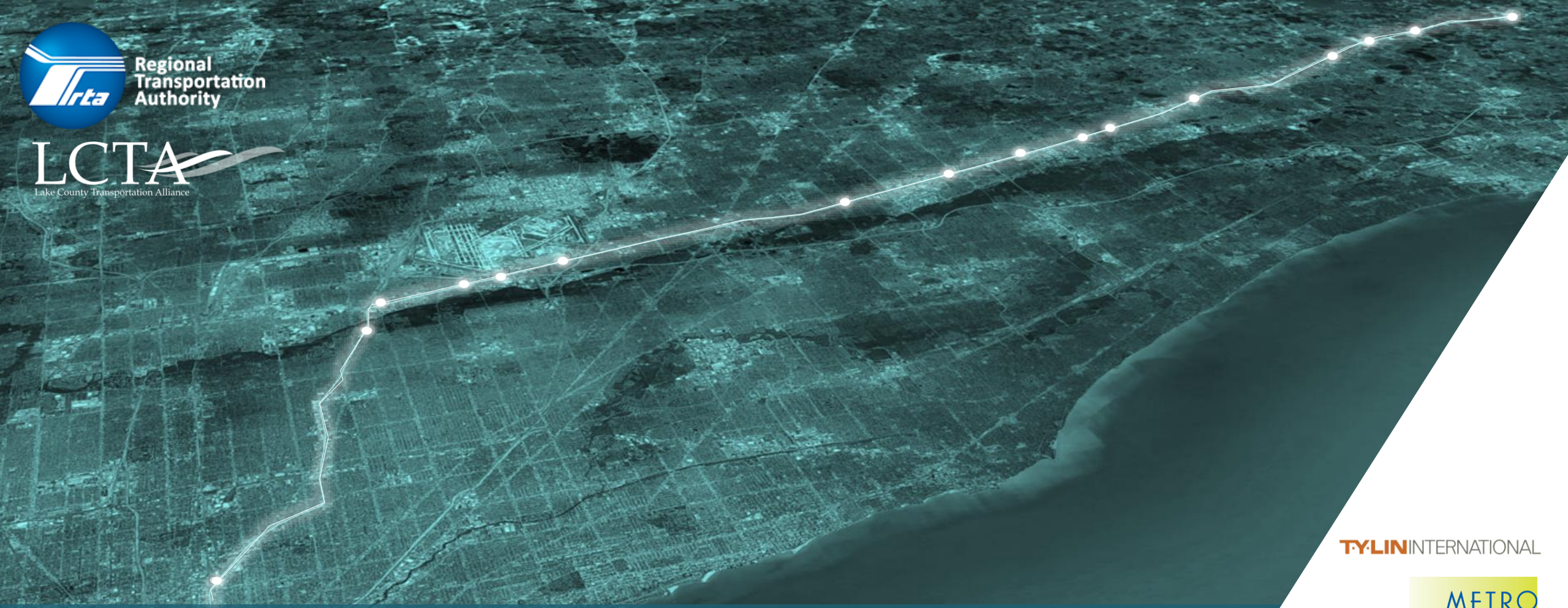

Regional Transportation Authority

LCTA
Lake County Transportation Alliance

# NORTH CENTRAL SERVICE (NCS)

## Corridor Analysis & Implementation Study

February 20, 2020

T·Y·LIN INTERNATIONAL

METRO strategies

SBFRIEDMAN

VISION
ECONOMICS
FINANCE
STRATEGY
IMPLEMENTATION

January 27, 2020

VILLAGE OF
Mundelein
Incorporated in 1909

Dear NCS Steering Committee and Stakeholders:

Re: Introduction - North Central Service (NCS) Corridor Analysis and Implementation Study

**NCS Analysis Concept**
A vision resulting from conversations between Metra, the Village of Mundelein, the Regional Transportation Authority of Chicago (RTA), and the Lake County Transportation Alliance (LCTA) to research potential funding mechanisms for a transit corridor across multiple jurisdictions through the use of local funding sources. The idea would be to transform how capital and operational costs are funded in the Chicago Region, using the NCS line as a template.

**NCS Line History**
"At 5:27 a.m. on Monday, August 19, 1996, a regular service Metra train rolled south out of Antioch for the first time, inaugurating the first new commuter train line in the Chicago area in about 70 years: the North Central Service was born."- Metra website (https://metrarail.com/about-metra/our-history/ncs-history). The page goes on to quote mayors of various towns along the line touting the opportunities this new train line would bring in terms of development and access.

In preparation for this inaugural day, Metra visionaries spent hundreds of millions of dollars to enhance the freight rail line so that ultimately, in 2006, four new stations on the North Central Service could open. These improvements, combined with double tracking of large portions of the line and the CN rerouting freight traffic south of Mundelein, enabled service to double from 10 to 20 trains per day.

**Current Conditions**
The 2006 expansion initially brought ridership growth; however, ridership stagnated after a few years due to several factors:

- Infancy of the line;
- The Great Recession;
- Need for development around train stations;
- Changes in travel patterns and habits of riders; and
- Need for changes in service on the line.

Station communities, the RTA, Metra, and the Chicago Metropolitan Agency for Planning (CMAP) have collectively made efforts to address these factors with available resources. Adoption of planning documents that led to zoning changes and preparation for development and redevelopment have been ongoing- some coordinated with other agencies, some independently. Each station and stakeholder organization have documents that laud the opening of a commuter station, which would serve as an asset to the community. The NCS line, however, is constantly in jeopardy of being cut, not today, but at some point as running the service without any modifications would not make economic sense.

**This leads to two important questions:**

1. Should this be prevented from happening?
2. How can we prevent this from happening?

**Participate or Pass?**
In the simplest of opinions, it is too early to allow the investments of the line to-date to go for naught and fold. Benefits of the line can still be realized, and upward growth of ridership could be achieved through various actions. As previously stated, this line is in its infancy and quickly coincided with a recession just as communities were beginning to understand the value of "transit-oriented development." The line has some growth-inhibiting factors such as the freight traffic, which should be accounted, but are not insurmountable. Additionally, more time should be given to working with other agencies to adapt the schedule for the needs of current and future riders.

In stakeholder communities, opportunity and excitement are present when discussing economic development opportunities in station areas, only to be deflated when an outline of available service is provided. Often this leads to a

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review of the transit agencies and where service is heading. The impression has been that there are agencies acting in a silo and making moves independent of each other, which creates unclear paths to obtain information and skepticism that change can be realized. However, in more recent history, communication opened, including several Metra-led meetings in the suburbs to transparently discuss the state of Metra. These discussions and Metra's own website indicate the ongoing analysis of stations and lines. The picture outlined is one of financial struggle and significant shortfalls for maintenance, capital, and operational funds, with a reliance on an unsustainable funding systems.

**Action**
For Mundelein, there was concern for the longevity of the NCS line. Millions of dollars and countless hours had been invested around the Transit-Oriented Development. After gaining feedback from community residents and businesses, meeting with developers, agencies and other communities, and reading articles professing a gloomy transit future, there came a strong desire and need elevate the conversation and have interagency coordination. No benefit comes from public transit continuing with the status quo, specifically for the North Central Service. After learning of the recent adoption of the Chicago Transit TIF for the CTA's Red Line-Purple Line Modernization Project, inspiration struck to figure out alternatives or enhancements to transit funding regionally. This led to the application to the CMAP/RTA Call for Projects seeking funding of this study through the RTA with support from LCTA and Metra. Concurrently, the Village engaged LCTA to provide a venue to bring together the various stakeholders. SB Friedman and their team of experts were hired after a review of submittals to an RFP and vetting their qualifications to perform the analysis.

To-date, a Steering Committee of Metra, RTA, LCTA, the Village of Mundelein, and the consultants has been created. A stakeholder group was formed from the municipalities that have stations on the line or interests in the line, such as the Chicago Department of Aviation and the O'Hare Airport, and the TMA of Lake-Cook. Four stakeholder meetings were held, with the final meeting for phase one concluding on October 21, 2019 with a presentation of funding scenarios. Summaries are available through both the RTA and the LCTA.

**Value**
Why would one community want to start this dialogue? What value is it to the communities that participate? What is the general value in public transportation and funding it? The planning, implementation, and benefits of a project like this is long-term. As with all long-term benefits, it needs to begin somewhere. Even a small amount of participation can potentially lead to a more sustainable transit system. It is the hope that the enhancements will at best help individual communities realize the visions of the transit-oriented developments and increase visitors and EAVs in the station areas, along with serving a greater number of transit riders. In the least, it can lead to the reduction of vehicles on the roadways that would bring much economic value to the region. Professor Joseph Schwieterman, a transportation expert from DePaul University, states that each Metra rider benefits non-riders every year by $4,699 through reducing congestion, crashes, roadway maintenance, parking needs, and pollution. A side benefit to these enhancements may be to move freight faster through the communities.

We implore stakeholders to please review further the NCS study findings and highly consider continued engagement in this partnership, which initially requires time and will ultimately need financial participation (to be determined), but will bring benefits to each community and to the region overall. Mundelein with the support of Lake County Transportation Alliance will be the immediate vehicle for conducting meetings in the next phase of the project.

Sincerely,

Amanda M. Orenchuk

Amanda M. Orenchuk, AICP
Director of Community Development
Village of Mundelein

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**SB FRIEDMAN LIMITATIONS OF ENGAGEMENT**

Our report is based on estimates, assumptions and other information developed from research, knowledge of the industry and meetings during which we obtained certain information. The sources of information and bases of the estimates and assumptions are stated in the report. While sources used are ones which we deemed reliable, no guarantee can be made as to their accuracy. Some assumptions inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by our analysis will vary from those described in our report, and the variations may be material.

Our report is intended for your information and should not be relied upon for any other purposes. Otherwise, neither the report nor its contents, nor any reference to our Firm, may be included or quoted in any offering circular or registration statement, appraisal, sales brochure, prospectus, loan or other agreement or document without our prior written consent.

# 01 INTRODUCTION & PURPOSE

# EXISTING NCS SERVICE CONDITIONS


## NORTH CENTRAL LINE

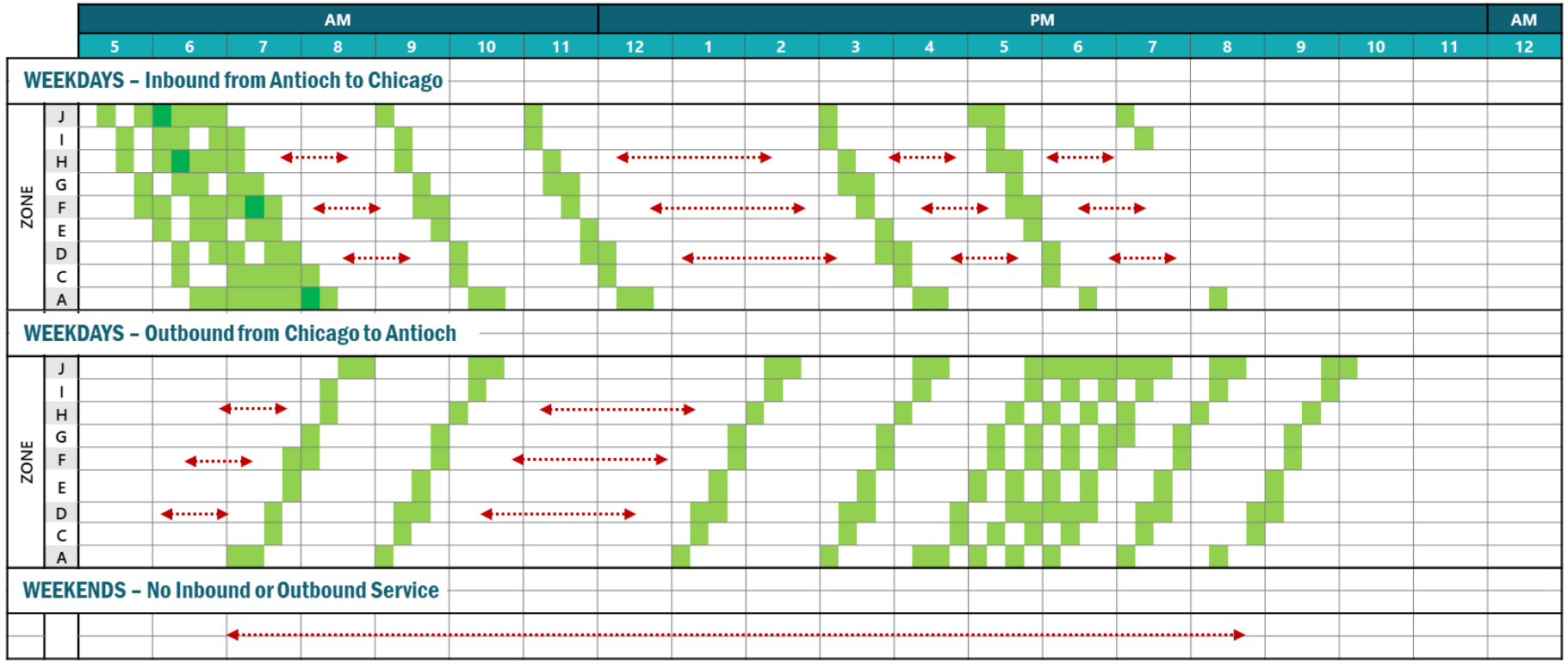
| | |
|---|---|
| 5,800 | 20 |
| WEEKDAY RIDERSHIP | TRAINS |
| 52.8 | 18 |
| MILES | STATIONS |

Metra's North Central Service (NCS) line serves communities in Cook and Lake Counties. As of December 2019, service comprised 20 daily trains on weekdays, with no weekend service. Ridership on the NCS line averages approximately 5,800 weekday riders, which places the line 10th out of 11 in terms of ridership for all Metra lines.

Google Earth; Metra; SB Friedman; US Census

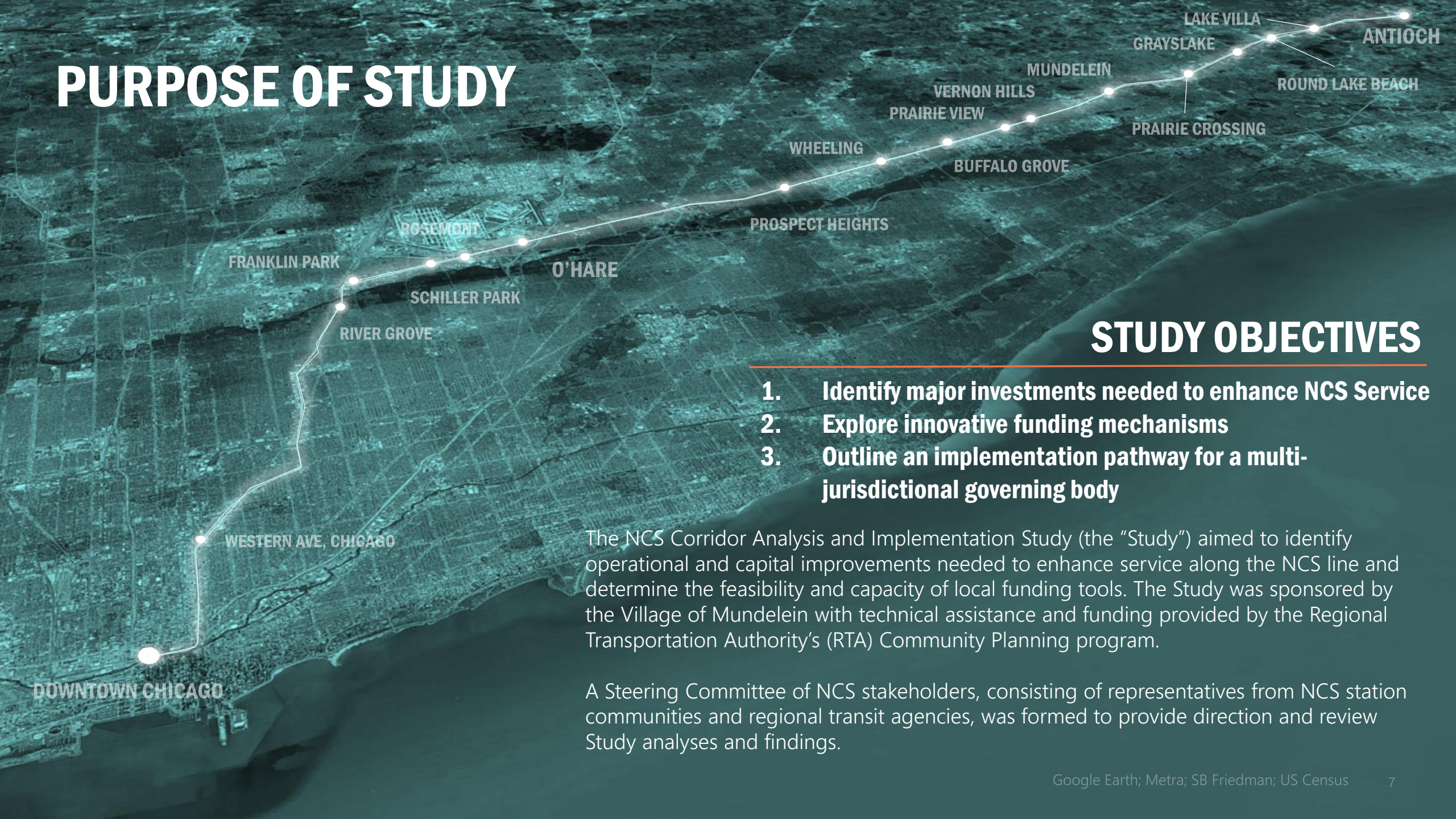
# EXISTING NCS SERVICE GAPS

The graphic below visualizes NCS service by zones in 15-minute increments. Zones are geographies by which Metra determines fare pricing. Current gaps (shown in red arrows) include mid-day, reverse commute, and weekend service.




Source: Metra

# PURPOSE OF STUDY




## STUDY OBJECTIVES

1. **Identify major investments needed to enhance NCS Service**
2. **Explore innovative funding mechanisms**
3. **Outline an implementation pathway for a multi-jurisdictional governing body**

The NCS Corridor Analysis and Implementation Study (the "Study") aimed to identify operational and capital improvements needed to enhance service along the NCS line and determine the feasibility and capacity of local funding tools. The Study was sponsored by the Village of Mundelein with technical assistance and funding provided by the Regional Transportation Authority's (RTA) Community Planning program.

A Steering Committee of NCS stakeholders, consisting of representatives from NCS station communities and regional transit agencies, was formed to provide direction and review Study analyses and findings.

Google Earth; Metra; SB Friedman; US Census

# STEERING COMMITTEE

| | Meeting 1 | Meeting 2 | Meeting 3 |
|---|---|---|---|
| **Information Presented** | • Purpose of project<br>• Introductions<br>• Roles<br>• Scope of Work | • Strategic investments to improve service<br>• Cost estimates of investment<br>• Survey results<br>• Alternate funding options<br>• Order-of-magnitude funding capacity of selected options | • Strategic investments to improve service<br>• Cost estimates of investment<br>• Survey and pop-up meeting results<br>• Alternate funding options<br>• Order-of-magnitude funding capacity of selected options<br>• Governance structure<br>• Next steps |
| **Engagement & Feedback** | *Desired service improvements*<br>*Ways to distribute survey* | *Pop-up meeting strategy*<br>*Decision to bring elected officials to presentation* | *Vote by community leaders to advance project* |

## Role of Steering Committee

- Set direction on project
- Provide feedback on draft deliverables
- Disseminate community survey to public
- Champion the project implementation


# STEERING COMMITTEE MEMBERS

Antioch
Buffalo Grove
Chicago
Chicago Department of Aviation
Cook County Department of Transportation
Des Plaines
Franklin Park
Grayslake
Lake County Department of Transportation
Lake Villa
Libertyville
Long Grove
Metra
Mundelein
Pace
Prospect Heights
River Grove
Rosemont
Round Lake Beach
Regional Transportation Authority (RTA)
Schiller Park
Transportation Management Association (TMA) of Lake-Cook
Vernon Hills
Vernon Township
Wheeling

Google Earth; Metra; SB Friedman; US Census

# INTRODUCTION TO CONSULTANT TEAM

The consultant team included SB Friedman Development Advisors, T.Y. Lin, and Metro Strategies. SB Friedman served as the lead consultant and conducted research and analyses related to potential funding sources, order of magnitude funding estimates, and implementation considerations. T.Y. Lin analyzed service improvements and costs estimates for the NCS line. Metro Strategies led communications efforts, conducting the public engagement and steering committee outreach and communication.

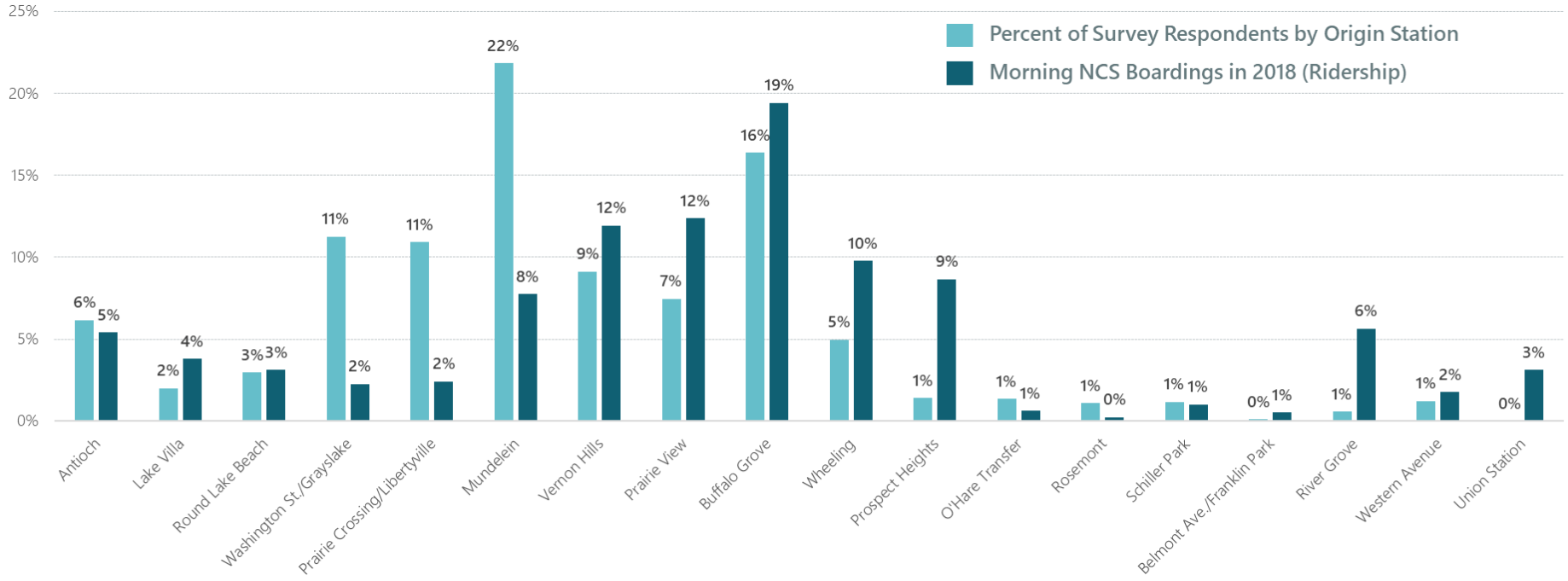
| | EXPERTISE | ROLE |
|---|---|---|
| SBFRIEDMAN | Finance, P3 & Implementation | Project Management, Funding, Financial Feasibility & Implementation Strategy |
| T.Y. Lin | Planning & Engineering | Service Improvements & Cost Estimation |
| Metro Strategies | Outreach & Communication | Engagement |

# 02 KEY SURVEY RESULTS

# SURVEY RESPONDENTS AND RIDERSHIP BY STATION

## 1,480 Riders Responded to Survey

A Public Input Survey (the "Survey") was created to solicit preferences for service improvements from community residents and major employers along the NCS corridor. The Survey was publicly available from May 2 to June 17, 2019. Steering Committee members aided in survey outreach, which included social media posts, community newsletters, and transit ads. 1,480 riders responded to the Survey. As the graph below demonstrates, survey respondents were generally representative of NCS riders. The complete survey results are included in the Appendix.




Source: Metra, *Public Input Survey* (2019)

# DESIRED SERVICE IMPROVEMENTS

## 880+ Respondents Ranked Their Top Preferred Service Improvement

More respondents (44%) ranked the addition of weekend service as their top preferred service improvement than any other potential improvements. However, riders who utilized the NCS line frequently (i.e., took more than five trips a week) ranked the addition of weekday commute service as their top preferred service improvement.

### ALL RIDERS

**44%**

prefer **weekend service**

### FREQUENT RIDERS (5-10 TRIPS/WEEK)

**39%**

prefer more **weekday commute** service

### OCCASIONAL RIDERS (1-4 TRIPS/WEEK)

**33%**

prefer **weekend service**

Source: *Public Input Survey* (2019)

# EMPLOYER FEEDBACK

## 50+ Employers Responded to Survey

In addition to residents, 57 employers along the NCS corridor responded to the Survey. A majority of employers (57%) indicated current NCS service limits employee recruitment and retainment. Several employers indicated a willingness to financially support last mile commuter services from NCS stations.

**37%**
plan to **expand services**
they offer to employees who
take public transit to work

**57%**
indicated current NCS service
**limits their ability**
to recruit or retain employees

**17%**
would be willing to
**financially support** last mile
commuter service

Source: *Public Input Survey* (2019)

# 03 POTENTIAL SERVICE IMPROVEMENTS & COST ESTIMATES

# CHALLENGES TO SERVICE IMPROVEMENTS

Any improvements to NCS service would be challenged by several factors related to current operations, physical track and station capacity, track ownership and financial constraints. Ownership of portions of the NCS track by Canadian National (CN) Railway and dispatching of portions of the NCS track by Canadian Pacific (CP) Railway present challenges. An increase in train service would likely require renegotiation of existing agreements between Metra and the two railway companies.

## OWNERSHIP/DISPATCH

- CN Railway owns, maintains and operates NCS track north of Franklin Park station
- CP Railway dispatches MD-W from B-12 Crossing to Union Station

## PHYSICAL

- Capacity constraints at Union Station during peak hours
- Single track at key locations (Deval interlocking, Grayslake interlocking)

## LOW RIDERSHIP

- 5,800 NCS weekday riders vs. average of 25,500 for other Metra lines
- Ranked 10$^{th}$ out of 11 Metra lines for ridership

## FINANCIAL

- Backlog of Metra capital costs
- Operating budget constraints

# POTENTIAL SERVICE IMPROVEMENT SCENARIOS

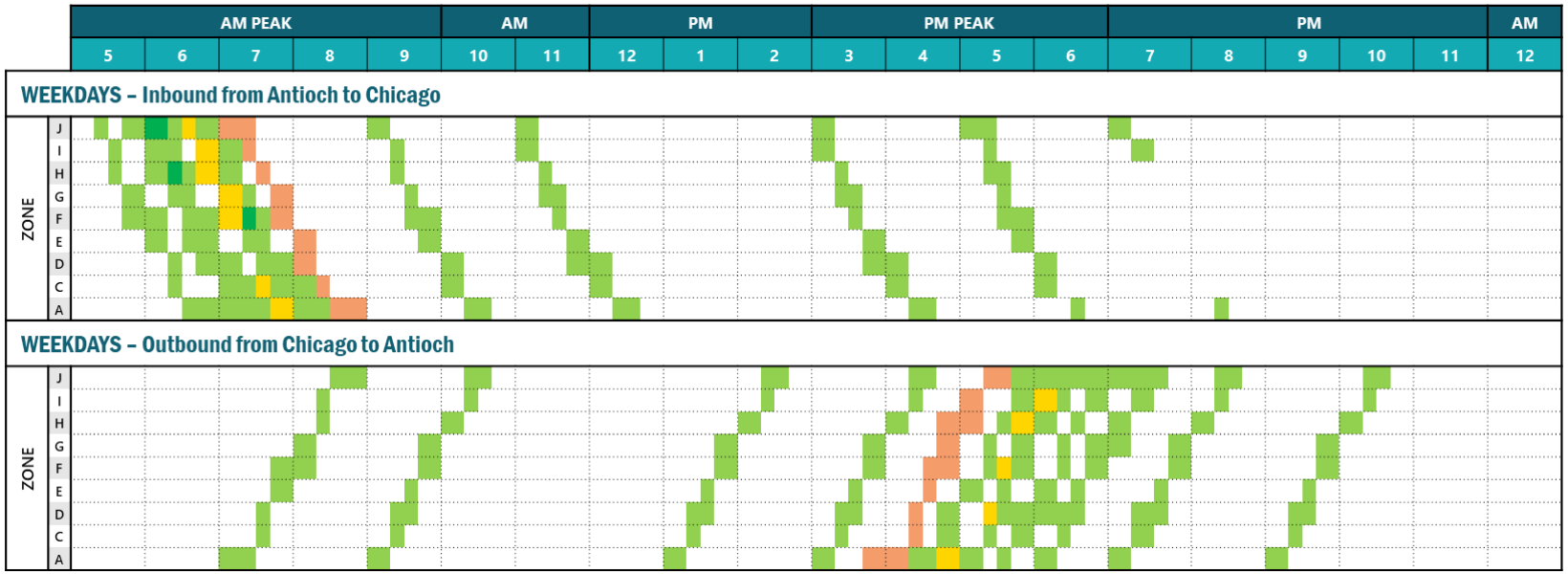
The Study considered three potential service improvement scenarios. The scope of work contemplated analyzing the NCS improvements identified in Metra's 2019 Systemwide Cost Benefit Analysis of Major Capital Improvements (the "CBA Study"). The CBA Study included "Intermediate Service" and "Full Service" scenarios and associated capital and operating cost estimates (in 2016 dollars). The consultant team developed a third scenario, comprising additional limited rush hour and new weekend service, to account for the service improvement preferences identified by the Survey and to provide a relatively low-cost scenario. Estimates of capital costs and net annual operations and maintenance (O&M) costs were based on costs provided by the CBA Study and interviews with Metra.

## 3 Scenarios Tested

- **Limited Rush Hour and New Weekend Service** (scenario developed by T.Y. Lin/SB Friedman)
  - 2-4 additional weekday trains
  - 6 trains per weekend day
- **Intermediate Service** (2019 Metra CBA Study)
  - 16 additional weekday trains
  - No weekend service
- **Full Service** (2019 Metra CBA Study)
  - 32 additional weekday trains
  - No weekend service

# LIMITED RUSH HOUR AND WEEKEND SERVICE SCHEDULE

## 2-4 Additional Weekday Trains




Zone serviced by one NCS train within 15-minute period

Zone serviced by two NCS trains within 15-minute period

Zone serviced by one new NCS train within 15-minute period

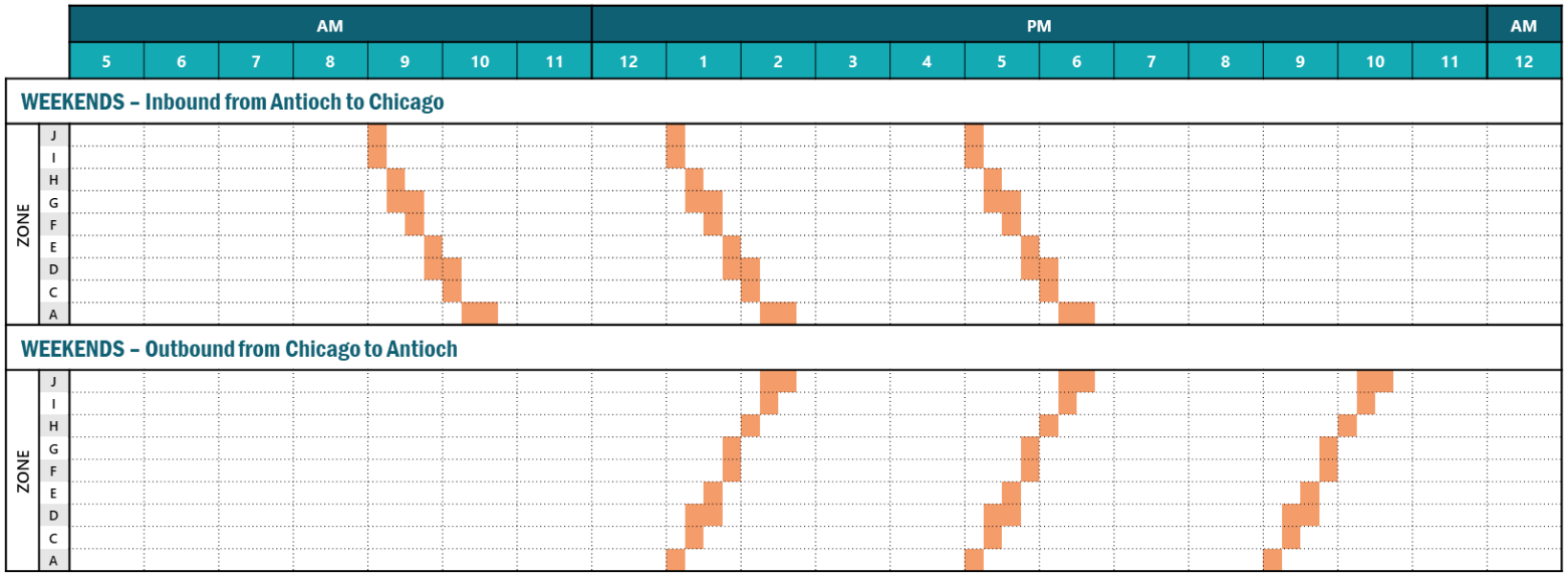
Zone serviced by restarting NCS train that was recently discontinued

Source: Metra, T.Y. Lin and SB Friedman
Note: Service times of new trains are representative and may not reflect actual service times

Under the limited rush hour and weekend service scenario, a total of 2-4 trains would be added on the shoulders of existing weekday rush hour service. This change would include the reintroduction of two rush hour trains that were discontinued in 2018. Additional trains are demonstrated in orange and yellow in the service schedule graphic to the left. These service times are for illustrative purposes only, and do not represent actual potential service times.

# LIMITED RUSH HOUR AND WEEKEND SERVICE SCHEDULE

## 6 Weekend Trains



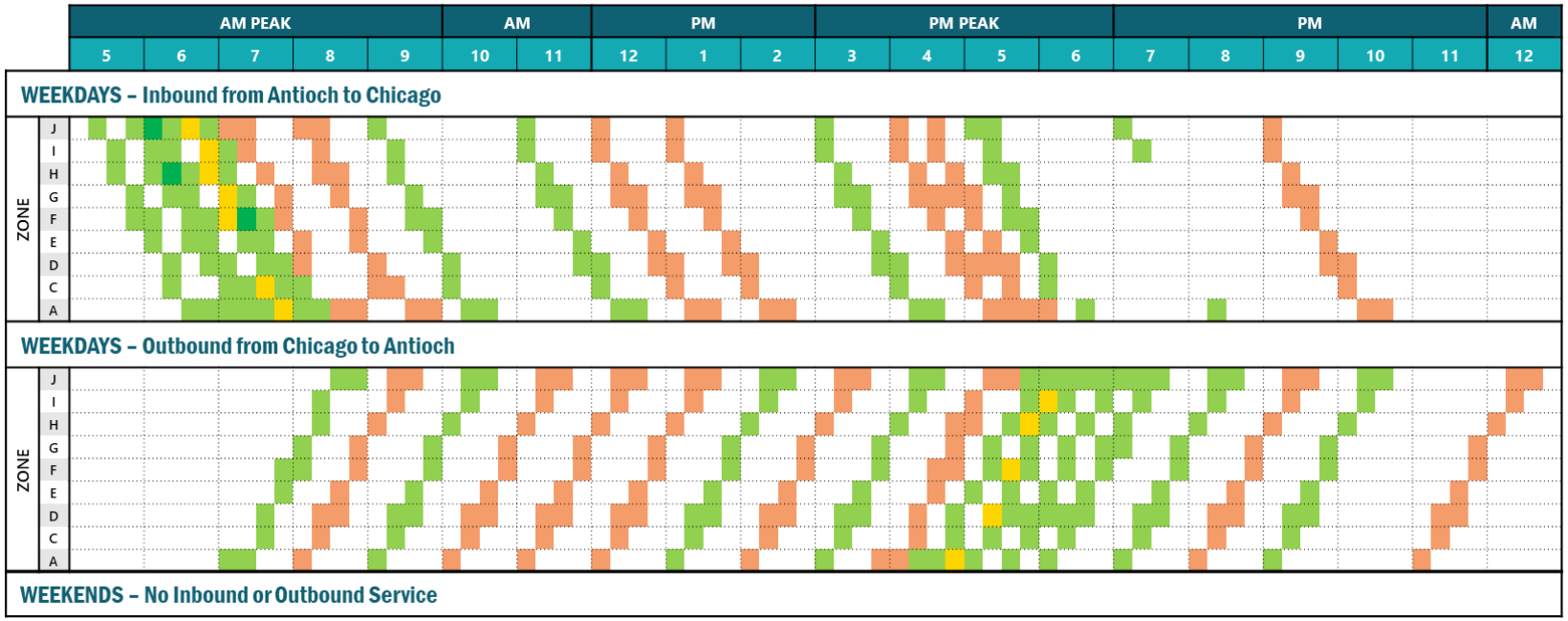

Zone serviced by one new NCS train within 15-minute period

Source: Metra, T.Y. Lin and SB Friedman
Note: Service times of new trains are representative and may not reflect actual service times

The same scenario would introduce weekend service in the form of a total of 6 additional trains.

# INTERMEDIATE SERVICE SCHEDULE

## 16 Additional Weekday Trains




Zone serviced by one NCS train within 15-minute period

Zone serviced by two NCS trains within 15-minute period

Zone serviced by one new NCS train within 15-minute period

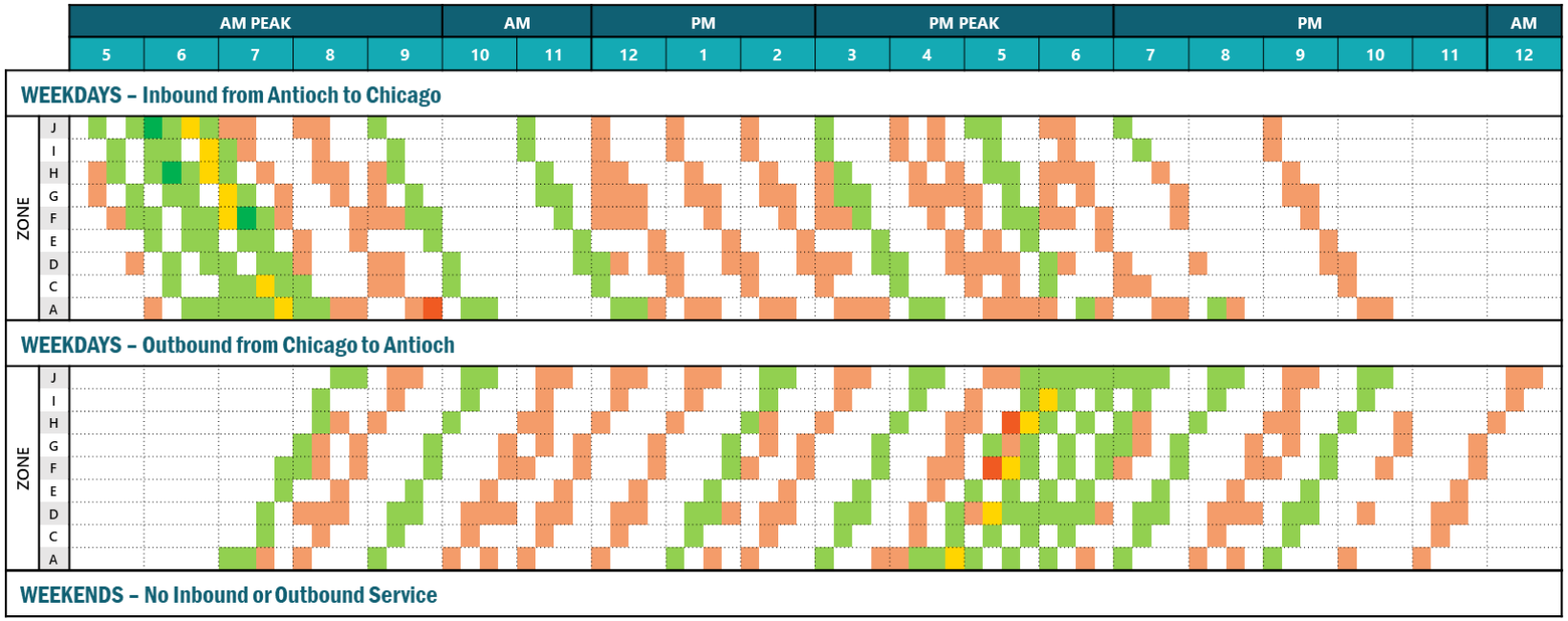
Zone serviced by restarting NCS train that was recently discontinued

Source: Metra, T.Y. Lin and SB Friedman
Note: Service times of new trains are representative and may not reflect actual service times

Under the Intermediate Service scenario, a total of 16 trains would be added to existing weekday service, filling gaps in mid-day, reverse commute, and evening service. The scenario does not include weekend service.

# FULL SERVICE SCHEDULE

## 32 Additional Weekday Trains




Zone serviced by one NCS train within 15-minute period

Zone serviced by two NCS trains within 15-minute period

Zone serviced by one new NCS train within 15-minute period

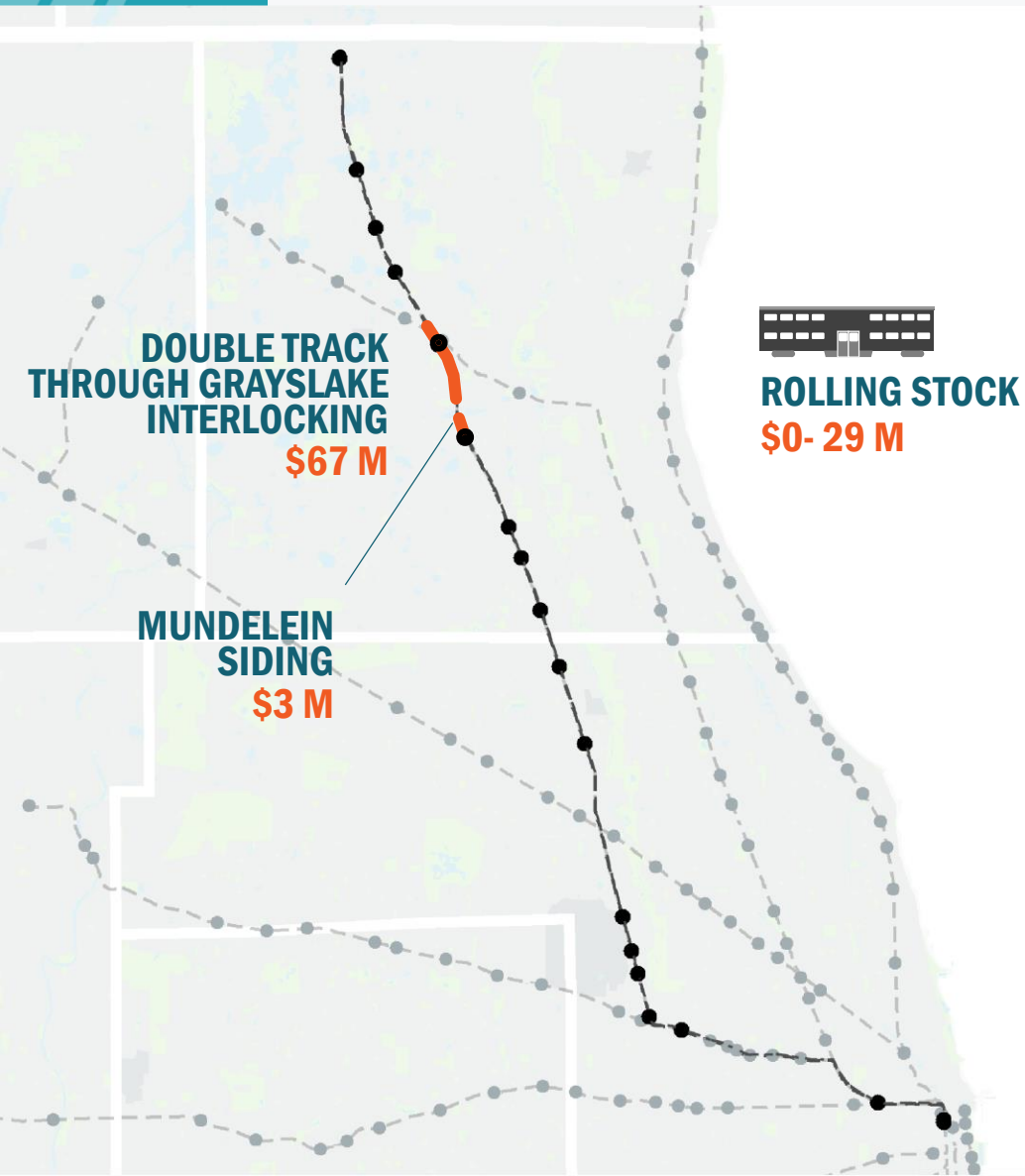
Zone serviced by restarting NCS train that was recently discontinued

Source: Metra, T.Y. Lin and SB Friedman
Note: Service times of new trains are representative and may not reflect actual service times

Under the Full Service scenario, a total of 32 trains would be added to existing weekday service, filling gaps in mid-day, reverse commute, and evening service. This scenario represents Metra's typical level of operations for full-service train lines. The scenario does not include weekend service.

# SERVICE IMPROVEMENTS

## Limited Rush Hour and Weekend Service




### COST AND OPERATION METRICS (2016 $)

| $70-99 M | $5 M | 2-4 | 6 |
|---|---|---|---|
| CAPITAL COST [1] | NET ANNUAL O&M COST [1] | ADDITIONAL DAILY WEEKDAY TRAINS | ADDITIONAL DAILY WEEKEND TRAINS |

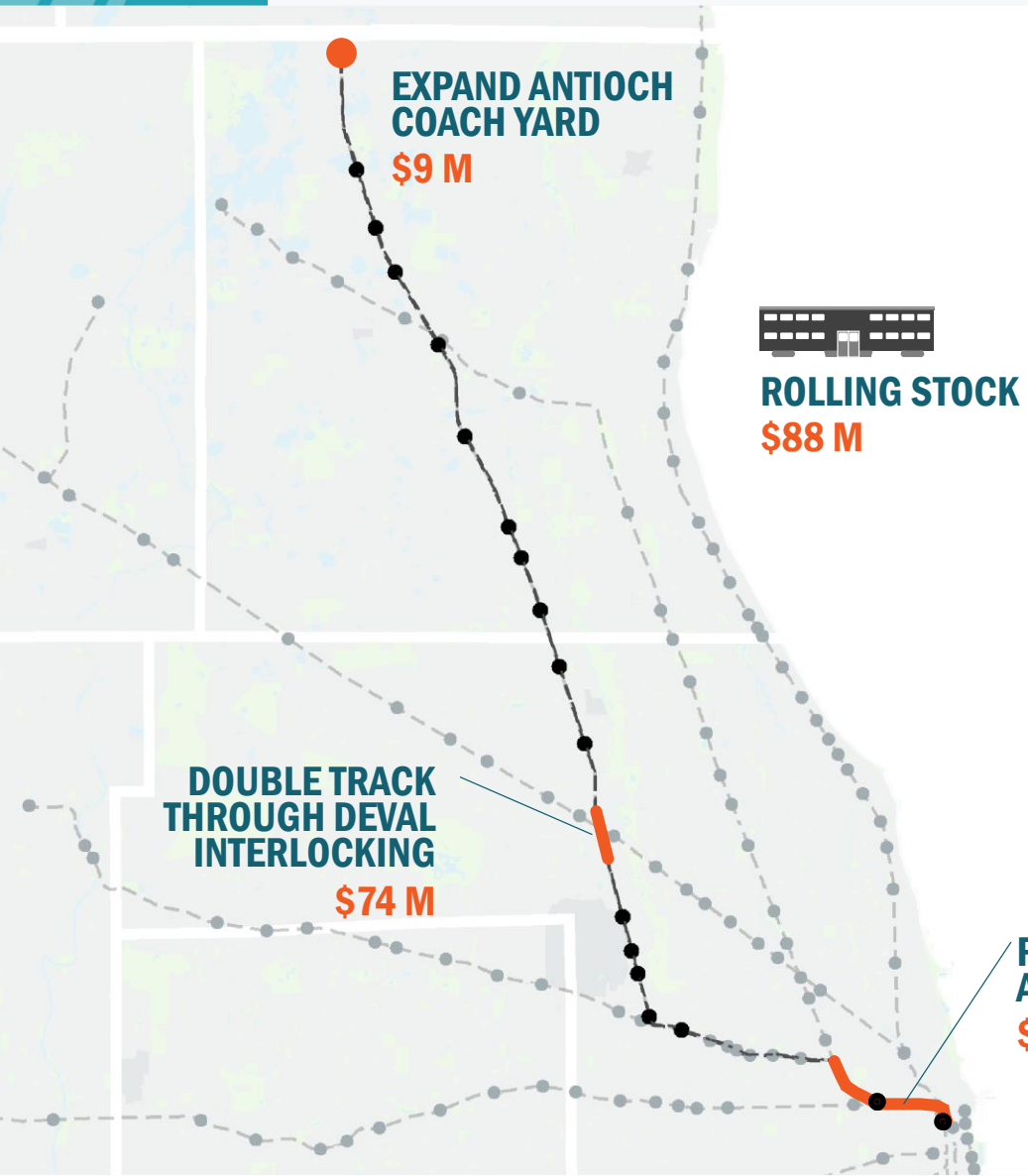
The reintroduction of two recently discontinued weekday trains and the addition of weekend service likely would not require the purchase of additional rolling stock, as unused trains could be repurposed for these services. However, the addition of a total of four weekday trains would likely require approximately $29 million in new rolling stock. Metra currently operates the NCS under an agreement with Canadian National, which owns a portion of the track. Increasing the number of weekdays trains beyond adding the two recently discontinued train lines will require renegotiation of this agreement and likely the provision of physical improvements to increase capacity along the track. Following conversations with Metra, the consultant team determined that double tracking through the Grayslake interlocking ($67 million) and the addition of siding north of the Mundelein NCS station ($3 million) to increase capacity at this single-track location would likely be required to reach a new agreement. Annual operating and maintenance costs to provide this level of service are estimated to total approximately $5 million. This cost was estimated by prorating the operational costs of the two recently discontinued train lines, as provided by Metra.

[1] All cost estimates are subject to change based on negotiations with Metra and railroads (Canadian National and Canadian Pacific).

Source: *T.Y. Lin/SB Friedman, based on unit costs from Metra*

# SERVICE IMPROVEMENTS

## Intermediate Service – 16 Additional Trains




### COST AND OPERATION METRICS (2016 $)

| $452 M | $8 M | 16 | 0 |
|---|---|---|---|
| CAPITAL COST [1] | NET ANNUAL O&M COST [1] | ADDITIONAL DAILY WEEKDAY TRAINS | ADDITIONAL DAILY WEEKEND TRAINS |

As detailed in the 2019 CBA Study, implementing the Intermediate Service scenario would require the following capital improvements: purchase of additional rolling stock ($88 million), expansion of the Antioch Coach Yard ($9 million), double tracking through the Deval interlocking ($74 million), and installation of a fourth lead track from A-5 to Lake Street ($281 million).

Two other Metra train lines (MD-N and MD-W) utilize the A-5 to Lake Street track. Because installation of an additional track at that location would improve capacity for those lines as well, the total cost of the improvement could potentially be shared with the other Metra train lines, though no sources of funding are currently available to do so.

Per the CBA Study, annual operating and maintenance costs are estimated to be approximately $9 million.

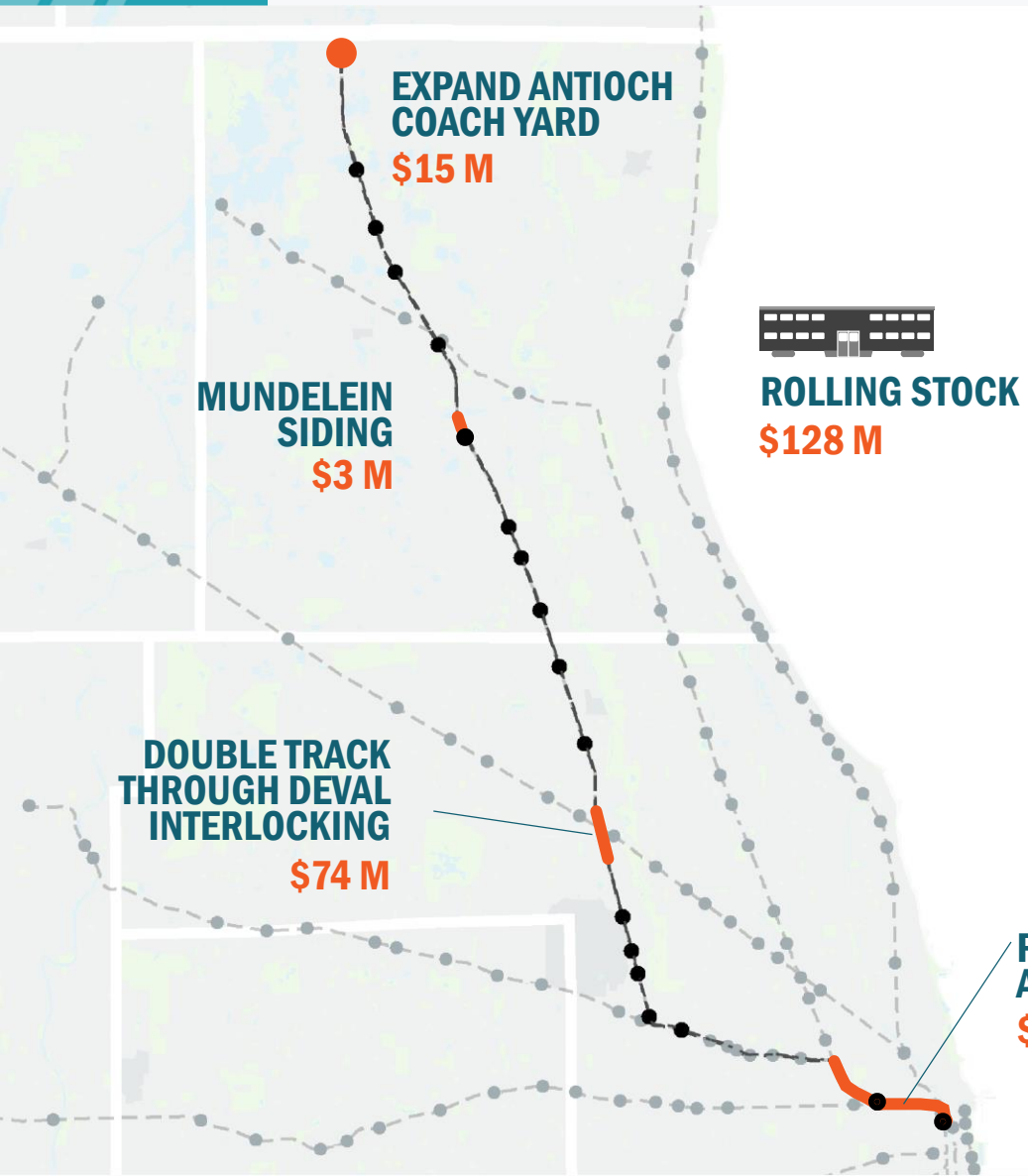
[1] All cost estimates are subject to change based on negotiations with Metra and railroads (Canadian National and Canadian Pacific).

[2] Improvement cost shared with MD-N and MD-W lines.

Source: *Systemwide Cost Benefit Analysis of Major Capital Improvements* (2019), Metra

# SERVICE IMPROVEMENTS

## Full Service – 32 Additional Trains




### COST AND OPERATION METRICS (2016 $)

| $501 M | $15 M | 32 | 0 |
|---|---|---|---|
| CAPITAL COST [1] | NET ANNUAL O&M COST [1] | ADDITIONAL DAILY WEEKDAY TRAINS | ADDITIONAL DAILY WEEKEND TRAINS |

As detailed in the 2019 CBA Study, implementing the Full Service scenario would require the following capital improvements: purchase of additional rolling stock ($128 million), expansion of the Antioch Coach Yard ($15 million), double tracking through the Deval interlocking ($74 million), and installation of a fourth lead track from A-5 to Lake Street ($281 million), and the addition of siding north of the Mundelein NCS station ($3 million).

Two other Metra train lines (MD-N and MD-W) utilize the A-5 to Lake Street track. Because installation of an additional track at that location would improve capacity for those lines as well, the total cost of the improvement could potentially be shared with the other Metra train lines, though no sources of funding are currently available to do so.

Per the CBA Study, annual operational costs are estimated to total approximately $16 million.

[1] All cost estimates are subject to change based on negotiations with Metra and railroads (Canadian National and Canadian Pacific).

[2] Improvement cost shared with MD-N and MD-W lines.

Source: *Systemwide Cost Benefit Analysis of Major Capital Improvements* (2019), Metra

# SERVICE IMPROVEMENT SCENARIOS

## Summary Costs (Millions of $s)

| | LIMITED WEEKDAY & WEEKEND SERVICE | INTERMEDIATE SERVICE | FULL SERVICE |
|---|---|---|---|
| CAPITAL COST (2016 $s) | $70-99 M | $452 M | $501 M |
| NET ANNUAL O&M [1] (2016 $s) | $5 M | $8 M | $15 M |
| ADDITIONAL WEEKDAY TRAINS | 2 - 4 | 16 | 32 |
| ADDITIONAL WEEKEND TRAINS | 6 | 0 | 0 |

[1] Net of farebox collections.

# SERVICE IMPROVEMENT SCENARIOS

## Net Capital and Net O&M Costs (Millions of $s)

The table below summarizes total capital costs and net annual operations and maintenance costs for the three scenarios. These cost estimates account for inflation to 2019 dollars and assume only one-third of the total cost to install a fourth lead track from A-5 to Lake Street is attributed to the NCS line. The remainder of the total cost for this improvement is assumed to be allocated to the MD-N and MD-W lines.

| | LIMITED WEEKDAY & WEEKEND SERVICE | INTERMEDIATE SERVICE | FULL SERVICE |
|---|---|---|---|
| CAPITAL COST | $70-99 M | $452 M | $501 M |
| *Less:* ALLOCATION TO OTHER LINES | $0 | $(187) M | $(187) M |
| *Plus:* INFLATION TO 2019 $s | $5-8 M | $20 M | $25 M |
| **TOTAL CAPITAL COST (2019 $s)** | **$75-107 M** | **$285 M** | **$338 M** |
| **NET ANNUAL O&M** [1] **(2019 $s)** | **$5 M** | **$9 M** | **$16 M** |

Note: No funding sources are currently available to cover portion of costs related to other lines

[1] Net of farebox collections.

# POP-UP MEETINGS

## Preferred Scenarios

Pop-up meetings were held in two locations to receive feedback on the service improvement scenarios. One pop-up was held at the Prairie Crossing/Libertyville NCS Metra station on September 19, 2019 to solicit comments from morning rush hour commuters. A second pop-up was held at the O'Hare NCS Metra station on September 23, 2019 to solicit comments from evening rush hour commuters. Preferred service improvement scenarios from participants are summarized below.

| | Prairie Crossing (23 riders) | O'Hare (13 riders) |
|---|---|---|
| Limited Rush Hour and Weekend Service | 48% | 31% |
| Intermediate Service | 38% | 54% |
| Full Service | 14% | 15% |
| Total | 100% | 100% |

**Prairie Crossing Station, Libertyville**
Morning Rush Hour


**O'Hare Station, Chicago**
Evening Rush Hour

# 04 FUNDING CONSIDERATIONS & LOCAL FUNDING OPTIONS

# LACK OF FEDERAL FUNDING SOURCES

Federal funding for transit projects is awarded through the Federal Transit Administration's Capital Investment Program (CIP). Projects need to meet specific criteria to qualify for funding through one of four programs:

- New Starts: New fixed guideway system or extension; project costs > $300 M
- Small Starts: New fixed guideway system or extension; project costs < $300 M
- Core Capacity:
  - At capacity or will be at capacity in 5 years
  - For commuter rail, 95% of available seats are used in peak hour in a peak direction
- Interrelated Projects: Combination of above projects

Under the current CIP, the NCS service improvement scenarios would be ineligible for federal funding. The improvements do not constitute a new fixed guideway system or the extension of an existing system, so cannot receive funds through the New Starts or Small Starts programs. Additionally, the NCS line is well below the 95% occupancy threshold utilized by the Core Capacity program, and thus improvements do not meet the criteria to be eligible for funding under that program.

# STATE CAPITAL BILL ENHANCES REGIONAL TRANSIT FUNDING

In June 2019, the Illinois legislature passed, and the governor signed into law, a $45 billion capital bill that provides new sources of funding for regional transit programs. However, no specific funds were dedicated to NCS improvements.

- $45 billion state capital bill in 2019
- Motor Fuel Taxes (MFT) double from $0.19 to $0.38/gallon
  - Municipal and county MFT collections will increase by 51%
  - RTA will receive $167 M in new annual revenue
- Other increased revenues to RTA
  - Multi-Modal Transportation Bond Fund
    - $2.2 B for construction costs and making grants
    - $470 M for specific projects (e.g., traction power for the Blue Line, Kendall County Metra Rail Extension)
  - RTA Capital Improvement Fund
    - $1.4 B for deferred maintenance and project assistance

Source: HB 62, 35 ILCS 505, 70 ILCS 3610, SB Friedman

# NEED FOR LOCAL FUNDING SOURCES

Limitations on the availability of federal and state funds require the exploration of innovative funding strategies to achieve transit improvements for the NCS line.

NCS improvements will compete with all other regional transit needs for funding:

- Not currently included in the Chicago Metropolitan's Agency for Planning's (CMAP) Fiscally Constrained Major Capital Projects, which are projects eligible to receive federal funding allocated by CMAP
- Not currently included in Metra's capital budget
- Ranked low from a cost-benefit perspective among other Metra projects (as indicated in table to right)

**Proposed Metra Projects – Cost and Revenue Estimates**

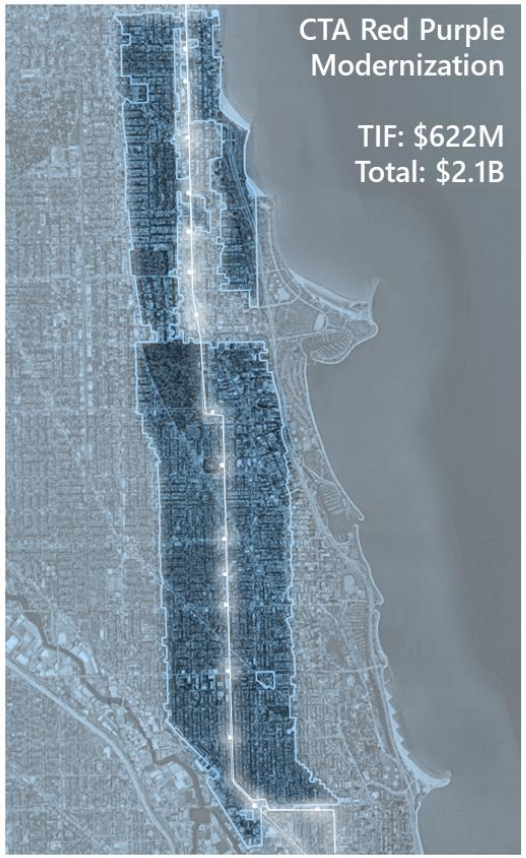
| Line | Proposed Project | Net Cost per New Trip | Farebox Recovery Ratio [1] |
|---|---|---|---|
| SWS | Speed Improvements | $47 | 882% |
| | Intermediate | $45 | 170% |
| | Full Service | $38 | 118% |
| UP-W | Improvements | $9 | 108% |
| BNSF | Improvements | $8 | 105% |
| UP-N | 3-Track | $21 | 100% |
| | 2-Track | $28 | 44% |
| MED | Improvements | $3 | 80% |
| | 20-Min All-Day Headways | $54 | 13% |
| UP-NW | Mainline Improvements | $39 | 73% |
| | Mainline & Branch Improvements | $47 | 45% |
| MD-N | 3-Track Improvements | $76 | 66% |
| | 2-Track Improvements | $53 | 57% |
| MD-W | Improvements | $52 | 61% |
| RID | Improvements | $41 | 47% |
| HC | Improvements | $37 | 32% |
| NCS | Limited Rush Hour & Weekend | N/A | N/A |
| | Intermediate | $91 | 21% |
| | Full Service | $79 | 18% |

[1] Equal to net revenue divided by net O&M costs.
Source: *Systemwide Cost Benefit Analysis of Major Capital Improvements* (2019), Metra

# LOCAL FUNDING FOR TRANSIT CAPITAL PROJECTS

## National and Regional Case Studies

As the examples below demonstrate, there is precedent for utilizing local funding mechanisms for capital improvements. These include tools that source property and sales taxes revenues generated by development along the transit lines (i.e., "value capture" funding).








**Tax Incrementing Financing (TIF)** utilizes incremental property tax revenues to fund improvements.

**Transportation Development District (TDD)** utilizes special assessments, sales taxes or property taxes to fund improvements.

# LOCAL FUNDING FOR TRANSIT OPERATIONS

## Milwaukee District North (MD-N) Reverse-Commute Pilot Program

The MD-N Reverse Commute Pilot Program is an example of an agreement between multiple jurisdictions in Lake County to fund Metra service improvements. Municipalities, regional transit agencies, and major employers contributed funds to a pilot program to provide additional rush hour service for commuters who live in Cook County and work in Lake County.

- Two-year pilot program launched in March 2019
- Reverse-commute service on MD-N
  - Serves Lake County workers who live in Chicago
  - 1 morning rush hour reverse-commute train
  - 1 evening rush hour reverse-commute train
- If successful, will explore shared funding agreement for installation of universal crossovers in Lake Forest ($4.75 million project)

**$1.4 M**

**TOTAL PROJECT COST**

**FUNDING PARTNERS**

- Metra
- Lake County Partners
- Horizon Pharma
- AbbVie
- Trustmark Insurance
- Tenneco
- Northwestern Medicine Lake Forest Hospital
- Lake County
- City of Lake Forest
- Village of Deerfield

# POTENTIAL LOCAL FINANCING SOURCES

## Overview

The table below summarizes possible local financing tools that could be explored for NCS and potential challenges associated with their implementation. These tools source funds from a specific geographical boundary (i.e., district) or a wider area (i.e., municipality or county).

| Financing Tool | District | Regional | Description | Challenges to Implementation |
|---|---|---|---|---|
| Tax Increment Financing (TIF) | X | | • Reallocation of growth in property taxes above baseline to use for transit projects | • Requires amendment to IL TIF law |
| Business District (BD) | X | | • Additional sales tax of up to 1.0% applied in specific area to use for transit | • Politically difficult<br>• Requires amendment to IL BD law |
| Special Service Area (SSA) | X | | • Additional property tax levy for specific services or infrastructure | • Politically difficult<br>• Potential for public opposition to defeat implementation |
| Joint Development | X | | • Partnership between public entity and private developer<br>• Public improvements are funded by private development | • Requires strong market for development<br>• Requires high public sector engagement and developer capacity |
| Motor Fuel Tax (MFT) | | X | • Allocation of municipal or county share of IL MFT funds | • Competition with other regional transportation projects |
| Tax on Transportation Network Companies (TNC) | | X | • Additional tax on ridesharing companies | • Competition with other regional transportation projects |
| Sales Tax | | X | • Additional general sales tax at municipal or county level | • Politically difficult<br>• Referendum required for non-home rule municipalities<br>• Competition with other regional transportation projects |
| Impact Fee | | X | • Additional payments required of new development<br>• Fee must be uniquely and specifically attributable to development | • Requires demonstration that fee is attributable to transit improvements<br>• Requires strong market for development<br>• Competition with other regional transportation projects |

# POTENTIAL LOCAL FINANCING SOURCES

## Selected Financing Tools

The Study developed financial capacity estimates for four funding mechanisms that appear to be most feasible based on our understanding of the feasibility of these tools and typical regional preferences for infrastructure funding: tax increment financing (TIF), business district (BD), motor fuel tax (MFT), and tax on transportation network companies (TNC). All estimates of revenue projections are presented in 2019 dollars.

### DISTRICT-SPECIFIC SOURCES

- Tax Increment Financing (TIF)
- Business District (BD)

### COUNTY/MUNICIPAL SOURCES

- Motor Fuel Tax
- Tax on Transportation Network Companies

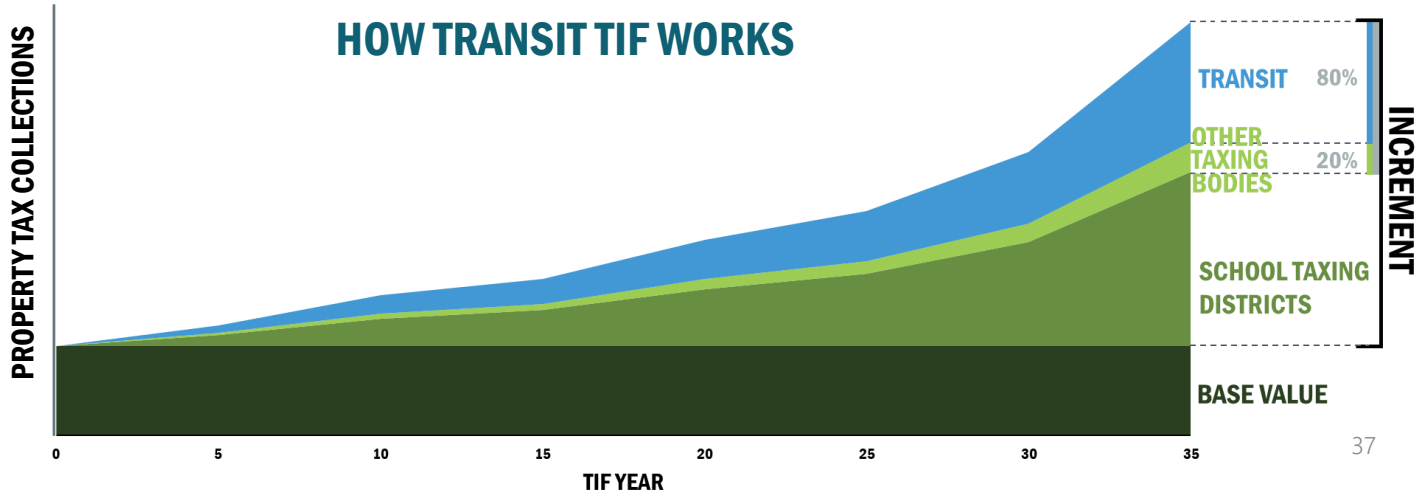
# 05 ORDER OF MAGNITUDE PROJECTIONS

# TRANSIT TIF

## CURRENT TRANSIT TIF LEGISLATION

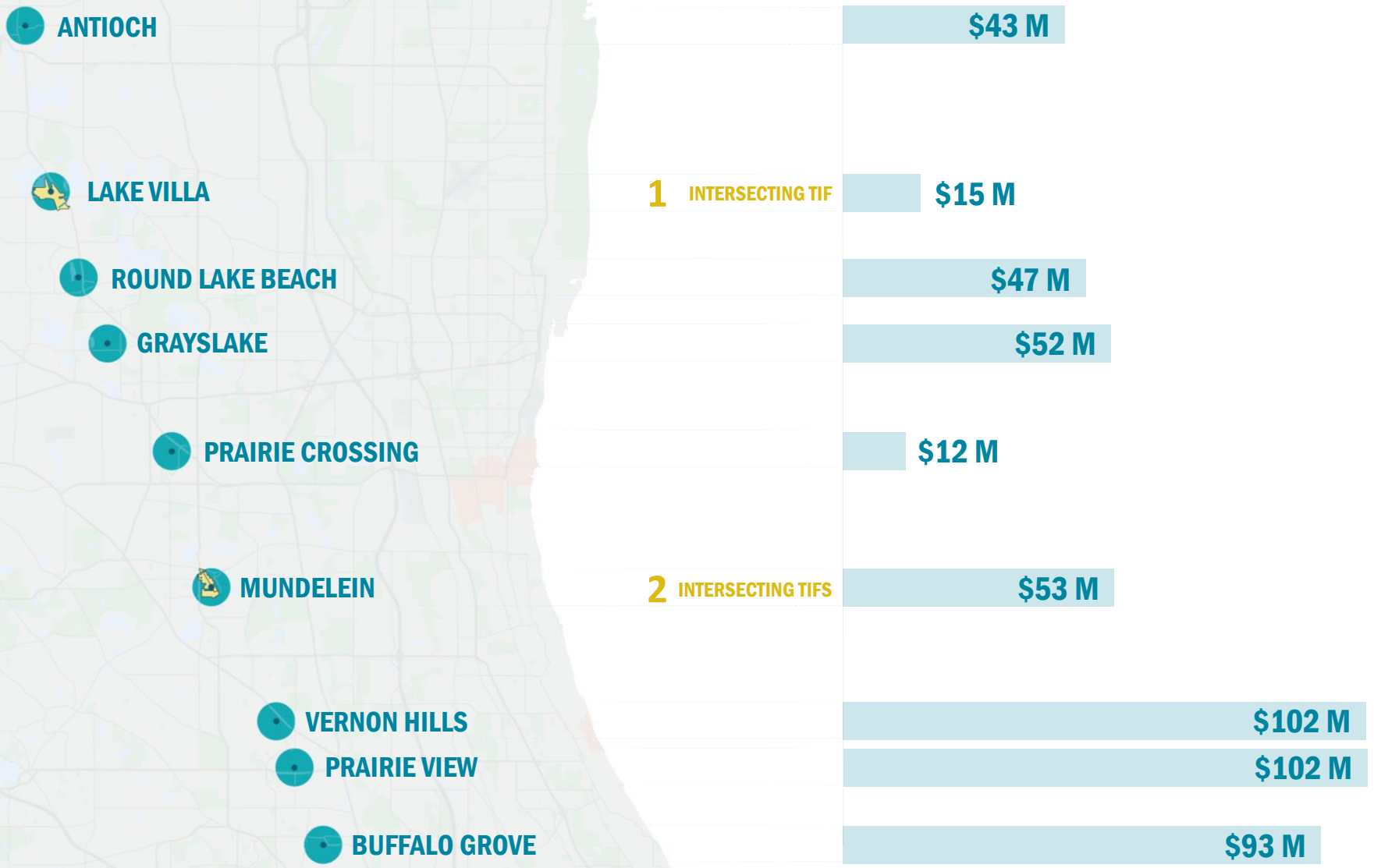

A transit TIF district is a value capture tool with a 35-year lifetime wherein a portion of incremental property tax revenues generated within ½ mile of certain transit improvements are available to fund those improvements. Incremental property tax revenue is a result of growth in equalized assessed value (EAV) above the base EAV (EAV at the time the TIF is established). Under Illinois law, school districts receive 100% of their increment within the transit TIF; 80% of non-school increment is available for transit. Under current law, transit TIFs may be designated for three Chicago Transit Authority (CTA) projects and the Union Station transit center. A legislative amendment would be required to include any other transit improvements in the state.

SB Friedman estimated potential revenue from an NCS transit TIF by projecting the future EAV of parcels within half-mile buffers around the NCS stations. This Study assumes the state law would be amended to include the NCS line and to allow for multiple discontiguous areas along the transit line (rather that one district running the entire length of the train line), and potentially allow larger buffers.



# TRANSIT TIF

## Lake County: Taxable EAV within Half-Mile




**$518 M**

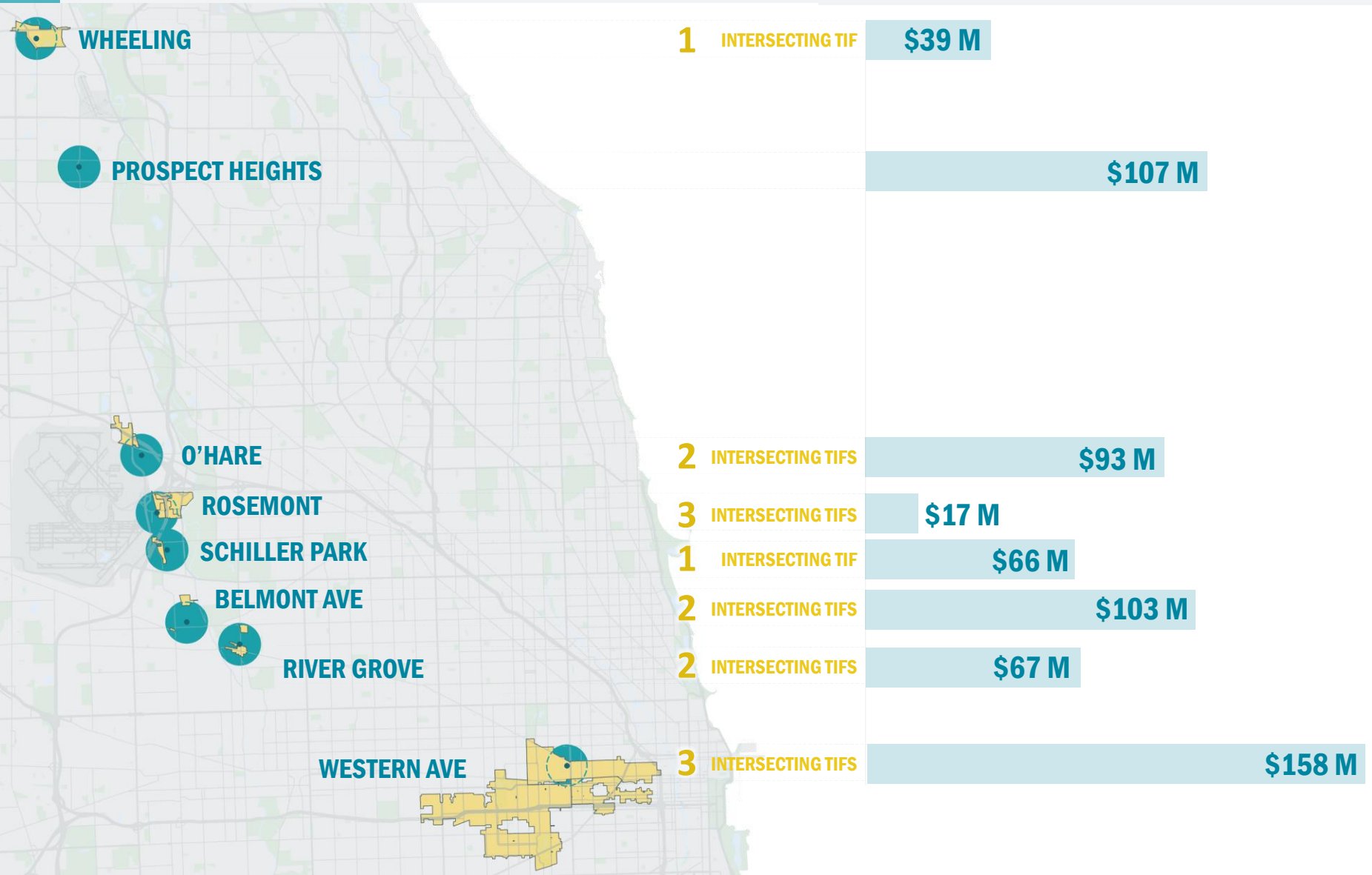
**2017 Taxable EAV**

In Lake County, taxable EAV for areas within a half-mile from an NCS station totaled approximately $518 million in 2017. This value excludes parcels located within unincorporated areas or existing TIF districts, which cannot be included in a future potential TIF district.

Source: Lake County, SB Friedman

# TRANSIT TIF

## Cook County: Taxable EAV within Half-Mile




**$647 M**

**2017 Taxable EAV**

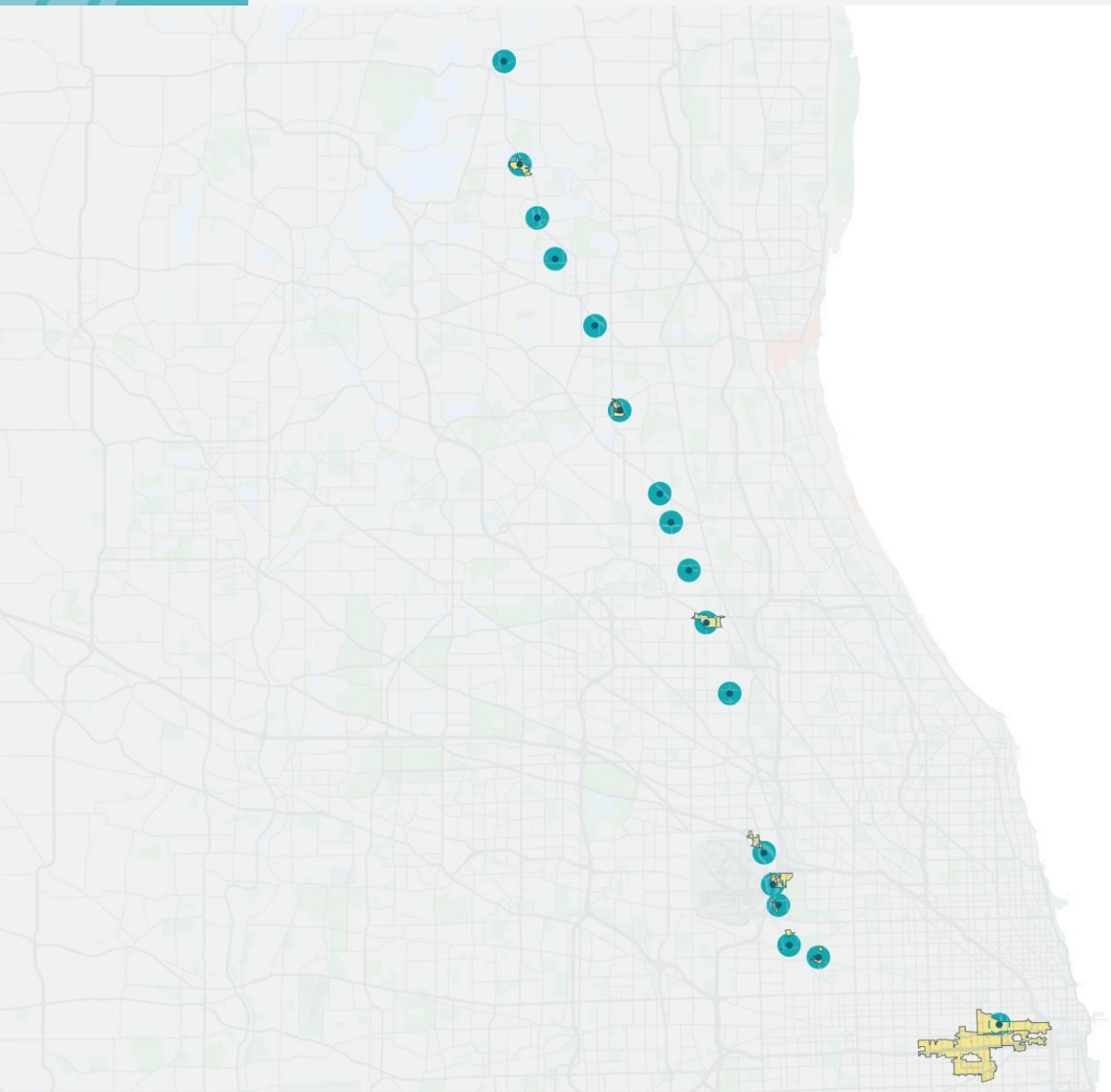
In Cook County, taxable EAV for areas within a half-mile of an NCS station totaled approximately $647 million in 2017. This excludes parcels located within unincorporated areas and existing TIF districts, which cannot be included in a future potential TIF district. It also excludes the area around Union Station, which is authorized to be its own transit TIF.



Source: Cook County, SB Friedman

# TRANSIT TIF

## Potential Revenue Generation with Half-Mile



# $141 M

**PROJECTED REVENUE OVER 35-YEAR PERIOD (DISCOUNTED AT 6.5%** [1]**)**

SB Friedman projects transit TIFs comprised of areas within a half-mile from NCS stations could generate a total of approximately $604 million in undiscounted revenue over a 35-year period based on current county equalization factors and municipal tax rates. Utilizing a discount rate of 6.5%, this increment equates to approximately $141 million in 2019 dollars.

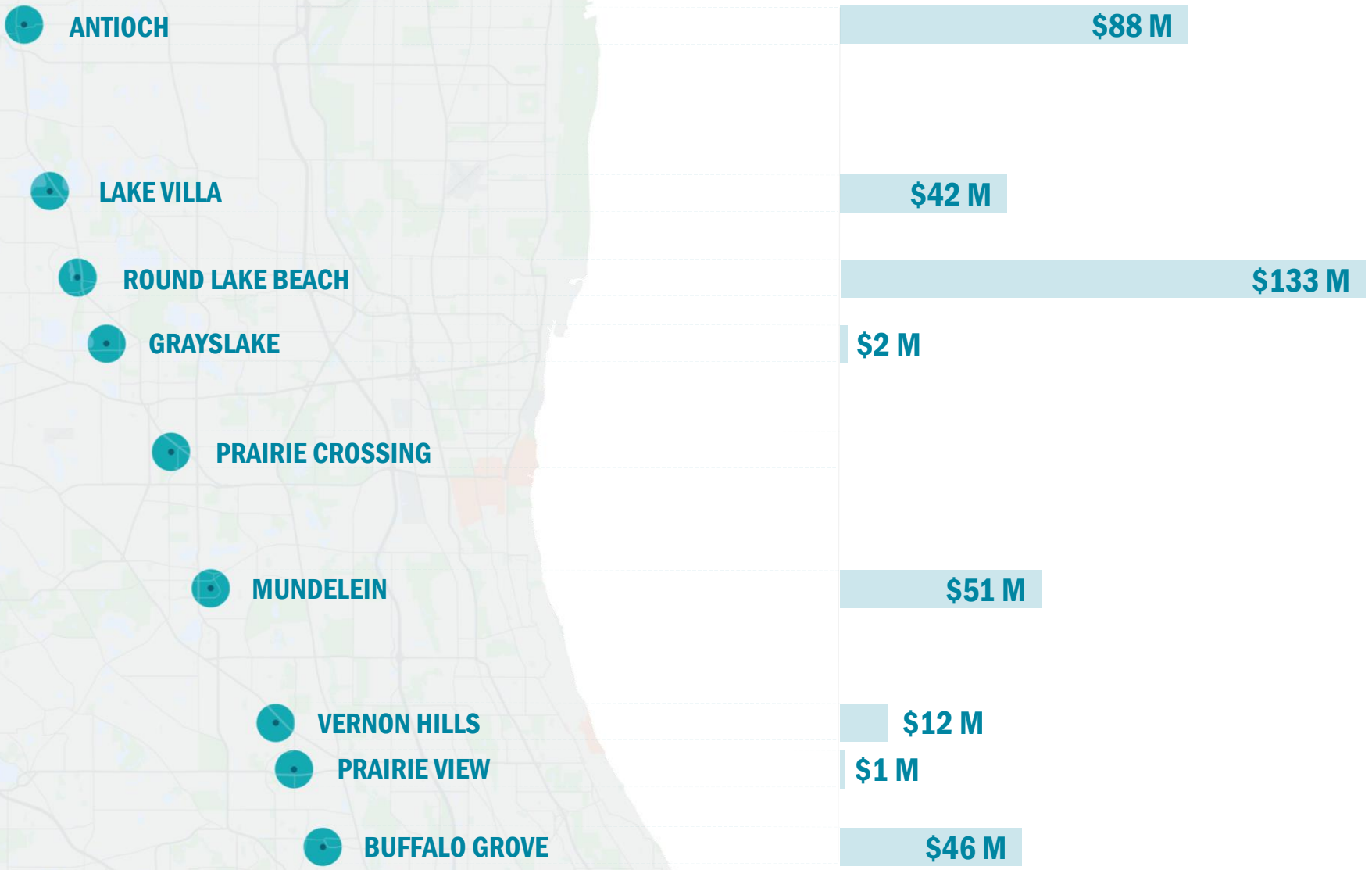
SB Friedman assumed a property value annual inflation rate of 2%, per a historic inflationary growth analysis, and TIF designation in 2024.

[1] A discount rate is a rate used to convert future cash flows to present value based on the anticipated interest rate for bond financing.

Source: Cook County, Lake County, SB Friedman

# BUSINESS DISTRICT (BD)

## Lake County: Retail Sales within Half-Mile




**$377 M**

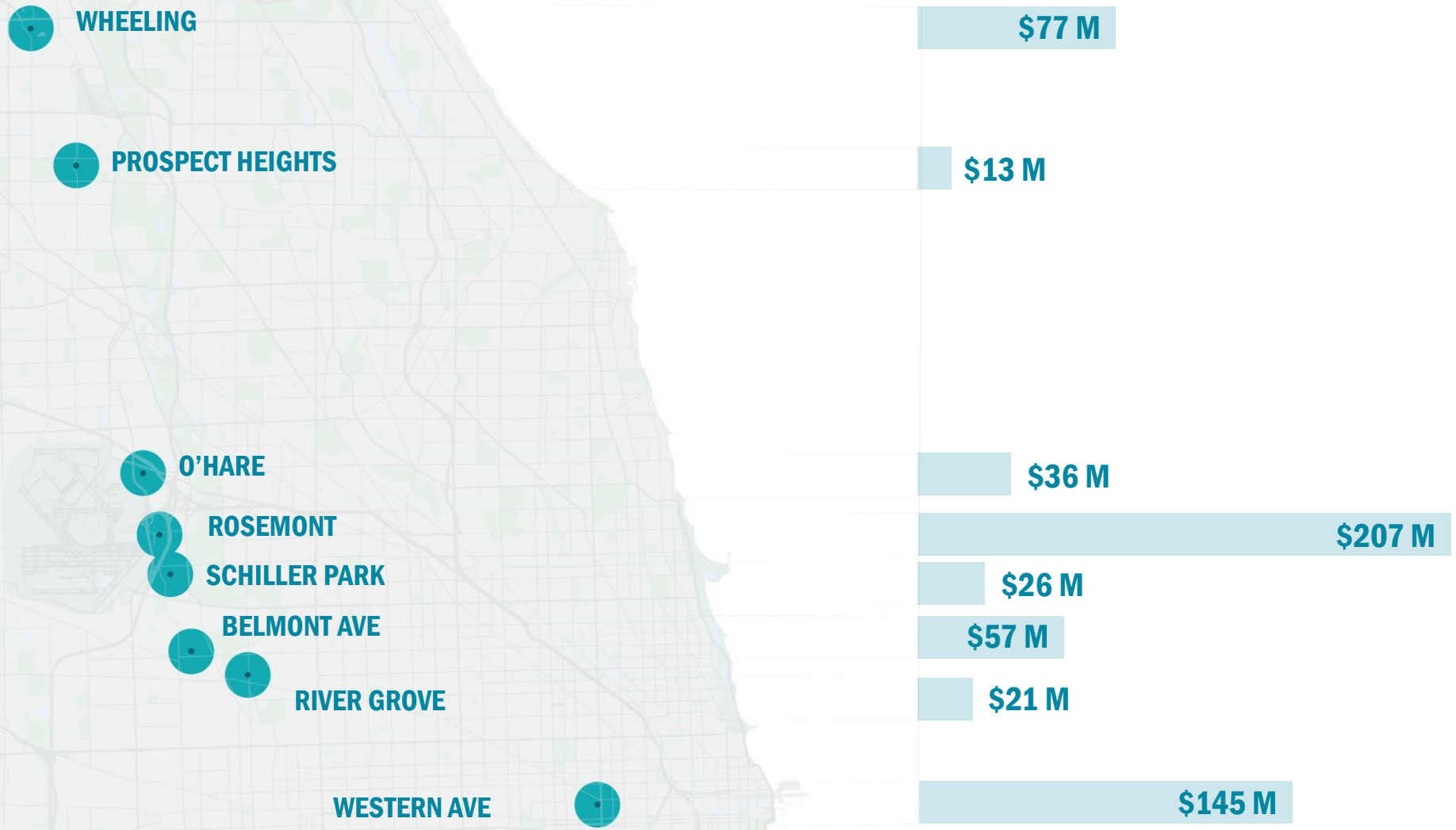
**2018 Retail Sales**

In Lake County, retail sales for areas within a half-mile from an NCS station totaled approximately $377 million in 2018. This value excludes the sale of qualifying food, drugs, and medical appliances, which are not subject to Business District sales tax per IL law. Sales in unincorporated areas are also excluded.

Source: CoStar, Esri, SB Friedman

# BUSINESS DISTRICT (BD)

## Cook County: Retail Sales within Half-Mile




**$581 M**

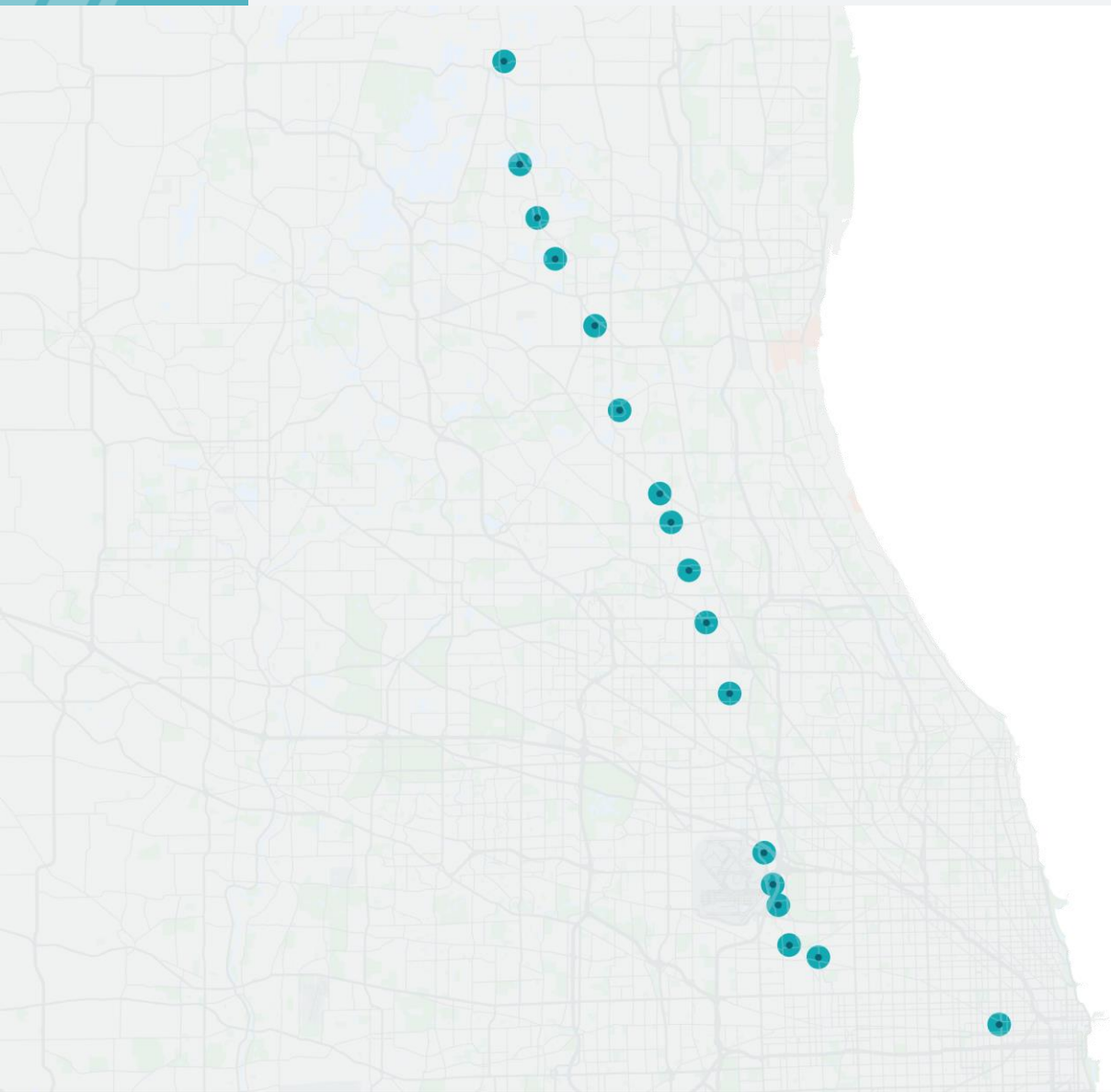
**2018 Retail Sales**

In Cook County, retail sales for areas within a half-mile from an NCS station totaled approximately $581 million in 2018. This value excludes sale of qualifying food, drugs, and medical appliances, which are not subject to Business District sales tax per IL law. Sales in unincorporated areas are also excluded.

Source: CoStar, Esri, SB Friedman

# BUSINESS DISTRICT (BD)

## Potential Revenue Generation within Half-Mile



# $40 M

**PROJECTED REVENUE OVER 23-YEAR PERIOD (DISCOUNTED AT 6.5%)**

Potential BD revenue is determined by multiplying annual BD eligible sales by a potential 0.25% sales tax rate. Annual sales were determined using two methods: (1) annual retail sales data sourced from Esri Business Analyst; and (2) retail square footage from CoStar multiplied by a prototypical sales per square foot number.

SB Friedman projects that business districts comprising areas within a half-mile from NCS stations could generate a total of approximately $78 million in undiscounted revenue over a 23-year period. Utilizing a discount rate of 6.5%, this value equates to approximately $40 million in 2019 dollars.

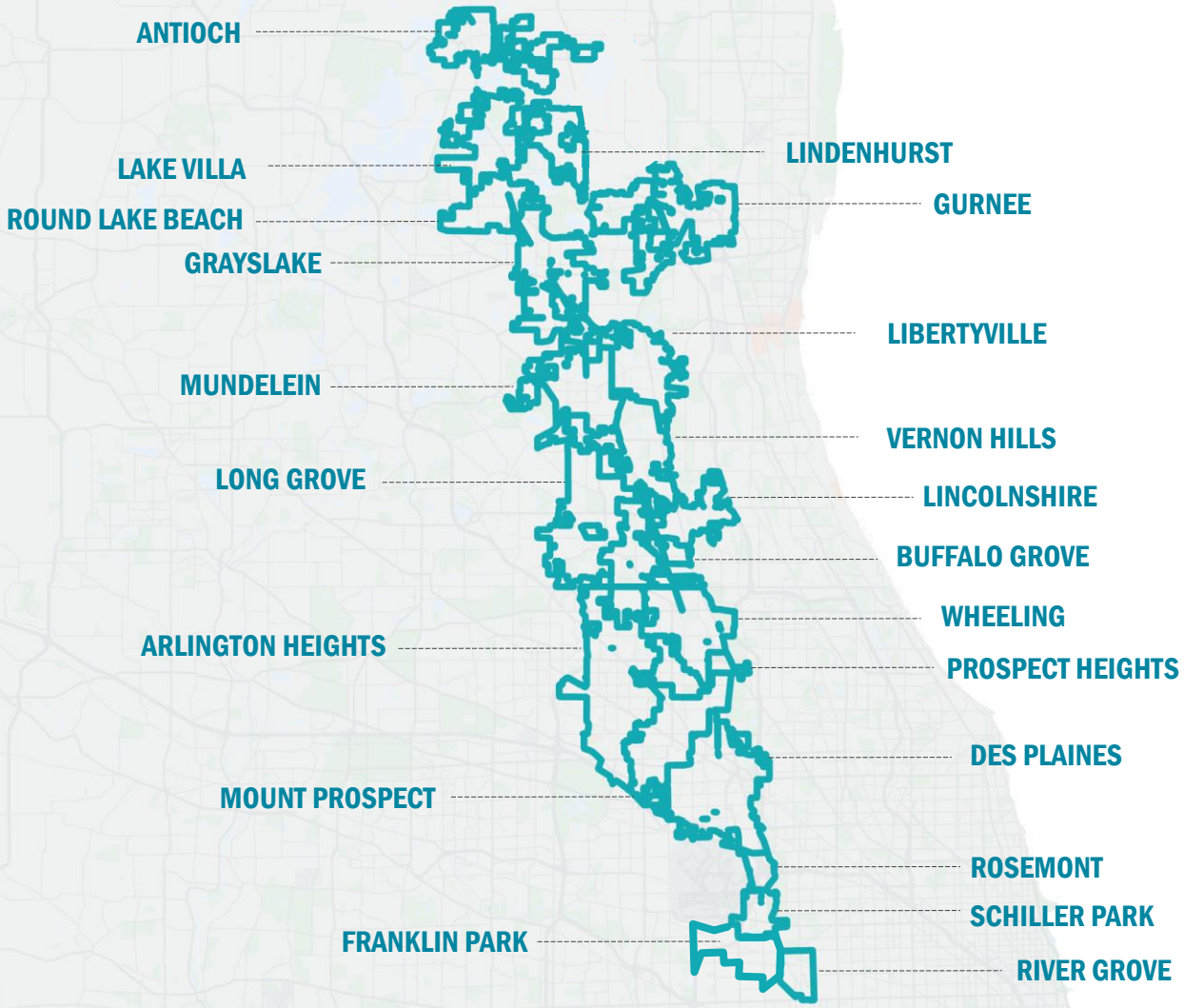
SB Friedman assumed a business district sales tax rate of 0.25%, annual sales inflation rate of 2%, and district designation in 2024.

The Illinois Business District law would need to be amended to modify eligibility criteria and allow multiple discontiguous districts to contribute revenue to a transit improvement outside the station areas.

Source: CoStar, Esri, SB Friedman

# MOTOR FUEL TAX (MFT)

## Potential Revenue Generation – SMFT Distribution to Municipalities




# $30 M

**PROJECTED REVENUE OVER 10-YEAR PERIOD (DISCOUNTED AT 6.5%)**

Municipalities receive MFT funds from the state, which allocates distributive shares of the State MFT Fund to governmental entities. A state capital bill passed in June 2019 doubled motor fuel taxes and increased the distributions to local entities. As a result, annual MFT revenues to municipalities are expected to increase by 51%.

SB Friedman projects that the allocation of municipal MFT revenue from communities that significantly overlap NCS marketsheds [1] could generate a total of approximately $40 million in undiscounted revenue over a 10-year period. Utilizing a discount rate of 6.5%, this value equates to approximately $30 million in 2019 dollars.

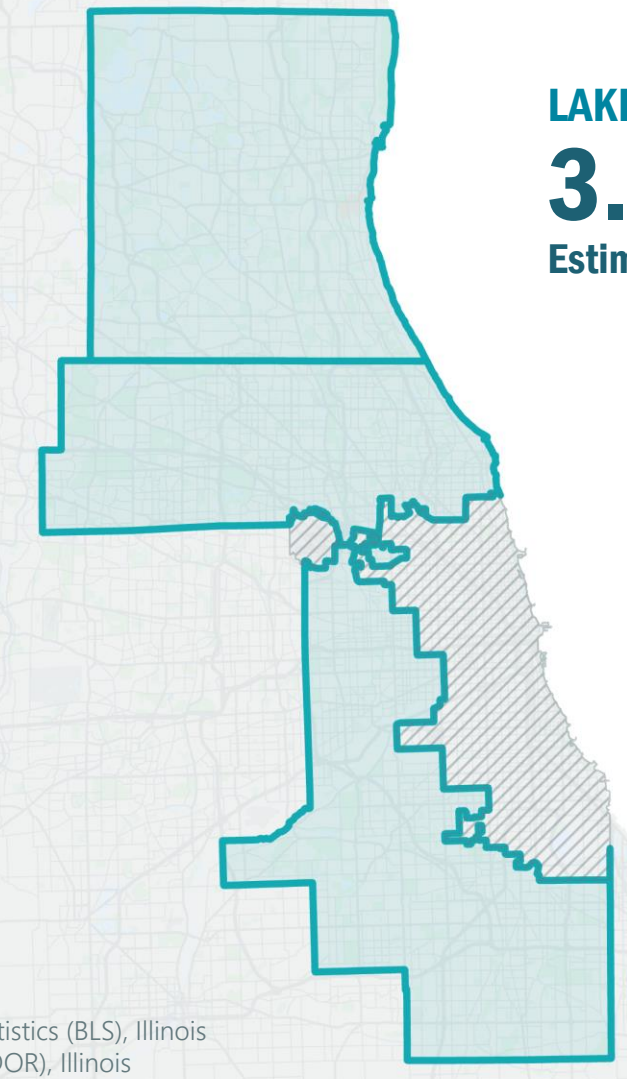
SB Friedman assumed: (1) 50% of the 51% increase in MFT allocation to municipalities is available; (2) the tax rate inflates annually at 1.8%, per historic growth in CPI; and (3) allocation of MFT revenue begins in 2022.

[1] Analysis excludes Chicago, as the city's significant MFT funds would distort analysis; resulting projections are more conservative. See page 53 for definition of marketshed.

Source: Bureau of Labor Statistics (BLS), Illinois Department of Revenue (ILDOR), Illinois Department of Transportation (IDOT), SB Friedman

# TRANSPORTATION NETWORK COMPANY (TNC) TAX

## Potential Revenue Generation – County TNC Taxes



**LAKE COUNTY**

**3.5 M**

**Estimated 2017 TNC Trips**

**COOK COUNTY LESS CHICAGO**

**12.6 M**

**Estimated 2017 TNC Trips**

Source: Bureau of Labor Statistics (BLS), Illinois Department of Revenue (ILDOR), Illinois Department of Transportation (IDOT), SB Friedman

# $3 M

**PROJECTED REVENUE OVER 10-YEAR PERIOD (DISCOUNTED AT 6.5%)**

As of 2019, the City of Chicago levies a tax on transportation network companies (e.g., Lyft, Uber) through an additional $0.72 charge per trip. As of 2019, Lake County and Cook County do not levy a TNC tax. SB Friedman assumed Lake County and Cook County would approve a per-trip TNC tax.

SB Friedman used population data and ridership assumptions to estimate annual TNC trips in Lake County population. We project that TNC taxes in Lake County and Cook County could generate a total of approximately $4.2 million in undiscounted revenue over a 10-year period. Utilizing a discount rate of 6.5%, this value equates to approximately $3.3 million in 2019 dollars.

SB Friedman assumed: (1) Lake County and Cook County approve a TNC tax of $0.24 per trip (one-third of the City of Chicago TNC tax); (2) 0% of the City of Chicago TNC tax is available; (3) 10% of the Lake County and Cook County tax revenue is available; and (4) tax collection begins in 2022.

# ORDER OF MAGNITUDE REVENUE GENERATION

## Summary

| | COUNTY/MUNICIPAL SOURCES | | DISTRICT-SPECIFIC SOURCES | |
|---|---|---|---|---|
| | TAX ON TRANSPORTATION NETWORK COMPANIES | MOTOR FUEL TAX | TRANSIT TIF | BUSINESS DISTRICT |
| POTENTIAL REVENUE GENERATION [1] | $3 M | $30 M | $141 M | $40 M |
| DURATION OF FUNDING [2] | 10 YEARS | 10 YEARS | 35 YEARS | 23 YEARS |
| STATE LEGISLATIVE CHANGE | None | None | Designate NCS line as transit zone, expand boundary to 1.5 miles [3], allow porting of funds | Amend designation criteria and allow porting of funds |

[1] 2019 dollars; assumes discount rate of 6.5%. [2] Assumes 1.5x debt coverage ratio and backstop by regional transit agency. [3] Per ridership distribution, as demonstrated on page 55.

# SCENARIO COSTS VS. AGGREGATE FUNDING

A combination of local funding sources from multiple communities appears to be able to generate sufficient funds to implement the Limited Weekday and Weekend Service scenario. However, generating adequate local funds to implement the Intermediate or Full Service scenarios is likely to be challenging: even if every stakeholder community maximized their local funding sources, the total projected revenue falls short of the estimated capital and operational costs to implement these service improvements.

| | LIMITED WEEKDAY & WEEKEND SERVICE | INTERMEDIATE SERVICE | FULL SERVICE |
|---|---|---|---|
| TOTAL CAPITAL COST (2019 $s) | $75 - 107 M | $285 M | $338 M |
| NET ANNUAL O&M [1] (2019 $s) | $5 M | $9 M | $16 M |

[1] Net of farebox collections.

**$3 M** TNC Tax

**$30 M** Motor Fuel Tax

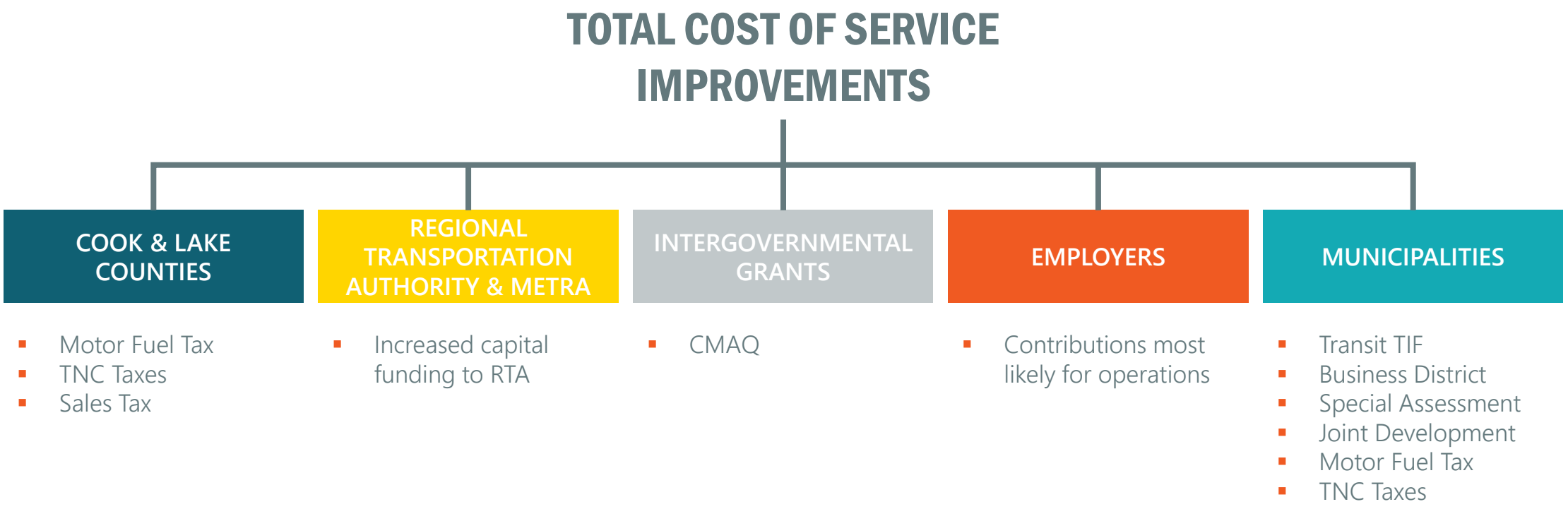
**$141 M** Transit TIF

**$40 M** Business District

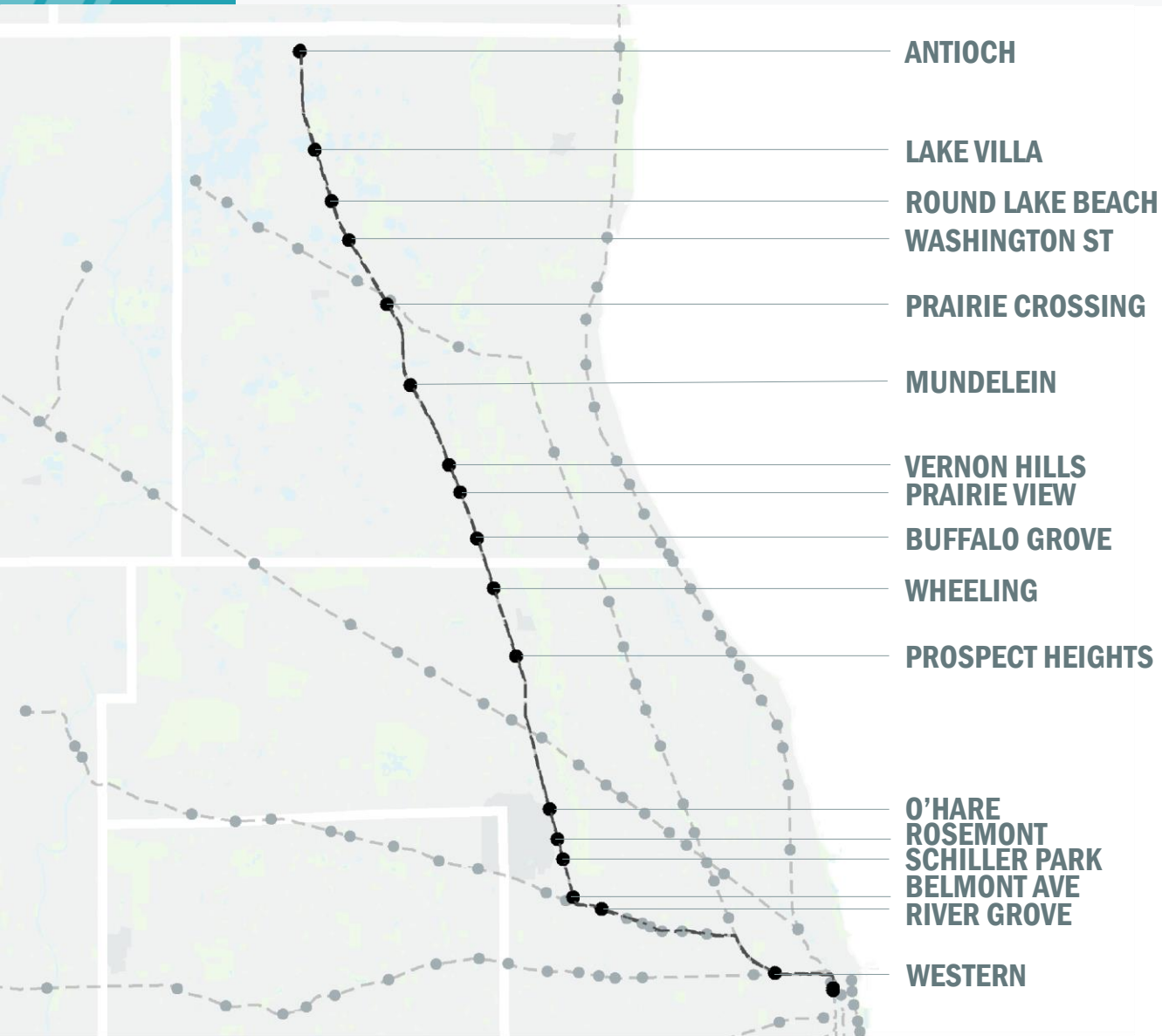
# 06 COST ALLOCATION

# ENTITIES THAT CAN BE PART OF THE FUNDING SOLUTION

Several state, regional, and private funding sources may also be available to the fund NCS service improvements. Maximizing funds from these sources will reduce the cost burden to municipalities. However, these funds are not anticipated to fulfill the total project cost—communities will need to provide their share of local funding if service improvements are to be implemented.



# WHAT DO THESE FUNDING OPTIONS MEAN AT A COMMUNITY LEVEL?



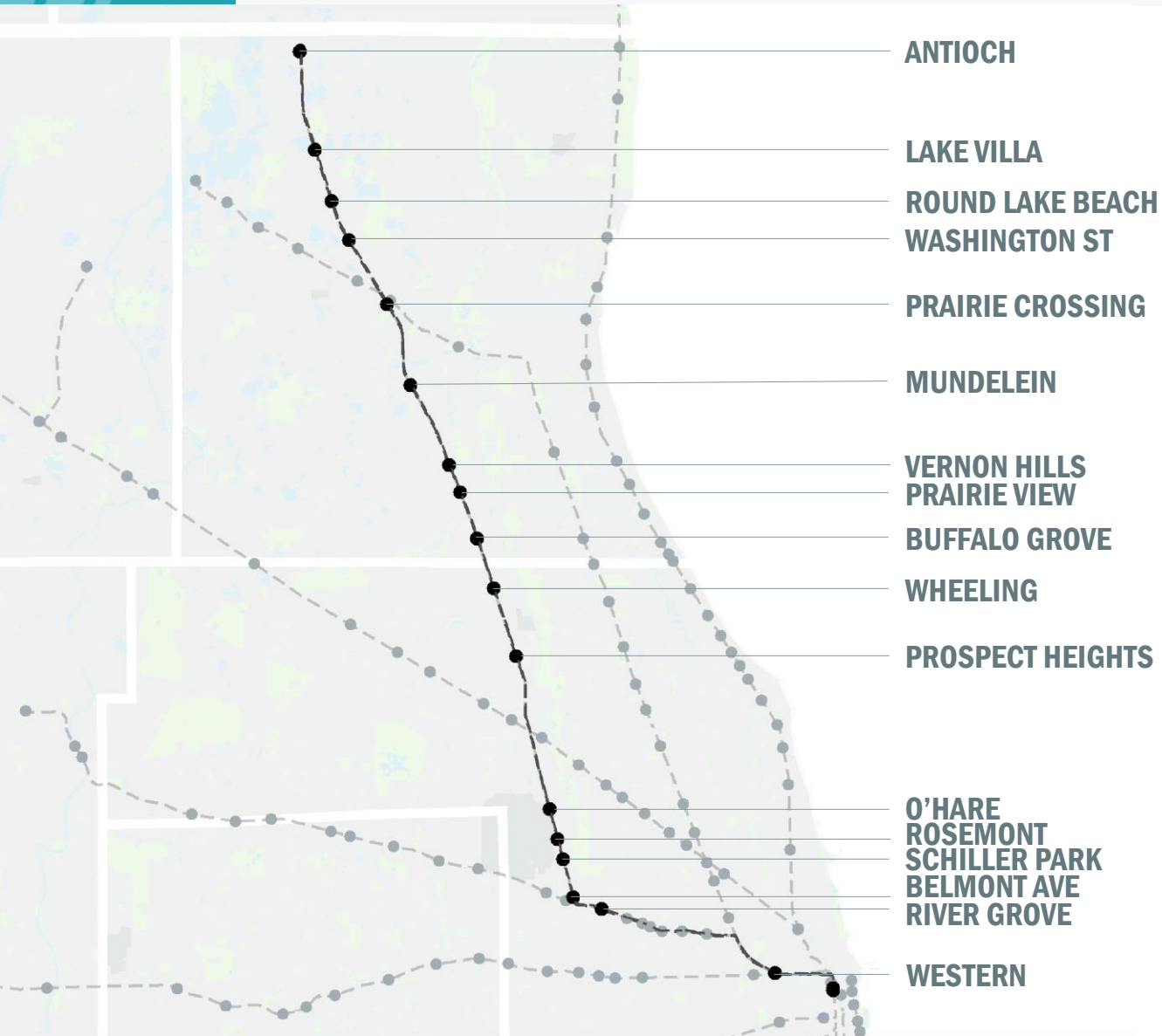

The revenue projections in this report present the total aggregate revenue that may available if every community chooses to utilize and maximize their available revenue sources. However, it is unlikely that every community will contribute the entirety of their potential revenue to fund NCS service improvements, as this would not be a fair allocation of costs to communities. Instead, a fairer allocation would be based in proportion to the benefits they will receive from the planned service improvements.

For example, a community with several retailers located within a half-mile of their NCS station could potentially dedicate significant sales tax revenue towards the project if it elected to designate a business district. However, the service improvements may only result in relatively few additional trains per day for the station. In this case, the community should not be expected to allocate all potential sales tax revenue towards the improvements, but rather a share that reflects the additional service they will receive relative to other communities.

Each community has a menu of funding options available and could potentially choose the combination of funding tools they deem suitable.

# HOW SHOULD COSTS BE ALLOCATED AMONG COMMUNITIES?

## Equal Allocation Option




The table below illustrates costs under a hypothetical scenario wherein costs are allocated equally among 17 NCS station locations, assuming no funding from non-municipal sources. Union Station was excluded from our analysis because it is the terminal destination station from many Metra lines.

**HYPOTHETICAL EQUAL ALLOCATION AMONG 17 NCS STATION LOCATIONS**

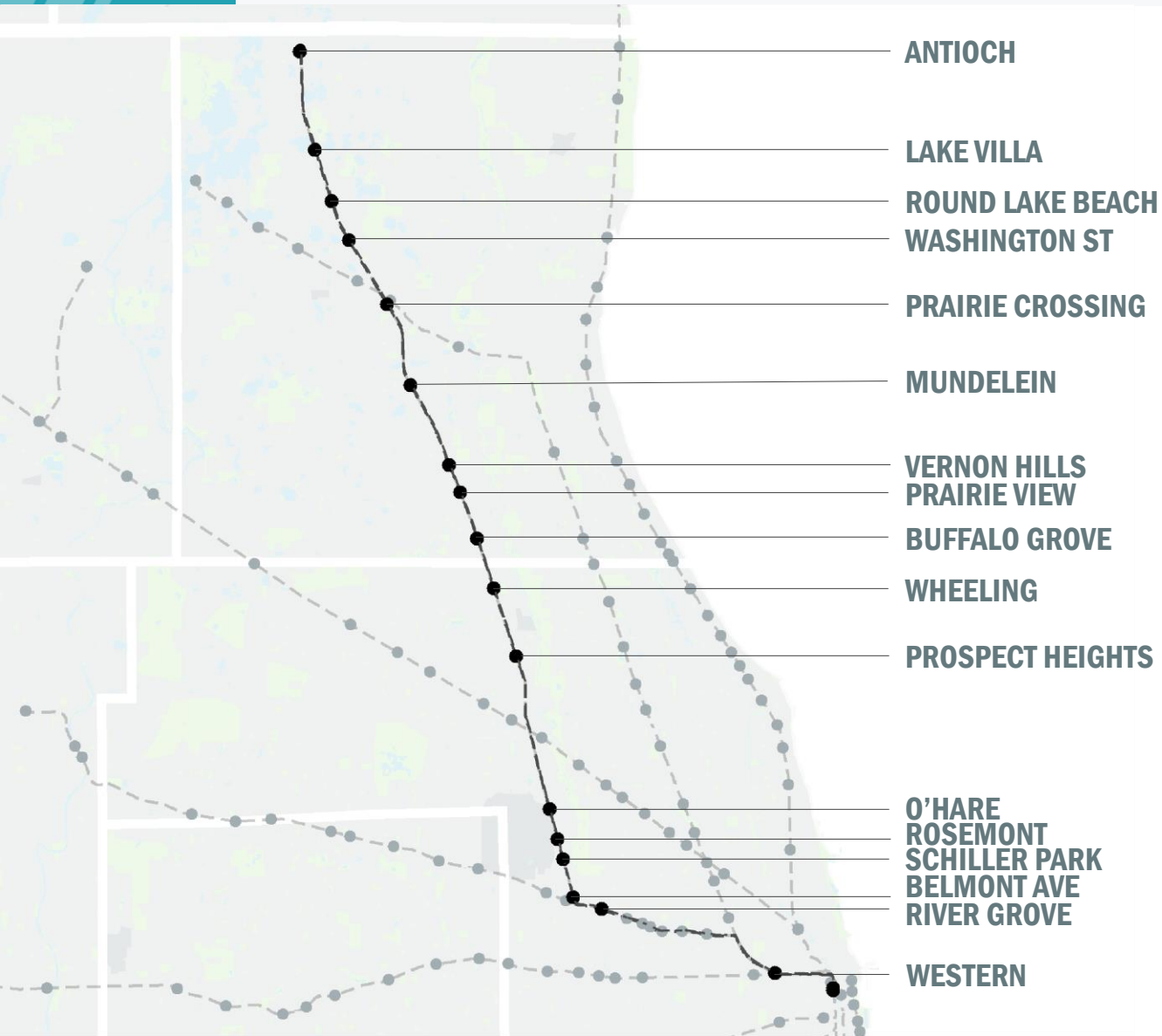
| | LIMITED WEEKDAY & WEEKEND SERVICE | INTERMEDIATE SERVICE | FULL SERVICE |
|---|---|---|---|
| TOTAL CAPITAL COST (2019 $s) | $75 - 107 M | $285 M | $338 M |
| NET ANNUAL O&M [1] (2019 $s) | $5 M | $9 M | $16 M |
| ANNUAL TOTAL COST PER COMMUNITY [2] (2019 $s) | $0.5-0.7 M | $1.5 M | $2.1 M |

[1] Net of farebox collections.
[2] Assumes total costs are allocated equally among 17 communities adjacent to the NCS line (excludes debt coverage) for 35 years.

The equal allocation method does not account for where riders live and station-specific service benefits and can therefore be improved.

# HOW SHOULD COSTS BE ALLOCATED AMONG COMMUNITIES?

## Variable Allocation Based on Benefits




Although there are many ways to assess benefits, this analysis considers an equitable cost allocation method that accounts for the following factors:

**FACTOR #1: LAND AREA WITHIN STATION SERVICE AREA**

**FACTOR #2: DISTRIBUTION OF RIDERS IN HALF-MILE INCREMENTS**

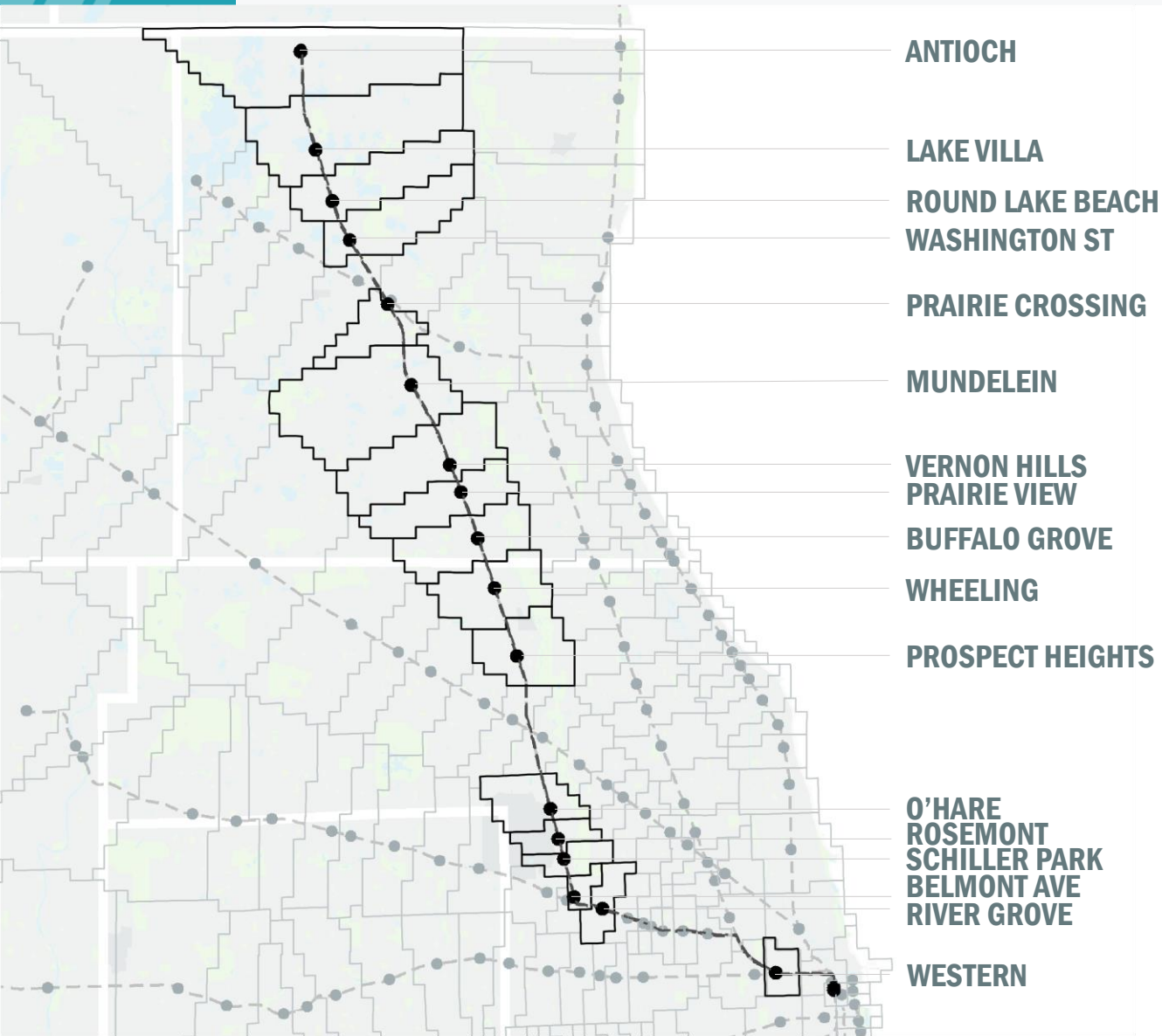
**FACTOR #3: NEW DAILY TRAINS PER STATION**

Other potential factors include future ridership and the type of service improvements (i.e., express vs. full service). While this report did not include these factors in the hypothetical equal cost allocation method, they could be explored in future analyses.

# APPROACH TO EQUITABLE ALLOCATION OF COSTS

## Defining Station Service Areas: Marketsheds

**FACTOR #1: LAND AREA WITHIN STATION SERVICE AREA**




A station's service area identifies communities which should share the cost of service improvements to the NCS line. Service areas for Metra stations are defined marketsheds, as illustrated by the map on the left.

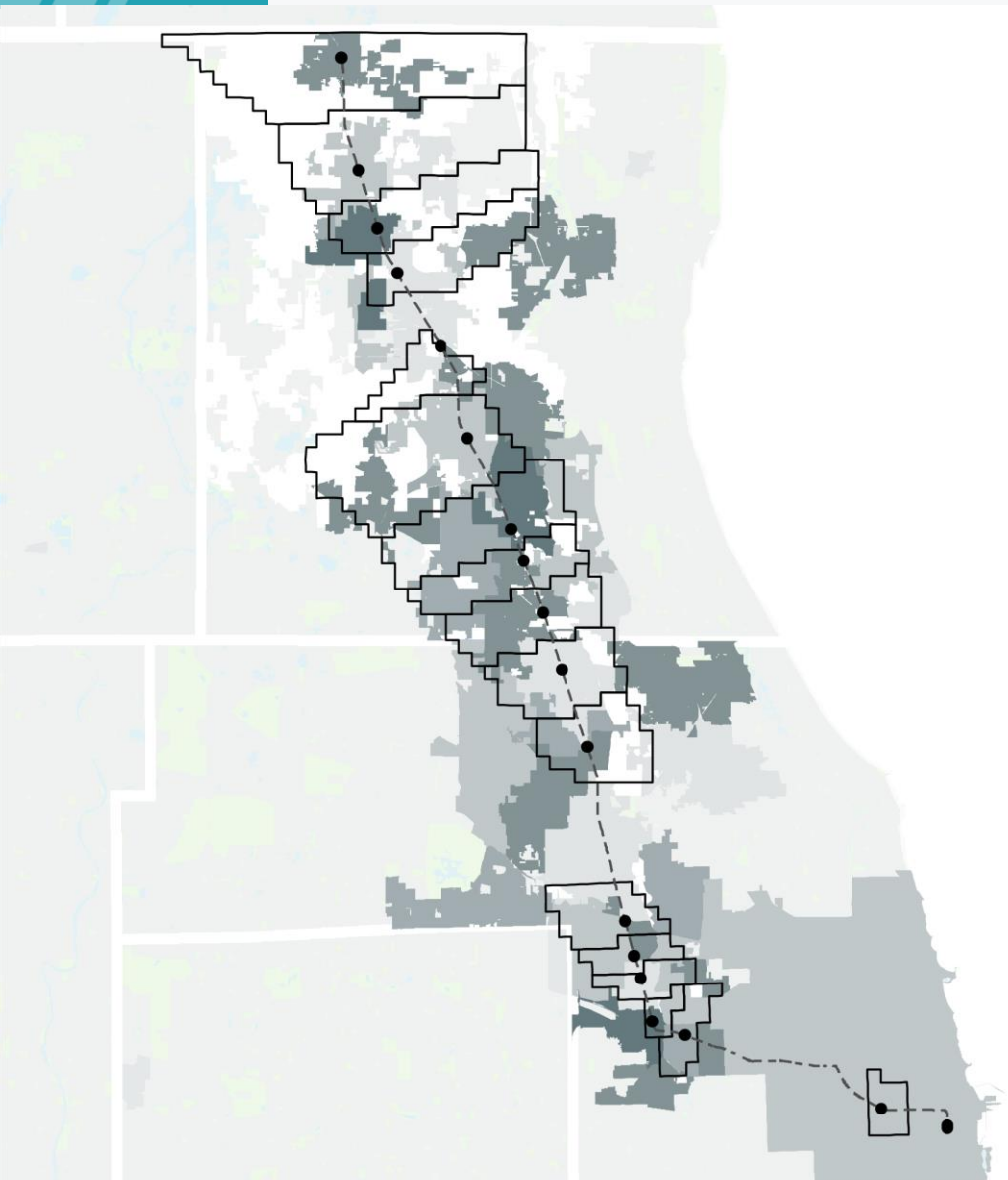
Metra station marketsheds are Subzones whose centroids are closest to those stations. Subzones are quarter-mile geographies used by CMAP for travel demand modeling. As the map demonstrates, the region is comprised of Metra station marketsheds whose size is determined by the proximity of nearby Metra service. All communities fall within a Metra marketshed, even those communities without stations.

A community may include portions of multiple marketsheds for different stations and/or Metra lines.

Source: Metra, Chicago Metropolitan Agency for Planning (CMAP)

# APPROACH TO EQUITABLE ALLOCATION OF COSTS

## FACTOR #1: LAND AREA WITHIN STATION SERVICE AREA



Our analysis considers the aggregate net land area a community has within NCS marketsheds. Net land area is defined as land area less bodies of water, wetlands, and forest preserves.

23 communities have net land acreage that comprises at least 1% of the total acreage in NCS marketsheds. These communities are deemed to be potential funders. Unincorporated Lake County areas also comprise the minimum 1% threshold identified.

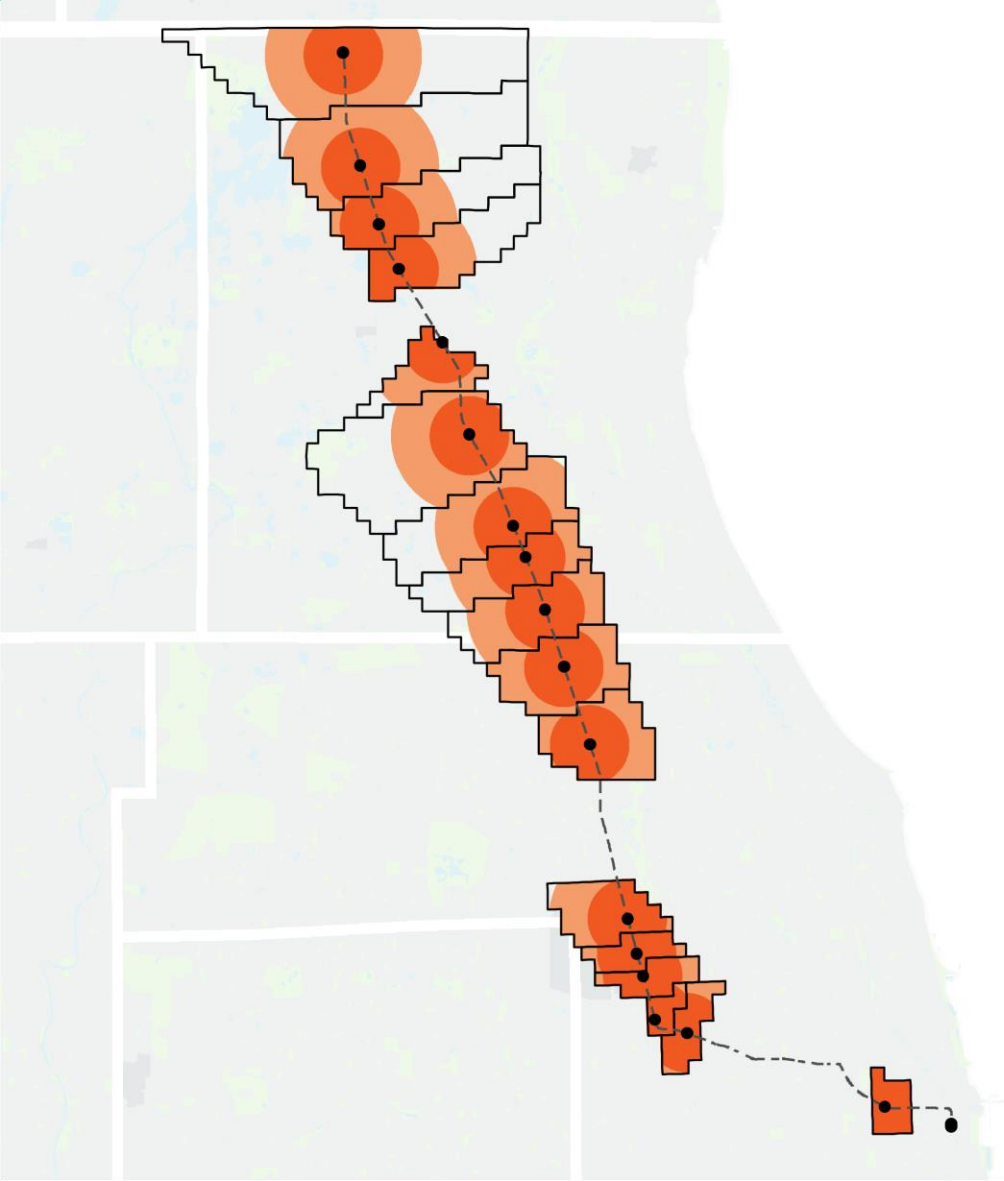
**23 COMMUNITIES**

and Unincorporated Lake County comprise at least 1% of total acreage in NCS marketsheds.

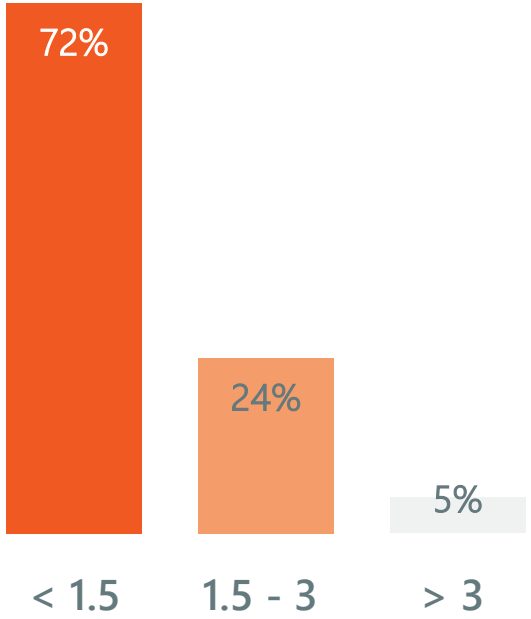
# APPROACH TO EQUITABLE ALLOCATION OF COSTS

## Systemwide Ridership Distribution

**FACTOR #2: DISTRIBUTION OF RIDERS IN HALF-MILE INCREMENTS**



**COMPOSITION OF NCS RIDERS BY DISTANCE FROM STATION (MILES)** [1]




The proximity of a community's acreage to an NCS station influences the degree to which residents within those areas will experience station benefits: riders located closer to an NCS station are more likely to utilize additional train service.

An analysis of NCS ridership data demonstrates that approximately ¾ of all NCS riders originate from areas within 1.5 miles from an NCS station. About ¼ of NCS riders originate from areas 1.5 to 3 miles from an NCS station.

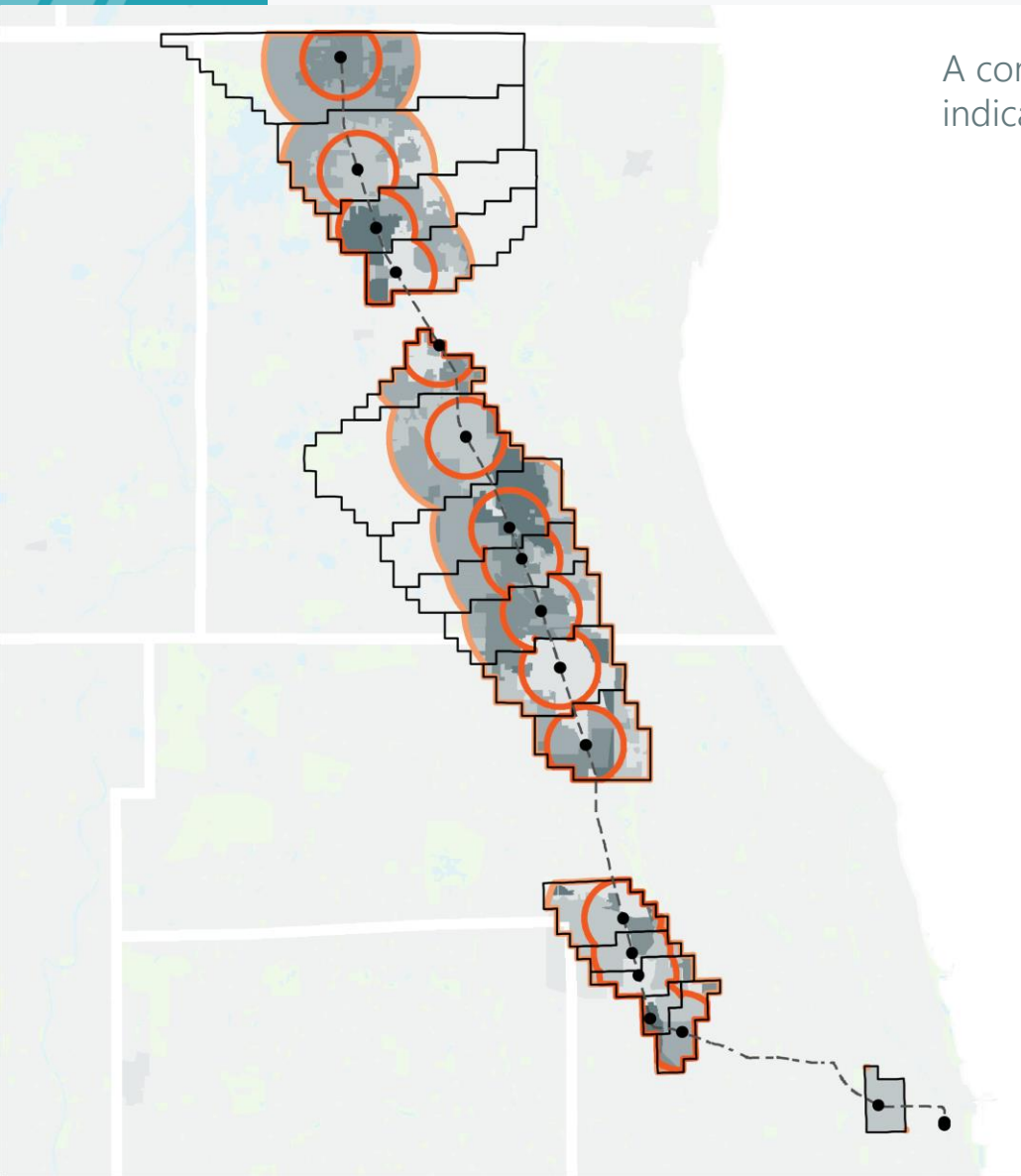
Thus, communities with net land acreage within 3 miles from an NCS station have residents who are most likely to benefit from a station's service improvements.

[1] Only includes riders within NCS marketsheds.
Source: *Origin-Destination Survey* (2016), Metra

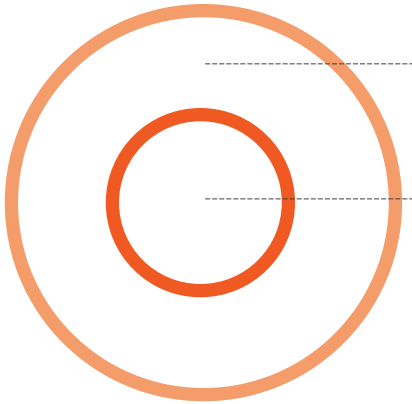
# APPROACH TO EQUITABLE ALLOCATION OF COSTS

## Weighted Land Acreage

**FACTOR #2: DISTRIBUTION OF RIDERS IN HALF-MILE INCREMENTS**



A community's net land acreage is weighted to reflect access to a station's benefits, as indicated by the distribution of NCS riders.



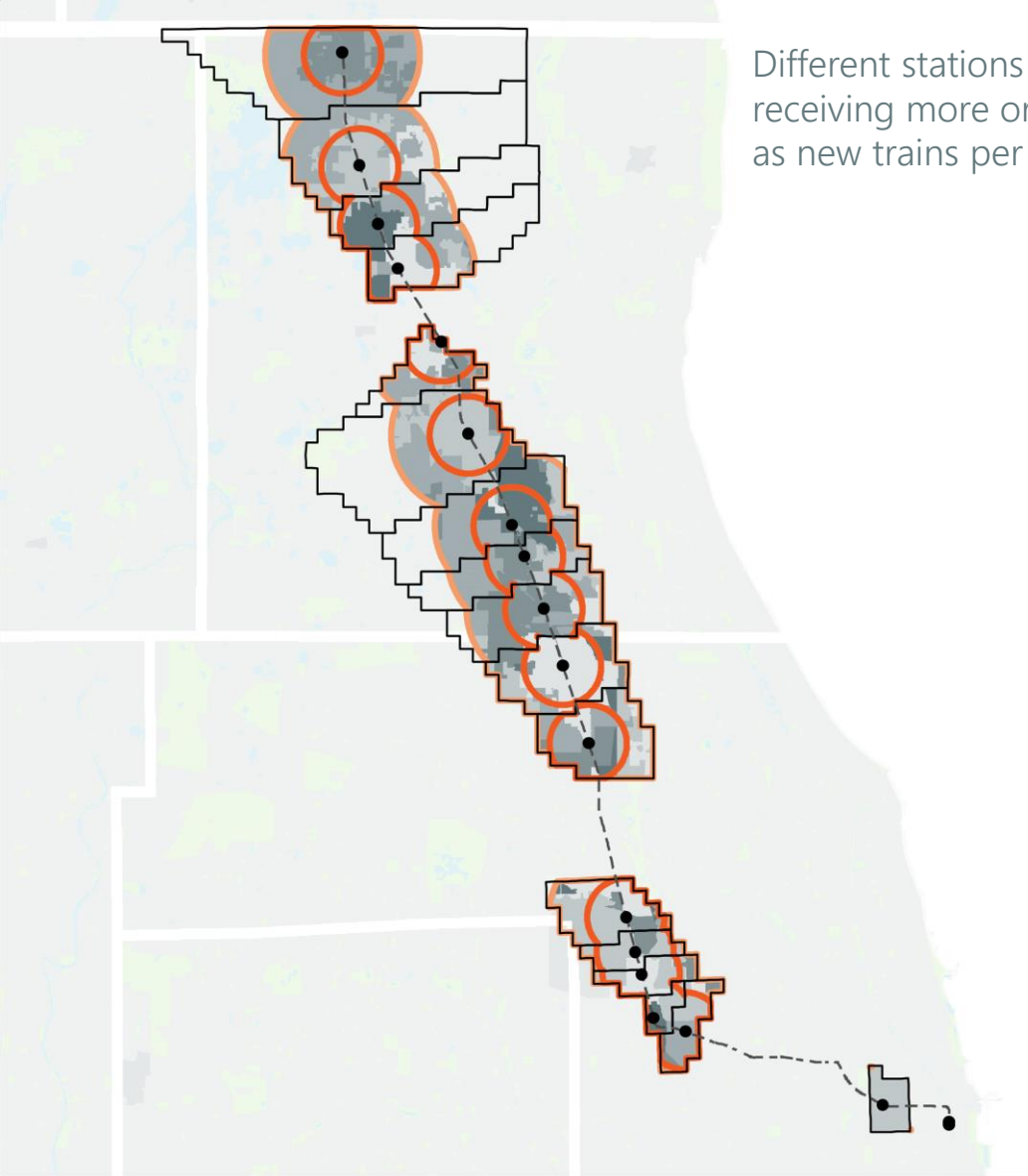
**1.5 TO 3 MILES: ACREAGE WEIGHTED BY 0.25**

**WITHIN 1.5 MILES: ACREAGE WEIGHTED BY 0.75**

# APPROACH TO EQUITABLE ALLOCATION OF COSTS

## Service Benefits: Total New Daily Trains per Station

**FACTOR #3: NEW DAILY TRAINS PER STATION**



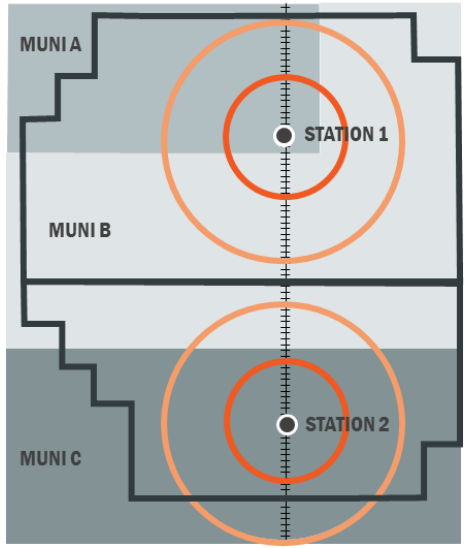
Different stations are anticipated to receive varied benefits through the service improvements, with stations receiving more or fewer new trains. The table below demonstrates service benefits to each station, defined as new trains per day, under each service improvement scenario.

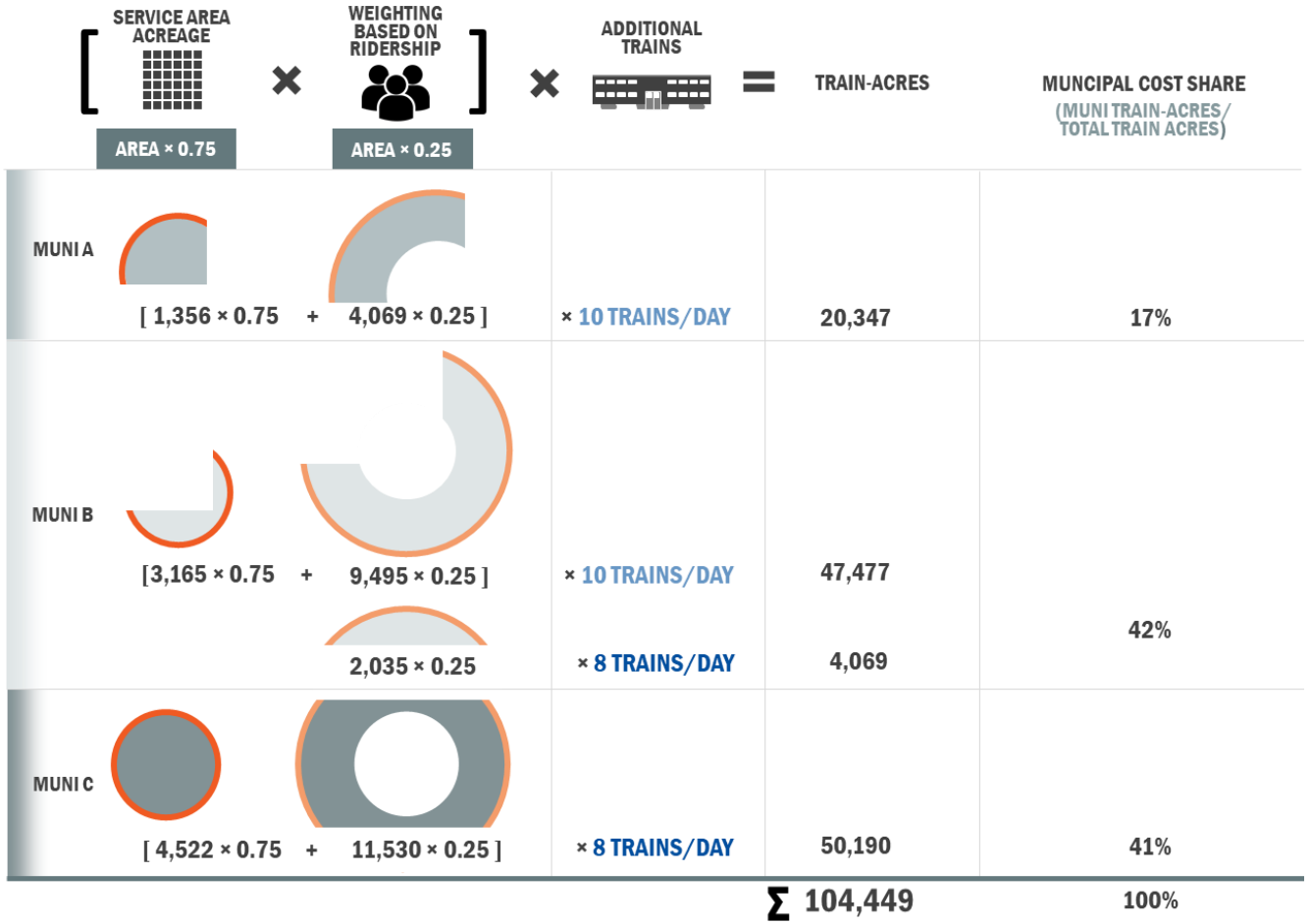
| | LIMITED WEEKDAY & WEEKEND SERVICE | | INTERMEDIATE SERVICE | FULL SERVICE |
|---|---|---|---|---|
| **STATION** | **Weekday** | **Weekend** | **Weekday** | **Weekday** |
| Union Station | 4 | 6 | 16 | 32 |
| Western Ave | 3 | 6 | 15 | 18 |
| River Grove | 3 | 6 | 7 | 8 |
| Franklin Park | 2 | 6 | 13 | 16 |
| Schiller Park | 2 | 6 | 13 | 16 |
| Rosemont | 2 | 6 | 13 | 16 |
| O'Hare Transfer | 4 | 6 | 16 | 32 |
| Prospect Heights | 2 | 6 | 14 | 17 |
| Wheeling | 4 | 6 | 16 | 32 |
| Buffalo Grove | 2 | 6 | 14 | 30 |
| Prairie View | 4 | 6 | 16 | 19 |
| Vernon Hills | 2 | 6 | 14 | 30 |
| Mundelein | 4 | 6 | 16 | 32 |
| Prairie Crossing | 2 | 6 | 14 | 17 |
| Grayslake | 4 | 6 | 16 | 19 |
| Round Lake Beach | 2 | 6 | 14 | 17 |
| Lake Villa | 4 | 6 | 16 | 19 |
| Antioch | 2 | 6 | 14 | 17 |

# APPROACH TO EQUITABLE ALLOCATION OF COSTS

## Example for 2 Stations and 3 Municipalities

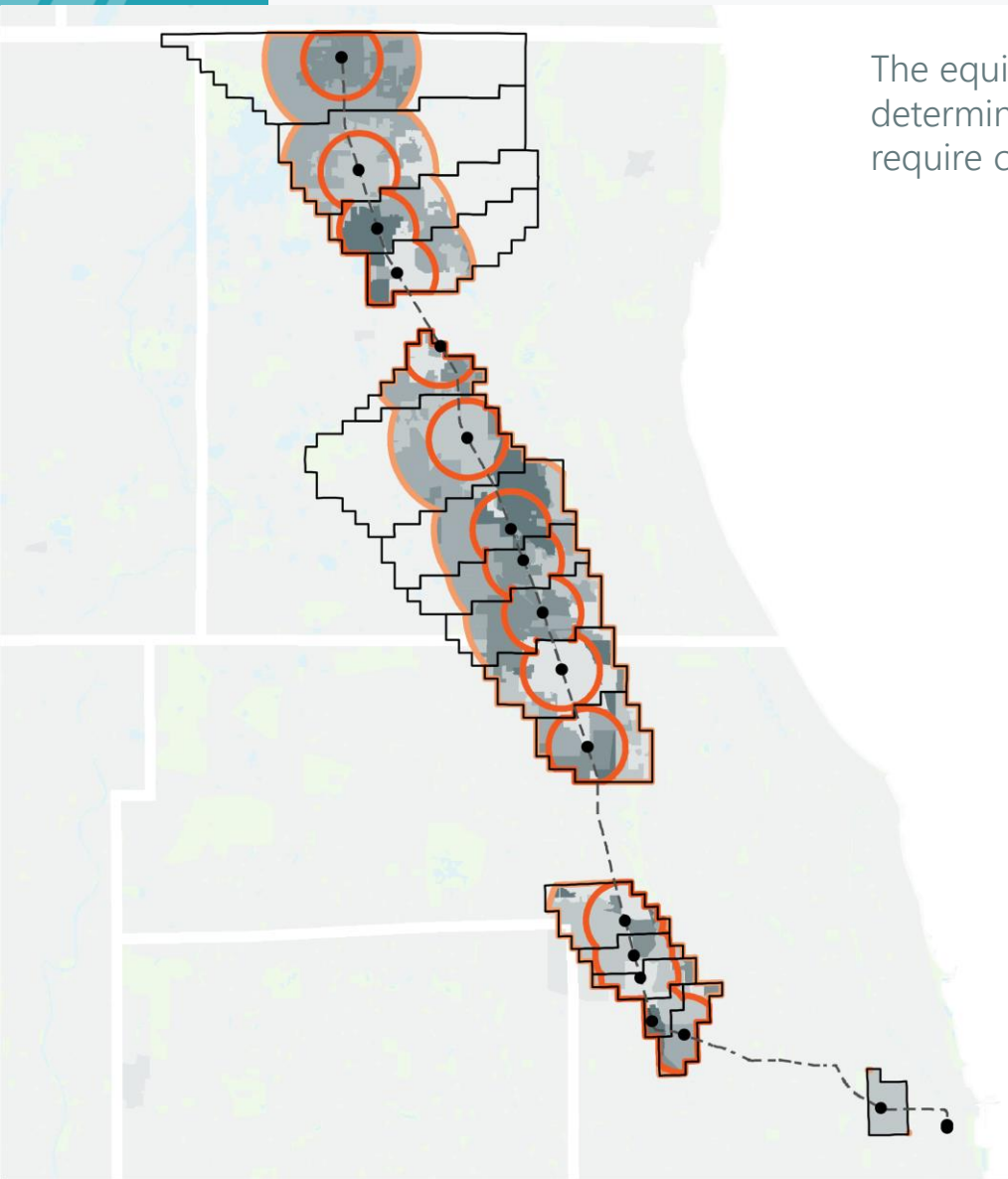
The example below illustrates how municipal cost shares would be determined utilizing the equitable cost allocation method. In the example, three communities comprise the marketsheds for two station areas. A municipality's cost share is determined by net land acreage within a station service area (weighted by ridership) and station-level benefits.



# APPROACH TO EQUITABLE ALLOCATION OF COSTS

## Determining a Community's Share of Cost



The equitable cost allocation method explored in this report is just one approach for fairly determining a community's cost burden. Implementation of a service improvement scenario would require consensus on a cost allocation mechanism for stakeholder communities.

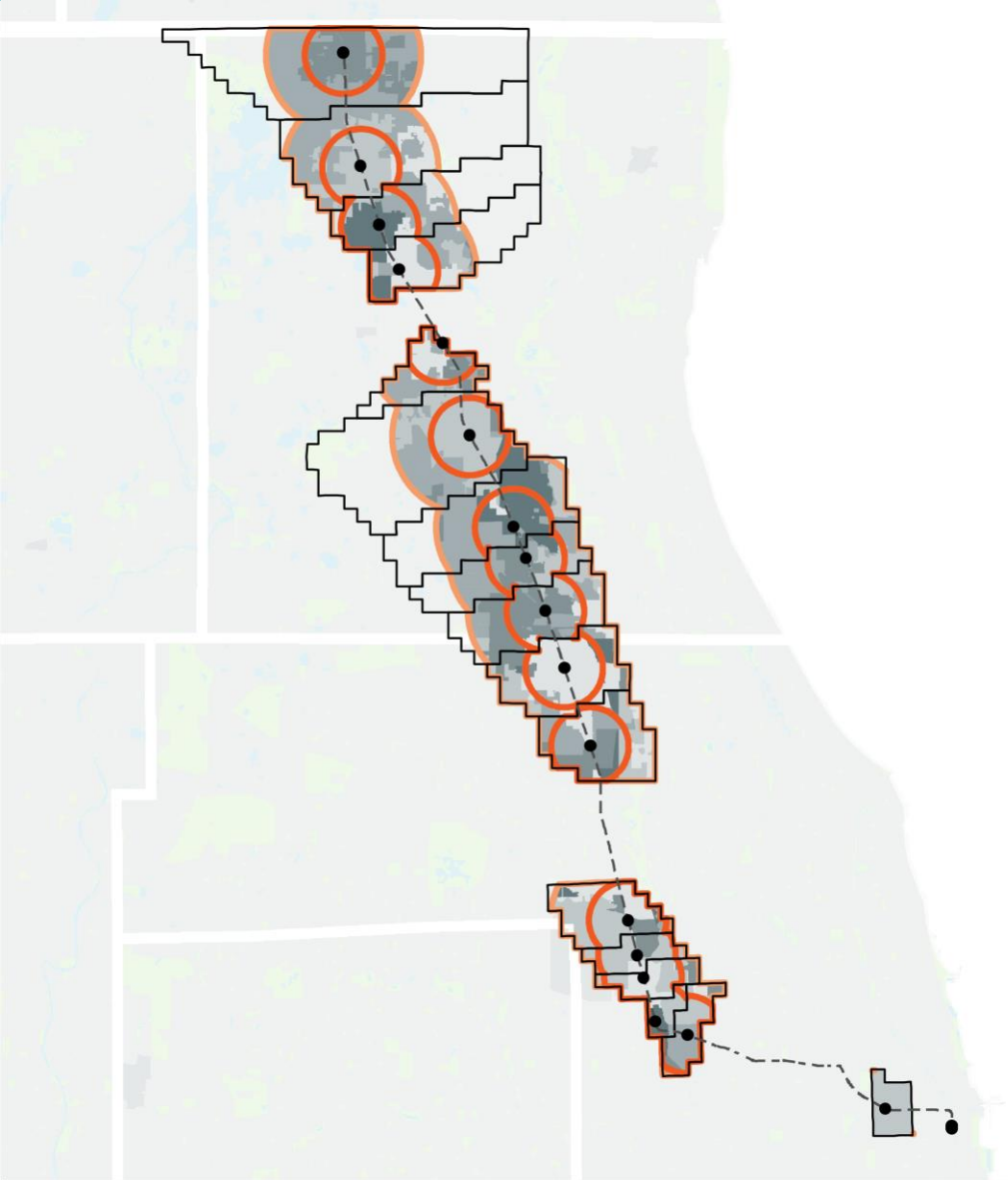
For each community the generalized formula is as follows:

$$\frac{\left(\text{NET ACREAGE WITHIN MARKETSHED} \times \text{WEIGHTING BASED ON RIDERSHIP DISTRIBUTION} \times \text{ADDITIONAL TRAINS}\right)}{\sum_{\text{ALL COMMUNITIES}} \left(\text{NET ACREAGE WITHIN MARKETSHED} \times \text{WEIGHTING BASED ON RIDERSHIP DISTRIBUTION} \times \text{ADDITIONAL TRAINS}\right)} = \%\ \text{OF TOTAL COST}$$

# 07 PATHWAY TO IMPLEMENTATION

# PATHWAY TO IMPLEMENTATION

## Creating a Multi-Jurisdictional Funding Mechanism

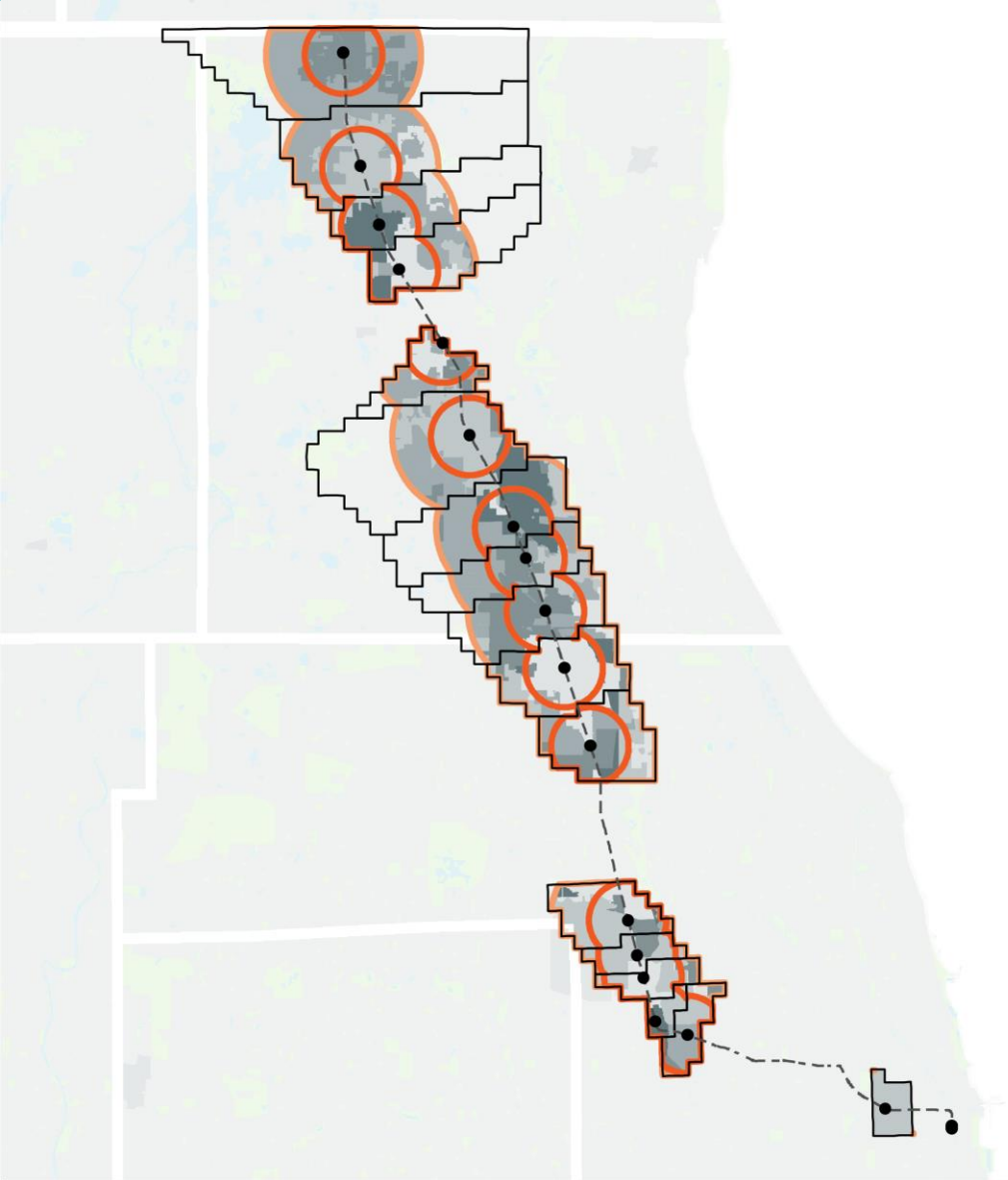


Pursuing NCS service improvements would require the following actions by a coalition of stakeholder communities:

- Selection of an improvement scenario
- Buy-in on the need for local funding
- Definition of fair allocation mechanism
- Selection of funding options by community/county that:
  - Best meet local needs
  - Cover their fair share of costs

# PATHWAY TO IMPLEMENTATION

## Creating an Organizational Structure



A central governance structure would be required to manage implementation of selected NCS improvements. The entity would have the ability to collect funds and finance improvements (i.e., issue bonds). The structure should incentivize broad participation, as employer and county contributions will reduce municipal cost burdens. Improvements to stations should maximize the number of communities experiencing benefits, thereby encourage more communities to fund service improvements.

There is potential for the governing entity to form a Local Mass Transit District. Under Illinois law, Local Mass Transit Districts can be created to build and maintain transit facilities. They can apply for public and private funds and are granted the ability to levy property taxes (capped at 0.25% of assessed value) following voter approval.

# 08 COMMITMENT TO PROCEED

# STEERING COMMITTEE VOTE


## STEERING COMMITTEE MEETING #3 PRESENTATION:

The Steering Committee attended the third and final NCS Corridor Analysis and Implementation Study presentation on October 21, 2019. At the presentation, Steering Committee members were asked to vote Yes or No on the following question:

**Is the community leadership committed to working in partnership with other municipalities and regional agencies to advance long-term NCS improvements?**

Google Earth; Metra; SB Friedman; US Census

# OUTCOME OF VOTE

## 25 Communities/Organizations with Voting Power

| STAKEHOLDERS |
| --- |
| Antioch |
| Buffalo Grove |
| Chicago |
| Chicago Department of Aviation |
| Cook County Department of Transportation |
| Des Plaines |
| Franklin Park |
| Grayslake |
| Lake County Department of Transportation |
| Lake Villa |
| Libertyville |
| Long Grove |
| Metra |
| Mundelein |
| Pace |
| Prospect Heights |
| River Grove |
| Rosemont |
| Round Lake Beach |
| Regional Transportation Authority (RTA) |
| Schiller Park |
| Transportation Management Association (TMA) of Lake-Cook |
| Vernon Hills |
| Vernon Township |
| Wheeling |

### VOTING OUTCOME:

**21** Commitment to Future Discussion

**4** No Commitment or Not Present

# CONCLUSION

- NCS improvements could advance local and regional multi-modal transportation and transit-oriented development goals
- Fiscal constraints require the exploration of innovative funding strategies and a multi-jurisdictional governance structure
- Funding and implementing improvements is a complex issue that requires partnerships between communities and regional agencies
- Local funding strategies can attract additional funds from major employers and/or other governmental sources

# NEXT STEPS

It is anticipated that the Village of Mundelein, with the support of Lake County Transportation Alliance (LCTA), will manage the formation of a work group committee of NCS stakeholders. The group will be created to do the following:

- Help identify the most beneficial and cost-efficient service scenario
- Communicate with stakeholders on potential methods of funding and determine level of support for such funding mechanisms
- Craft formal documentation of commitments (such as a support resolution, memorandum of understanding, or intergovernmental agreement)
- Continue the dialogue with current transportation agencies: RTA, Metra, Pace, and Chicago Department of Aviation (O'Hare)
- Coordinate with applicable transit agencies an introduction with Canadian National
- Outline where further analysis is needed, types of analysis, estimate of cost, and potential funding needs for further analysis and implementation.

# 09 APPENDIX

# North Central Service Project (RTA-NCS)

## Introduction

The RTA NCS Study survey received **1,480 responses** over the period between May 2, 2019 and June 17, 2019. This survey summary contains most of the results for the multiple choice questions, as well as some questions that required open-ended responses. The survey was broken into two separate sets of questions using skip logic, one for employers and another set for residents and employees that ride the NCS line. Skip logic was also utilized to gain feedback about different train stations and train lines that riders currently divert to when NCS service is not available.

- Survey responses were received from people living in most communities along the NCS line.
- Communities assisted in promoting the survey with at least 18 social media posts and e-newsletters articles.
- The Chicago Department of Aviation (O'Hare International Airport) also promoted the survey to employees and consultants.
- Advertisements for the survey were placed in 173 Pace buses that service this area, and Metra helped promote the survey to their riders via social media.
- The average age of respondents taking the survey was between 35 and 44**.**
- 57 employers along the corridor participated in the survey, ranging in size from less than 20 employees to over 1,000 employees.

## Key Takeaways

- 37% of employers plan to expand services they offer to employees who take public transit to work.
- 57% of employers indicated current NCS service limits their ability to recruit or retain employees.
- 17% of employers indicated they would be willing to financially support last mile commuter service from nearby Metra stations to their sites.
- The top destination station for a typical trip on the NCS line is Chicago. 83% of respondents indicated this was their destination.
- The second most common destination for a typical trip on the NCS line is O'Hare. 13% of respondents indicated this was their destination.
- 95% of respondents indicated they would use the NCS line to visit downtown Chicago if convenient weekend service was available. 62% of respondents indicated they would visit O'Hare.

- Although a majority of respondents would prefer to see the addition of weekend service, respondents who anticipate taking the most additional trips on the NCS line following service improvements preferred more traditional weekday commute service and the addition of express service.
- Increased ridership on the NCS line is likely to be driven by current work commuters, who already use the NCS line frequently and anticipate using it more frequently if service improvements are implemented.

The results of the survey questions are presented on pages 3-27. To further distill the results of the Public Input Survey, SB Friedman conducted cross tabulations (crosstabs) that display the relationship between the responses of two different survey questions. These are presented on pages 28-31. The **Appendix** lists the questions utilized for the crosstabs.

## Possible Areas of Future Analysis

Information was gathered from respondents about home and work addresses and is available for analysis. This data can help identify which stations along the NCS line are most likely to service these riders and how this could impact ridership. This data could also be useful in analyzing station and parking improvement needs at these stations.

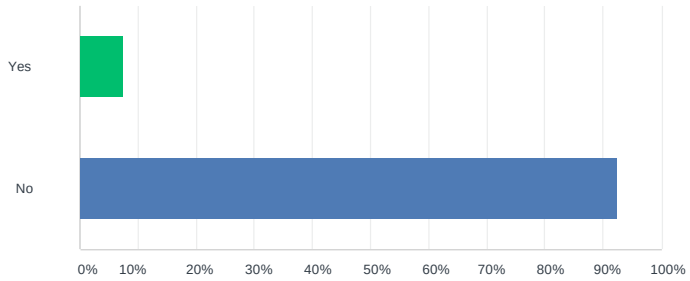
## Future Public Outreach

Pop-up meetings can help verify the survey results with riders at key stations along the NCS line.

# SECTION I. EMPLOYERS

## Are you answering the survey on behalf of an employer whose employees or customers would use a North Central Service (NCS) station?

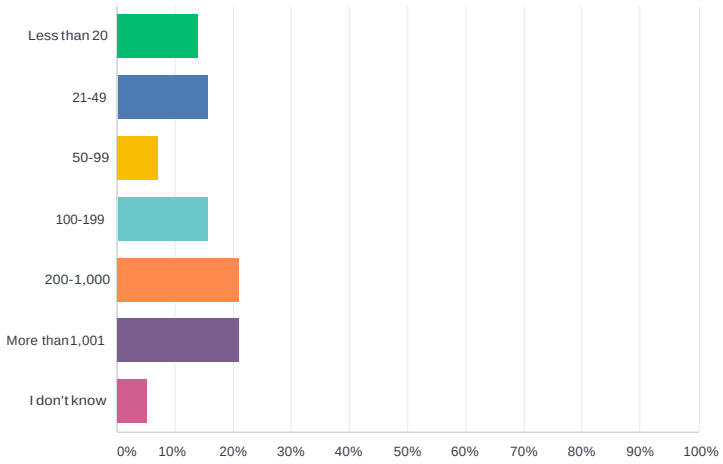
Answered: 1,477 Skipped: 3




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Yes | 7.45% | 110 |
| No | 92.55% | 1,367 |
| TOTAL | | 1,477 |

# How many people are employed by your business?

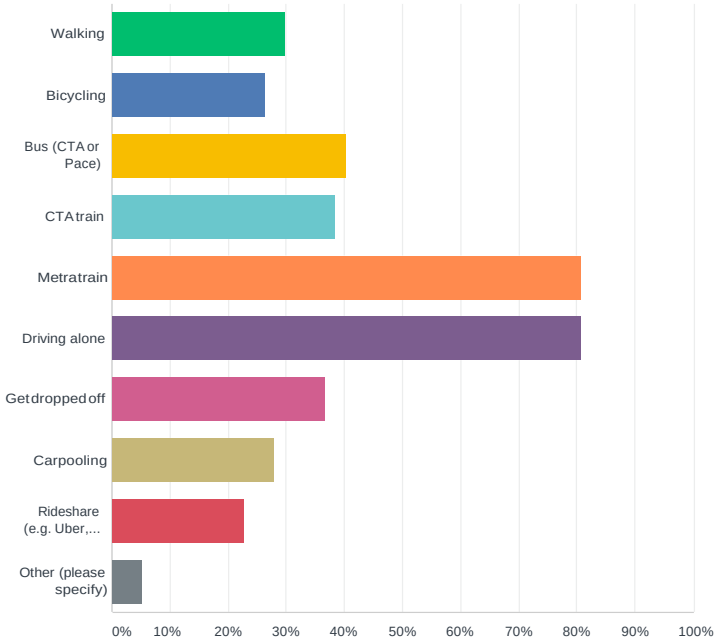
Answered: 57 Skipped: 1,423




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Less than 20 | 14.04% | 8 |
| 21-49 | 15.79% | 9 |
| 50-99 | 7.02% | 4 |
| 100-199 | 15.79% | 9 |
| 200-1,000 | 21.05% | 12 |
| More than 1,001 | 21.05% | 12 |
| I don't know | 5.26% | 3 |
| TOTAL | | 57 |

# Which modes of transportation do your employees use to get to work? Check all that apply.

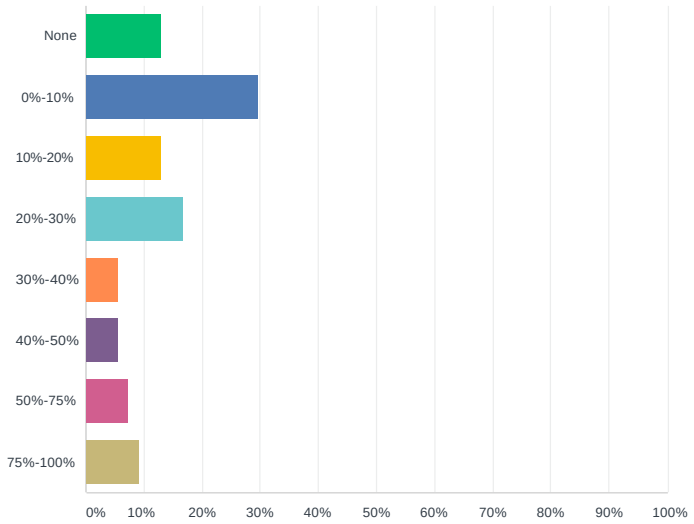
Answered: 57 Skipped: 1,423




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Walking | 29.82% | 17 |
| Bicycling | 26.32% | 15 |
| Bus (CTA or Pace) | 40.35% | 23 |
| CTA train | 38.60% | 22 |
| Metra train | 80.70% | 46 |
| Driving alone | 80.70% | 46 |
| Get dropped off | 36.84% | 21 |
| Carpooling | 28.07% | 16 |
| Rideshare (e.g. Uber, Lyft) | 22.81% | 13 |
| Other (please specify) | 5.26% | 3 |
| Total Respondents: 57 | | |

# What percent of your employees typically use Metra to get to and from work?

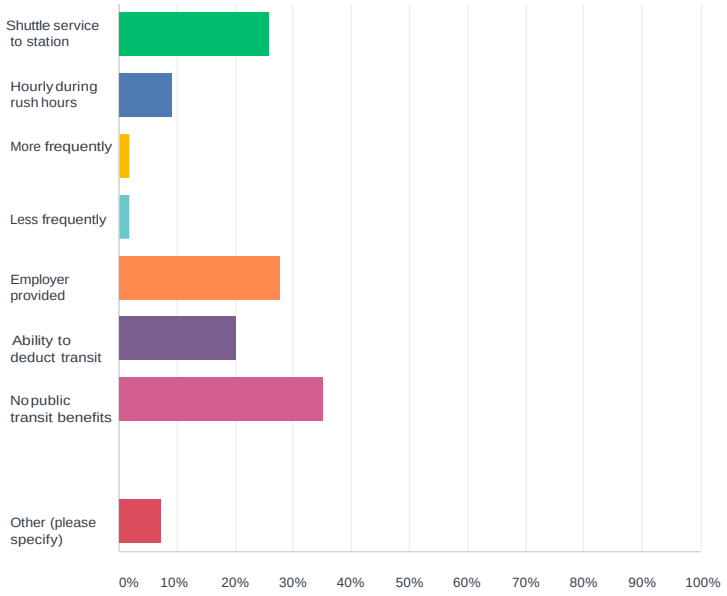
Answered: 54 Skipped: 1,426




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| None | 12.96% | 7 |
| 0%-10% | 29.63% | 16 |
| 10%-20% | 12.96% | 7 |
| 20%-30% | 16.67% | 9 |
| 30%-40% | 5.56% | 3 |
| 40%-50% | 5.56% | 3 |
| 50%-75% | 7.41% | 4 |
| 75%-100% | 9.26% | 5 |
| TOTAL | | 54 |

# What service do you currently offer to employees who use public transit to get to work? Check all that apply

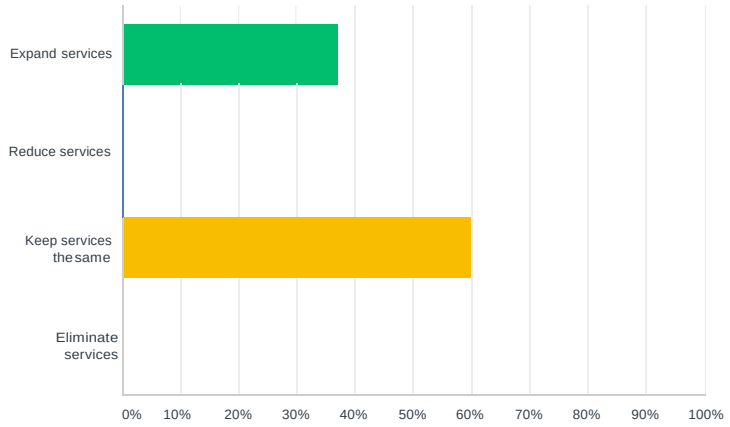
Answered: 54 Skipped: 1,426




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Shuttle service to nearby NCS station | 25.93% | 14 |
| Hourly during rush hours 7-9 AM and 4-6 PM | 9.26% | 5 |
| More frequently than hourly during rush hours | 1.85% | 1 |
| Less frequently than hourly during rush hours | 1.85% | 1 |
| Employer provided commuter benefits, including cards, passes or vouchers | 27.78% | 15 |
| Ability to deduct transit fares pre-tax | 20.37% | 11 |
| No public transit benefits are currently offered to employees | 35.19% | 19 |
| Other (please specify) | 7.41% | 4 |
| Total Respondents: 54 | | |

# Do you plan to continue or change the services you offer to employees who take public transit to work?

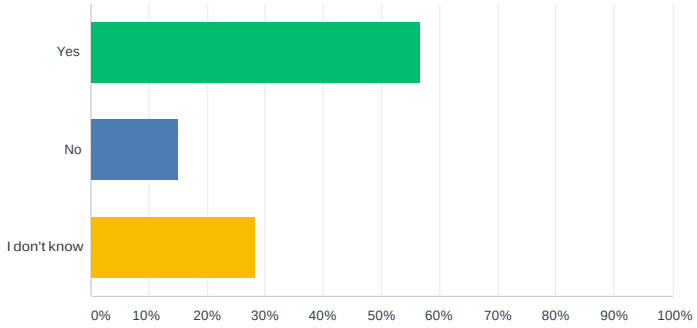
Answered: 51 Skipped: 1,429




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Expand services | 37.25% | 19 |
| Reduce services | 1.96% | 1 |
| Keep services the same | 60.78% | 31 |
| Eliminate services | 0.00% | 0 |
| TOTAL | | 51 |

# Does current NCS service limit your ability to recruit or retain employees?

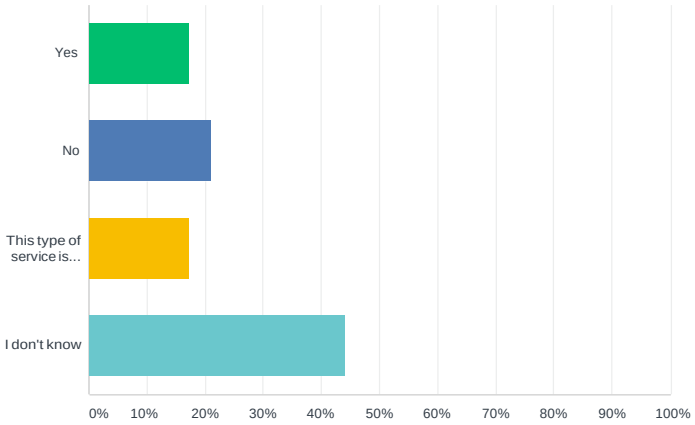
Answered: 53 Skipped: 1,427




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Yes | 56.60% | 30 |
| No | 15.09% | 8 |
| I don't know | 28.30% | 15 |
| TOTAL | | 53 |

# Would you be willing to financially support providing last mile commuter service from nearby Metra stations to your site?

Answered: 52 Skipped: 1,428

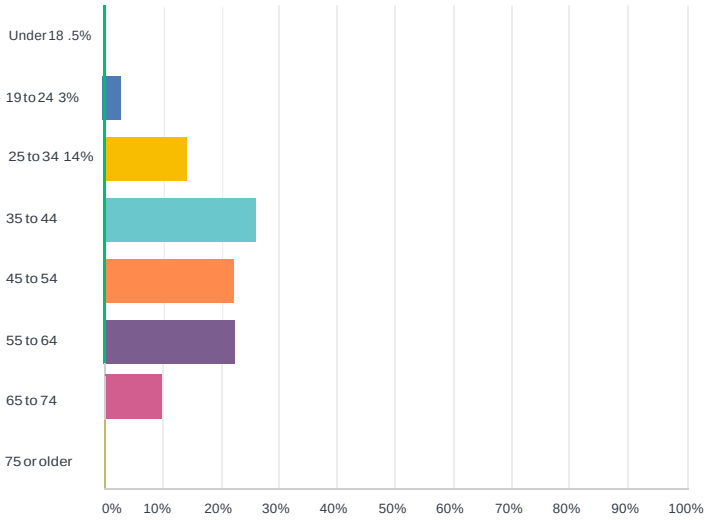



| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Yes | 17.31% | 9 |
| No | 21.15% | 11 |
| This type of service is already provided by the employer | 17.31% | 9 |
| I don't know | 44.23% | 23 |
| TOTAL | | 52 |

# SECTION II. RESIDENTS

## What is your age?

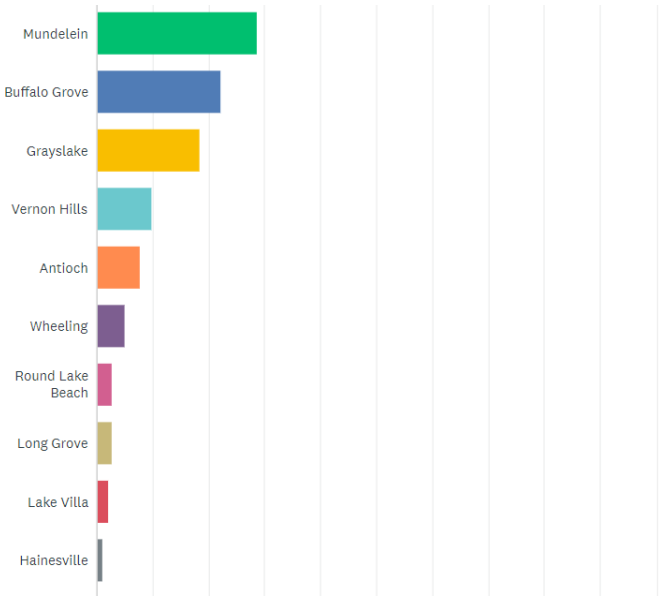
Answered: 1,183 Skipped: 297




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Under 18 | 0.42% | 5 |
| 19 to 24 | 3.30% | 39 |
| 25 to 34 | 14.03% | 166 |
| 35 to 44 | 25.95% | 307 |
| 45 to 54 | 22.23% | 263 |
| 55 to 64 | 22.49% | 266 |
| 65 to 74 | 9.72% | 115 |
| 75 or older | 1.86% | 22 |
| TOTAL | | 1,183 |

# Where do you live?

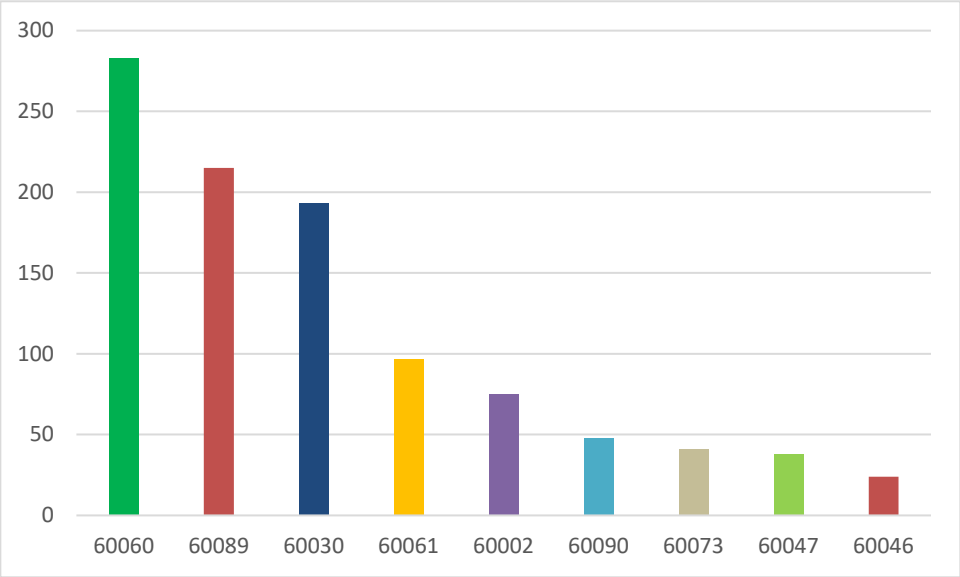
Answered: 1,183 Skipped: 297




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Mundelein | 28.63% | 284 |
| Buffalo Grove | 22.18% | 220 |
| Grayslake | 18.45% | 183 |
| Vernon Hills | 9.78% | 97 |
| Antioch | 7.76% | 77 |
| Wheeling | 4.94% | 49 |
| Round Lake Beach | 2.62% | 26 |
| Long Grove | 2.62% | 26 |
| Lake Villa | 2.02% | 20 |
| Hainesville | 1.01% | 10 |

# What is your home zip code?

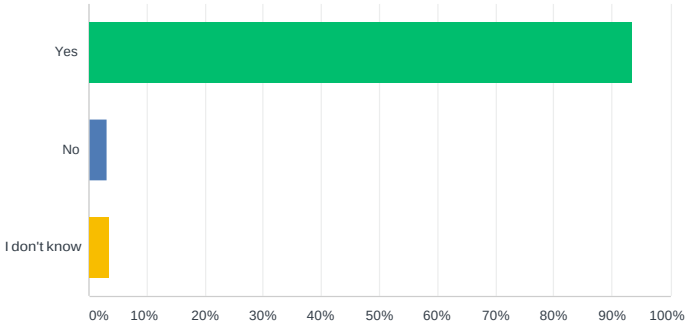
Answered: 1,177 Skipped: 303




| ZIP CODES | NUMBER |
|---|---|
| 60060 | **283** |
| 60089 | **215** |
| 60030 | **193** |
| 60061 | **97** |
| 60002 | **75** |
| 60090 | **48** |
| 60073 | **41** |
| 60047 | **38** |
| 60046 | **24** |

# Do you live in an area where you can use the NCS?

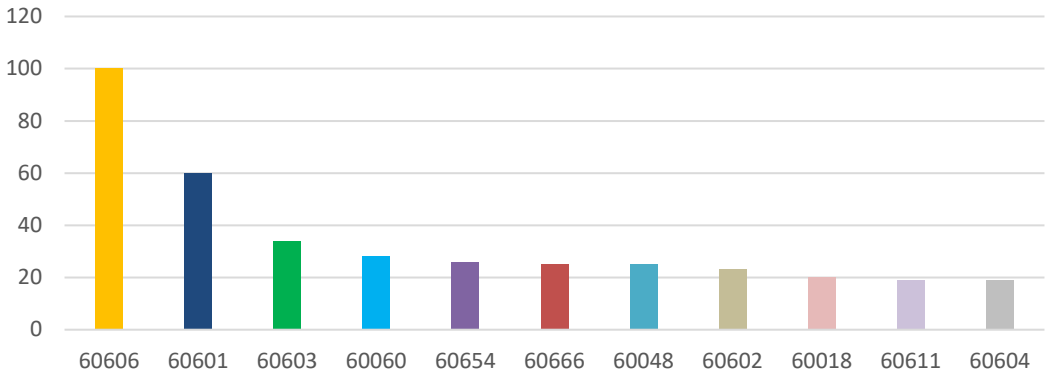
Answered: 1,185 Skipped: 295




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Yes | 93.50% | 1,108 |
| No | 3.04% | 36 |
| I don't know | 3.46% | 41 |

# What is your work's zip code? (or college/trade school/higher education if you do not work)

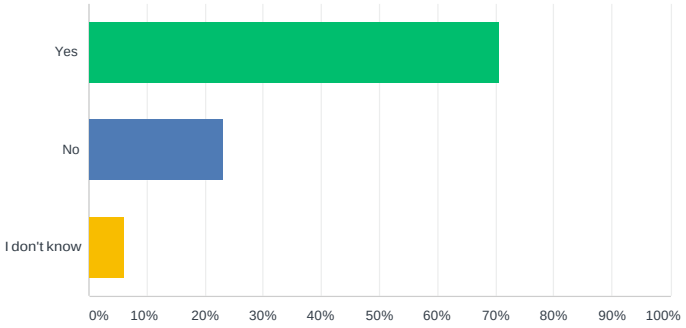
Answered: 678 Skipped: 802




| ZIP CODES | NUMBER |
|---|---|
| 60606 | 100 |
| 60601 | 60 |
| 60603 | 34 |
| 60060 | 28 |
| 60654 | 26 |
| 60666 | 25 |
| 60048 | 25 |
| 60602 | 23 |
| 60018 | 20 |
| 60611 | 19 |
| 60604 | 19 |

# Do you work or go to college/trade school/higher education in an area where you can use the NCS?

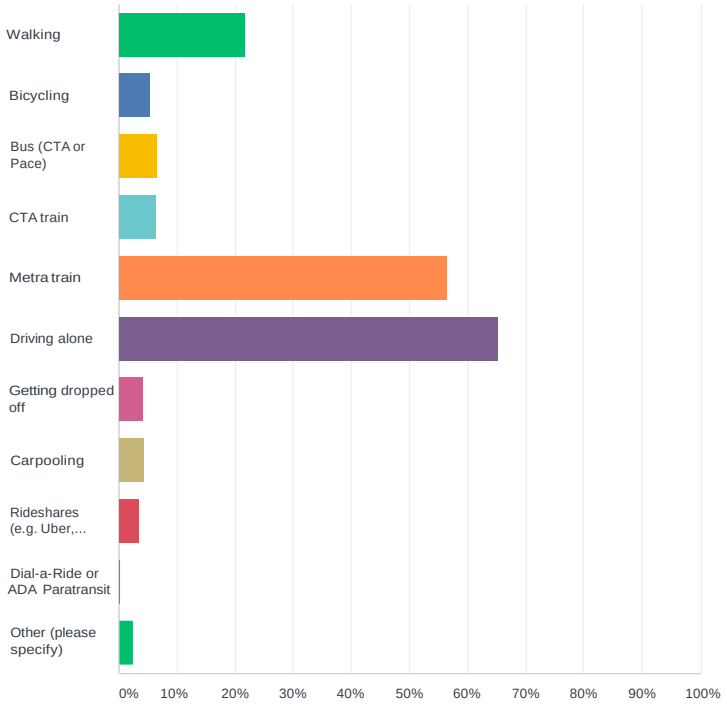
Answered: 736 Skipped: 744




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Yes | 70.65% | 520 |
| No | 23.23% | 171 |
| I don't know | 6.11% | 45 |
| TOTAL | | 736 |

# Which types of transportation do you currently use to get to work (or get to college/trade school/higher education opportunities if you do not work)? Check all that apply.

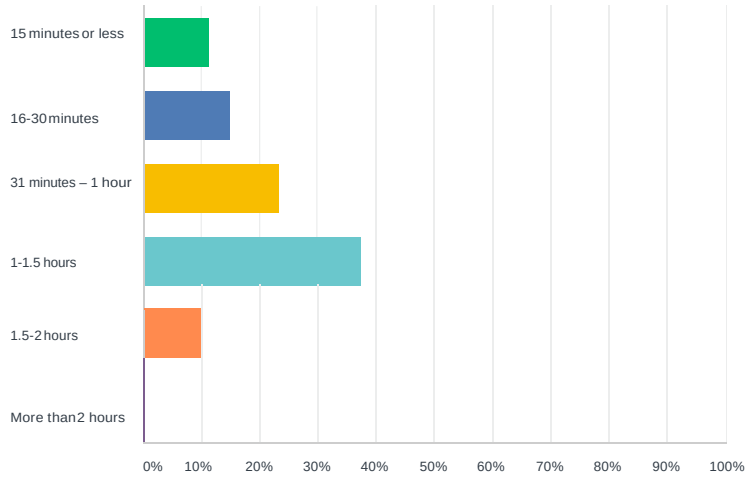
Answered: 748 Skipped: 732




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Walking | 21.79% | 163 |
| Bicycling | 5.48% | 41 |
| Bus (CTA or Pace) | 6.68% | 50 |
| CTA train | 6.55% | 49 |
| Metra train | 56.55% | 423 |
| Driving alone | 65.37% | 489 |
| Getting dropped off | 4.14% | 31 |
| Carpooling | 4.41% | 33 |
| Rideshares (e.g. Uber, Lyft) | 3.48% | 26 |
| Dial-a-Ride or ADA Paratransit | 0.13% | 1 |
| Other (please specify) | 2.54% | 19 |
| **Total Respondents:** | | **748** |

## How long does your trip to work (or to college/trade school/higher education opportunities if you don't work) typically take?

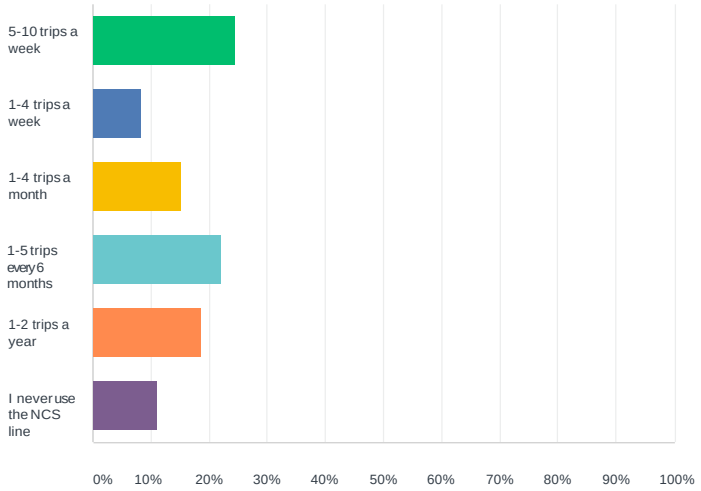
Answered: 747 Skipped: 733




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| 15 minutes or less | 11.51% | 86 |
| 16-30 minutes | 14.99% | 112 |
| 31 minutes - 1 hour | 23.43% | 175 |
| 1-1.5 hours | 37.75% | 282 |
| 1.5-2 hours | 11.11% | 83 |
| More than 2 hours | 1.20% | 9 |
| TOTAL | | 747 |

## How often do you use the NCS line? Count each inbound or outbound trip as one trip. For example, if you take the train downtown and then back, count that as two trips.

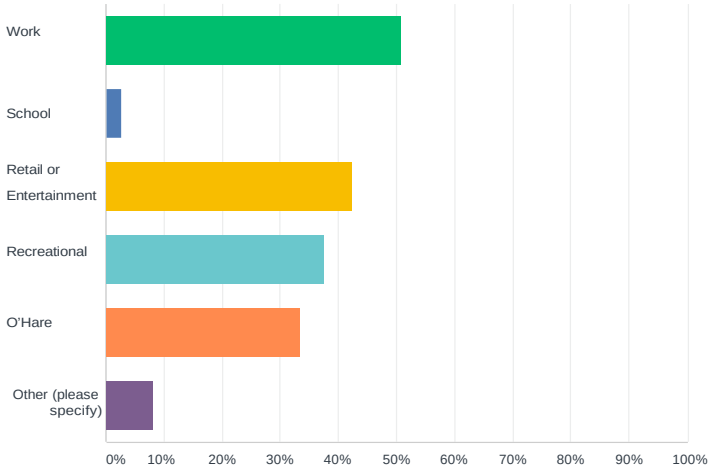
Answered: 1,016 Skipped: 464




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| 5-10 trips a week | 24.41% | 248 |
| 1-4 trips a week | 8.27% | 84 |
| 1-4 trips a month | 15.26% | 155 |
| 1-5 trips every six months | 22.24% | 226 |
| 1-2 trips a year | 18.70% | 190 |
| I never use the NCS line | 11.12% | 113 |
| TOTAL | | 1,016 |

# Where do you travel when you use the NCS line? Check all that apply.

Answered: 872 Skipped: 608

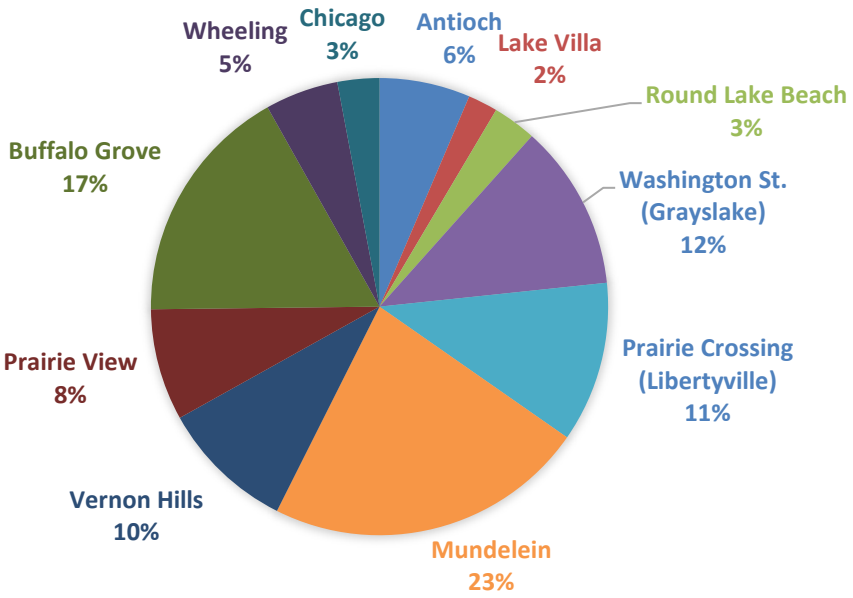



| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Transportation to and from work | 50.80% | 443 |
| Transportation to and from school | 2.64% | 23 |
| Transportation to and from retail or entertainment destinations | 42.55% | 371 |
| Transportation to and from recreational destinations | 37.61% | 328 |
| Transportation to and from O'Hare International Airport | 33.49% | 292 |
| Other (please specify) | 8.26% | 72 |
| Total Respondents: 872 | | |

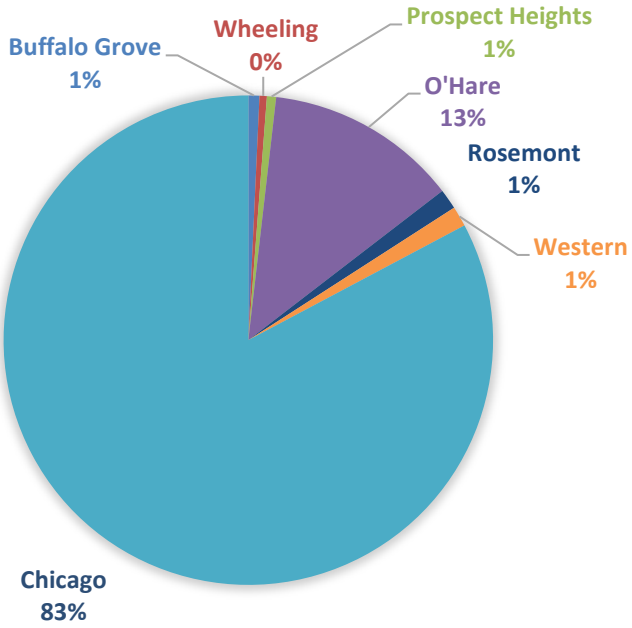
## For a typical trip on the NCS line, select the stations you use when traveling from your most frequent starting point.

Answered: 847 Skipped: 633

### STARTING STATION

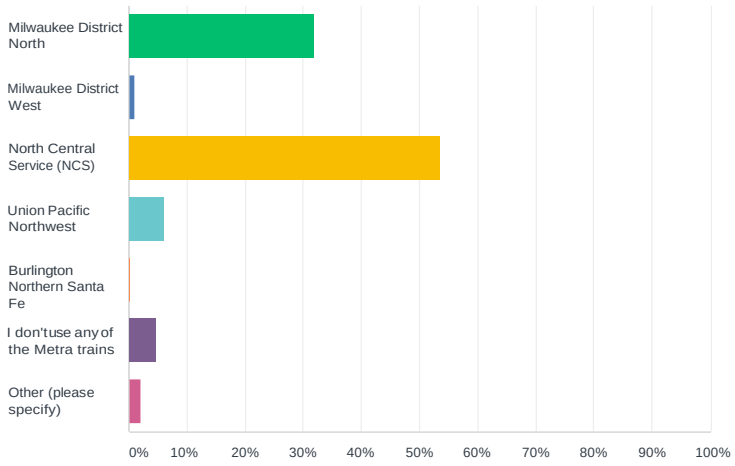



### DESTINATION



# Which Metra train line do you use the most frequently?

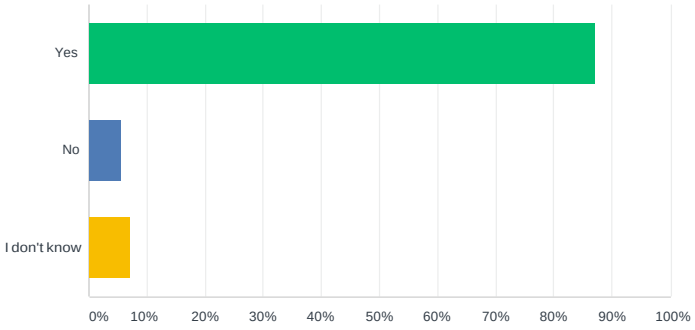
Answered: 978 Skipped: 502




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Milwaukee District North (MD-N) | 32.11% | 314 |
| Milwaukee District West (MD-W) | 1.02% | 10 |
| North Central Service (NCS) | 53.58% | 524 |
| Union Pacific Northwest (UP-NW) | 6.13% | 60 |
| Burlington Northern Santa Fe (BNSF) | 0.20% | 2 |
| I don't use any of the Metra train lines | 4.81% | 47 |
| Other (please specify) | 2.15% | 21 |
| TOTAL | | 978 |

## Would you use the NCS on the weekends, if service was available?

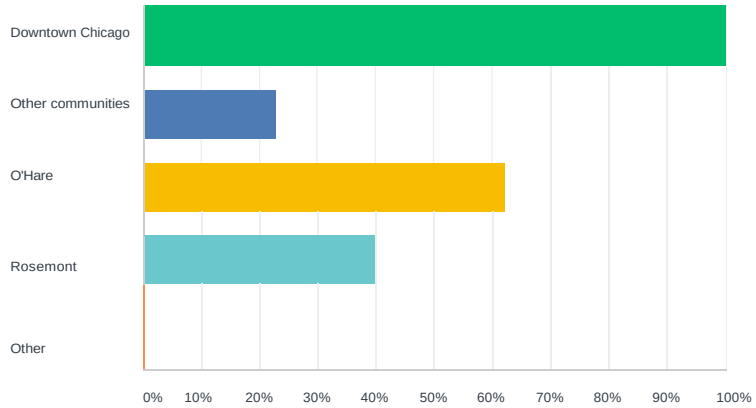
Answered: 520 Skipped: 960




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Yes | 87.31% | 454 |
| No | 5.58% | 29 |
| I don't know | 7.12% | 37 |
| TOTAL | | 520 |

# Which destinations would you consider visiting on the weekends using the NCS, if convenient service was available?

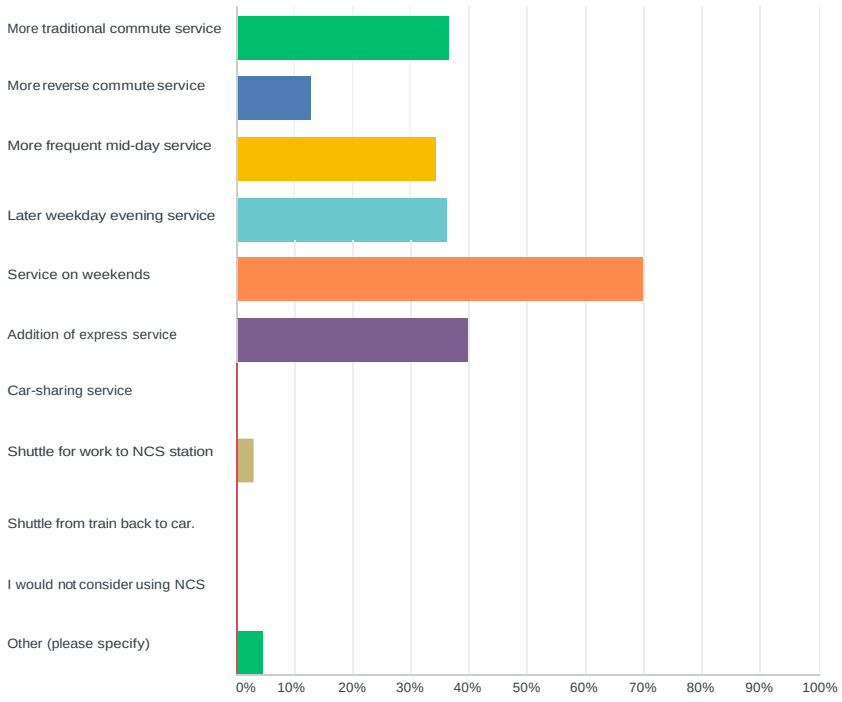
Answered: 884 Skipped: 596




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| Downtown Chicago | 94.80% | 838 |
| Other communities along the NCS line | 22.96% | 203 |
| O'Hare International Airport | 62.44% | 552 |
| Rosemont | 39.48% | 349 |
| Other (please specify) | 1.47% | 13 |
| Total Respondents: 884 | | |

# Which of the following service improvements would motivate you to use the NCS line more frequently? Please select your top three choices.

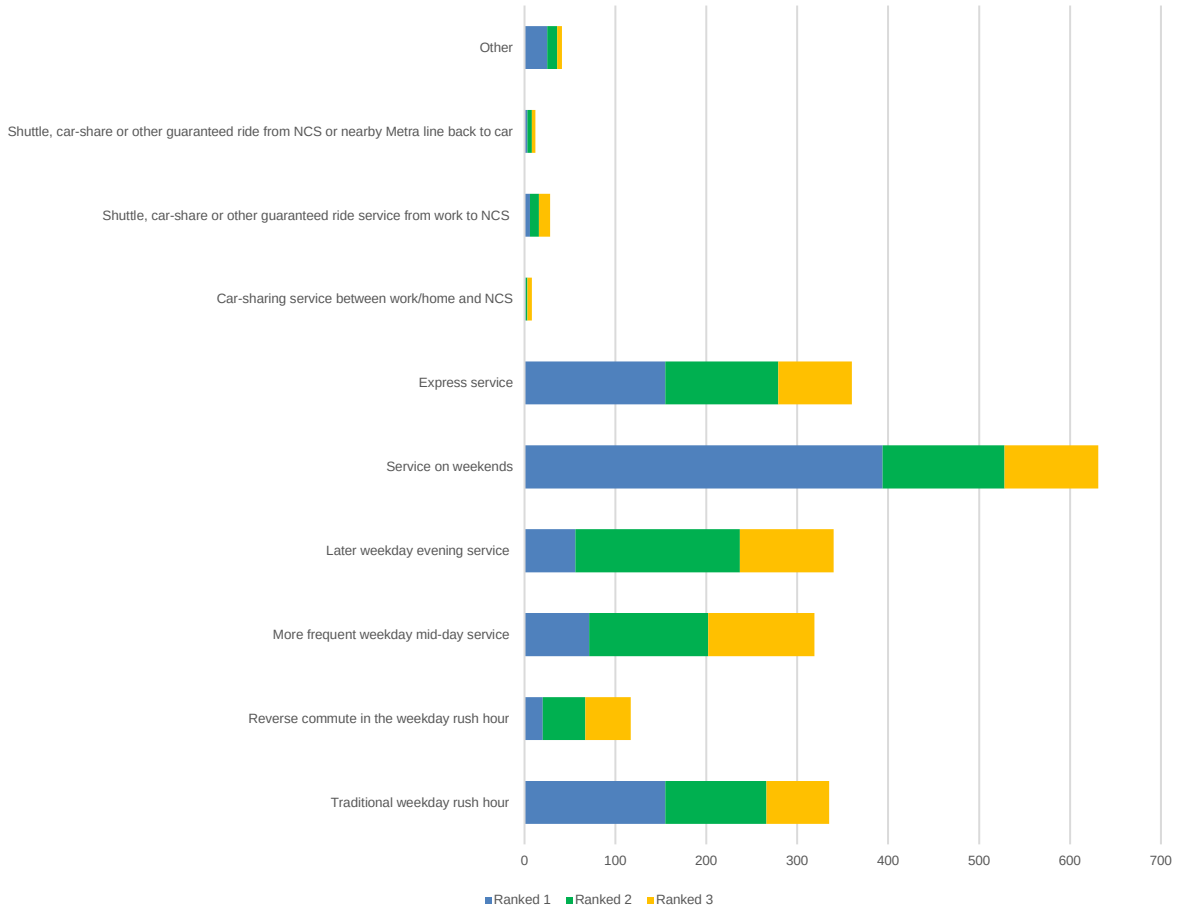
Answered: 947 Skipped: 533




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| More traditional commute service in the weekday rush hour (inbound from Antioch to Chicago 5-9 AM and outbound Chicago to Antioch 4-8 PM) | 36.75% | 348 |
| More reverse commute in the weekday rush hour (outbound from Chicago to Antioch 5-9 AM and inbound Antioch to Chicago 4-8 PM) | 12.99% | 123 |
| Availability of more frequent weekday mid-day service (9 AM – 4 PM) | 34.42% | 326 |
| Availability of later weekday evening service (8 PM – Midnight) | 36.43% | 345 |
| Addition of service on weekends | 70.01% | 663 |
| Addition of express service | 39.81% | 377 |
| Availability of car-sharing service between my work/home and the nearest NCS station (e.g. Uber, Lyft) | 1.06% | 10 |
| Availability of shuttle, car-share or other guaranteed ride service between my work and the nearest NCS stations | 3.06% | 29 |
| Availability of a shuttle, car-share or other guaranteed ride from a station along the NCS or nearby Metra line back to where I parked my car | 1.37% | 13 |
| I would not consider using the NCS line even with service improvements | 1.27% | 12 |
| Other (please specify) | 4.86% | 46 |
| Total Respondents: 947 | | |

## Please rank your top three service improvement choices for the NCS line, with 1 being the choice that would most motivate you to use the NCS.

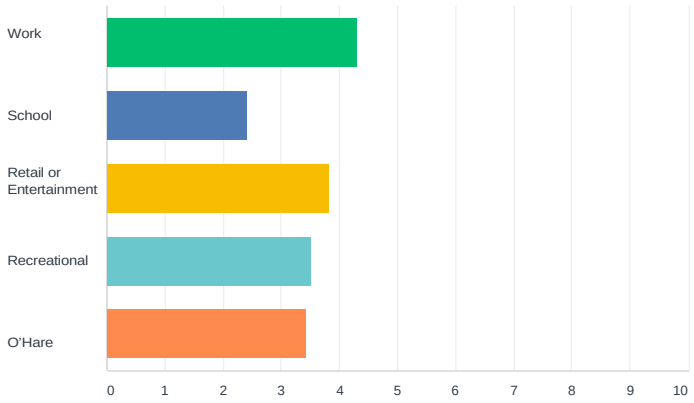
Answered: 886 Skipped: 594




| OPTIONS | RANKED 1 | RANKED 2 | RANKED 3 | TOTAL |
|---|---|---|---|---|
| Traditional weekday rush hour | 155 | 111 | 69 | **335** |
| Reverse commute in the weekday rush hour | 20 | 47 | 50 | **117** |
| More frequent weekday mid-day service | 71 | 131 | 117 | **319** |
| Later weekday evening service | 56 | 181 | 103 | **340** |
| Service on weekends | 394 | 134 | 103 | **631** |
| Express service | 155 | 124 | 81 | **360** |
| Car-sharing service between work/home and NCS | 1 | 2 | 5 | **8** |
| Shuttle, car-share or other guaranteed ride service from work to NCS | 6 | 10 | 12 | **28** |
| Shuttle, car-share or other guaranteed ride from NCS or nearby Metra line back to car | 3 | 5 | 4 | **12** |
| Other | 25 | 11 | 5 | **41** |

## If the NCS service improvements you selected were implemented, why would you use the NCS line? Please select and rank the trips you would most frequently make. If you would not use the NCS line for a trip, please select NA, for Not Applicable, on the right hand side.

Answered: 911 Skipped: 569

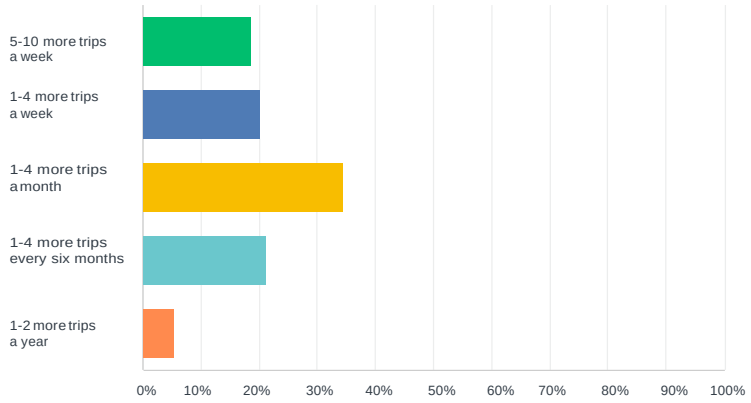



| | 1 | 2 | 3 | 4 | 5 | N/A | TOTAL | SCORE |
|---|---|---|---|---|---|---|---|---|
| Transportation to and from work | 46.04%<br>395 | 5.13%<br>44 | 4.66%<br>40 | 6.53%<br>56 | 2.56%<br>22 | 35.08%<br>301 | 858 | 4.32 |
| Transportation to and from school | 2.67%<br>22 | 2.67%<br>22 | 2.67%<br>22 | 3.40%<br>28 | 7.90%<br>65 | 80.68%<br>664 | 823 | 2.42 |
| Transportation to and from retail or entertainment destinations | 23.97%<br>209 | 31.65%<br>276 | 21.10%<br>184 | 7.45%<br>65 | 0.69%<br>6 | 15.14%<br>132 | 872 | 3.83 |
| Transportation to and from recreational destinations | 15.18%<br>131 | 30.24%<br>261 | 26.65%<br>230 | 14.02%<br>121 | 1.04%<br>9 | 12.86%<br>111 | 863 | 3.51 |
| Transportation to and from O'Hare International Airport | 16.15%<br>141 | 27.15%<br>237 | 26.69%<br>233 | 13.52%<br>118 | 3.67%<br>32 | 12.83%<br>112 | 873 | 3.44 |

*Score is the weighted average

## If the NCS service improvements you selected were implemented, how much MORE often would you anticipate using the NCS?

Answered: 914 Skipped: 566




| ANSWER CHOICES | RESPONSES | |
|---|---|---|
| 5-10 more trips a week | 18.60% | 170 |
| 1-4 more trips a week | 20.24% | 185 |
| 1-4 more trips a month | 34.46% | 315 |
| 1-5 more trips every six months | 21.33% | 195 |
| 1-2 more trips a year | 5.36% | |
| TOTAL | | 914 |

## Crosstabs Summary

The survey questions were also compared in relationship to each other to help use further understand the results. This process is called cross tabulation. The four crosstabs conducted and the resulting takeaways from the analyses are as follows:

**Crosstab 1** examines the relationship between the top ranked service improvements and anticipated additional use of the NCS line following service improvements. This analysis allows us to assess which service improvements are likely to maximize ridership on the NCS line.

| | | Anticipated Additional Use of NCS Line | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5-10 more trips a week | 1-4 more trips a week | 1-4 more trips a month | 1-5 more trips every six months | 1-2 more trips a year | **Total (% of Total)** |
| Service Improvements Ranked #1 | More traditional commute service in the weekday rush hour | 61 | 41 | 35 | 15 | 3 | **155 (18%)** |
| | More reverse commute in the weekday rush hour | 5 | 8 | 3 | 3 | 1 | **20 (2%)** |
| | Availability of more frequent weekday mid-day service | 12 | 14 | 26 | 13 | 6 | **71 (8%)** |
| | Availability of later weekday evening service | 10 | 12 | 19 | 13 | 2 | **56 (6%)** |
| | Addition of service on weekends | 18 | 60 | 173 | 114 | 25 | **390 (44%)** |
| | Addition of express service | 50 | 45 | 37 | 20 | 2 | **154 (18%)** |
| | All Other | 11 | 1 | 10 | 7 | 5 | **34 (4%)** |
| | **Total (% of Total)** | **167 (19%)** | **181 (21%)** | **303 (34%)** | **185 (21%)** | **44 (5%)** | **880 (100%)** |

*Note: Cells with at least 50 respondents are highlighted in green*

- Approximately 44% (390) of the 880 respondents ranked the addition of weekend service as their top preferred service improvement. However, a majority of these respondents (80%) anticipated taking less than 5 additional trips a month.

- Approximately 18% (155) of the respondents ranked more weekday rush hour commute service as their top preferred service improvement. Of these respondents, more than half (66%) anticipated taking 1-10 additional trips every week.

- Approximately 18% (154) of the respondents ranked the addition of express service as their preferred service improvement. More than half (62%) of these respondents anticipated taking 1-10 additional trips every week.

**Crosstab 2** examines the relationship between the current frequency of use and anticipated additional use of the NCS line. This analysis allows us to assess what type of riders (i.e. daily users, weekly users, infrequent users) are likely to use the NCS line more frequently following service improvements.

| | | Anticipated Additional Use of NCS Line | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5-10 more trips a week | 1-4 more trips a week | 1-4 more trips a month | 1-5 more trips every six months | 1-2 more trips a year | **Total (% of Total)** |
| Current Use of NCS Line | 5-10 trips a week | 83 | 65 | 59 | 19 | 1 | **227 (25%)** |
| | 1-4 trips a week | 31 | 27 | 16 | 4 | 0 | **78 (9%)** |
| | 1-4 trips a month | 23 | 37 | 70 | 10 | 0 | **140 (15%)** |
| | 1-5 trips every six months | 11 | 23 | 104 | 63 | 3 | **204 (22%)** |
| | 1-2 trips a year | 7 | 21 | 38 | 74 | 28 | **168 (18%)** |
| | I never use the NCS line | 15 | 11 | 27 | 25 | 16 | **94 (10%)** |
| | **Total (% of Total)** | **170 (19%)** | **184 (20%)** | **314 (34%)** | **195 (21%)** | **48 (5%)** | **911 (100%)** |

*Note: Cells with at least 50 respondents are highlighted in green*

- Approximately 39% (354) of the 911 respondents anticipated taking 1-10 additional trips a week if their preferred service improvements were implemented. Of these respondents, more than half (58%) currently take 1-10 trips a week on the NCS line.

- Approximately 67% (606) of the respondents take less than 5 trips a month or do not use the NCS line. Of these respondents, 24% anticipated taking 1-10 additional trips a week if their preferred service improvements were implemented.

- Approximately 10% (94) of the respondents indicated they never utilized the NCS line. Of these respondents, 28% anticipated taking 1-10 additional trips a week if their preferred service improvements were implemented.

**Crosstab 3** examines the relationship between the current frequency of use and the type of trip taken for the NCS line. This analysis allows us to assess whether the types of trips riders take on the NCS line determine how often they use the line.

| | | Current Type of Use of NCS Line | | | | | |
|---|---|---|---|---|---|---|---|
| | | Transportation to and from work | Transportation to and from school | Transportation to and from retail or entertainment destinations | Transportation to and from recreational destinations | Transportation to and from O'Hare International Airport | Other |
| Current Use of NCS Line | 5-10 trips a week | 238 | 10 | 35 | 34 | 56 | 3 |
| | 1-4 trips a week | 70 | 5 | 27 | 26 | 22 | 5 |
| | 1-4 trips a month | 59 | 5 | 81 | 69 | 54 | 19 |
| | 1-5 trips every six months | 52 | 1 | 139 | 114 | 101 | 27 |
| | 1-2 trips a year | 24 | 2 | 89 | 85 | 57 | 18 |
| | I never use the NCS line | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Total (% of Total) *** | **443 (44%)** | **23 (2%)** | **371 (37%)** | **328 (32%)** | **290 (29%)** | **72 (7%)** |

*Note: Cells with at least 75 respondents are highlighted in green*

** Percentages sum to more than 100% because respondents were able to select more than one answer*

- Approximately 44% (443) of the 1016 respondents use the NCS line to get to and from work. Of these respondents, about half (54%) take 5-10 trips a week on the NCS.

- Approximately 37% (371) of the respondents use the NCS line to get to and from retail or entertainment destinations. A majority of these respondents (83%) take less than 5 trips a month on the NCS line.

- Approximately 32% (328) of the respondents use the NCS line to get to and from recreational destinations. A majority of these respondents (82%) take less than 5 trips a month on the NCS line.

- Approximately 29% (290) of the respondents use the NCS line to get to and from O'Hare International Airport. A majority of these respondents (73%) take less than 5 trips a month on the NCS line.

**Crosstab 4** examines the relationship between the types of anticipated trips and anticipated additional use of the NCS line assuming service improvements. This allows us to assess which types of anticipated trips are likely to maximize ridership on the NCS line.

| | | Anticipated Additional Use of NCS Line | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5-10 more trips a week | 1-4 more trips a week | 1-4 more trips a month | 1-5 more trips every six months | 1-2 more trips a year | **Total (% of Total)** |
| Type of Use Anticipated Ranked #1 | Transportation to and from work | 141 | 105 | 108 | 35 | 4 | **393 (44%)** |
| | Transportation to and from school | 6 | 7 | 7 | 1 | 1 | **22 (2%)** |
| | Transportation to and from retail or entertainment destinations | 6 | 29 | 84 | 67 | 23 | **209 (23%)** |
| | Transportation to and from recreational destinations | 3 | 17 | 60 | 45 | 5 | **130 (15%)** |
| | Transportation to and from O'Hare International Airport | 10 | 23 | 51 | 42 | 13 | **139 (16%)** |
| | **Total (% of Total)** | **166 (19%)** | **181 (20%)** | **310 (35%)** | **190 (21%)** | **46 (5%)** | **893 (100%)** |

*Note: Cells with at least 50 respondents are highlighted in green*

- Approximately 44% (393) of the 893 respondents ranked transportation to and from work as the type of ride they most anticipated taking given service improvements. A majority of these respondents (63%) anticipated taking 1-10 additional trips a week on the NCS line.

- Approximately 23% (209) of the respondents ranked transportation to and from retail/entertainment destinations as the type of ride they most anticipated taking. A majority of these respondents (83%) anticipated taking less than 5 additional trips a month on the NCS line.

- Approximately 16% (139) of the respondents ranked transportation to and from O'Hare International Airport as the type of ride they most anticipated taking. A majority of these respondents (76%) anticipated taking less than 5 additional trips a month on the NCS line.

- Approximately 15% (130) of the respondents ranked transportation to and from recreational destinations as the type of ride they most anticipated taking. A majority of these respondents (85%) anticipated taking less than 5 additional trips a month on the NCS line.

**Crosstab 5** examines the relationship between the top-ranked service improvements and current frequency of use of the NCS line. This allows us to assess how service preferences vary among infrequent and frequent NCS riders.

| | | Current Use of the NCS Line | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 5-10 trips a week | 1-4 trips a week | 1-4 trips a month | 1-5 trips every six months | 1-2 trips a year | I never use the NCS line | **Total (% of Total)** |
| Service Improvements Ranked #1 | More traditional commute service in the weekday rush hour | 71 | 23 | 20 | 14 | 10 | 17 | **155 (18%)** |
| | More reverse commute in the weekday rush hour | 4 | 0 | 3 | 3 | 6 | 4 | **20 (2%)** |
| | Availability of more frequent weekday mid-day service | 14 | 7 | 13 | 17 | 14 | 6 | **71 (8%)** |
| | Availability of later weekday evening service | 12 | 5 | 14 | 13 | 7 | 5 | **56 (6%)** |
| | Addition of service on weekends | 30 | 24 | 69 | 127 | 106 | 34 | **390 (44%)** |
| | Addition of express service | 85 | 18 | 13 | 17 | 12 | 10 | **155 (18%)** |
| | All Other | 9 | 0 | 3 | 5 | 7 | 11 | **35 (4%)** |
| | **Total (% of Total)** | **225 (26%)** | **77 (9%)** | **135 (15%)** | **196 (22%)** | **162 (18%)** | **87 (10%)** | **882 (100%)** |

*Note: Cells with at least 60 respondents are highlighted in green*

- Approximately 34% (302) of the 882 respondents take 1-10 trips a week on the NCS. Of these respondents, 34% of these respondents ranked the addition of express service as their top preferred service improvement. 31% ranked more weekday rush hour commute service as their preferred service improvement.

- Approximately 66% (580) of the 882 respondents take less than 5 trips a month on NCS or do not use the NCS line. Of these respondents, 58% ranked the addition of weekend service as their top preferred service improvement.

- Approximately 10% (87) of the respondents indicated they have never utilized the NCS line. Of these respondents, 39% ranked the addition of weekend service as their top preferred service improvement.

**Crosstab 6** examines the relationship between where respondents live and their top ranked service improvements.

| | | Service Improvement Ranked #1 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Municipality | Zip Code | More weekday commute service | More reverse commute service | More weekday mid-day service | More weekday evening service | Weekend service | Express service | All Other | Grand Total |
| Antioch | 53157 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 60002 | 5 | 0 | 1 | 2 | 36 | 7 | 2 | 53 |
| | **Total** | **5** | **0** | **1** | **2** | **36** | **7** | **3** | **54** |
| Buffalo Grove | 60004 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | 60015 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 60088 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 3 |
| | 60089 | 44 | 1 | 12 | 19 | 56 | 27 | 5 | 164 |
| | 60202 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | **Total** | **46** | **1** | **12** | **19** | **56** | **31** | **5** | **170** |
| Chicago | 60601 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | 60603 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 60605 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 60608 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 60609 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| | 60611 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 60612 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| | 60613 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 60614 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 60616 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 60620 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 60622 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 60625 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| | 60630 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | 60631 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| | 60634 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 4 |
| | 60640 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 3 |
| | 60644 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 60647 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 60649 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 60654 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 60656 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 60657 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| | 60660 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 60707 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| | **Total** | **5** | **13** | **5** | **2** | **5** | **4** | **5** | **39** |
| Des Plaines | 60016 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| | **Total** | **2** | **0** | **1** | **0** | **0** | **0** | **0** | **3** |
| Franklin Park | 60131 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | **Total** | **1** | **0** | **0** | **0** | **0** | **0** | **0** | **1** |
| Grayslake | 60030 | 21 | 0 | 5 | 5 | 62 | 30 | 7 | 130 |
| | 60031 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| | 60046 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | 60930 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | 70030 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | **Total** | **22** | **0** | **5** | **5** | **64** | **32** | **7** | **135** |
| Hainesville | 60030 | 0 | 0 | 1 | 0 | 3 | 2 | 0 | 6 |
| | **Total** | **0** | **0** | **1** | **0** | **3** | **2** | **0** | **6** |
| Lake Villa | 60046 | 0 | 1 | 0 | 2 | 10 | 5 | 0 | 18 |
| | 60946 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | **Total** | **0** | **1** | **0** | **2** | **11** | **5** | **0** | **19** |
| Libertyville | 60048 | 1 | 0 | 0 | 0 | 5 | 1 | 0 | 7 |
| | **Total** | **1** | **0** | **0** | **0** | **5** | **1** | **0** | **7** |
| Lincolnshire | 60069 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| | **Total** | **0** | **0** | **0** | **0** | **2** | **0** | **0** | **2** |
| Long Grove | 60047 | 3 | 0 | 4 | 3 | 5 | 4 | 0 | 19 |
| | 60060 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| | 60947 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | **Total** | **3** | **0** | **4** | **3** | **7** | **5** | **0** | **22** |
| Mundelein | 60060 | 28 | 1 | 20 | 11 | 114 | 33 | 5 | 212 |
| | **Total** | **28** | **1** | **20** | **11** | **114** | **33** | **5** | **212** |
| Oak Park | 60302 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | **Total** | **0** | **0** | **0** | **0** | **1** | **0** | **0** | **1** |
| Prairie Crossing | 60030 | 0 | 1 | 2 | 0 | 2 | 0 | 0 | 5 |
| | 60073 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | **Total** | **1** | **1** | **2** | **0** | **2** | **0** | **0** | **6** |
| Prairie View | 60061 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| | 60069 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | 60089 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| | **Total** | **2** | **0** | **0** | **1** | **1** | **2** | **0** | **6** |
| Prospect Heights | 60056 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| | 60070 | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 5 |
| | **Total** | **1** | **0** | **2** | **0** | **2** | **2** | **0** | **7** |
| Round Lake | 60073 | 3 | 0 | 0 | 1 | 1 | 1 | 1 | 7 |
| | **Total** | **3** | **0** | **0** | **1** | **1** | **1** | **1** | **7** |
| Round Lake Beach | 60046 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 60073 | 2 | 1 | 0 | 4 | 10 | 3 | 0 | 20 |
| | **Total** | **2** | **1** | **0** | **4** | **10** | **3** | **1** | **21** |
| Round Lake Park | 60073 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| | **Total** | **0** | **1** | **0** | **0** | **1** | **0** | **1** | **3** |
| Schiller Park | 60176 | 3 | 1 | 1 | 0 | 1 | 0 | 0 | 6 |
| | **Total** | **3** | **1** | **1** | **0** | **1** | **0** | **0** | **6** |
| Vernon Hills | 60061 | 12 | 0 | 4 | 2 | 35 | 13 | 3 | 69 |
| | **Total** | **12** | **0** | **4** | **2** | **35** | **13** | **3** | **69** |
| Wheeling | 60090 | 11 | 0 | 4 | 2 | 19 | 6 | 0 | 42 |
| | **Total** | **11** | **0** | **4** | **2** | **19** | **6** | **0** | **42** |
| **Grand Total** | | **148** | **20** | **62** | **54** | **376** | **147** | **31** | **838** |

# Appendix

**Crosstab 1**

**Question**: If the NCS service improvements you selected were implemented, how much MORE often would you anticipate using the NCS?

- 5-10 more trips a week
- 1-4 more trips a week
- 1-4 more trips a month
- 1-5 more trips every six months
- 1-2 more trips a year

**Question**: Please rank your top three service improvement choices for the NCS line, with 1 being the choice that would most motivate you to use the NCS.

- More traditional commute service in the weekday rush hour
- More reverse commute in the weekday rush hour
- Availability of more frequent weekday mid-day service
- Availability of later weekday evening service
- Addition of service on weekends
- Addition of express service
- Availability of car-sharing service between my work/home and the nearest NCS station
- Availability of shuttle, car-share or other guaranteed ride service between my work and the nearest NCS stations
- Availability of a shuttle, car-share or other guaranteed ride from a station along the NCS or nearby Metra line back to where I parked my car
- I would not consider using the NCS line even with service improvements
- Other

**Crosstab 2**

**Question**: How often do you use the NCS line? Count each inbound or outbound trip as one trip. For example, if you take the train downtown and then back, count that as two trips.

- 5-10 trips a week
- 1-4 trips a week
- 1-4 trips a month
- 1-5 trips every six months
- 1-2 trips a year
- I never use the NCS line

**Question**: If the NCS service improvements you selected were implemented, how much MORE often would you anticipate using the NCS?

- 5-10 more trips a week
- 1-4 more trips a week
- 1-4 more trips a month
- 1-5 more trips every six months
- 1-2 more trips a year

**Crosstab 3**

**Question**: How often do you use the NCS line? Count each inbound or outbound trip as one trip. For example, if you take the train downtown and then back, count that as two trips.

- 5-10 trips a week
- 1-4 trips a week
- 1-4 trips a month
- 1-5 trips every six months
- 1-2 trips a year
- I never use the NCS line

**Question**: Where do you travel when you use the NCS line? Check all that apply.

- Transportation to and from work
- Transportation to and from school
- Transportation to and from retail or entertainment destinations
- Transportation to and from recreational destinations
- Transportation to and from O'Hare International Airport
- Other

**Crosstab 4**

**Question**: If the NCS service improvements you selected were implemented, how much MORE often would you anticipate using the NCS?

- 5-10 more trips a week
- 1-4 more trips a week
- 1-4 more trips a month
- 1-5 more trips every six months
- 1-2 more trips a year

**Question**: If the NCS service improvements you selected were implemented, why would you use the NCS line? Please select and rank the trips you would most frequently make.

- Transportation to and from work
- Transportation to and from school
- Transportation to and from retail or entertainment destinations
- Transportation to and from recreational destinations
- Transportation to and from O'Hare International Airport

**Crosstab 5**

**Question**: Please rank your top three service improvement choices for the NCS line, with 1 being the choice that would most motivate you to use the NCS.

- More traditional commute service in the weekday rush hour
- More reverse commute in the weekday rush hour
- Availability of more frequent weekday mid-day service
- Availability of later weekday evening service
- Addition of service on weekends
- Addition of express service
- Availability of car-sharing service between my work/home and the nearest NCS station
- Availability of shuttle, car-share or other guaranteed ride service between my work and the nearest NCS stations
- Availability of a shuttle, car-share or other guaranteed ride from a station along the NCS or nearby Metra line back to where I parked my car
- I would not consider using the NCS line even with service improvements
- Other

**Question**: How often do you use the NCS line? Count each inbound or outbound trip as one trip. For example, if you take the train downtown and then back, count that as two trips.

- 5-10 trips a week
- 1-4 trips a week
- 1-4 trips a month
- 1-5 trips every six months
- 1-2 trips a year
- I never use the NCS line

**Crosstab 6**

**Question**: Where do you live?

**Question**: What is your home zip code?

**Question**: Please rank your top three service improvement choices for the NCS line, with 1 being the choice that would most motivate you to use the NCS.

- More traditional commute service in the weekday rush hour
- More reverse commute in the weekday rush hour
- Availability of more frequent weekday mid-day service
- Availability of later weekday evening service
- Addition of service on weekends
- Addition of express service
- Availability of car-sharing service between my work/home and the nearest NCS station
- Availability of shuttle, car-share or other guaranteed ride service between my work and the nearest NCS stations
- Availability of a shuttle, car-share or other guaranteed ride from a station along the NCS or nearby Metra line back to where I parked my car
- I would not consider using the NCS line even with service improvements
- Other