

IMPACTS OF FARE-FREE OPERATIONS ON THE WESTCHESTER COUNTY BEE-LINE BUS SYSTEM



NYMTC BROWN BAG PRESENTATION
APRIL 30, 2025

*Presentation By: Craig Lader, Director of Transportation Planning
Westchester County Department of Planning*

TODAY'S AGENDA

- OVERVIEW OF THE WESTCHESTER COUNTY BEE-LINE BUS SYSTEM
- FARE FREE PROGRAM PARAMETERS
- GENERAL FARE FREE IMPACTS – TOTAL RIDERSHIP
- FARE FREE IMPACTS BY HOUR OF DAY
- FARE FREE IMPACTS ON TRIP LENGTHS
- FARE FREE IMPACTS ON ROUTE CHARACTERISTICS
- ON TIME PERFORMANCE IMPACTS FROM SUSPENSION OF FARE COLLECTION
- FINANCIAL IMPACTS

BEE-LINE SYSTEM OVERVIEW

- Population: 1 million (2020)
- Service area: 450 square miles
- Fleet size: 325 buses
- Over 59 routes
- About 3,000 bus stops
- 323 shelters
- Annual passengers: 24.6 million (2024)
- Average daily ridership: 90,000
Weekdays
- Liberty Lines is the contracted operator and maintenance provider
- Current Fare: \$2.75, except for BxM4C Express (\$7.50)



Existing

White Plains
TransCenter



Downtown
Yonkers



Cross County Shopping Center

A map of the Empire City area, showing a road network. A yellow circle is placed on a road labeled '20'. Another yellow circle is placed on a road labeled '30'. The text 'Empire City' is visible on the left side of the map.



New Rochelle
Intermodal Ce

A map snippet showing the intersection of Woodlawn and 242 St. A red circle with the number '1' is located at the bottom left, and a blue circle with the number '4' is located at the top right. The text 'Woodlawn' and '242 St.' are visible on the map.

5 Dyre Ave.

Northern Westchester

Southern Westchester

- Local Bee-Line route
- Express Bee-Line route
- NYC bus route
- NYC subway

FARE-FREE PROGRAM PARAMETERS

2022 Fare-Free Periods

- Summer 2022 (June 1 to September 5)
- Thanksgiving 2022 (November 19 to November 27)
- Holiday (December 7 to December 26)

2023 Fare-Free Period

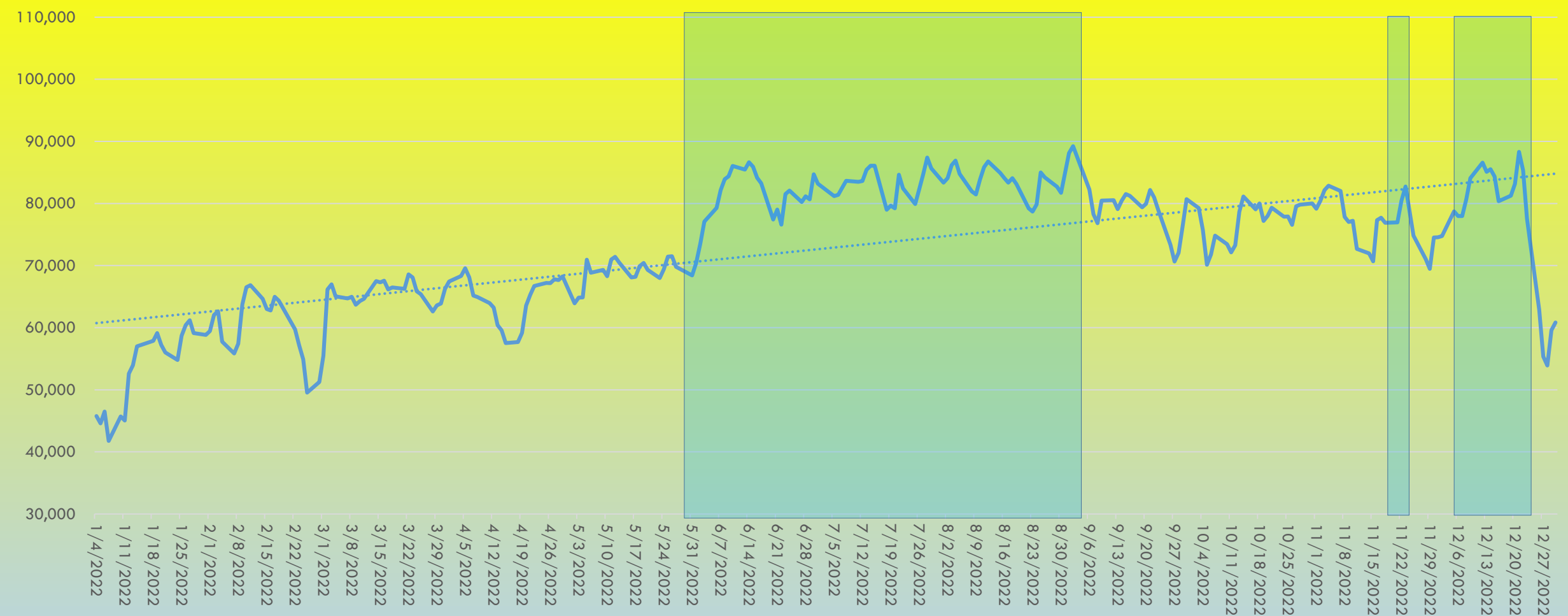
- Summer 2023 (July 1 to September 4)
- Holiday (December 16, 2023 to January 1, 2024)

2024 Fare-Free Period

- Summer 2024 (July 1 to September 2)

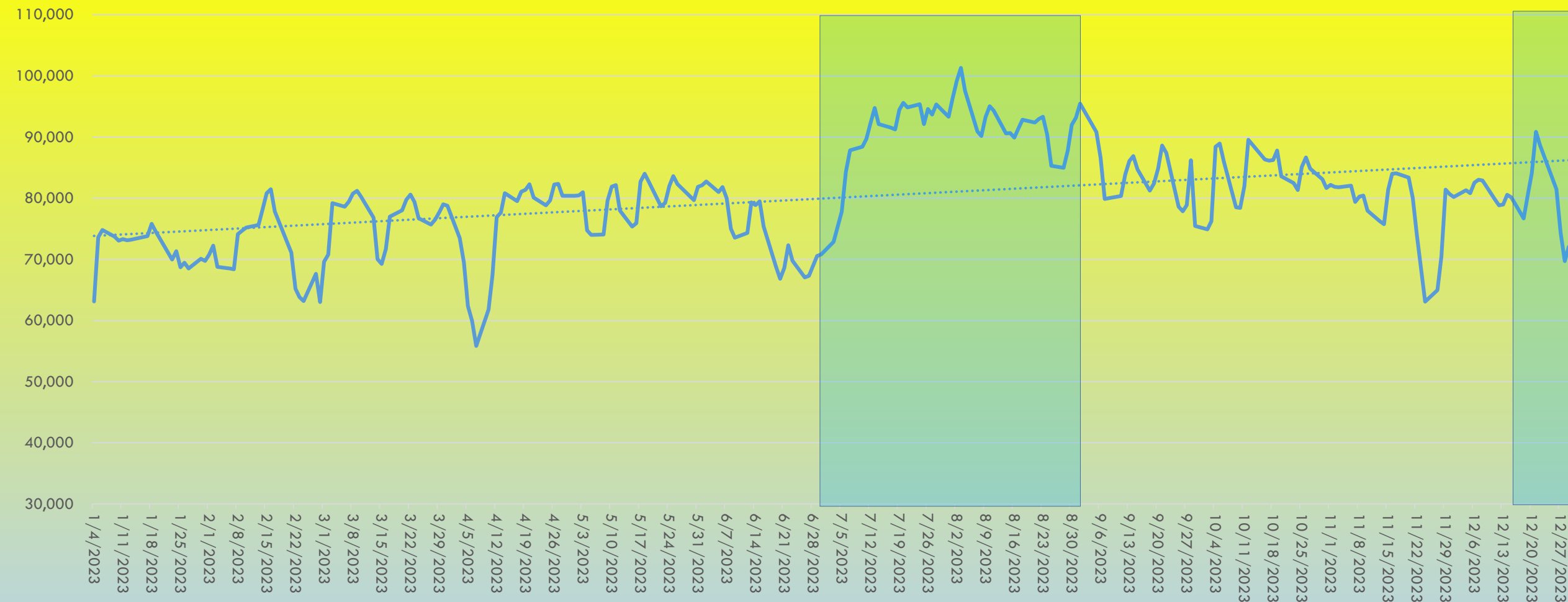
- Included all fixed-route services, including express route with higher base fare
- Included all ParaTransit service
- Transfers to connecting services not included

ROLLING 3-DAY 2022 AVERAGE WEEKDAY RIDERSHIP



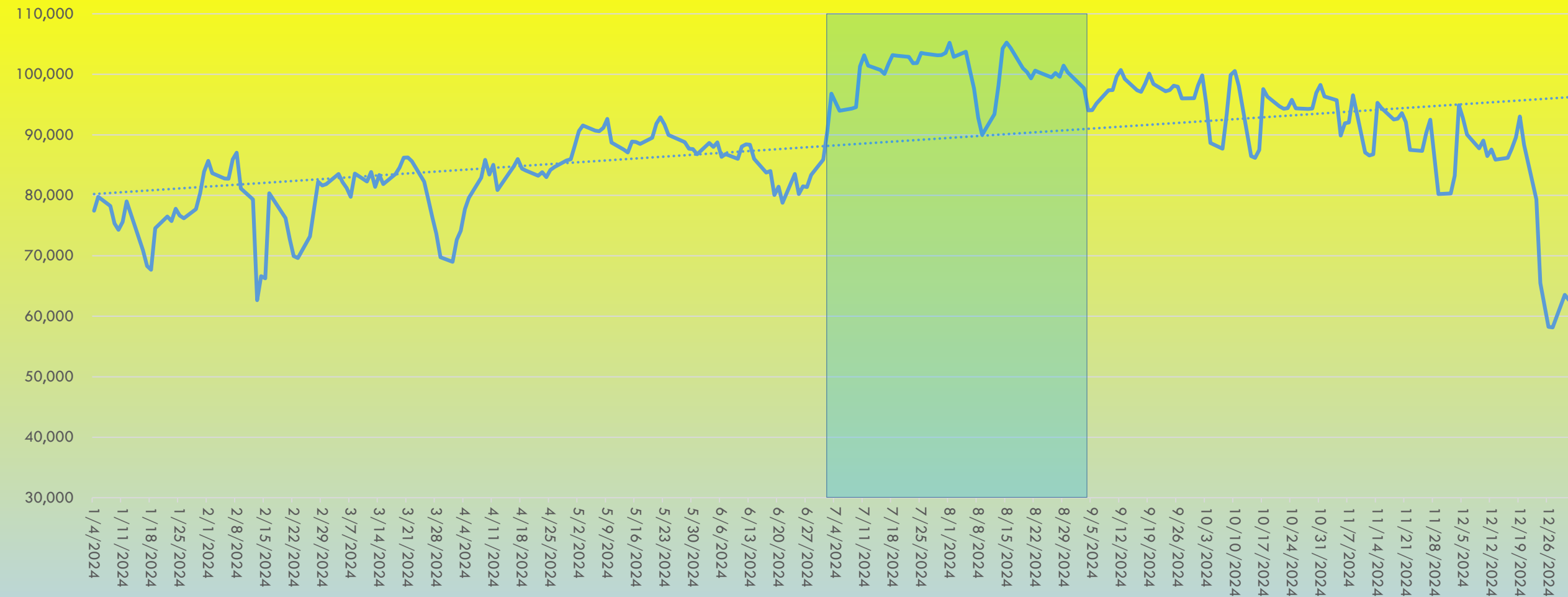
- Summer 2022 fare-free service resulted in a 23% increase on weekdays compared to May 2022
- Upon fare collection resumption, only a 7% ridership decline occurred. As summer ridership is typically lower than the fall, this indicates retention of fare-free passengers.
- Similar increases occurred during the Holiday fare-free periods on regular workdays.

ROLLING 3-DAY 2023 RIDERSHIP - WEEKDAYS



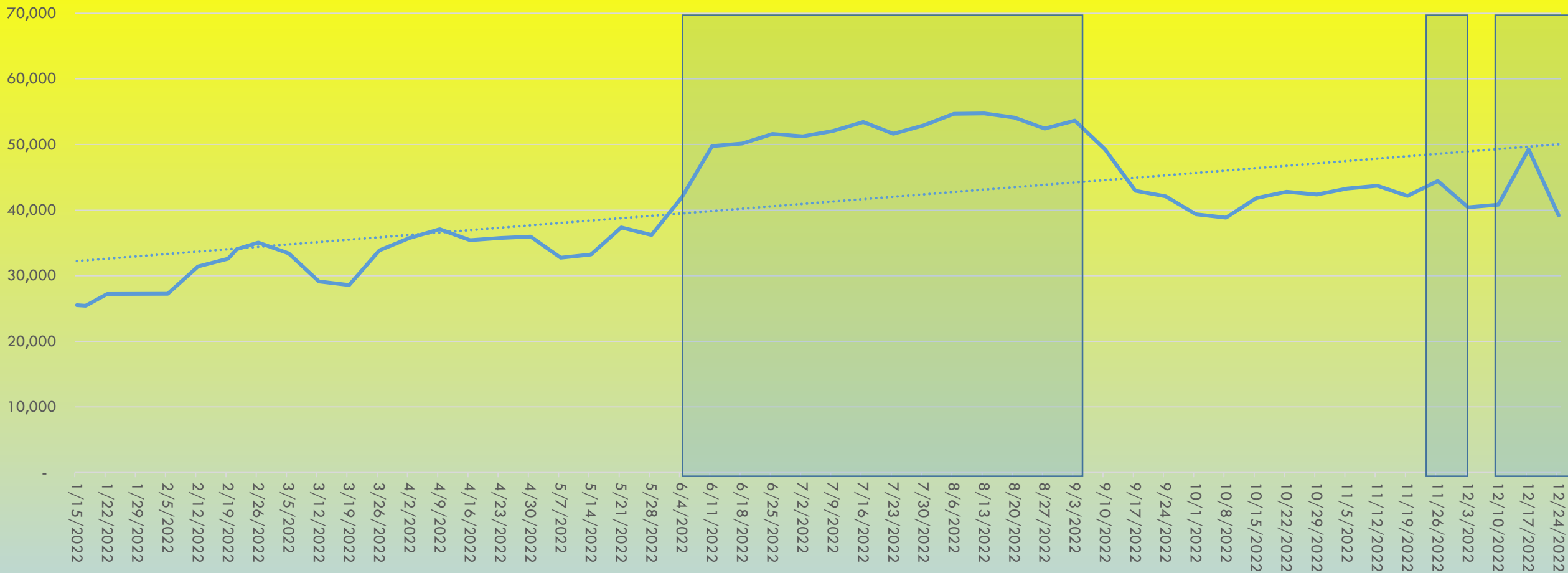
- Summer fare-free service resulted in a 22% increase on weekdays compared to May/June 2023;
- Although a 12% ridership decline occurred upon fare resumption, ridership in Fall 2023 is 8% higher than it was in Spring 2023, indicating retention of fare-free passengers;
- Ridership exceeded 100,000 on 3 days in August (first time post-pandemic ridership reached 100K)
- Similar end-of-year spike in ridership as in 2022 when a holiday fare-free period was in effect

ROLLING 3-DAY 2024 RIDERSHIP - WEEKDAYS



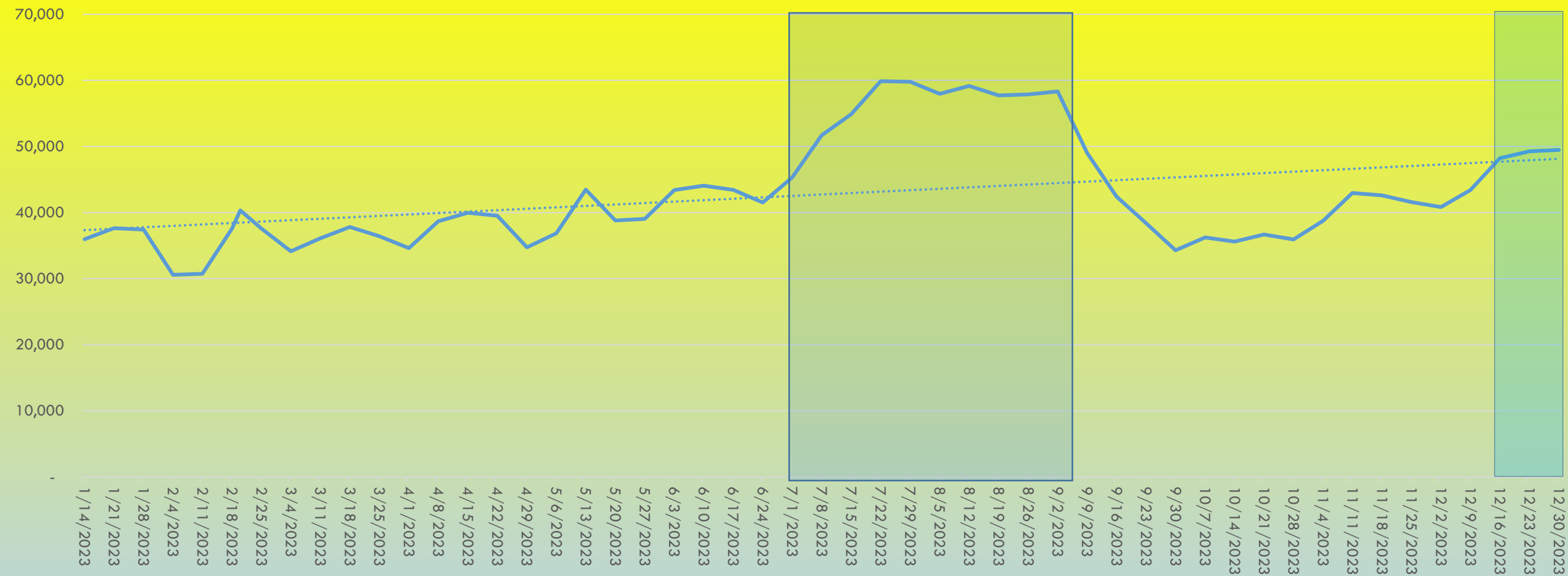
- Summer fare-free service resulted in a 15% increase on weekdays compared to May/June 2024;
- Only a 3% ridership decline occurred upon fare resumption; Fall 2024 is 12% higher than Spring 2024, indicating retention of fare-free passengers;
- Unlike 2022 and 2023, no holiday season ridership spike, as fare collection was not suspended.

ROLLING 2-WEEK 2022 RIDERSHIP - SATURDAYS



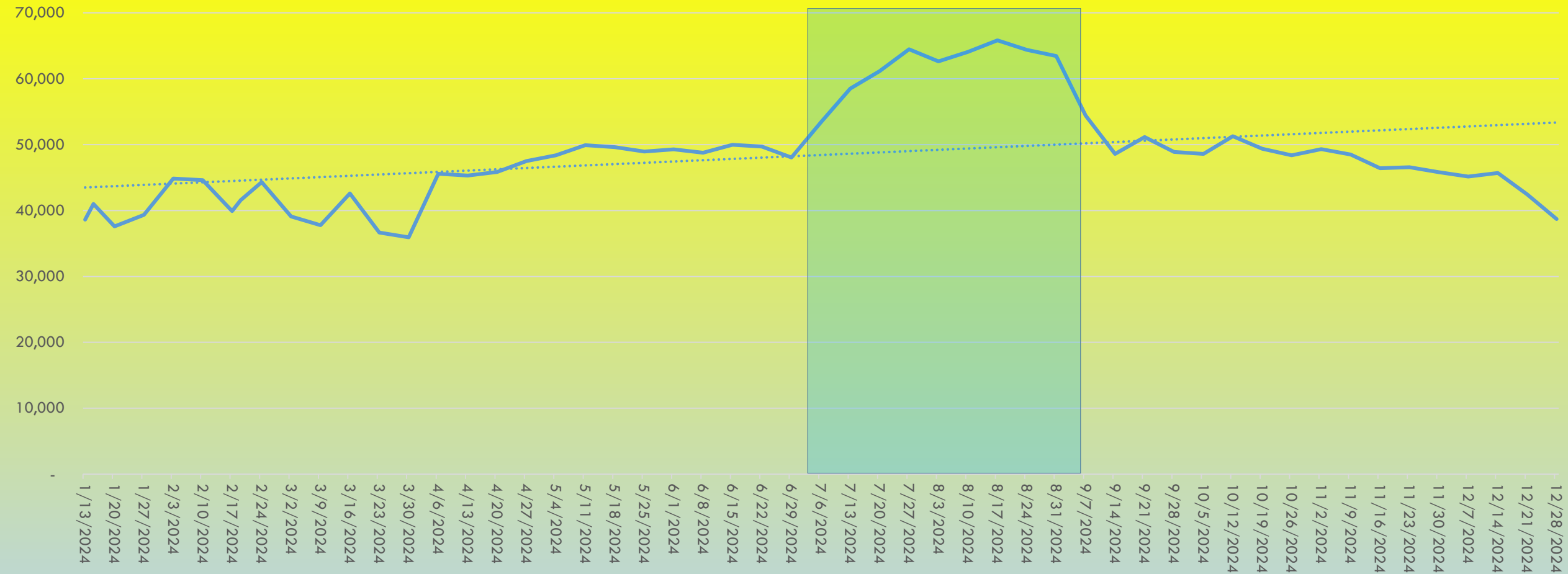
- Summer fare-free service resulted in a 47% increase on Saturdays compared to spring 2022
- Upon fare collection resumption, a 20% ridership decline occurred. This was 20% higher than comparable spring levels, indicating some retention of fare-free passenger increases
- Holiday fare-free ridership increased about 11% compared to other Fall 2022 weekends, but not to the same extent as summer

ROLLING 2-DAY 2023 RIDERSHIP - SATURDAYS



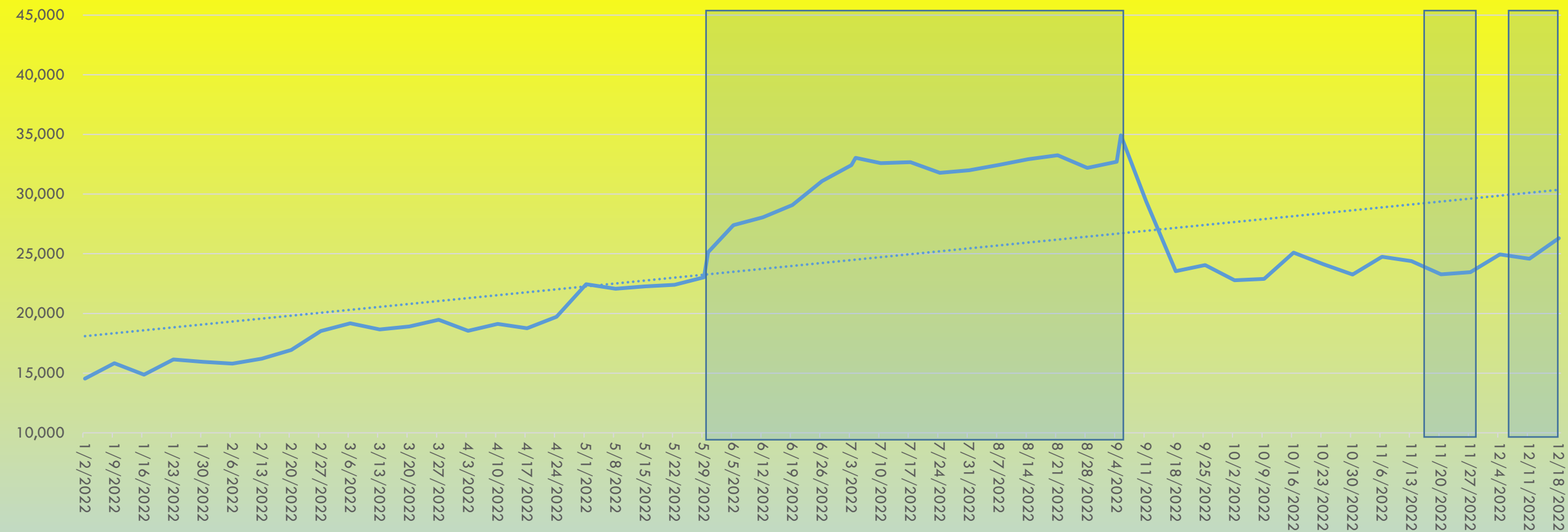
- Summer fare-free service resulted in a 39% increase on Saturdays compared to spring 2023;
- Ridership grew over the first 3 weeks of fare-free operations, and then reached a plateau;
- Upon fare collection resumption, ridership dropped to levels a little lower than spring 2023 (with extreme weather events a major contributor).

ROLLING 2-DAY 2024 RIDERSHIP - SATURDAYS



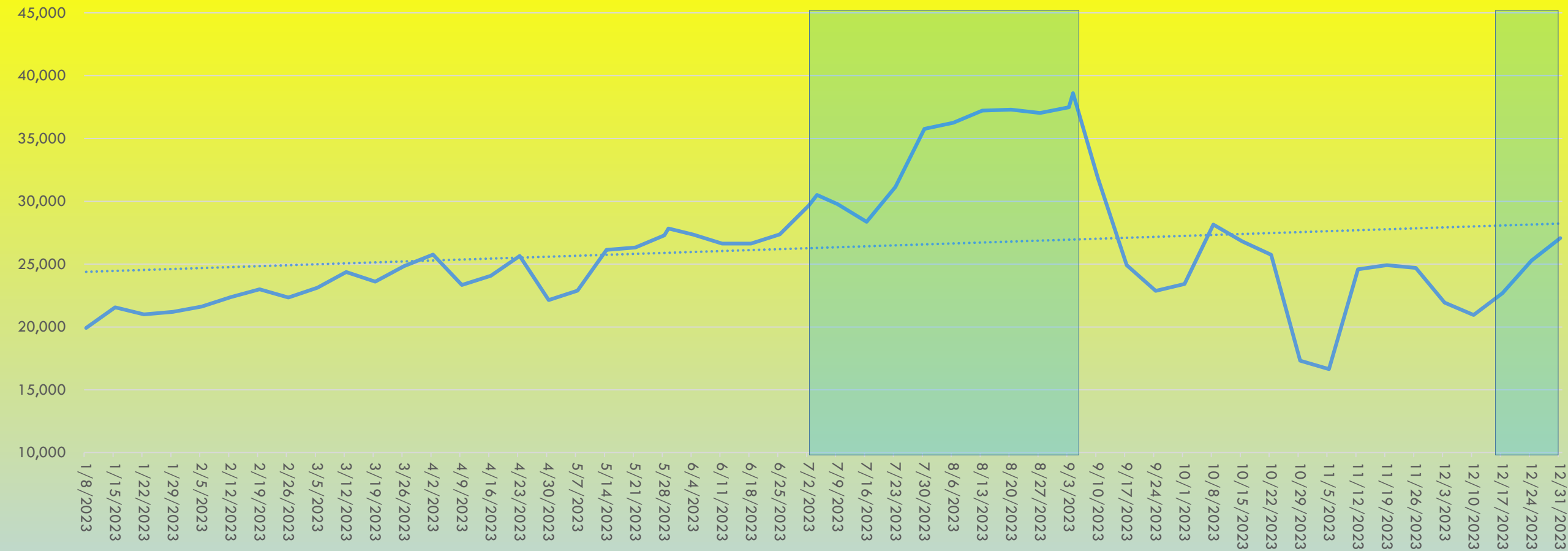
- Summer fare-free service resulted in a 27% increase on Saturdays compared to spring 2024;
- Just as in 2023, ridership grew over the first 3 weeks of fare-free operations, and then reached a plateau;
- Upon fare collection resumption, ridership fell 21%, back to levels generally in line with spring 2024;
- Unlike 2022 and 2023, no holiday season ridership spike, as fare collection was not suspended.

ROLLING 2-WEEK 2022 RIDERSHIP - SUNDAYS



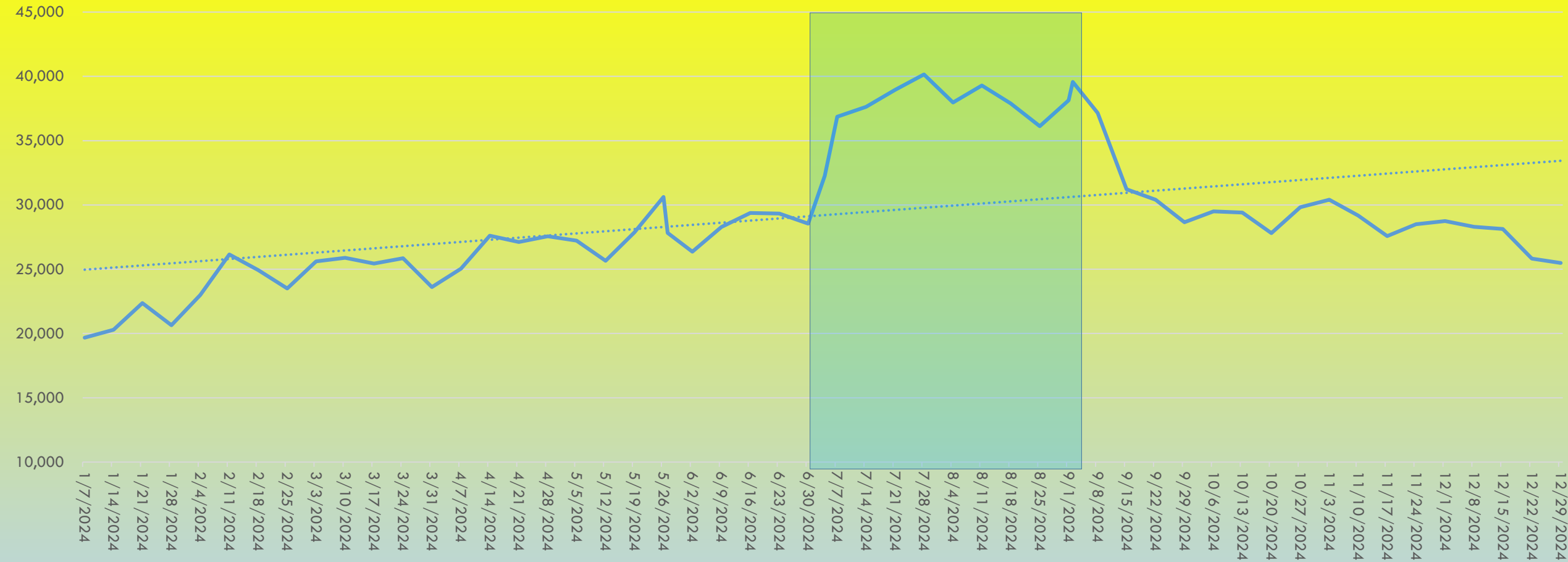
- Summer fare-free service resulted in a 52% increase on Sundays compared to spring 2022
- Upon fare collection resumption, a 28% ridership decline occurred. This was 8% higher than comparable spring levels, indicating some retention of fare-free passenger increases
- Holiday fare-free ridership increased about 8% compared to other Fall 2022 weekends, but not to the same extent as summer and less than weekdays and Saturdays

ROLLING 2-DAY 2023 RIDERSHIP - SUNDAYS



- Summer 2023 fare-free service resulted in a 32% increase on Sundays compared to spring 2023;
- Ridership grew over the first 3 weeks of fare-free operations, and then reached a plateau;
- Upon fare collection resumption, ridership dropped to levels a little lower than spring 2023 (with inclement weather events a major contributor).

ROLLING 2-DAY 2024 RIDERSHIP - SUNDAYS



- Summer 2024 fare-free service resulted in a 36% increase on Sundays compared to spring 2024;
- Ridership grew over the first 3 weeks of fare-free operations, and then reached a plateau;
- Upon fare collection resumption, ridership fell 22%, just slightly higher than spring 2023 ridership levels
- Unlike 2022 and 2023, no holiday season ridership spike, as fare collection was not suspended.

RIDERSHIP SUMMARY – 2022, 2023 AND 2024

	Fall 2019	Spring 2022 (Fares collected)	Summer 2022 (Fare-Free)	Fall 2022 (Fares Collected)	Spring 2023 (Fares collected)	Summer 2023 (Fare-Free)	Fall 2023 (Fares Collected)	Spring 2024 (Fares collected)	Summer 2024 (Fare-Free)	Fall 2024 (Fares Collected)
Weekday	96,233	66,499	82,080	76,536	77,655	94,799	83,555	87,187	100,302	97,626
Saturday	50,373	35,238	51,894	40,038	42,107	58,379	36,988	49,282	62,699	49,294
Sunday	27,805	20,940	31,821	22,844	27,060	35,651	24,089	28,109	38,325	29,774
			Change: Summer 2022 vs. Spring 2022	Change: Fall 2022 vs Summer 2022		Change: Summer 2023 vs. Spring 2023	Change: Fall 2023 vs Summer 2023		Change: Summer 2024 vs. Spring 2024	Change: Fall 2024 vs Summer 2024
Weekday			23%	-7%		22%	-12%		15%	-3%
Saturday			47%	-23%		39%	-37%		27%	-21%
Sunday			52%	-28%		32%	-32%		36%	-22%

- Strong relationships between fare-free promotion and ridership gains;
- Impacts are likely higher than believed, as typically summer ridership is 8% lower than in the spring
- Higher impacts on weekends, reflecting more discretionary passengers and long-term growth potential;
- By 2024, fare-free ridership exceeded pre-pandemic levels by 24% on Saturdays and 38% on Sundays
- Stronger retention of fare-free riders occurs on weekdays vs. weekends after fare collection resumes;
- Holiday period fare-free impacts also noticeable, but other variables may also affect passenger activity

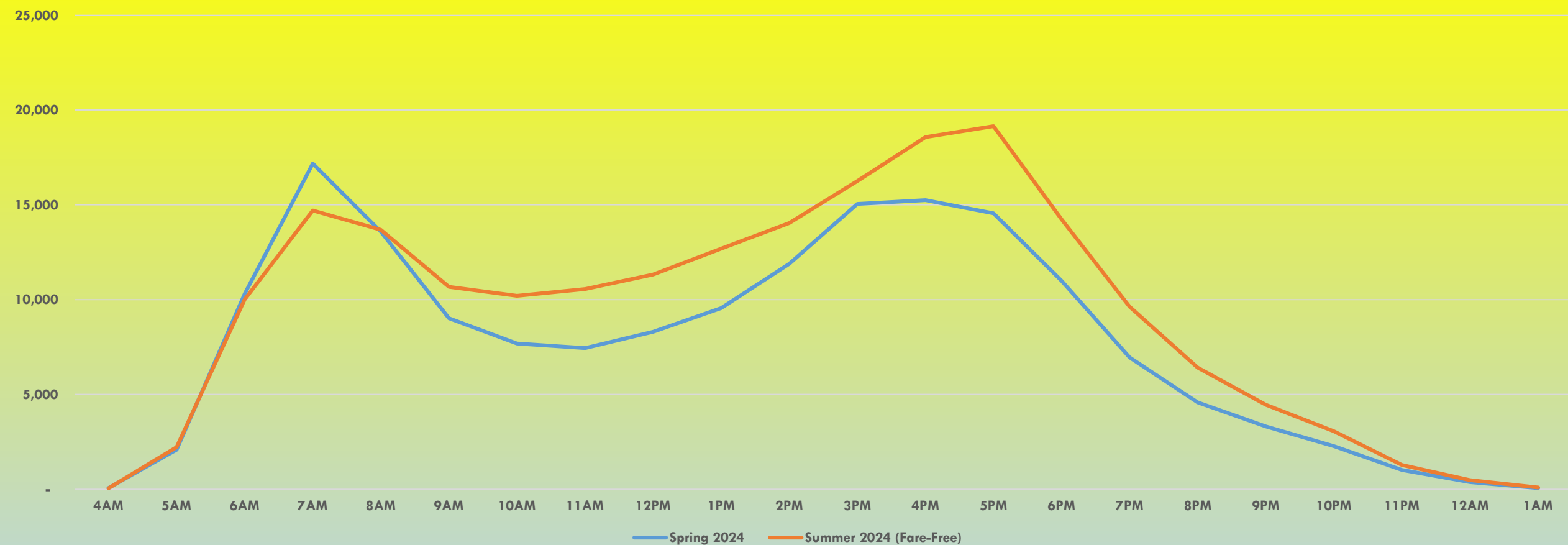
2022 RIDERSHIP BY HOUR (COMBINED ONS & OFFS)



2023 RIDERSHIP BY HOUR (COMBINED ONS & OFFS)



2024 RIDERSHIP BY HOUR (COMBINED ONS & OFFS)



- Fare-free ridership more evenly distributed through the day, suggesting discretionary travel
- Fare-Free ridership growth rates largest in the midday period, peaking in the 11 AM hour (42% higher)
- During 2024 Fare-Free period, over 1,000 add'l riders each hour between 11 AM and 7 PM (except 3 PM)
- Ridership lower in AM peak during fare-free period indicative of typical summer trends

Shifts in ridership throughout the day were consistent each year for fare-free periods.

AVERAGE PASSENGER TRIP LENGTH (MILES)

<u>Timeframe</u>	<u>Weekdays</u>	<u>Saturdays</u>	<u>Sundays</u>
Spring 2022	4.12	4.13	4.04
6/1/22 to 9/5/22 (Fare Free)	3.79	3.71	3.72
Fall 2022	4.11	4.01	4.00
Spring 2023	4.06	3.97	3.91
Summer 2023 (Fare-Free)	3.74	3.63	3.63
Fall 2023	4.05	3.97	3.91
Spring 2024	3.98	3.93	3.87
Summer 2024 (Fare-Free)	3.71	3.61	3.52
Fall 2024	4.02	3.88	3.76

- Each year during fare-free periods on all days, trip lengths were about 8% lower when fares were suspended;
- Trip lengths tend to revert back to normal levels following reintroduction of fare collection
- Each year, trip lengths get slightly shorter during both fare-free periods and when fares are collected.

Fare-free service encourages passengers to make shorter trips, especially on routes with frequent service.

WEEKDAY TOTAL ON/OFF ACTIVITY AT MAJOR TRIP GENERATORS AND TRANSIT HUBS

	<u>2022</u>				<u>2023</u>				<u>2024</u>		
	<u>Spring</u>	<u>Summer (Fare-Free)</u>	<u>% Change</u>		<u>Spring</u>	<u>Summer (Fare-Free)</u>	<u>% Change</u>		<u>Spring</u>	<u>Summer (Fare-Free)</u>	<u>% Change</u>
Downtown Yonkers	14,054	16,919	20%		15,631	18,499	18%		18,173	21,020	16%
White Plains TransCenter	3,534	3,964	12%		4,031	4,678	16%		4,540	5,632	24%
New Rochelle Intermodal Center	1,542	1,916	24%		1,760	2,953	68%		2,022	2,666	32%
Cross County Shopping Center	2,781	3,453	24%		3,368	3,883	15%		3,944	5,005	27%
Empire City	1,599	1,646	3%		1,667	1,462	-12%		1,704	1,933	12%
Petrillo Plaza (Mount Vernon)	2,606	3,083	18%		2,888	3,186	10%		3,110	3,558	13%
Grasslands	695	776	12%		900	915	2%		988	1,102	12%
Bus Stops with NYC Subway Connections	17,982	18,569	3%		19,822	19,275	-3%		20,909	22,734	9%

- Lack of free-transfers reflected in lesser gains in ridership at bus stops at NYC Subway transfer points
- Data is indicative of lesser impacts due to fare-free operations for work-related trips

*By Year 3 of Fare-Free Summers,
Weekday Ridership Gains Were More Consistent System-wide*

SATURDAY TOTAL ON/OFF ACTIVITY AT MAJOR TRIP GENERATORS AND TRANSIT HUBS

	<u>2022</u>				<u>2023</u>				<u>2024</u>		
	<u>Spring</u>	<u>Summer (Fare-Free)</u>	<u>% Change</u>		<u>Spring</u>	<u>Summer (Fare-Free)</u>	<u>% Change</u>		<u>Spring</u>	<u>Summer (Fare-Free)</u>	<u>% Change</u>
Downtown Yonkers	7,020	10,736	53%		7,906	12,134	53%		9,940	13,046	31%
White Plains TransCenter	1,583	2,296	45%		1,970	2,748	39%		2,382	3,223	35%
New Rochelle Intermodal Center	670	1,061	58%		773	1,460	89%		920	1,471	60%
Cross County Shopping Center	3,105	4,256	37%		3,446	4,541	32%		4,431	5,339	20%
Empire City	2,185	2,572	18%		2,124	2,391	13%		2,357	2,489	6%
Petrillo Plaza (Mount Vernon)	1,620	2,102	30%		1,738	2,297	32%		2,030	2,259	11%
Grasslands Campus	318	391	23%		383	466	22%		422	464	10%
Bus Stops with NYC Subway Connections	10,808	12,716	18%		12,001	13,728	14%		13,912	15,009	8%

- In locations with lowest gains, 2024 fare-free ridership peaked at levels similar to 2023 fare-free levels
- Fare-free periods generated large increases in most downtowns & near Bee-Line transfer points
- Lack of free-transfers to NYC Transit reflected in lower ridership increases at bus stops with connections to NYC Subways relative to the rest of the Bee-Line System

*In most instances, fare-free impacts for all major trip generators
are proportionately comparable across each summer*

IMPACTS BY SERVICE TYPE - WEEKDAYS

	<u>2022</u>						<u>2023</u>						<u>2024</u>				
	Spring	Summer (Fare Free)	% Change Spring to Summer	Fall	% Change Summer to Fall		Spring	Summer (Fare Free)	% Change Spring to Summer	Fall	% Change Summer to Fall		Spring	Summer (Fare Free)	% Change Spring to Summer	Fall	% Change Summer to Fall
Core Routes	14,341	17,625	23%	16,074	-9%		16,347	21,084	29%	17,849	-13%		61,326	72,091	18%	67,238	-7%
High Frequency Routes	49,092	59,766	22%	55,043	-8%		55,384	67,700	22%	58,887	-13%		19,486	23,610	21%	20,094	-15%
Infrequent Routes	2,548	3,043	19%	2,867	-6%		2,766	3,342	22%	3,356	1%		3,055	3,650	19%	3,321	-9%
Express Routes	1,285	1,705	33%	1,653	-3%		1,604	2,025	26%	1,757	-13%		1,579	1,943	23%	1,787	-8%
Commuter & Shuttle Routes	299	261	-13%	314	20%		298	253	-15%	336	33%		238	230	-3%	339	47%

- Similar general trends each year, with relatively consistent increases among standard fixed routes;
- The BxM4c express route with a premium fare of \$7.50 had the highest growth all 3 years of fare-free periods (78%)
- Commuter routes/Shuttles did not generate ridership gains from fare-free operations, but gained riders each fall

Fare-free promotions generated ridership increases regardless of service frequency

ON-TIME PERFORMANCE – LATENESS PERCENTAGE

	Spring 2022	Summer 2022 (Fare Free)	Fall 2022
% Late	19.0%	16.2%	24.0%

	Spring 2023	Summer 2023 (Fare Free)	Fall 2023
% Late	20.3%	14.2%	24.2%

	Spring 2024	Summer 2024 (Fare Free)	Fall 2024
% Late	18.2%	13.5%	23.3%

- Fare Free operations has resulted in more reliable service with fewer late trips
- Elimination of dwell time caused by fare-payment the primary factor in improved summer on time performance; summer traffic patterns also likely a contributing factor
- On-time performance tends to decline in the fall, but improves in the spring

Fare-free promotions resulted in modest on-time performance improvement

FINANCIAL IMPACTS

2022

- Approximate 2022 Fare-Free Total Ridership: 8.4 million passengers
- Based on an average fare of \$1.64, this amounts to about \$13,750,000 in savings to Bee-Line passengers

2023

- Approximate 2023 Fare-Free Total Ridership: 5.2 million passengers
- Based on an average fare of \$1.64, this amounts to about \$8,500,000 in savings to Bee-Line passengers (about \$155,000 per weekday, \$96,000 per Saturday and \$58,000 per Sunday)

2024

- Approximate 2024 Fare-Free Total Ridership: 5.4 million passengers
- Based on an average fare of \$1.64, this amounts to about \$8,850,000 in savings to Bee-Line passengers (about \$198,000 per weekday, \$102,000 per Saturday and \$63,000 per Sunday)

CONCLUSIONS

- About 19 million passengers benefitted from Westchester County Bee-Line Promotions
- Fare-free periods generated large significant gains in ridership, some of which resulted in retainment of passengers over the long-term
- Discretionary travel by Bee-Line passengers increased when fares were suspended, changing the profile of trip lengths and time of day of trips taken
- Elimination of dwell time resulting from fare payment had positive impacts on schedule adherence/on-time performance
- Trips involving connections to NYC Transit or Metro-North didn't see the same ridership gains.



THANK YOU!