

# Transportation Improvement Plan

July 19, 2016

# Purpose of Today's Meeting

- Review progress on routing efficiency
  - Explain development process for optimized routes
  - Contrast to last year's routes
- Consider amount of change to implement
  - Typical amount of change as one grade enters and another leaves
  - Change with proposed optimized routes
    - Some students with short rides previously could have longer rides now
    - Drivers assigned unfamiliar routes-need to test/dry run, practice
- Discuss communication needed with new routes
- Obtain final guidance before completing routing

# Routing Method

- Guidelines provided to bus router at Bus Boss software company
  - Maximum ride time
  - Seating capacity
- Method
  - Advance all students to new school
  - Assign students to bus stops
  - Phase 1: Computer operator assigns students to a stop, enough stops to fill a bus, while minimizing mileage/time for all buses going to each school
  - Phase 2: Runs to each school are combined into a route for morning and afternoon (most buses do 3 runs in a.m. and p.m.)

# Comparing Old (last year) and New (optimized)

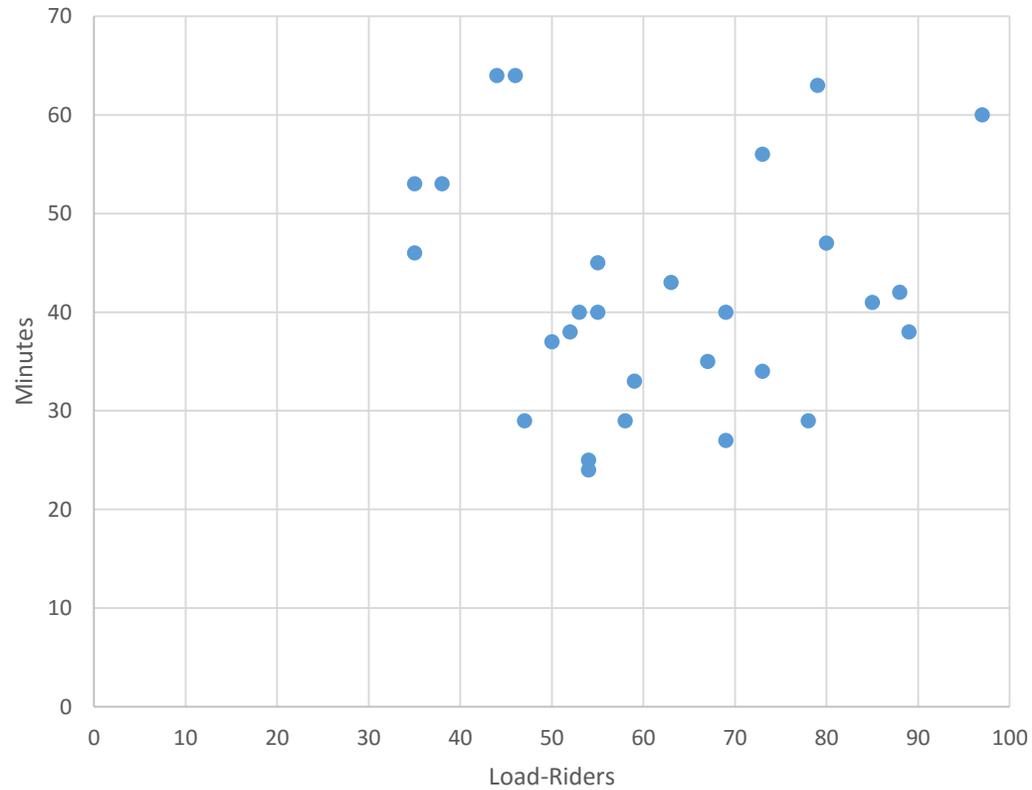
	Old (original)	New (optimized)
Total number of bus runs	106	89
Total buses for public runs, regular education program (not nonpublic or special education)	55	39
Total ride time	96 hours, 35 minutes	65 hours, 20 minutes
Total miles	1494.6	1233.7
Total loaded miles	990	922.7
Total unloaded miles	504.5	310.9
Unloaded miles as % of loaded miles	51%	34%
% reduction in total ride time		32%
% reduction in number of bus runs		17%
% reduction in total miles		17%
% reduction in unloaded miles		38%

# Bus Runs by School

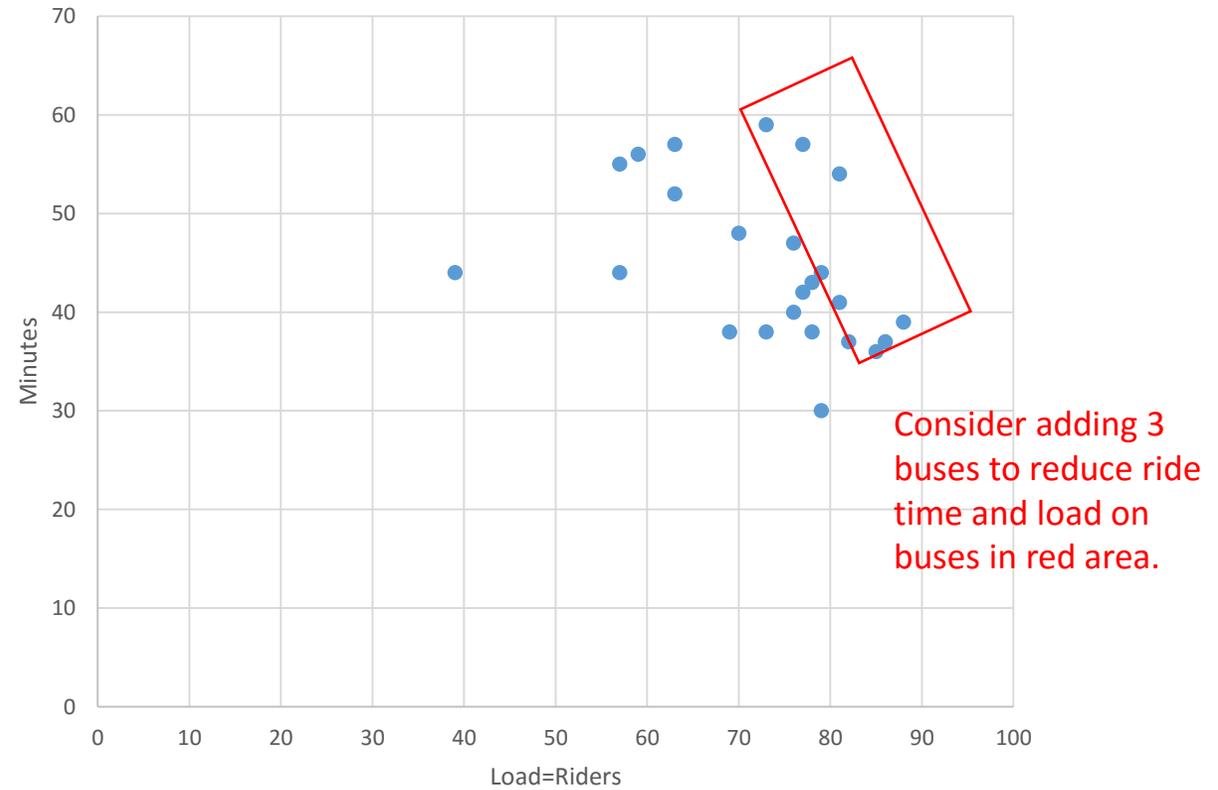
School	Original	Optimized
Arcola	21	15
Arrowhead	4	4
Audubon	7	6
Eagleville	6	6
High School	27	24
Skyview	21	19
Visitation	5	4
Woodland	5	4
Worcester	<u>10</u>	<u>7</u>
Total	106	89

# High School

High School-Original

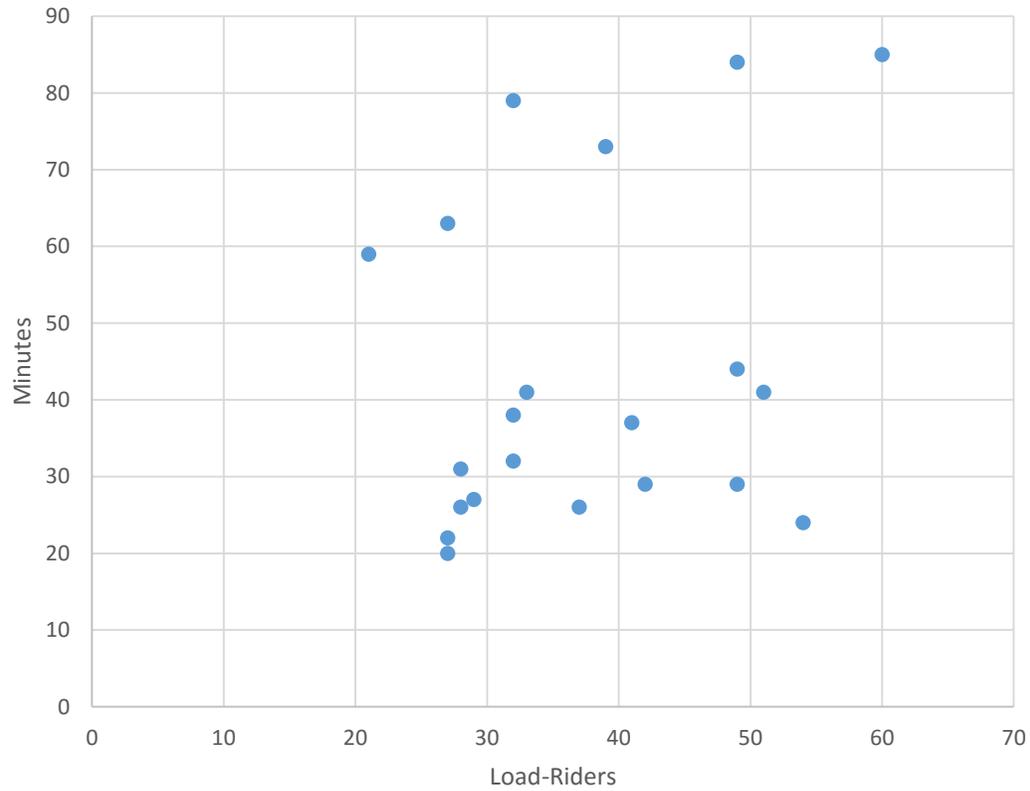


High School-Optimized

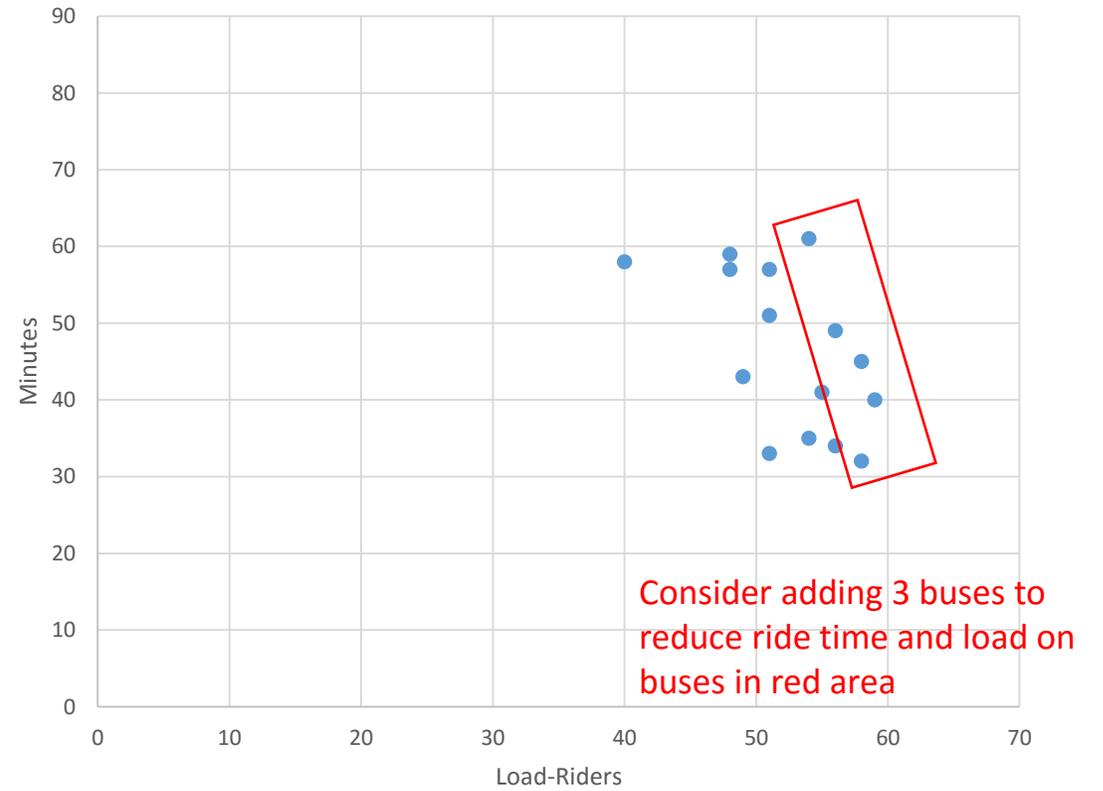


# Arcola

Arcola-Original

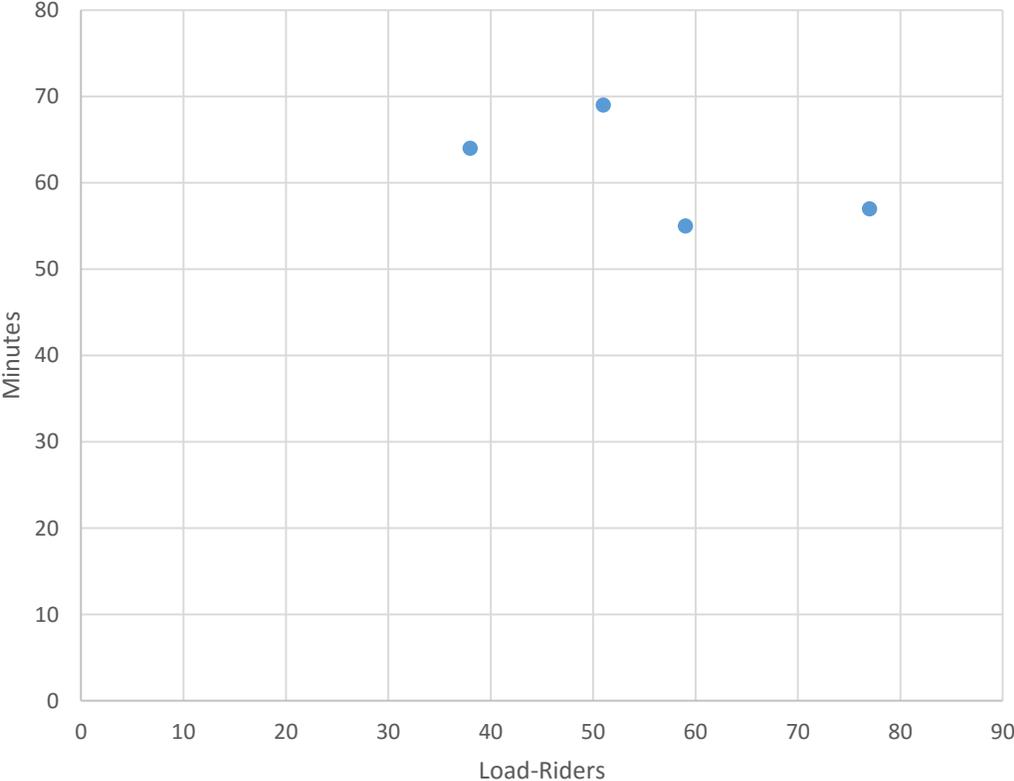


Arcola-Optimized

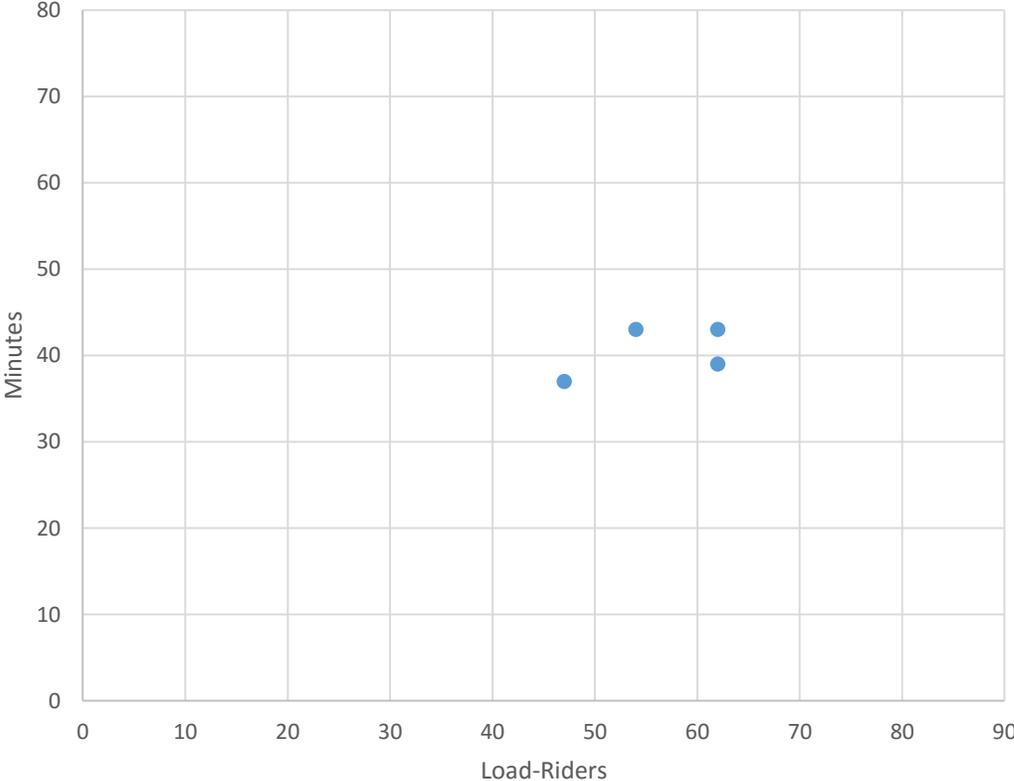


# Arrowhead

Arrowhead-Original

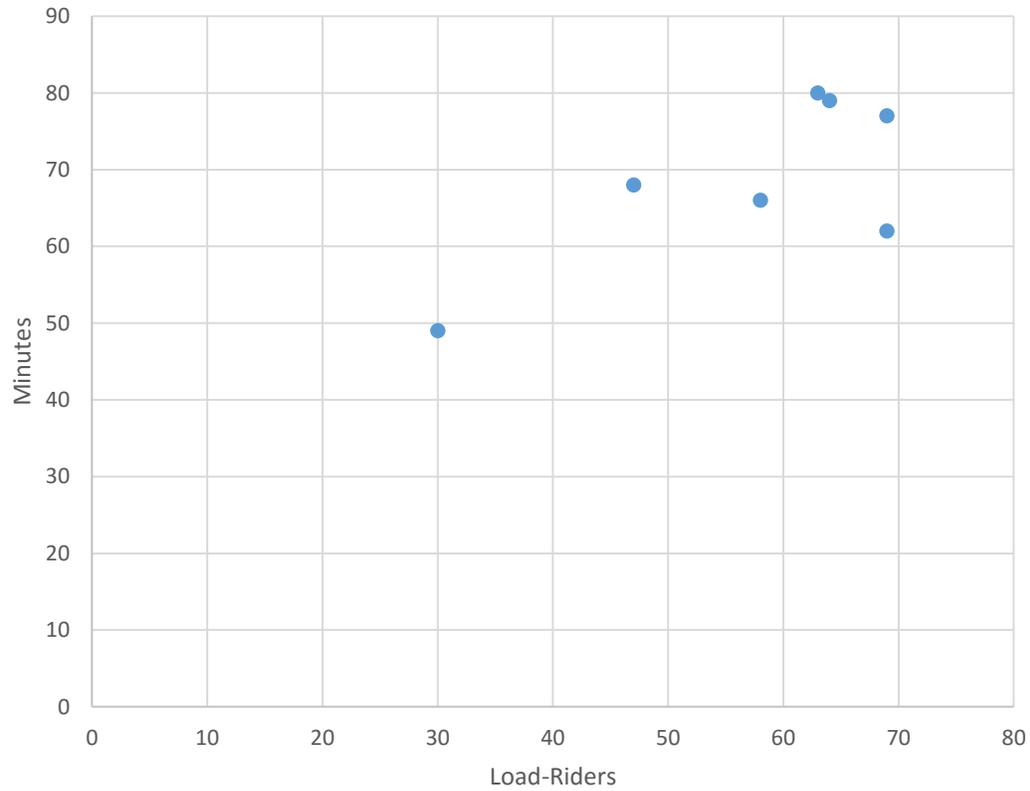


Arrowhead-Optimized

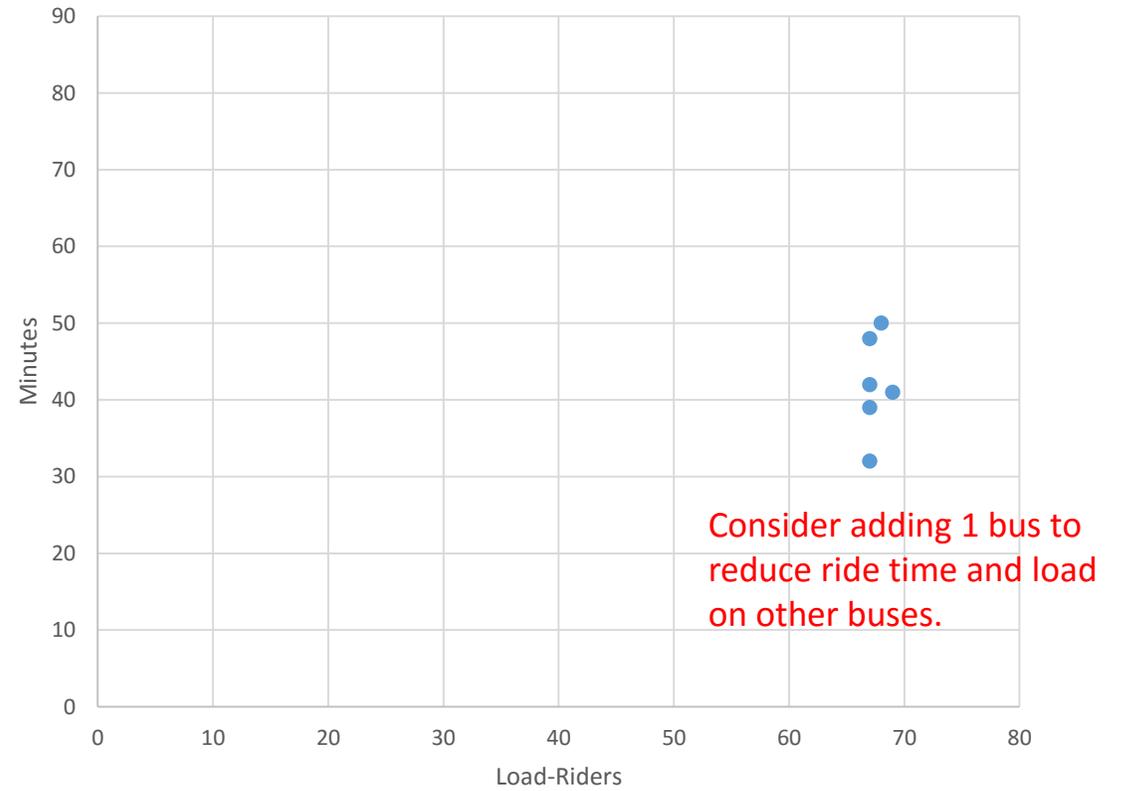


# Audubon

Audubon-Original

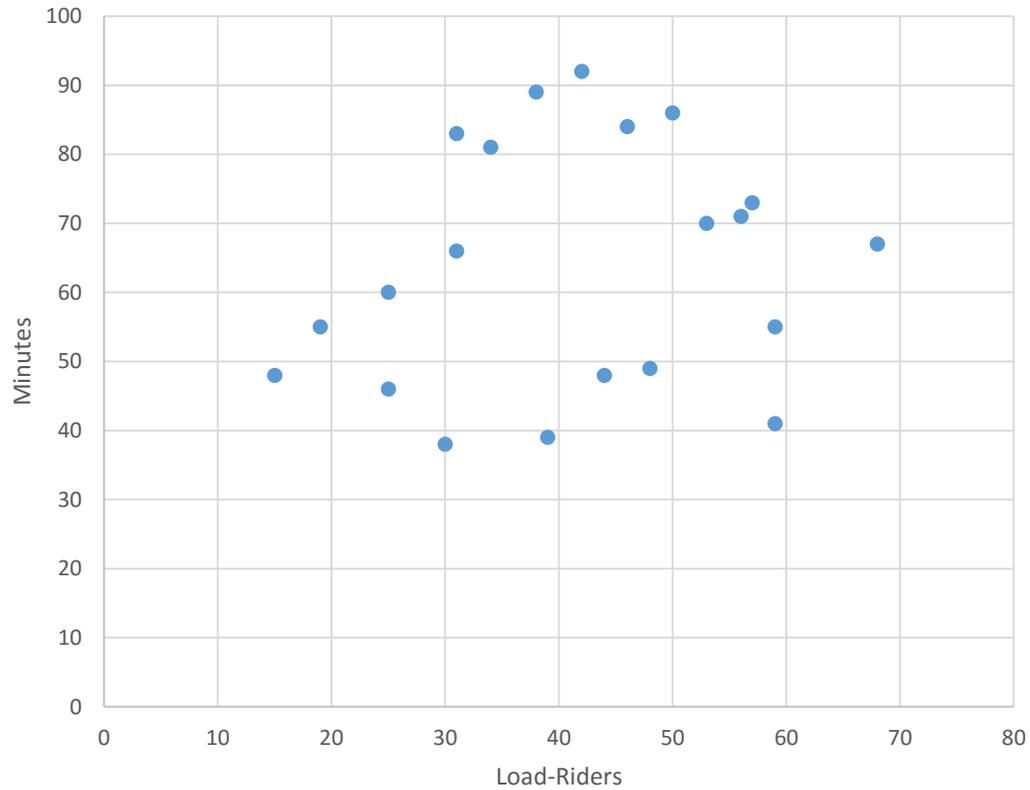


Audubon-Optimized

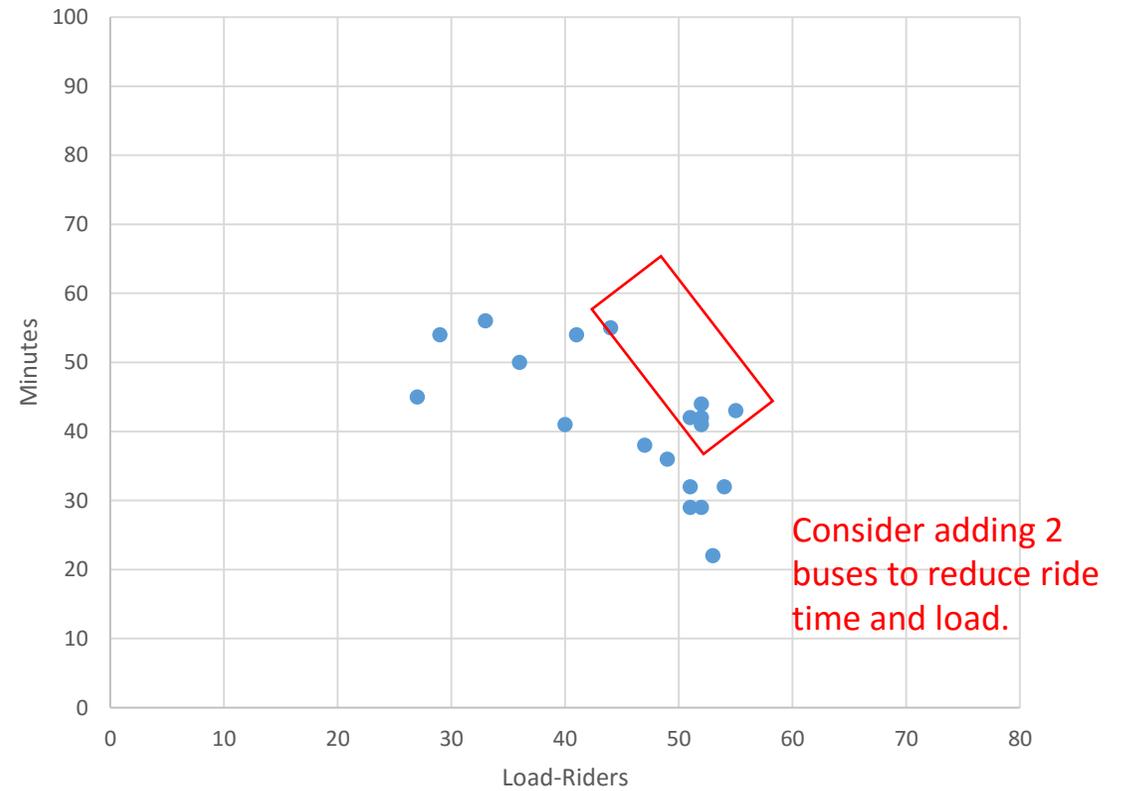


# Skyview

Skyview-Original

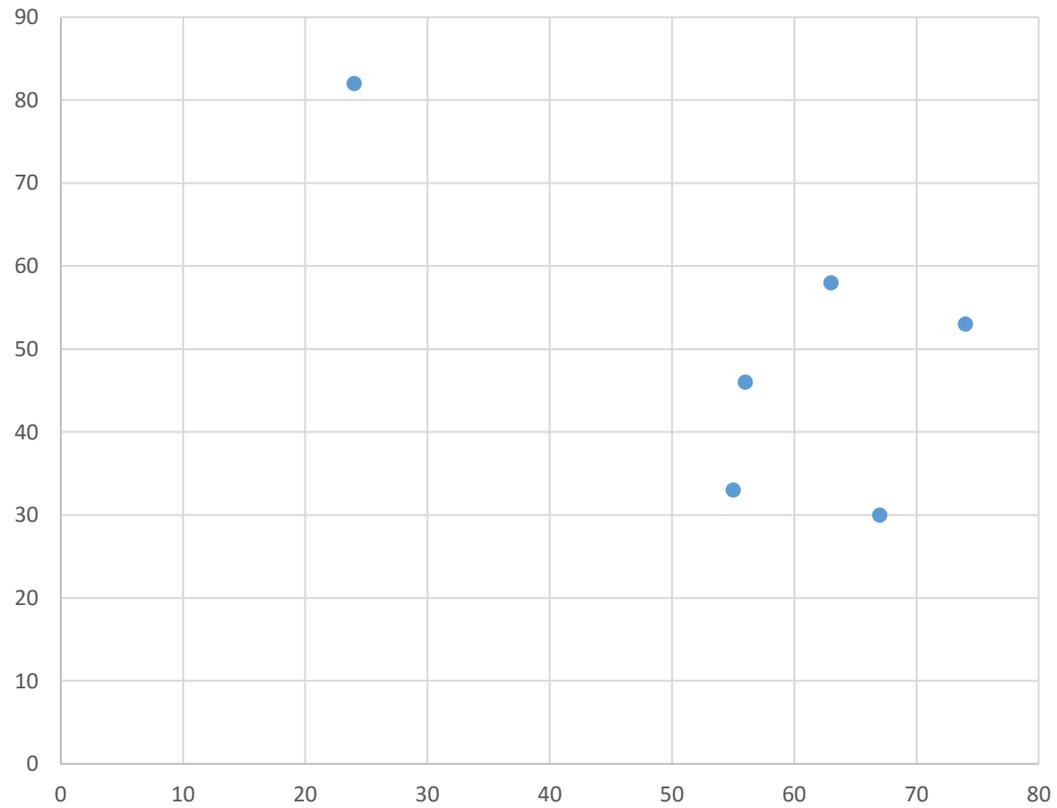


Skyview-Optimized

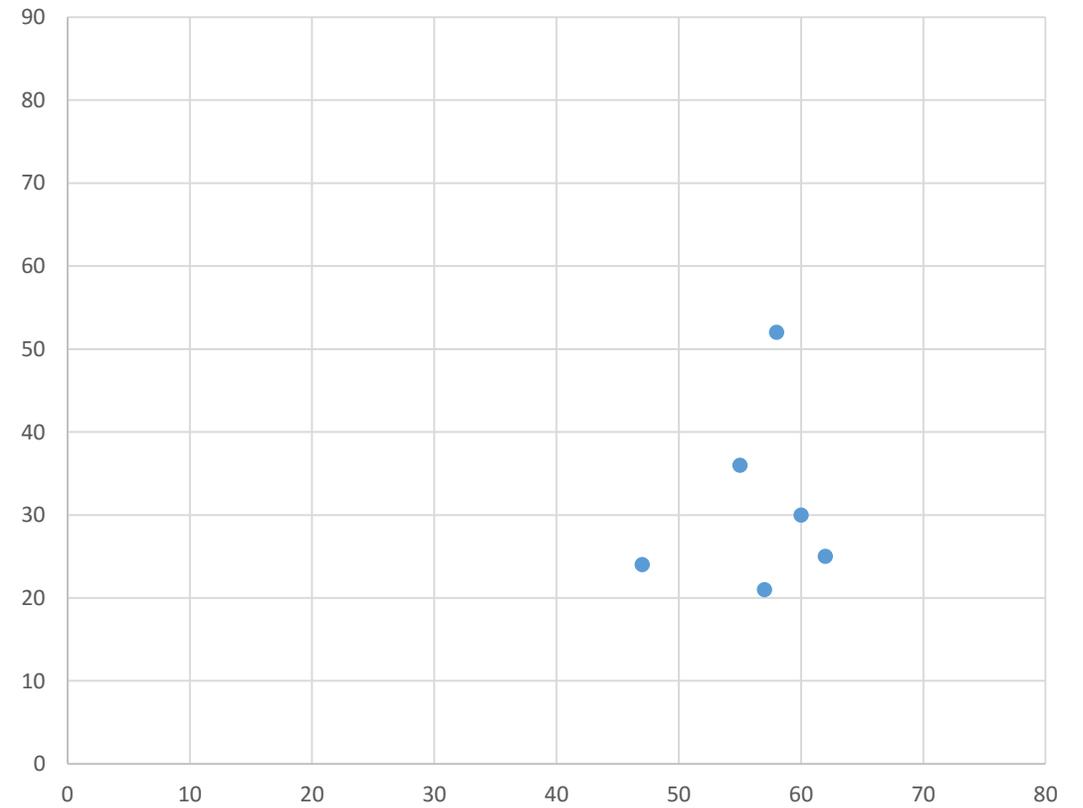


# Eagleville

Eagleville-Original

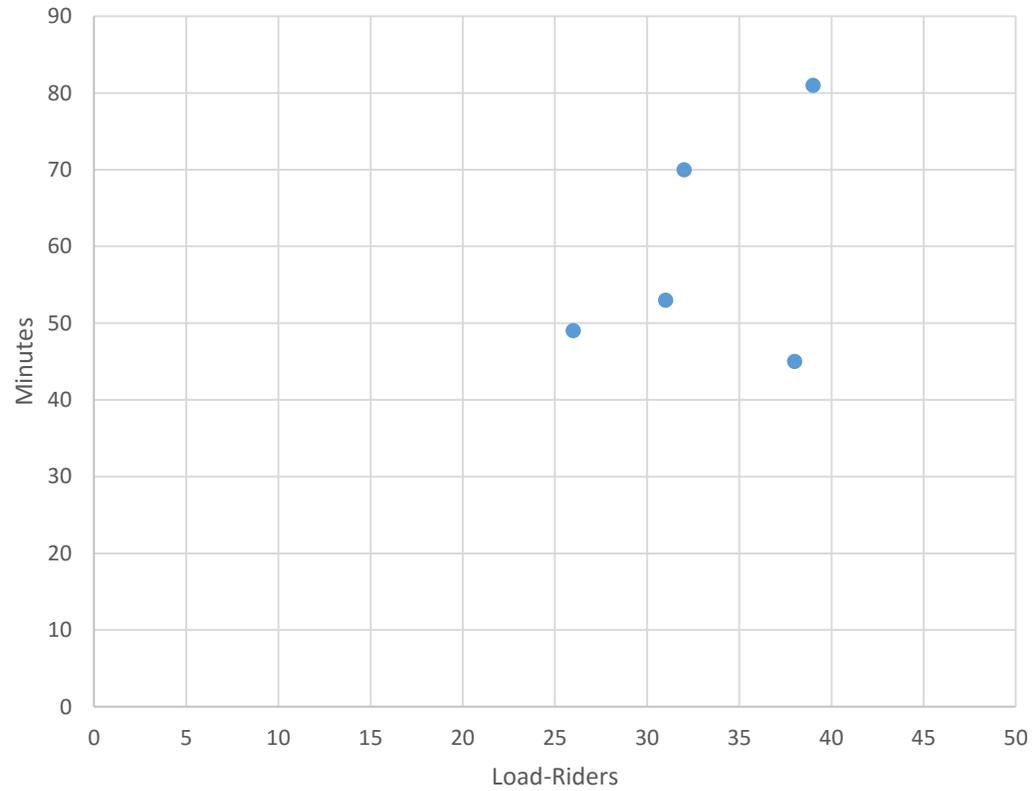


Eagleville-Optimized

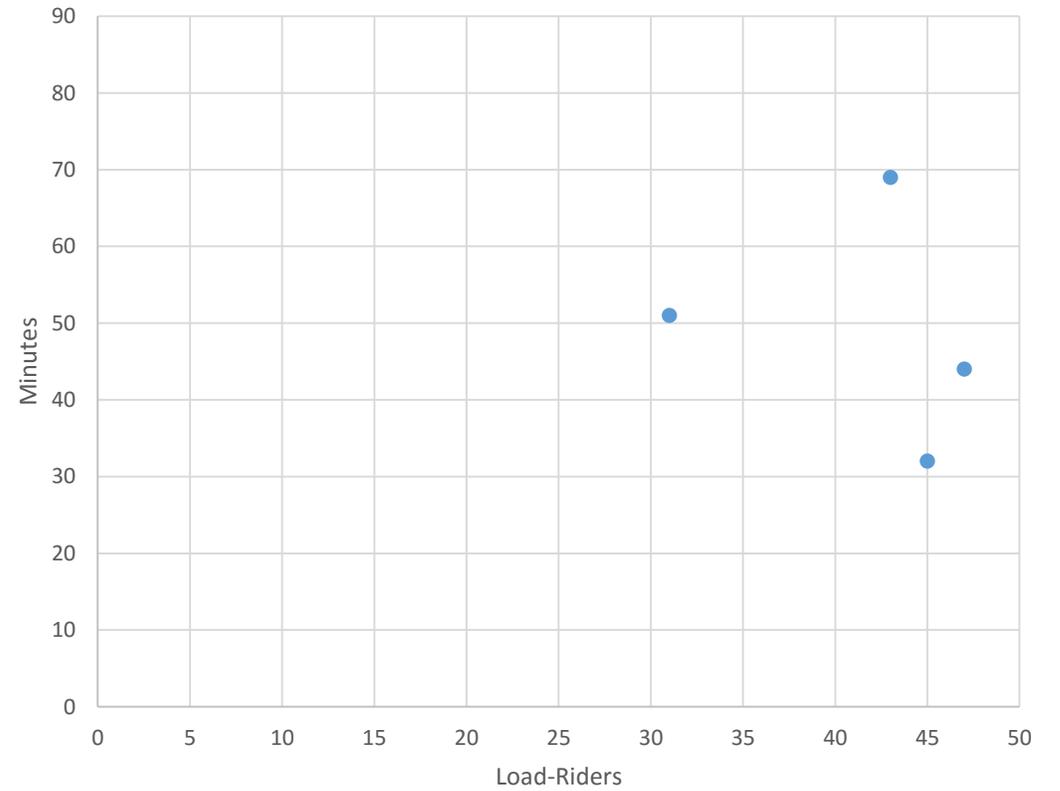


# Visitation

Visitation-Original

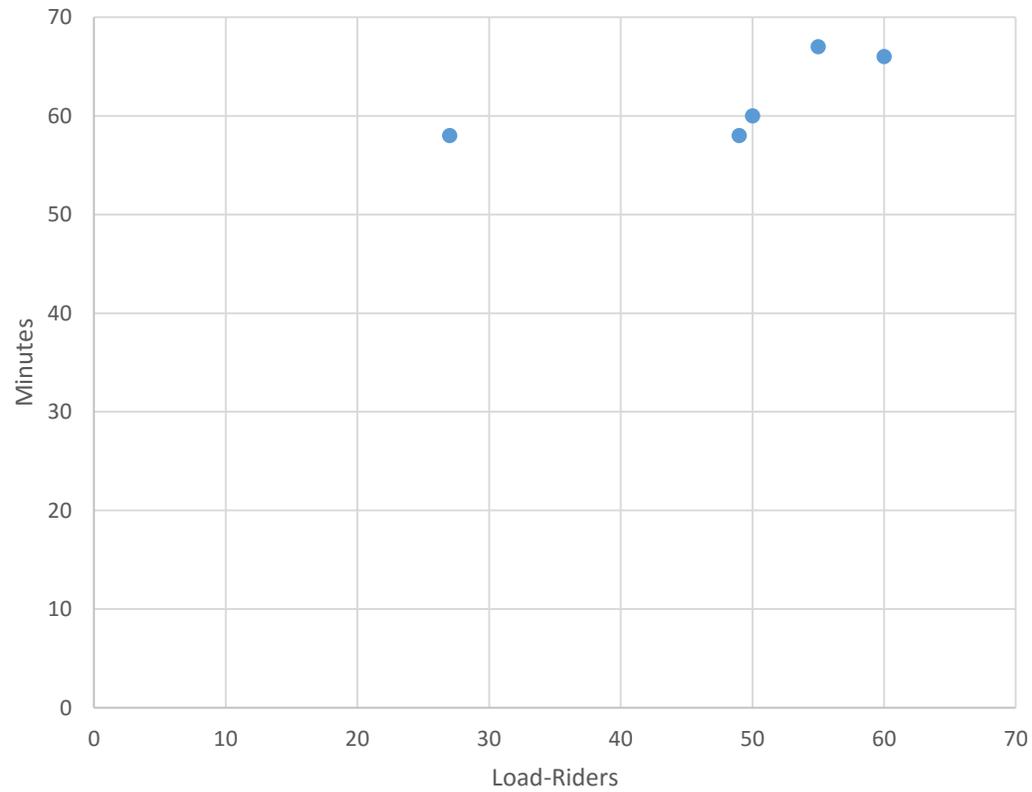


Visitation-Optimized

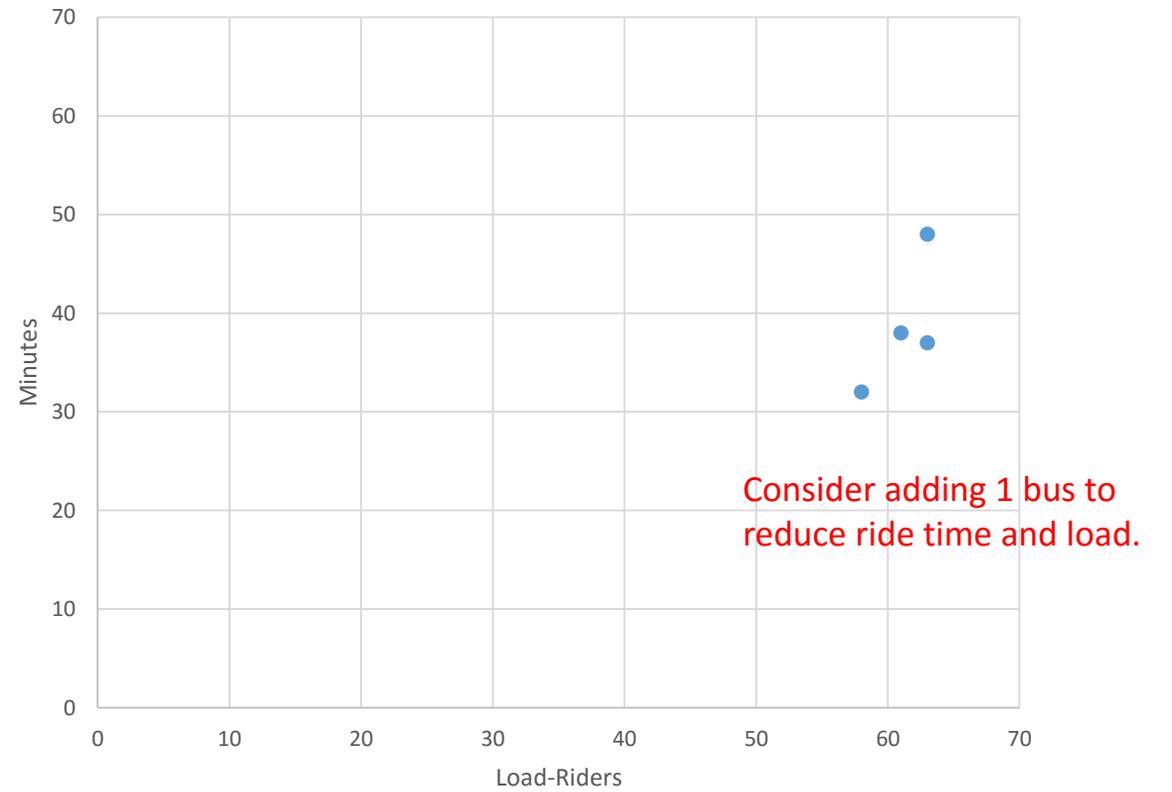


# Woodland

Woodland-Original

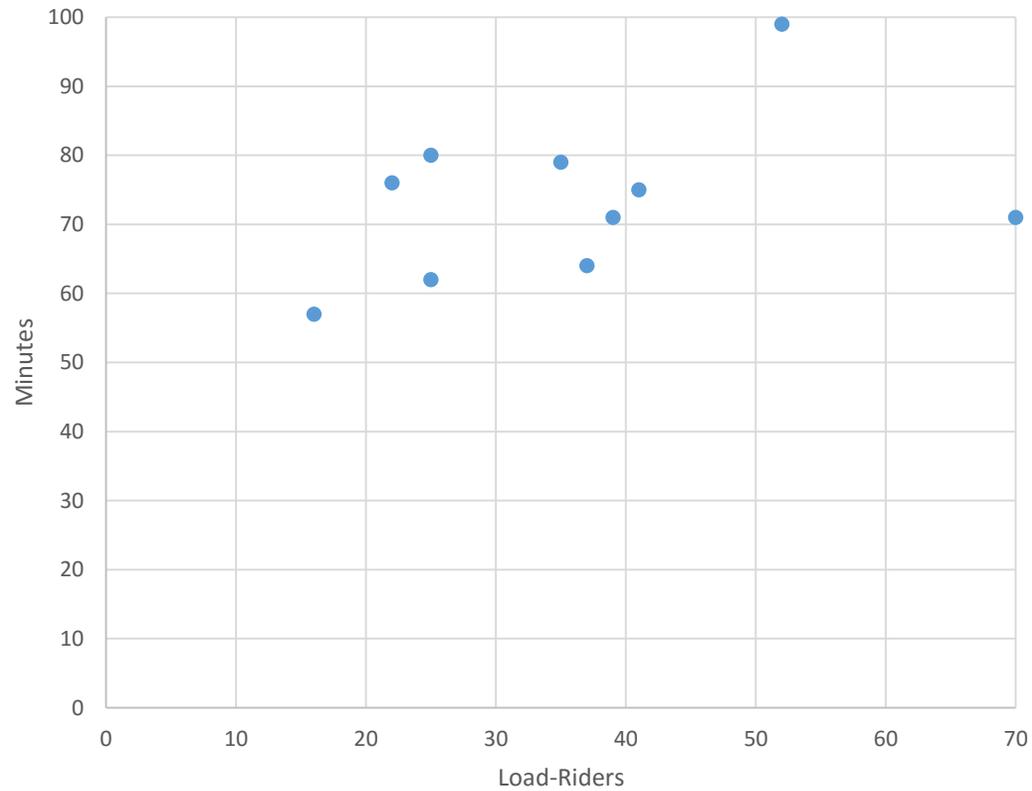


Woodland-Optimized

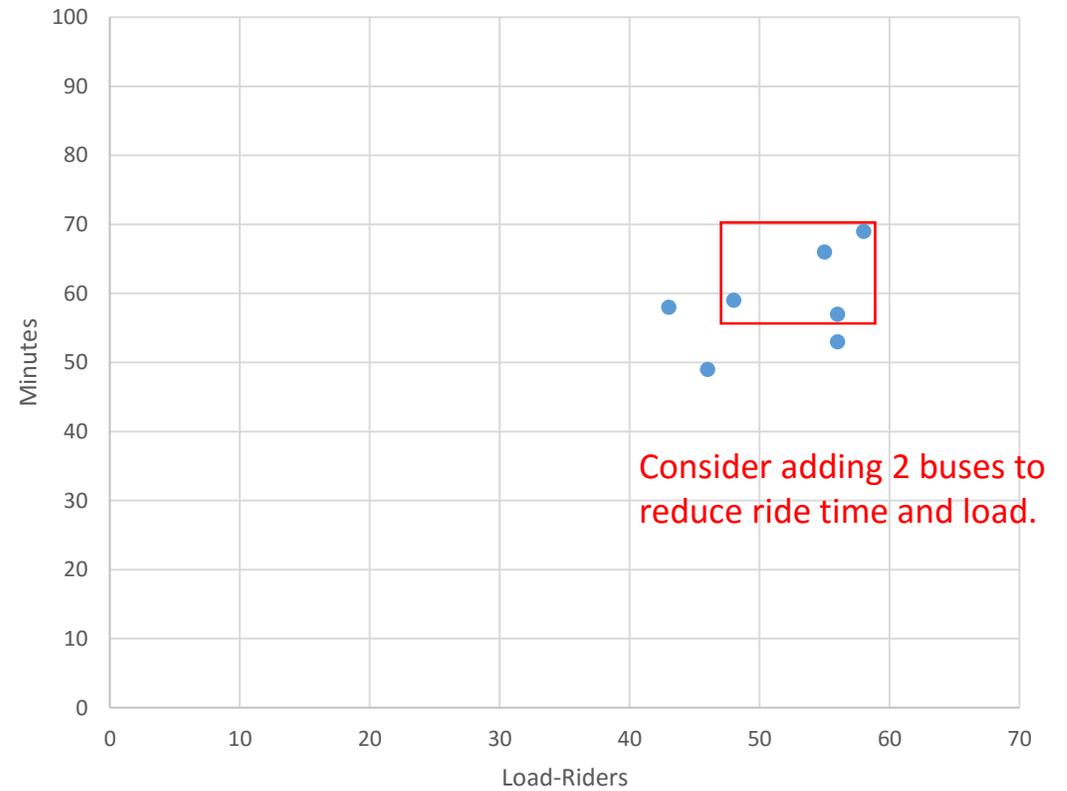


# Worcester

Worcester-Original



Worcester-Optimized

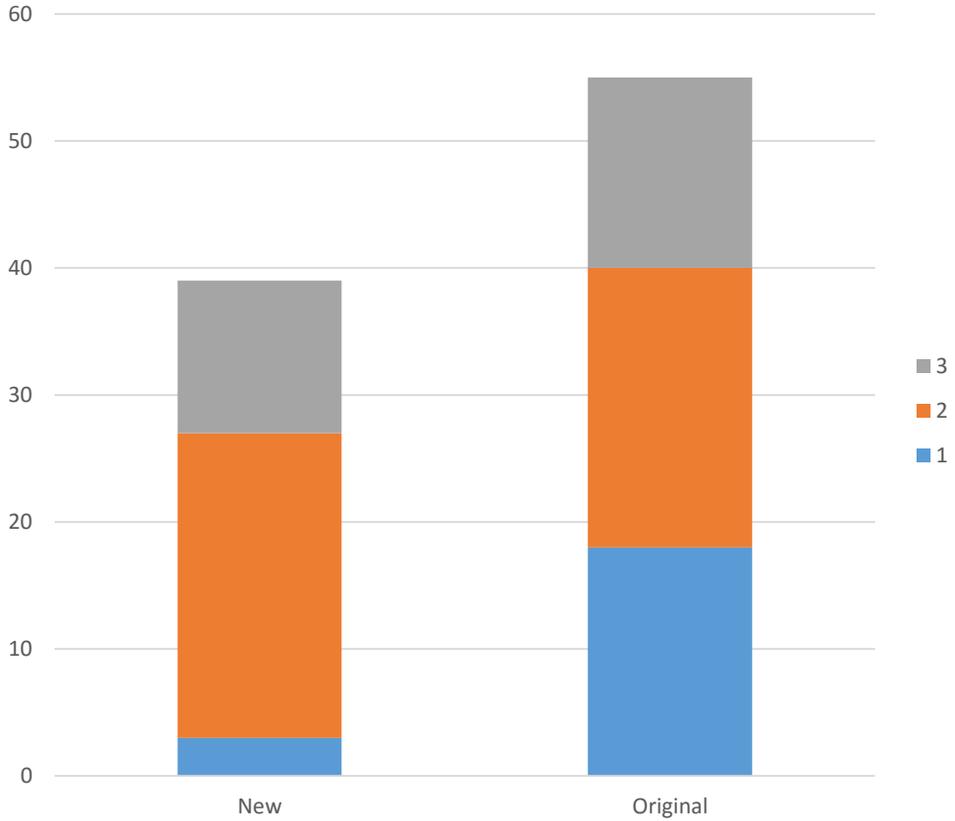


# Bus Runs by School

School	Original	Optimized	Revision to Consider
Arcola	21	15	18
Arrowhead	4	4	4
Audubon	7	6	7
Eagleville	6	6	6
High School	27	24	27
Skyview	21	19	21
Visitation	5	4	4
Woodland	5	4	5
Worcester	<u>10</u>	<u>7</u>	<u>9</u>
Total	106	89	101

# Tiers Assigned to Each Bus-Old vs. New

	1 Tier	2 Tiers	3 Tiers	Total Buses Used
New	3	24	12	39
Old	18	22	15	55



# Implementation Options

- Full Optimization
  - Exactly as proposed, fully optimized
- Revised Optimization
  - Add a few buses to specific schools as shown on scattergrams
- Partial Implementation
  - Use optimized runs but only at selected schools
    - Elementary only
    - Elementary and High School, not Intermediate or Upper Elementary

# Implementation Schedule

- Test times on proposed runs
  - Consultant-preliminary testing of runs completed
  - Team-District management and First Student management/selected drivers by August 1
- Notice of new runs
  - Preliminary-late July, general notice to parents that runs and pickup times will change to improve efficiency
  - Final-late August, each rider's stop location, bus number, and pickup time
- Mid to Late August-Add new enrollees, remove withdrawals
- Open Call Center-August 20 to September 10

# Successful Implementation- Roles and Responsibilities

- Adjust runs for new enrollees, fix any problems quickly
- Train/test drivers on new runs/routes, supervise drivers
- Bus Drivers-know their runs/route, avoid delays, show confidence
- Call Center-timely and accurate information, answer FAQs
- Superintendent-explain importance of this initiative to various audiences
- School Board-approve final routes in August, refer calls to Call Center
- Principals-communication in late summer, supervise dismissal and bus departure to minimize time required

# Communication Plan

- Develop notifications
  - Preliminary in July or early August-reasons for change, future notice in late August
  - Final in late August-bus stop location, pickup time, bus number
- Develop FAQs
- Call Center
  - To handle volume of calls expected due to changed bus numbers and times
  - Train Call Center staff to answer frequent questions
  - Several people to answer questions, trained to use Bus Boss software
  - Response time within 24 hours

# Frequently Asked Questions (FAQs)

- Why was the system changed?
  - Minor changes to runs/routes in prior years had resulted in wide variation in use of seating capacity and time available
- What are the advantages of the change?
  - Total ride time reduced
  - Lower cost
- What are the disadvantages of the change?
  - Extensive communication is required
- How do I request a change to assigned stop, bus run, pickup time?
  - Telephone Call Center after receiving notice in late August
- What are the criteria for locating bus stops?
  - We use the National Highway Traffic Safety Administration guidelines