



TRANSPAR

SYOSSET CENTRAL SCHOOL DISTRICT

Bell Time Study Update

November 28, 2022

SYOSSET
CENTRAL SCHOOL DISTRICT

EXECUTIVE SUMMARY

TransPar's Charge

TransPar was re-engaged in 2021 by SCSD to conduct a new bell time study, following the work that had been done in 2019, prior to the pandemic. The primary goals for the new bell time study were to:

- Develop three alternative bell time scenarios, for one to possibly be implemented during the 2023-24 school year
- Create scenarios to adhere to district's preferred parameters and constraints
- Move high school to a later start time

Project Conclusion

This presentation outlines the multiple iterations of work that have been done to develop the final scenarios, much of which required review of various data sets and discussions around the ability to relax some of the constraints and parameters. The project has been concluded with the following notes:

- New scenarios were able to be developed which achieve a later HS start
- However, without the ability to relax certain constraints, the final scenarios have been outlined with the benefits and challenges associated with each
- A granular run-by-run/route-by-route redesign will be necessary to determine final impact and total route numbers, as averages were used for analysis

OPERATIONAL SUMMARY

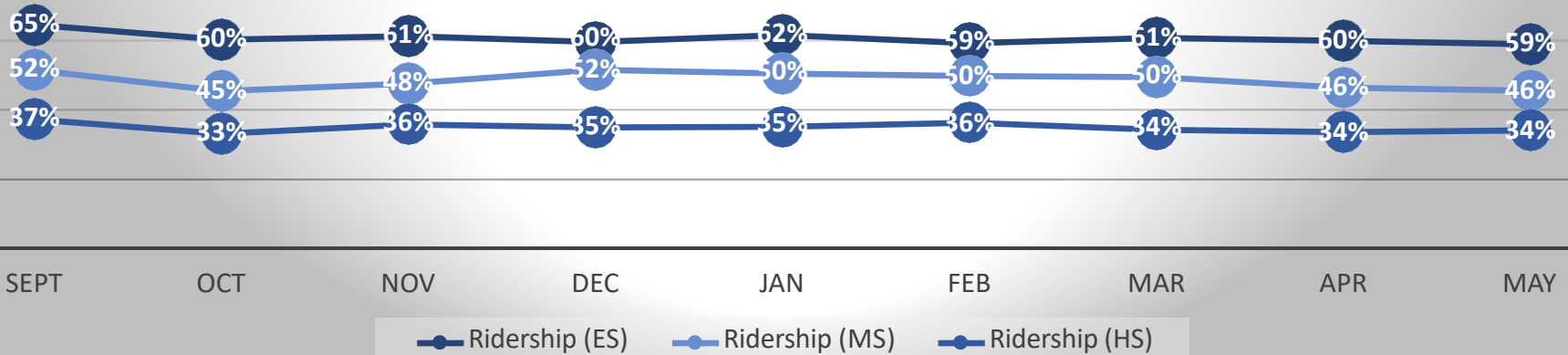
- Approximately 6,800 students enrolled in SCSD buildings
 - An additional 300 students provided transportation to non-district schools
 - All SCSD students are given bus assignment, eligible to ride
 - This is an increase from the 2019 study (6,200 SCSD and 6,700 total)
- 119 Routes (118 in 2019 study)
 - 610 Runs
 - Categorized as:
 - Traditional to/from school runs
 - Shuttles
 - Mid-Day
 - Late (after school) runs
- Operated in three tiers (no change from 2019)
 - High School (1): 7:39 AM – 2:26 PM
 - Middle School (2): 8:05 AM – 2:46 PM
 - Elementary School (7): 9:15 AM – 3:15 PM

INITIAL OBSERVATIONS

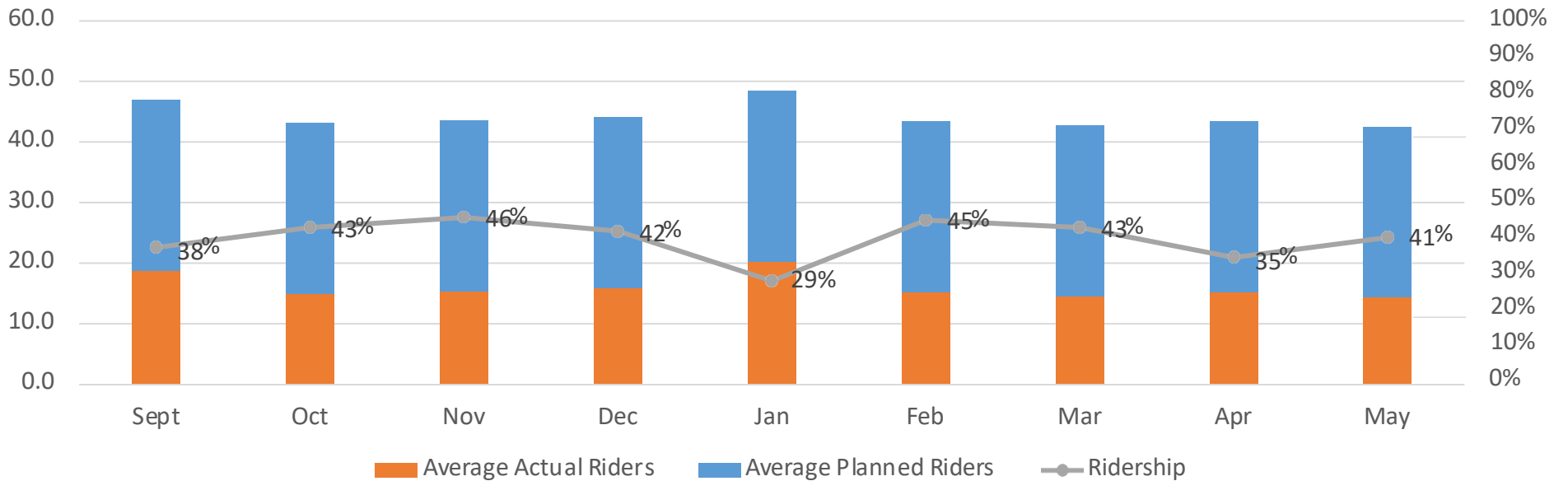
- Current afternoon dismissals present a scheduling constraint
 - First to second dismissal (HS to MS) only 20 minutes
 - Second to third dismissal (MS to ES) only 29 minutes
 - Average run duration is 20 minutes
- Seating capacity is not fully realized
 - Possibly due to time constraint mentioned above
 - Assigned ridership average of 40 students per bus across all regular education
 - ES and HS average 45 per route, MS only 30 per route
- Varying length of instructional minutes
 - High School and Middle Schools have a similar duration
 - Elementary Schools have shorter day, which complicates bus scheduling

2021-22 RIDERSHIP DATA

Ridership by Elementary, Middle & High School



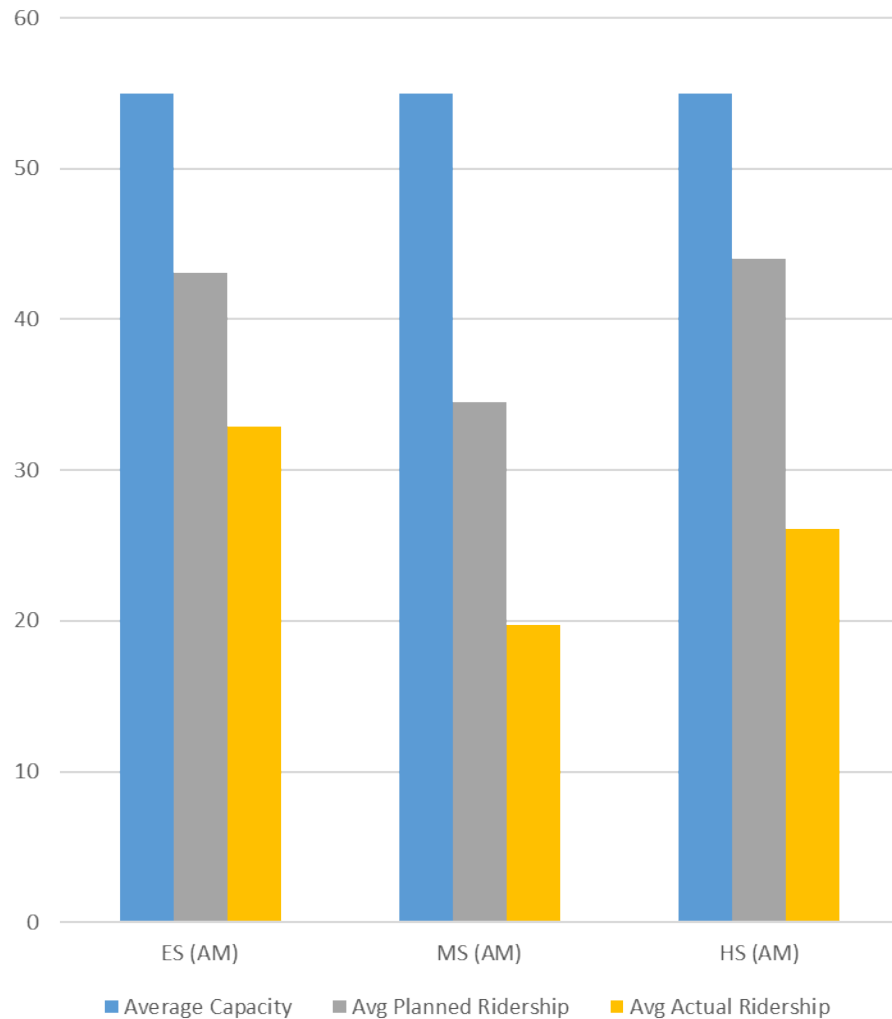
Ridership over Time



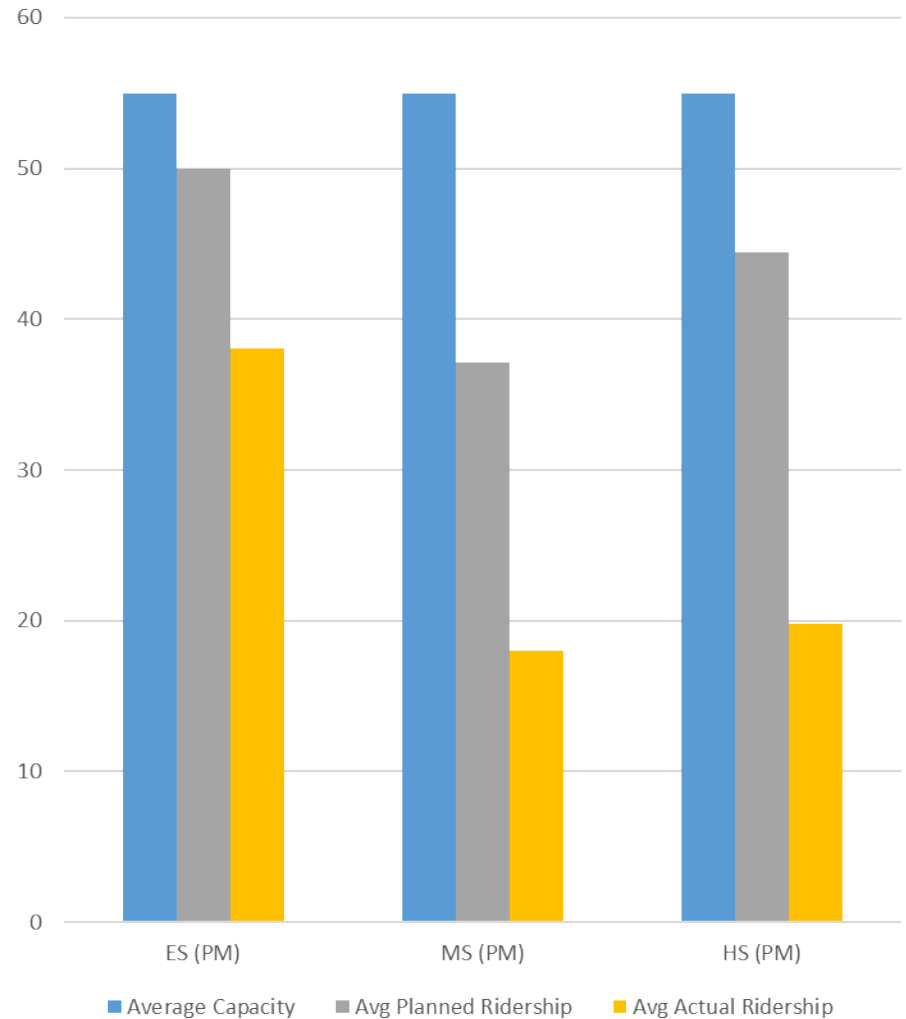


PLAN VS. ACTUAL RIDERSHIP W/CAP

Average Ridership per Run by School Group, Planned Vs. Actual (AM)

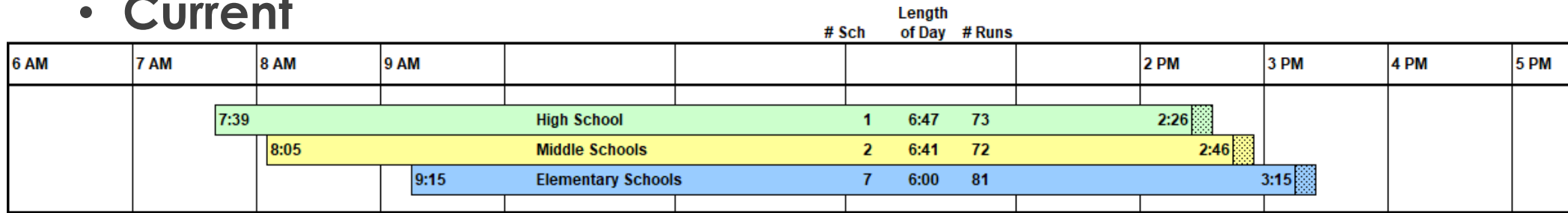


Average Ridership per Run by School Group, Planned Vs. Actual (PM)

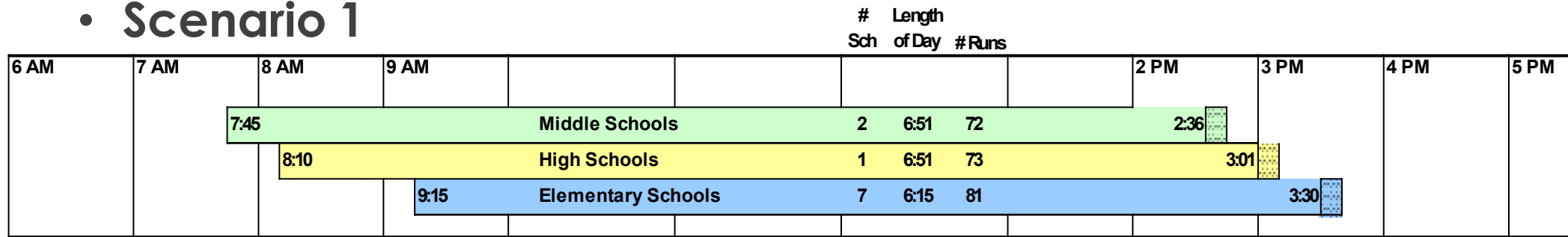


FINAL REVISED SCENARIOS: 1 & 1A

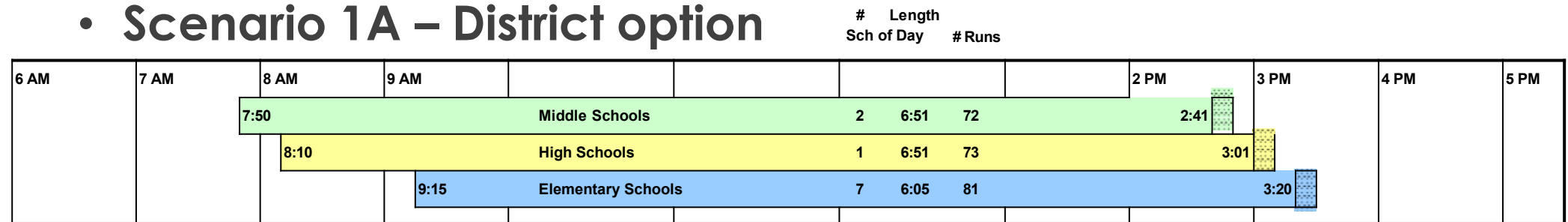
• Current



• Scenario 1



• Scenario 1A – District option



Benefits:

- Both adhere to district constraints & parameters
- Scen. 1 increases time between first two tiers from 20 to 25 minutes in the PM
- Scen. 1A, per SCSD, considers one wave of HS buses based on construction plan*

Challenges:

- Neither scenario provides a min. of 30 minutes between tiers in the PM
- Elementary day is extended
- Scenario 1A reduces time below 20 minutes between 2nd & 3rd tier
- Buses will likely arrive after the instructional bell at HS and ES

FINAL REVISED SCENARIOS: 2

• Current

				# Sch	Length of Day	# Runs					
6 AM	7 AM	8 AM	9 AM				2 PM	3 PM	4 PM	5 PM	
		7:39	High School			1	6:47	73	2:26		
		8:05	Middle Schools			2	6:41	72	2:46		
		9:15	Elementary Schools			7	6:00	81	3:15		

• Scenario Two

				# Sch	Length of Day	# Runs					
6 AM	7 AM	8 AM	9 AM				2 PM	3 PM	4 PM	5 PM	
		8:00	High School			1	6:51	73	2:51		
		8:00	Elementary Schools (Group 1)			5	6:00	60	2:00		
		8:30	Middle Schools			2	6:51	72	3:21		
		8:30	Elementary Schools (Group 2)			2	6:00	21	2:30		

Benefits:

- Adheres to district constraints & parameters
- Starts no school earlier than 8:00 AM and releases no school later than 3:21 PM
- Keeps elementary day at 6 hours
- Offers 30 minutes between the HS and MS dismissal times in the PM

Challenges:

- Requires a full re-design of the current route structure
- Requires elementary & secondary students to ride together in the AM
- Requires elementary schools to have different start times and to start earlier
- Will add to the total number of buses required to operate the system; total would have to be determined through a more granular review of each run and route

FINAL REVISED SCENARIOS: 3

• Current

				# Sch	Length of Day	# Runs					
6 AM	7 AM	8 AM	9 AM				2 PM	3 PM	4 PM	5 PM	
		7:39	High School			1	6:47	73	2:26		
		8:05	Middle Schools			2	6:41	72	2:46		
		9:15	Elementary Schools			7	6:00	81	3:15		

• Scenario Three

				# Sch	Length of Day	# Runs					
6 AM	7 AM	8 AM	9 AM				2 PM	3 PM	4 PM	5 PM	
		8:00	High School			1	6:51	73	2:51		
		8:00	Middle School 1			1	6:51	36	2:51		
		8:10	Middle School 2			1	6:51	36	3:01		
		9:15	Elementary Schools			7	6:15	81	3:30		

Benefits:

- Both adhere to district constraints & parameters
- Starts no school earlier than 8:00 AM and releases no school later than 3:30 PM
- Offers a minimum of 29 minutes between the 1st & 2nd tier

Challenges:

- Requires a full re-design of the current route structure
- Elementary day is extended
- Requires middle school and high school students to ride together
- Will add to the total number of buses required to operate the system; total would have to be determined through a more granular review of each run and route