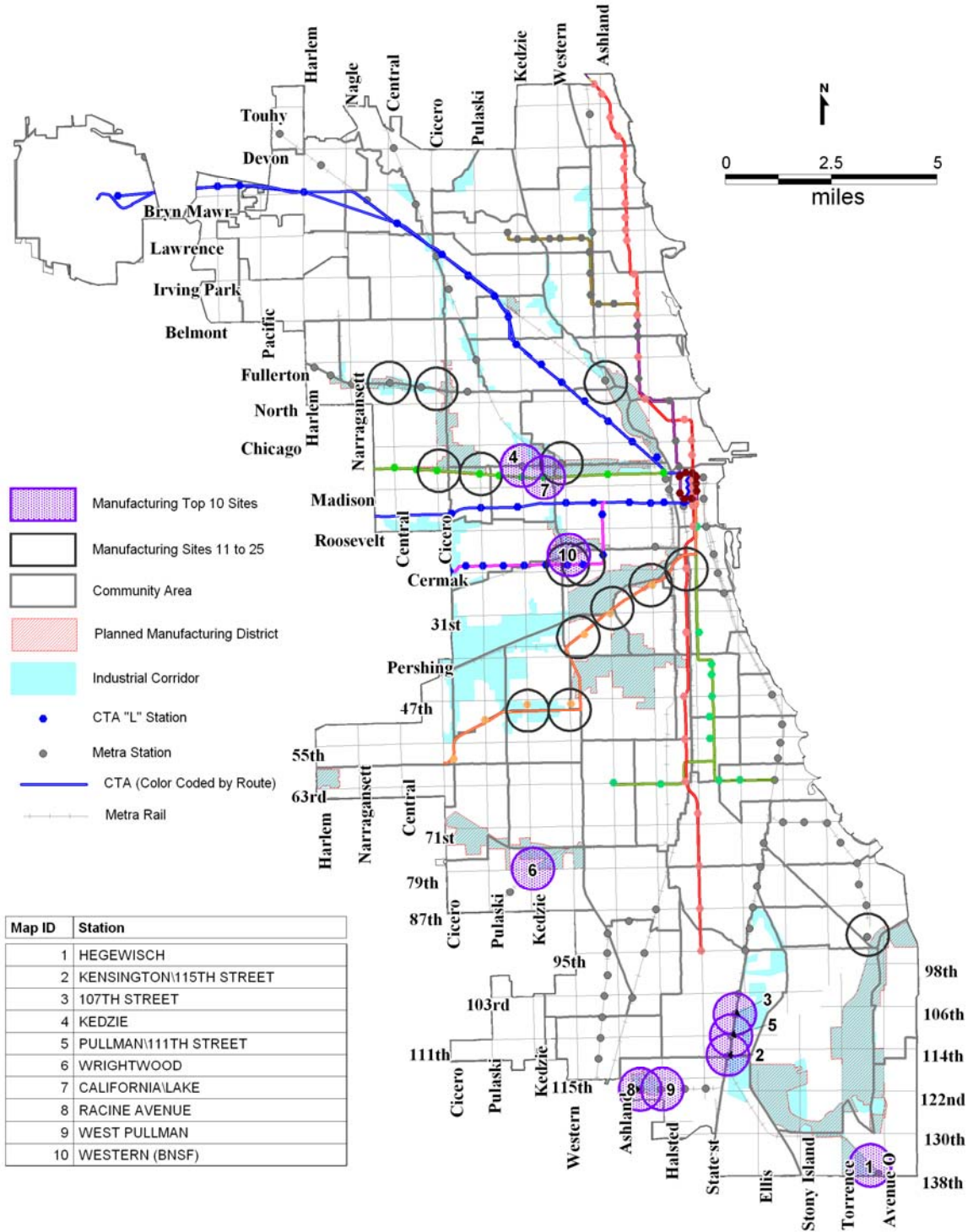
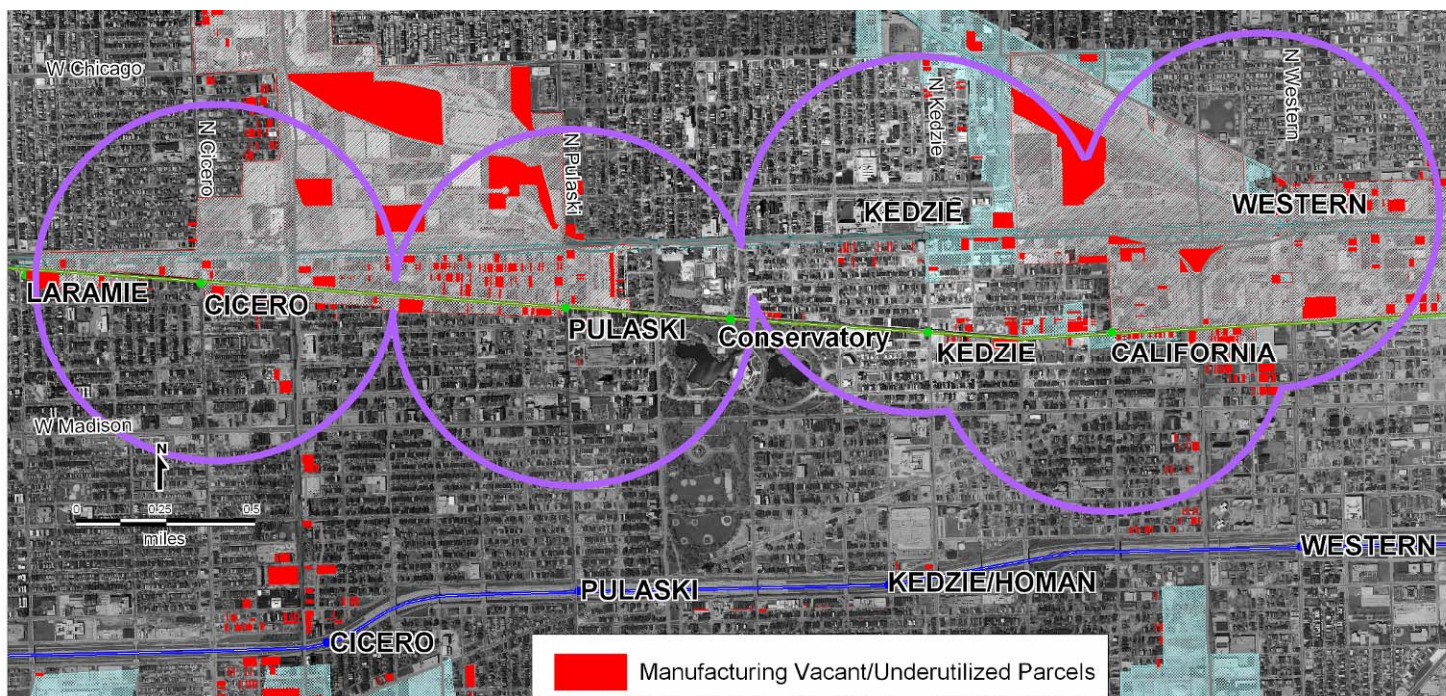


Figure 4: Potential Manufacturing-oriented Transit Zone Cluster

These clusters of highly-ranked sites on Chicago's West side would ideally foster business-to-business relationships, which create operational efficiencies and reduce both transportation costs and greenhouse gas emissions. Manufacturing-zoned vacant land presents opportunities for infill development, as do underutilized parcels that generate little in the way of property tax revenues or well-paying jobs.



Ensuring Adequate Buffers and Attracting Mixed Uses

The success of manufacturing operations depends largely on their ability to coexist with nearby developments. Placing buffers between heavy industrial uses and nearby residential and commercial structures allows neighborhoods to minimize aesthetic inconsistencies, noise pollution, or other disruptions that might be created by industrial activities. The C3 zoning classification serves just this purpose, allowing lighter manufacturing or appropriate commercial uses to act as buffers between less compatible uses. C3 has been scarcely applied, even in areas that are ideal for this flexible designation.

***C3 Commercial, Manufacturing, and Employment** zoning districts can accommodate commercial and lighter manufacturing uses on large sites with primary access to major roadways. This classification serves as a buffer between manufacturing-zoned areas and nearby sites zoned for retail, residential, office or other uses (Municipal Code of Chicago, 17-3-0107).*

As new industrial jobs come into the South and West Sides— since those areas tended to score higher — demand for additional commercial uses should also increase to meet the needs of new workers and existing residents. The sites presented in the following section should be examined in relation to the manufacturing opportunities above, enabling an appropriate mix of development in areas where overlapping demands exist.

Smarter Commuting to Commercial Development

This portion of the analysis selects transit zones ideally suited for new commercial establishments – including retail operations and offices. The Selector screened for densely populated areas with high aggregate incomes, as a large pool of employees and a strong customer base are fundamental to achieving a sustainable volume of sales. An average stock of existing businesses was also a priority, as a market already saturated with many establishments would prohibit new ones from forming, while an area with too few would generally increase the risk of investment and decrease the likelihood of new developments.



***Aggregate Income** is an important variable used to determine market strength. It measures the combined income of households surrounding each transit zone, or the total buying power available nearby. For example, 10,000 people with an average annual income of \$20,000 will have four times the spending power of 1,000 people with an average income of \$50,000. Therefore, densely populated areas can have tremendous potential in the eyes of investors.*

Finally, the Selector ranked highly those transit zones with average volumes of vacant land zoned to accommodate commercial uses or planned development (PD). All 11 variables used in the commercial employment analysis are listed in the appendix.

***Planned Development (PD)** is a form-based zoning classification that ensures new projects are compatible with the character of existing neighborhoods. Appropriate urban design patterns are emphasized while allowing for a more flexible application of traditional zoning standards to encourage creative, attractive, economically viable structures (Municipal Code of Chicago: 17-8-0100).*

Table 2: Potential Commercial-oriented Transit Zones

The Selector identified the following station areas as ideal candidates for commercial development. Station areas on the North Side rank especially high due to the greater levels of aggregate income and existing businesses. Locations to the south, however, exhibit a higher level of need for “destination” retail establishments that meet unique demands or attract customers from a broad geographic area.

Site	Station	Route	Aggregate Income in Proximity to Station Area (millions of dollars)	Existing Businesses
1	Berwyn	CTA Red Line	6,563	369
	Argyle	CTA Red Line	6,957	364
	Lawrence	CTA Red Line	7,487	371
	Wilson	CTA Red Line	7,913	312
	Sheridan	CTA Red Line	9,533	298
	Addison	CTA Red Line	10,543	474
2	Howard	CTA Purple, Red, Yellow Lines	4,715	184
	Jarvis	Red Line	4,562	165
	Rogers Park	Metra Union Pacific North	5,329	193
	Morse	CTA Red Line	4,861	171
3	Western	CTA Blue Line (Congress)	4,472	138
4	Norwood Park	Metra UP Northwest	4,156	98
5	Pullman/111 th Street	Metra Electric	2,107	63
6	Cumberland	CTA Blue Line (O’Hare)	3,508	103
7	California	CTA Blue Line (O’Hare)	7,131	228
8	Southport	CTA Brown Line	10,856	501
9	Western	CTA Brown Line	7,461	305
10	Rockwell	CTA Brown Line	7,166	269

Figure 5: Potential Commercial-oriented Transit Zones

Red, Brown and Blue Line station areas to the north and west were prioritized highly by the Selector, yet several Orange Line transit zones were not selected despite their proximity to high aggregate income. This is likely due to extensive bus turnaround facilities and parking lots that constrain opportunities on otherwise developable land. Several station areas on the Green Line have ample vacant land but low surrounding aggregate income and would likely require significant public subsidies to make development feasible.

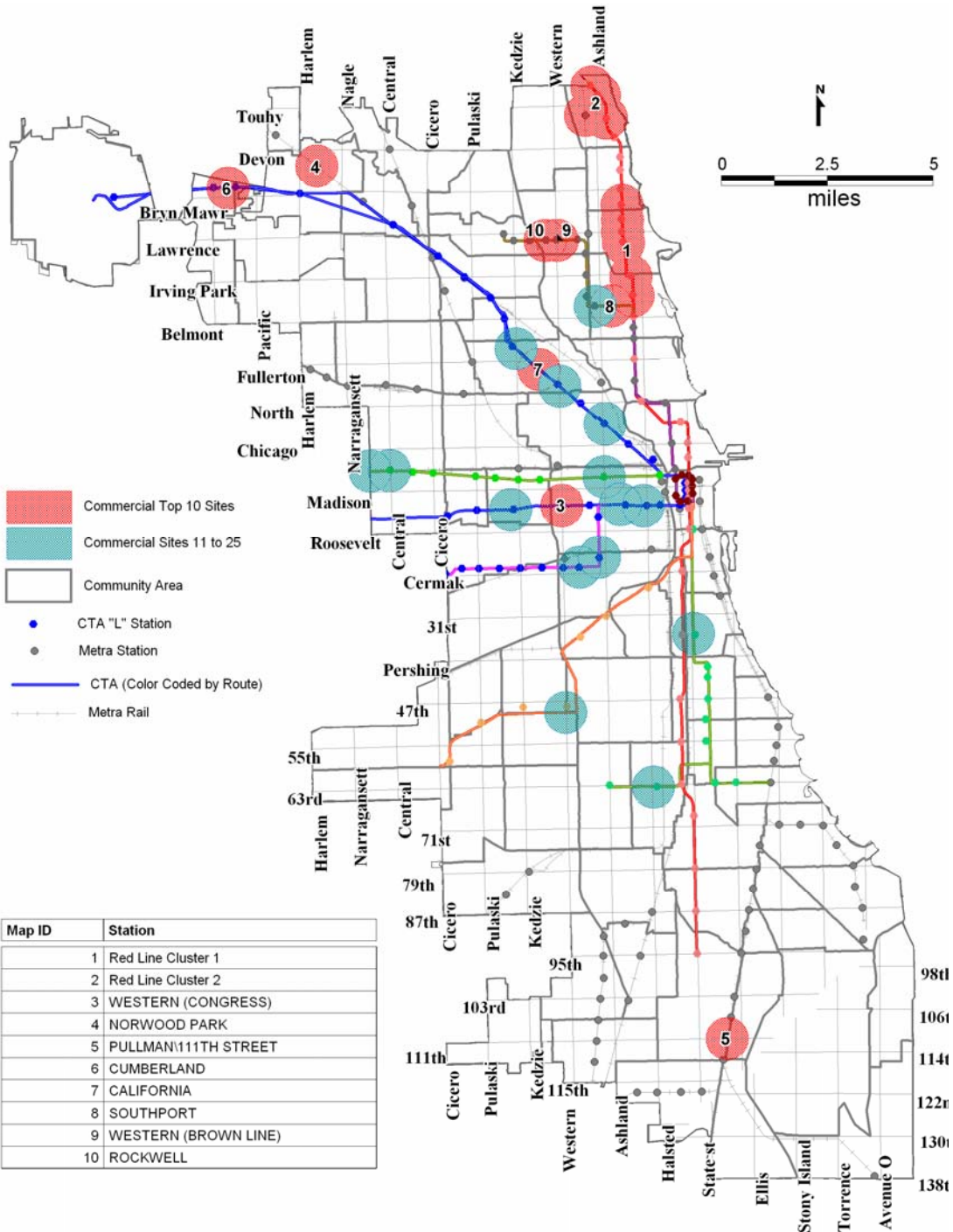




Figure 6: Potential Commercial-oriented Transit Zone Cluster

Some individual transit zones may benefit from their close proximity to other high-potential sites. This map zooms in on a potential large-scale commercial development cluster (identified as Red Line Cluster 2 in Figure 5) that stretches from Addison to Berwyn on the Red Line.

Gauging Market Strength

Transit is a major incentive for business development, but market potential is also essential to attracting investment. The demand for specific types of office and retail uses in each transit zone should be assessed in more thorough market analyses. For example, differentiating between the demand for convenience retail – establishments meeting the general, daily needs of the public – and destination retail – stores to which people might be willing to travel further in order to meet more unique demands – is a necessary step in determining viability.

The scarcity of grocery stores in some lower-income, mostly African-American neighborhoods presents an opportunity for retail investment, but retailers may be reluctant to locate in areas with low existing sales volumes and high vacancy rates. Public incentives and funding mechanisms should be explored to entice development in areas with less perceptible commercial demand. Additionally, transit zones that qualify for C3 or mixed-use zoning should be sought out, allowing area employees and residents to access amenities that are otherwise out of reach by way of transit. These and other suggestions are discussed in the following section.

Recommendations for Policy and Further Research

Utilize C3 Zoning

Further analysis should pay close attention to those transit zones having high potential for more than one type of development. The City has instituted a zoning district known as C3 to act as a buffer between manufacturing uses and incompatible residential and commercial developments. This classification is currently underutilized in industrial corridors with PMDs, even in cases where its application appears to be wholly justified. Expanded opportunities for developable buffers should be identified in order to foster vibrant, multi-use transit centers that serve area residents as well as workers. Utilizing C3 zoning will screen residents from the noise and unsightliness of heavy industry, provide workers with better access to goods and services, and enable complementary office uses to locate near industrial operations.



Ensure Healthy Competition for Manufacturing Investment

Local Industrial Retention Initiative (LIRI) Groups offer useful economic development assistance to manufacturing operations and communicate industry-related issues to the City of Chicago. Because industrial corridors are frequently represented by more than one LIRI organization, however, LIRI groups attempting to attract investment and services to industrial districts may be working at cross purposes to each other. Further studies should determine the number of LIRI groups necessary to represent an industrial corridor and the most effective strategies for working collaboratively to improve their respective districts. Partnerships between groups might aid in cultivating the clusters of potential manufacturing development opportunities highlighted in this report.

Assess the Viability of Planned Manufacturing Districts

A market study is required to determine short-term and long-term demand for manufacturing jobs in Chicago's 15 PMDs. The City began establishing these districts in 1988, in locations with unique transportation assets, such as access to freight rail, highways, and public transit. These areas were experiencing strong market pressures for residential and commercial conversions that threatened to displace thriving industrial operations. Goose Island and North/Clybourn were among the first PMDs created to protect local industry from such encroachments, and each achieved considerable creation and retention of manufacturing employment.

Based on the early success of PMDs, the City rationally continued designating new ones for the next two decades. But in some cases, the same market pressures were not present, nor were strong organizational infrastructures in place to serve existing manufacturers and promote the area to prospective businesses. After 20 years of industrial decline, it may be necessary for the City to reexamine its current stock of PMDs and Industrial Corridors, prioritize its industrial retention activities, and target them to the most viable areas, allowing others to be repurposed to accommodate more marketable developments.

Table 3: 2004 Jobs in and around Planned Manufacturing Districts

The West Pullman, Lake Calumet, and Greater Southwest PMD areas contain the lowest densities of manufacturing jobs. The West Pullman district and surrounding area also exhibits the lowest total employment, while the Clybourn and Pilsen PMD areas have the lowest number of manufacturing jobs in proportion to total jobs. These estimates are based on 2004 LED Census Tract Data. Many Census tracts are only partially contained by PMD boundaries, therefore these figures are representative of areas greater than the PMDs themselves. Nonetheless, this table provides useful metrics for beginning to assess market demand within and around each PMD, showing those areas that have a strong mix of uses as well as those that have an overall need for job growth. Further research should identify opportunities for improving the viability of those districts containing lower levels of employment.

PMD Area	Total Jobs	Total Manufacturing Jobs	Percentage Manufacturing Jobs	Total Jobs per Acre	Total Manufacturing Jobs per Acre
Armitage	665	223	34%	3.8	1.3
Chicago-Halsted	729	187	26%	11.6	3
Clybourn	2,021	208	10%	16.7	1.7
Elston	3,361	461	14%	12	1.6
Goose Island	4,481	1,083	24%	23.2	5.6
Greater Southwest	3,704	1,051	28%	3.8	1.1
Harlem	737	488	66%	5.1	3.4
Kennedy	695	267	38%	12.2	4.7
Kinzie	8,177	1,960	24%	13	3.1
Lake Calumet	2,440	1,282	53%	0.7	0.4
Northwest	4,280	1,329	31%	5.3	1.7
Pilsen	9,595	1,288	13%	8.8	1.2
Stockyards	12,778	7,512	59%	8.6	5
West Pullman	151	60	40%	0.7	0.3
Western-Ogden	2,573	731	28%	6.9	2

Create, Reinstate and Sustain Key Transit Stops and Routes

It is essential that transit connections be made available in areas with a strong employment base. While the cost of transit station construction is prohibitive – on the order of \$30 million – funding opportunities such as tax increment financing and Special Service Areas do exist for new stops in key areas.

Metra Station Maintenance

While all Metra stations are in usable condition, maintenance and upgrades of some transit stops, such as the Kedzie station, have not kept pace with those in other areas of the city. The Regional Transit Authority (RTA) should ensure that the quality of existing stations is consistent throughout the region. Toward this end, the RTA is completing an audit of all public transportation facilities within the region to serve as a baseline conditions assessment that will inform future capital improvement decisions. Prioritizing those stations most immediately in need of capital improvements will allow public investments, such as Federal Transit Administration New Start funds, to be appropriately allocated.

Metra BNSF

A stretch of Damen Avenue – from Grand Avenue to I-290 – currently lacks convenient train access, and consequently experiences a high volume of cars traveling to manufacturing jobs on the north end, the Medical District to the south, those seeking entertainment at the United Center, and residents going to and from homes throughout the area. The Metra BNSF line to Aurora and Naperville has stops at Western and Halsted but lacks a station at or near Ashland Avenue where customers could easily transfer to the Pink Line and connect to jobs in the Medical District.

CTA Green Line

A new CTA Green Line stop at Damen Avenue and Lake Street would fill an important gap among current CTA and Metra routes, giving employees and customers of area businesses, local residents and visitors to the United Center a convenient alternative to driving to this heavily congested area. This station could be partially funded by tax increment financing (TIF) funds secured by the Industrial Council of Nearwest Chicago (ICNC) – a business incubator and LIRI group in the Kinzie Industrial Corridor – as well as other innovative public-private partnerships.

Elston/Clybourn Bus Route #41

The Clybourn PMD also poses transportation challenges, as many workers, residents and shoppers clog nearby streets and compete for parking. This congestion may be attributed, in part, to the 1997 discontinuation of Elston/Clybourn bus route # 41. The area has become an increasingly popular retail destination, and will likely attract more traffic as new commercial and residential developments continue to materialize. Job Access Reverse Commute (JARC) funding should be requested by the CTA to reinstate a route along Clybourn that allows industrial employees to efficiently and cost-effectively access the PMD.

Leverage Tax Increment Financing to Assemble Vacant Parcels

TIF funds can be utilized by developers to achieve infrastructural improvements as well as buy land. Negotiating the terms of such an agreement can be a challenging process to both private investors and municipal officials. Developers seeking to accumulate vacant properties discussed within this report will certainly benefit from a well-executed public-private venture, and further analysis should highlight steps developers can take in turning these vacant parcels into generators of new wealth for their enterprises and the community at large.

Tax Increment Financing (TIF) districts are created to encourage private development and improve public infrastructure in blighted areas of the city. Once developers and city officials have negotiated the terms of the TIF and made a formal agreement, all new property tax revenues generated in the TIF district are re-invested in that same area or “ported” to adjoining TIF districts for a period of 23 years. Generally, until the development begins to produce tax revenues from rising property values, the developer doesn’t receive any funds from the city. However, the city does have the option of issuing a bond against the pledge of future property tax revenue to acquire land or otherwise get the development on its feet. This allows developers to complete more immediate infrastructure improvements.

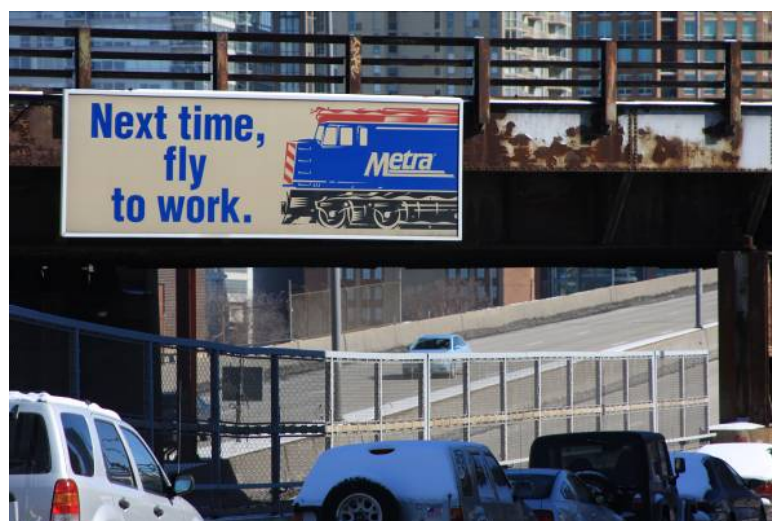
Promote Incentives for Better Commuting

Public and private programs that reward employees for commuting by alternative modes of transportation need to be more aggressively pursued, and further studies should address situations in which employees commute by car despite having transit located near their places of work, such as is the case in the Clybourn PMD. Concerted efforts among employers, employees, transit agencies and advocates should be carried out in order to take full advantage of existing and potential congestion-cutting incentives.

Transit Benefit Fare Program

The RTA/CTA Transit Benefit Fare Program allows employees to deduct up to \$230 pre-tax dollars per month from their paychecks to pay for transit fares, offering potential savings of up to \$1,000 on their annual transit expenses. The program also benefits employers in that they can save up to \$216 annually per employee from reduced Federal Insurance Contribution Act (FICA) and unemployment taxes. Despite the obvious advantages of this program, a low number of employers offer their staffs this benefit. The RTA, CTA and transit advocates should strongly encourage businesses located in or

around congested areas to offer the Transit Benefit Fare Program to their employees.



Discourage Overabundant Parking

In addition to transit subsidies, incentives that counteract the perk of free parking in new employment centers are essential to curbing automobile dependence and congestion. Municipal efforts to reduce parking, such as encouraging employers to reward workers for utilizing alternative modes of transportation, and educational campaigns that highlight the hidden costs of parking, are crucial steps in eliminating unnecessary parking lots that prohibit walkable,

vibrant, revenue-generating spaces. The Chicago Metropolitan Agency for Planning's 2009 report, *Parking Management Strategies*, and CNT's *Paved Over* (2006) highlight the environmental and economic repercussions of overabundant parking, and offer best practices for reducing its supply and demand.

Identify Opportunities for "Transit-oriented Nourishment"

The benefits of transit-oriented development extend beyond affordable access to employment. Food deserts, or areas with a deficiency of supply and access to nourishing food sources, are a pressing concern in many lower-income areas. Those sites lacking adequate grocery stores and other means to nutritious foods should be targeted by city development agencies, community groups and commercial developers.

A 2009 report by Mari Gallagher Research Group, *Examining the Impact of Food Deserts on Public Health in Chicago*, identified much of Roseland, Austin, East Garfield Park and Englewood as food deserts. Several sites in both the manufacturing and commercial analyses lie in these neighborhoods, such as the Pullman/111th Street station area on the Metra Electric line and the Halsted and Ashland stops along the Green Line. Developing retail establishments that meet the dietary needs of people that work and reside in currently underserved station areas will go a long way in improving the overall quality of life in Chicago.

Conclusion: Transit-friendly Economic Development Opportunities Abound

This report applies a strong spatial analysis to seek out the highest-potential manufacturing and commercial development opportunities within a half-mile of Chicago transit stations. The clusters of transit zones highlighted in each section should receive special attention for their ability to generate critical mass in adjacent areas. However, transit alone will not magically create development. Thorough feasibility studies must be conducted to further assess market potential and establish the specific types of development each station area is capable of accommodating.

The recommendations for future analysis and policy formation each require knowledge sharing and concerted efforts among multiple parties in the private, public and non-profit sectors. Achieving optimal conditions for development by way of carefully coordinated municipal land use strategies, ensuring the effectiveness of LIRI groups in the promotion of manufacturing employment opportunities, addressing inefficiencies in existing transit lines, capitalizing on public financing to revive vacant land, harnessing strategies to encourage better commuting alternatives, and developing better retail food options in underserved areas are necessary next steps in order for transit zones to become more prosperous and convenient hubs of commerce in the city of Chicago.

In addition to the variables used to select high-priority sites in this analysis, other factors should be taken into account to further assess viability in each station area. While vacant land was quantified, the prevalence of empty buildings was not included due to the difficulty of obtaining that data. Realizing that new construction can be costly and energy-intensive, further market studies should also examine occupancy rates to identify opportunities for the reuse of buildings.

Convenient and well-planned transit has the ability to catalyze job creation, alleviate congestion, reduce greenhouse gas emissions, cut personal transportation expenses, and create more synergistic relationships among densely populated organizations and individuals. Capitalizing on existing assets, reinvigorating underutilized land, and augmenting the tax base are essential to more efficient land use and greater prosperity in Chicago's underserved neighborhoods. Redirecting jobs and people to transit will ultimately enable the region to develop long-term growth patterns that are more ecologically and economically sustainable.

Appendix

Table 1: Variables Used by Selector to Identify Potential Manufacturing-oriented Transit Zones (TZ)

The “proximity” estimates are calculated using an inverse-square law to model the quantity and the distance of the reported phenomena.

	Variable	Ideal Value	Description
1	Employment	Low	The total number of jobs within a half-mile TZ. Areas with a low number of actual workers help indicate a need for job creation. Source: 2004 Census Longitudinal Employment Dynamics (LED).
2	Aggregate Jobs in Proximity to TZ	High	Derived from an economic gravity model, this measures the proximity of all jobs in the Chicago region to a given TZ. A high number indicates that a TZ is relatively close to these job centers. A transit station with low total employment within a half mile but high employment outside of the TZ demonstrates a need for job creation. Source: 2004 Census LED.
3	Aggregate Population in Proximity to TZ	High	Derived from an economic gravity model, this measures the proximity of all people in the Chicago region to a given TZ. A higher number represents more potential customers and employees. Source: 2007 Geolytics demographic estimates.
4	Transit Access Index (TAI)	High	A measure of the total bus and rail trips per hour in a given TZ. Source: CTA and Metra ridership.
5	Intersecting Transit Zones	High	This is the overlap that occurs between Metra and CTA TZ. It does not include any overlaps that occur within one transit system. Source: Metra and Chicago Dept. of Environment GIS layers.
6	Industrial Corridor Acres	High	In a given TZ, the total acres designated as industrial corridors. Source: Chicago Department of Community Development (CDCD) map of industrial corridors.
7	Manufacturing (M)-zoned Acres	High	The total acres of land in a TZ zoned M. High quantities signify strong potential for development. Source: CDCD GIS zoning layer.
8	Vacant M-zoned Acres	High	The total vacant acres in a TZ that are zoned M. High quantities signal strong potential for development. Source: CDCD GIS zoning layer.

9	Contiguous M-zoned Parcels	Low	Total count of M-zoned parcels that border other M-zoned parcels within (or partially within) a TZ. A small number of contiguous M-zoned parcels, coupled with a high average of contiguous M-zoned acres, indicates a TZ has larger tracts of land that may be easier for developers to assemble. Source: CDCD GIS zoning layer.
10	Contiguous Vacant M-zoned Parcels	Low	Total Count of vacant M-zoned parcels that border other vacant M-zoned parcels within (or partially within) a TZ. A small number of contiguous vacant M-zoned parcels, coupled with a high average of contiguous vacant M-zoned acres, indicates a TZ has larger tracts of land that may be easier for developers to assemble. Source: CDCD GIS zoning layer.
11	Average Contiguous M-zoned Acres	High	See Contiguous M-zoned Parcels. Source: CDCD GIS zoning layer.
12	Average Contiguous Vacant M-zoned Acres	High	See Contiguous Vacant M-zoned Acres.
13	PMD-zoned Acres	High	The total acres of land in a TZ zoned as a planned manufacturing district (PMD). High quantities signify strong potential for development. Source: CDCD GIS zoning layer.
14	Contiguous PMD-zoned Acres	High	Total count of PMD-zoned acres that border other PMD-zoned acres within (or partially within) a TZ. A high number of contiguous PMD-zoned acres indicates a TZ has larger tracts of land that may be easier for developers to assemble. Source: CDCD GIS zoning layer.
15	Contiguous PMD-zoned Parcels	Low	Total count of PMD-zoned parcels that border other PMD-zoned parcels within (or partially within) a TZ. A TZ containing a small number of contiguous PMD-zoned parcels, coupled with a high average of contiguous PMD-zoned acres, indicates more abundant tracts of land that may be easier for developers to assemble. Source: CDCD GIS zoning layer.
16	Contiguous Vacant PMD-zoned Parcels	Low	Total count of vacant PMD-zoned parcels that border other vacant PMD-zoned parcels within (or partially within) a TZ. A small number of contiguous vacant PMD-zoned parcels, coupled with a high average of contiguous vacant PMD-zoned acres, indicates larger tracts of vacant land that may be easier for developers to assemble. Source: CDCD GIS zoning layer.
17	Average Contiguous PMD-zoned Acres	High	See Contiguous PMD-zoned Acres.
18	Average Contiguous Vacant PMD-zoned Acres	High	See Contiguous Vacant PMD-zoned Acres.

Table 2: Top Potential Manufacturing-oriented Transit Zones and Selected Characteristics

Site	Station	Transit Line	Aggregate Jobs in Proximity to TZ	Vacant M-zoned Acres	Vacant PMD-zoned Acres	Average Contiguous Vacant M-zoned Acres	Average Contiguous Vacant PMD-zoned Acres	Average TAI
1	Hegewisch	Metra South Shore	224	30	14	43	17.5	5.6
2	Kensington/115th	Metra ME, South Shore	856	42	-	29	-	6.6
3	107th Street	Metra ME	600	49	-	73	-	6.1
4	Kedzie	Metra UP-W	2,068	10	15	1	20.2	9.0
5	Pullman/111th	Metra ME	893	31	-	53	-	7.0
6	Wrightwood	Metra SWS	770	1	27	1	17.4	4.8
7	California/Lake	CTA Green Line	1,878	14	17	1	11.3	11.2
8	Racine Avenue	Metra ME	486	0	46	0	15.9	7.1
9	West Pullman	Metra ME	276	2	37	0	18.7	8.4
10	Western	Metra BNSF	3,007	2	7	0	1.6	10.4
11	Clybourn	Metra UP-N, UP-NW	5,743	5	6	2	0.8	12.0
12	Hanson Park	Metra MD-W	1,645	5	11	3	7.6	6.1
13	Ashland	CTA Orange	3,767	3	3	0	12.1	8.1
14	Grand/Cicero	Metra MD-W	2,133	3	9	0	5.3	6.7
15	South Chicago (93rd)	Metra ME	1,141	17	6	2	2.3	6.2
16	Western Avenue	Metra MD-N, MD-W, NCS	3,596	5	22	0	6.2	11.4
17	Cicero/Lake	CTA Green	3,601	3	11	0	2.9	7.0
18	Western	CTA Pink	2,544	2	4	0	1.1	10.2
19	Western	CTA Orange	1,869	16	-	4	-	7.3
20	35th/Archer	CTA Orange	2,452	12	2	8	1.2	10.2
21	Pulaski/Lake	CTA Green	4,457	2	22	1	5.9	6.3
22	Cermack-Chinatown	CTA Red	6,118	4	2	1	1.0	19.0
23	Hoyne	CTA Pink	2,776	1	4	0	5.2	10.6
24	Kedzie	CTA Orange	4,298	15	-	4	-	6.4
25	Halsted	CTA Orange	2,793	7	7	0	0.9	8.6

Table 3: Variables Used by Selector to Identify Potential Commercial-oriented Transit Zones

The City of Chicago Zoning Ordinance contains two classifications for commercial developments: Business (B) and Commercial (C). They both accommodate retail and office uses, but they vary in their allowance of specific types of establishments. For example, C-zoning allows for more auto-intensive uses, as well as taverns and liquor stores. Both types of zoning were weighted equally in this analysis. The “proximity” numbers are calculated using an inverse-square law to model the quantity and the distance of the reported phenomena.

	Variable	Ideal Value	Description
1	Aggregate Jobs in Proximity to TZ	Average	See Table T-1.
2	Aggregate Income in Proximity to TZ	Average	Based on an economic gravity model. The combined income of households surrounding each TZ. This variable is also an adequate indicator of relative population density in proximity to each TZ. Source: 2007 GeoLytics demographic estimates.
3	Businesses in TZ	Average	The total number of establishments within a TZ. A TZ with a low number of workers helps demonstrate the need for job creation, but may signify lower market potential. One with high employment may indicate limited opportunities for new development. Therefore, an average number of workers is ideal. Source: 2004 Census LED.
4	Vacant PD-zoned Acres	Average	A TZ with a high total of vacant land zoned for planned development (PD) helps demonstrate the need for job creation, but may signify lower market potential. One with a low number of vacant PD-zoned acres may indicate limited opportunities for new development. Therefore, an average number of vacant PD-zoned acres is ideal. Source: CDCD GIS zoning layer.
6	Vacant C-zoned Acres	Average	A TZ with a high total of vacant C-zoned acres helps demonstrate the need for job creation, but may signify lower market potential. A TZ with a low number of vacant C-zoned acres may indicate limited opportunities for new development. Therefore, an average number of vacant C-zoned acres is ideal. Source: CDCD GIS zoning layer.
7	Total C -zoned Acres	High	A high total of C-zoned acres indicates that a TZ has larger tracts of land that may be easier for developers to assemble. Source: CDCD GIS zoning layer.
8	Contiguous Vacant C-zoned Acres	Average	The average number of vacant C-zoned acres that border other C-zoned acres within (or partially within) a TZ. A high number of contiguous vacant C-zoned acres might indicate the TZ has lower market strength, whereas a low number of contiguous vacant C-zoned acres may demonstrate an oversaturated market. Therefore, a TZ falling somewhere in between is ideal. Source: CDCD GIS zoning layer.

9	B-zoned acres	High	A high total of B-zoned acres indicates that a TZ has larger tracts of land that may be easier for developers to assemble. Source: CDCD GIS zoning layer.
10	Vacant B-zoned Acres	Average	A TZ with a high total of vacant B-zoned acres helps demonstrate the need for job creation, but may signify lower market potential. A TZ with a low number of vacant B-zoned acres may indicate limited opportunities for new development. Therefore, an average number of vacant B-zoned acres is ideal. Source: CDCD GIS zoning layer.
11	TAI	High	See Table T-1.

Table 4: Top Potential Commercial-oriented Transit Zones and Selected Characteristics

Site	Station	Transit Line	Aggregate Income in Proximity to TZ (millions of dollars)	Aggregate Jobs in Proximity to TZ	Businesses	Vacant C- and PD-zoned Acres	Average Contiguous C-zoned Acres	Vacant B-zoned Acres	Average TAI
1	Berwyn	CTA Red	6,563	71,744	369	0.9	3	0.5	14.9
	Argyle	CTA Red	6,957	75,931	364	1.5	3	0.8	14.7
	Lawrence	CTA Red	7,487	79,050	371	1.5	3	2.6	15.1
	Wilson	CTA Red	7,913	81,352	312	1.5	3	3.1	15.3
	Sheridan	CTA Red	9,533	88,668	298	-	4	0.5	17
	Addison	CTA Red	10,543	95,943	474	0.3	3	0.7	19.1
2	Howard	CTA Purple, Red, Yellow	4,715	55,320	184	1.2	4	0.6	20.3
	Jarvis	CTA Red	4,562	55,478	165	1.3	3	0.6	18.8
	Rogers Park	Metra Union Pacific North	5,329	60,845	193	0.2	3	0.2	11.2
	Morse	CTA Red	4,861	56,507	171	0.2	2	0	11.5
3	Western	CTA Blue (Congress)	4,472	151,643	138	8	12	7	11.2
4	Norwood Park	Metra UP Northwest	4,156	70,657	98	-	15	0	6.1
5	Pullman/111 th Street	Metra Electric	2,107	25,548	63	15	12	0	7
6	Cumberland	CTA Blue (O'Hare)	3,508	70,037	103	1	6	-	4.8
7	California	CTA Blue (O'Hare)	7,131	107,965	228	-	1	3	7.3
8	Southport	CTA Brown	10,856	103,695	501	-	3	1	14.6
9	Western	CTA Brown	7,461	82,325	305	-	2	0	11.4

10	Rockwell	CTA Brown	7,166	80,881	269	-	2	0	9.7
11	Hoyne	CTA Pink	3,897	135,415	126	4	2	1	10.6
12	18 th Street	CTA Pink	4,120	167,586	140	4	1	1	9.6
13	Austin/Lake	CTA Green (Lake)	5,406	81,594	116	0	4	1	9.7
14	UIC-Halsted	CTA Blue (Congress)	5,620	501,733	725	1	9	0	27.2
15	Central/Lake	CTA Green (Lake)	5,097	83,244	57	3	3	1	8.1
16	35-Bronzeville-IIT	CTA Green (Jackson Park)	3,445	120,888	100	5	2	2	12.4
17	Kedzie-Homan	CTA Blue (Congress)	4,162	103,659	63	12	2	3	9.3
18	Division	CTA Blue (Dearborn)	8,088	197,507	355	0	1	3	9.3
19	Ashland	CTA Green (Lake), Pink	6,108	259,432	394	5	2	1	11.5
20	Logan Square	CTA Blue (O'Hare)	6,661	99,080	270	-	1	1	7.1
21	Racine	CTA Blue (Congress)	5,413	335,612	388	5	2	1	13
22	Western	CTA Orange	3,625	69,911	76	-	3	1	7.3
23	Halsted	CTA Green (Englewood)	3,155	48,319	60	7	3	2	5
24	Paulina	CTA Brown	9,867	104,171	445	-	1	1	12.7
25	Western	CTA Blue (O'Hare)	7,667	122,354	333	2	1	3	8.4

Acknowledgements

The Lloyd A. Fry Foundation provided lead financial support for the development and production of this analysis, along with other work relating to mass transit and urban sustainability. The Center for Neighborhood Technology thanks the Foundation for its encouragement, flexibility, and support throughout this process. CNT takes full responsibility for the contents of this report.

The underlying research and data in this report was generated by Albert Benedict of CNT's Geographical Research and Information Department, with guidance pertaining to data analysis and cartography from Linda Young and Peter Haas. The report was written by Taylor McKinley and Tom Bethea, with project oversight from María Choca Urban. Additional support was received from CNT staff members David Chandler, Jacky Grimshaw, Rosie Hopkins, Kathrine Nichols, Ed Oser, and Kyle Smith. Special thanks also to Lindsay Banks, Steve DeBretto, David Kralik, Benet Haller, Mike Holzer, Nicole Nutter and Ted Wysocki for advice and guidance.



Scott Bernstein
President



Kathryn Tholin
Chief Executive Officer

Photo Credits: Page 3: Flickr user vxla; Page 6 (top): Flickr user Steven Vance; Page 6 (bottom): Flickr user TheeErin; Page 7 (left): CNT; Page 7 (right): CNT; Page 11: Flickr user j.o.h.n. walker; Page 15: CNT; Page 18: Flickr user Clint Bautz

About the Center for Neighborhood Technology

The Center for Neighborhood Technology (CNT) is an award-winning innovations laboratory that has shown communities in Chicago and across the country how to develop more sustainably since 1978. CNT promotes more efficient use of undervalued resources and reveals inherent advantages comprised by the built and natural environment.

As a creative think-and-do tank, we research, promote, and implement innovative solutions to improve the economy and the environment; make good use of existing resources and community assets; restore the health of natural systems and increase the wealth and well-being of people—now and in the future. CNT’s unique approach combines cutting edge research and analysis, public policy advocacy, the creation of web-based information tools for transparency and accountability, and the advancement of economic development social ventures to address problems in innovative ways.

CNT works in four areas: transportation and community development, natural resources, energy and climate. Its two affiliates, I-GO™ Car Sharing and CNT Energy, enable individuals and building owners to adopt a more sustainable lifestyle while decreasing their household expenses in transportation and energy.

CNT is a recipient of the 2009 MacArthur Award for Creative and Effective Institutions.

More information is available at www.cnt.org

Copyright © 2010 by the Center for Neighborhood Technology
2125 West North Ave, Chicago, IL 60647
Tel: 773.278.4800 • Fax: 773.278.3840