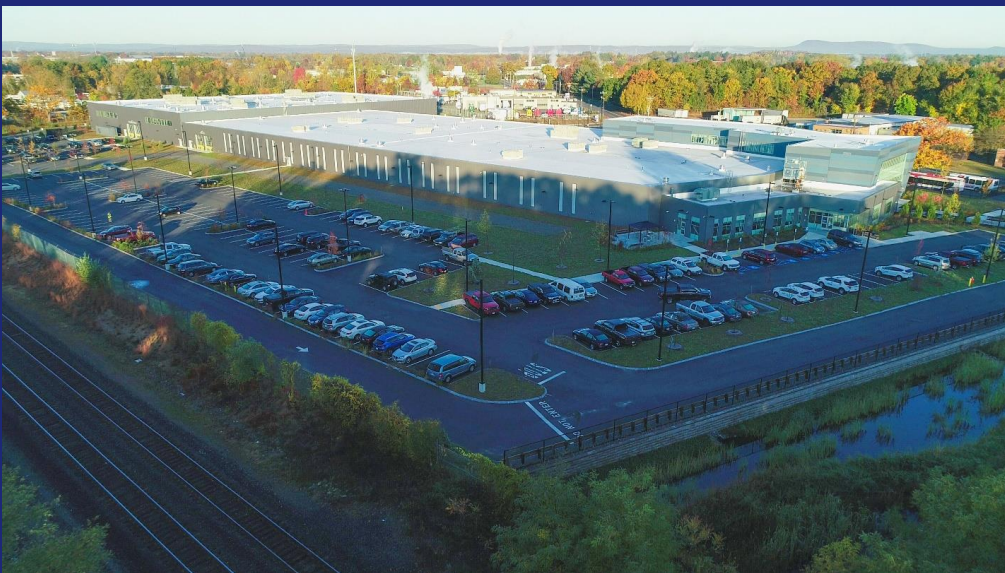




Service Equity Analysis of SATCo Service Adjustments FY22



CDL Labor
Shortage and
Massachusetts
Family and
Medical Leave
Act Impacts

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1. Authorities and Summary

PVTA was established through Chapter 161B of the Massachusetts General Laws. This law establishes the initial service area and structure. In addition, “The affairs of an authority shall be managed by an administrator who shall be appointed by and serve at the pleasure of the advisory board of the authority...The administrator shall be the chief executive officer of the authority...” The Administrator is given broad authorities to exercise the powers given to the Transit Authority and is given the authorities at the will of the advisory board including managing facilities and equipment and the hiring of officers, agents, and employees. And including activities common to transit planning.

As a recipient of Section 5307 and 5310 funds from the Federal Transit Administration, PVTA is required to perform an Equity Analysis as part of FTA rules developed in response to Title VI of the 1964 Civil Rights Act and outlined in FTA Circular 4702.1B. Major service changes must be assessed for their potential discriminatory impact with regard to race, color, income, or national origin. Equity analyses are required regardless of whether or not the changes proposed would be beneficial or detrimental to riders.

PVTA enters into agreements with third-party management companies to manage transit bus operators. In 2021, these included First Transit (managing both Valley Area and Springfield Area Transit Companies until October 2021), DGR Management (managing both Valley Area and Springfield Area Transit Companies starting in October 2021), University of Massachusetts Transit Services, Hulmes Transportation Inc. LTD, Quaboag Valley CDC, and MV Transit (managing Paratransit services). Important to this analysis, these third-party contractors make employment decisions independently and based on quarterly contract bids submitted by PVTA through an open process.

1.1 Summary

This document is the equity analysis of PVTA's response to the impacts of a labor shortage. The labor shortage was the result, at least in part, of a COVID-related CDL Labor Shortage and the impacts of implementing the new Paid Family Medical Leave (PFML). These continue to adversely impact PVTA's Fixed Route contracted bus operator, Springfield Area Transit Company (SATCo). To minimize the impacts of these labor issues, PVTA and SATCo staff worked to find approximately 100 driver hours per day of savings to maintain the ability to perform service without regular missed trips. Initially, these route adjustments were implemented temporarily. However, as the impacts of labor shortages continue, these adjustments remain in effect and require an equity analysis under Federal Law and Funding Requirements. The PVTA Advisory Board on June 22, 2022, directed the PVTA Administrator to hold public hearings for a Title VI Analysis for Labor-Related Service Adjustments. While other route adjustments were made in response, these four route adjustments met the definition of Major Service Change.

These routes rose to the level of needing a Title VI Analysis: G2E, B7, B6, and X90.

This analysis assesses the potential impacts of service change proposals that qualify as major service changes as specified by PVTA's local developed policies that may have disparate or disproportionate impacts on PVTA customers of color and/or low-income riders, depending on the nature of the service changes that are implemented. A demographic analysis of PVTA customers who may be affected is presented so that PVTA may determine whether or not there are adverse or disparate impacts on minority populations or disproportionate burden on low-income populations in the PVTA service area,

as well as the types of measures that are likely to be effective and appropriate in mitigating adverse impacts on those transit customers.

A NOTE ON LANGUAGE: PVTA avoids the use of the term “minorities,” which is frequently used in federal documents, to refer to people of color or anyone who is not white. This word can be divisive and is therefore not consistent with the intent and purpose of an equity analysis. In fact, the majority of PVTA customers – more than 62% - are people of color. Therefore, this report uses the term “minorities” only when necessary to conform to federal regulations and definitions.

1.2 CDL Labor Shortage

The CDL Labor Shortage has been discussed nationally and internationally by prominent news organizations starting in 2021. Transit (public and private) and Trucking and Shipping companies have experienced a substantial decrease in the number of skilled Commercial Driver’s License holding applicants to fill available positions. SATCo locally experienced a hiring gap of 36 employees during the month of September 2021.

1.3 Paid Family Medical Leave (PFML)

The Massachusetts Paid Family Medical Leave program began providing benefits in 2021 that include: additional leave and supplemental income options to workers welcoming a new child, struck by a serious illness or injury, caring for an ill or ailing relative, and military considerations. As with many other employers, PFMLA benefits extended beyond existing established employee options. SATCo experienced more than 16 FTEs on leave from 33 employees in September 2021.

1.4 Anticipatory Response

In the months prior to the local impact of these issues, PVTA coordinated with the City of Springfield and MassHires to offer employment to individuals receiving training provided to prospective CDL drivers and assist with their licensure and payments. PVTA also offered advertising assistance for positions available within the contracted operators. In September 2021, SATCo experienced significant challenges in performing all contracted services due to the Labor Shortage. The lengthy recruitment and training time for new employees (CDL certification with Passenger endorsement) and lack of interested candidates led SATCo to anticipate no changes to their ability to perform the service for the next several months. SATCo sought emergency action to alleviate the shortage.

This document presents an analysis of equity impacts of service change proposals affecting SATCo bus routes associated with mitigation measures that have been implemented on an emergency temporary basis but lasting longer than 3 months.

PVTA’s policies require that all proposed major service changes undergo a Title VI Service Equity Analysis to evaluate potential disparate impacts (DI) on low-income persons and disproportionate burdens (DB) on people of color.

2. Scope

This document presents an analysis of four route changes implemented in response to an immediate labor shortage concern enacted December 12, 2021, and to be reviewed and approved at PVTA’s November 2022 Advisory Board meeting that are considered “major,” according to the definition requirements of PVTA’s policies for major service changes, disparate impacts (DI) and disproportionate

burdens (DB). Exceedance of PVTA's 20% DI and DB policy variance threshold by these changes is also reported. Also reported are public comments and responses from PVTA received during the 45-day comment period. Modifications to the changes based on public comment and the DI/DB analysis are also included in this report. In cases where the analysis proves exceedances have overcome the 20% threshold, analysis is provided to show that the proposal is the least discriminatory alternative available that still achieves the necessary business purpose of balancing rider needs and labor constraints.

2.1 Process

Meetings:

PVTA met with SATCo and DGR Management five times starting October 6, 2021 and concluding the final proposal with a final meeting on December 22, 2021. These meetings were attended by:

- First Transit/DGR Management, Nicole Rohan, and Jesus Sanchez;
- SATCo Planning Department, Angela Parker, and Jonathan McHatton;
- PVTA Administration, Sandra Sheehan, Paul Burns-Johnson, and Tolu Oke; and
- PVPC Transit Planners, Peter Kuusisto, and Alex Forrest.

First Transit, and later DGR Management, is the contracted company that manages SATCo and VATCo services and most vehicle maintenance for the PVTA fixed-route and demand response system (UMTS maintains additional fixed-route vehicles).

Due to the emergent nature of the CDL labor shortage and the new Massachusetts PFML, PVTA Administration and the contracted service providers (Operators) developed these stopgap measures with the hope of reinstating service as soon as possible.

SATCo first approached PVTA Administration with concerns over their ability to perform the contracted services due to a lack of existing CDL labor hours. SATCo had turned to rely on the use of overtime (Federal and State driver regulation also constrained the use of overtime) to cobble together pared down service with substantially increased missed trips. Missed trips for both SATCo and VATCo are documented in Table 1: Missed Trips by First Transit (before October) and DGR. This process was beginning to wear thin as new CDL driver applicants had diminished due to skilled workforce churn and a diminished incoming workforce.

SATCo and the other Operators had tried activities including those below to boost applicants and decrease churn:

- Coordinated position advertising at the PVTA Agency level
- Partnership with MassHires and the City of Springfield to pay for training for CDL driver candidates
- Free CDL Training
- Free CDL Licensure

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Table 1: Missed Trips by First Transit (before October) and DGR (Starting October)

<i>FY 2022</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Jan</i>	<i>Feb</i>
<i>First Transit/DGR Missed Trips</i>	8	13	77	52	47	93	83	17
<i>Total Trips Scheduled</i>	41,356	40,911	44,348	44,664	42,460	43,020	39,943	39,300
<i>Total Trips Operated</i>	41,348	40,898	44,271	44,612	42,413	42,927	39,860	39,283

The above chart also shows the impact of the Omicron Variant of the COVID pandemic. While the changes to the network took place on December 12, 2021, the positive effects were not immediately known due to COVID absences. 16 out of 252 SATCo employees reported contracting COVID within the last two weeks of December. January has been the worst month since the start of the pandemic with 55 out of 252 employees contracting COVID. At the time absences due to an abundance of caution or family care were not tracked. By February absences from COVID subsided and the positive effects of the adjustments can be seen.

Unfilled Labor Needs

SATCo's unfilled labor needs are documented below.

Since the adjustments were made, it is now understood that unfilled labor needs at transit agencies across the nation are likely to last for the long-term. This is due to high rates of retirement during the COVID pandemic and a lack of new recruits.¹ Unemployment nationally also remains low, giving workers more choices.

Impacts from the PFML Act will also have a long-term impact as employees and employers must adjust their work to consider extended leaves of absence moving forward.

Table 2: SATCo Vacancy Chart September 2021

<i>September '21 SATCo Employment</i>	<i>Vacant Positions</i>	<i>% Total Positions Vacant</i>	<i>Estimated FTEs</i>	<i>% Total Positions Vacant</i>
<i>Positions Remained Unfilled</i>	36	13.19%	36	13.19%
<i>Positions Eligible for PFML Leave</i>	33	12.09%	16.5	6.00%
Total	99	25.27%	52.5	19.19%

¹ FOURSQUARE ITP in association with: EBP. (2022). *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead*. Washington, DC: American Public Transportation Association. Retrieved October 21, 2022, from <https://www.apta.com/wp-content/uploads/APTA-Transit-Workforce-Shortage-Report.pdf>

PVTA’s Focus

The goal of these changes was to decrease driver hours to match actual available CDL labor hours. There are a few Agency based business constraints on the solution to meet this goal based on the nature of transit in the Pioneer Valley.

- The solution must come from routes operated by SATCo CDL Drivers as routes are contracted out by third party transit operator.
- The solution must be least disruptive to existing scheduled departures.
- The solution must not eliminate or reduce service to an impractical level in any community.
- The solution should prioritize routes by their productivity (riders per revenue hour) with a heavier weight on less productive routes.
- Alternatively, PVTA would consider “low hanging fruit” or routes that did not meet their desired agency intent or ridership.

It became clear that PVTA should focus adjusting routes with higher total revenue hours. These routes had enough revenue hours available for the reductions necessary. Routes with fewer revenue hours tend to provide service to outlying communities with few alternatives. Reducing revenue hours on routes that start with fewer hours would have a more dramatic impact on headways and PVTA’s geographic service area.

SATCo routes in the top two service tiers (routes with headways of 20 minutes or fewer) were considered for reduced service as 5- and 10-minute headway changes would have minimal disruptions compared to 30-minute or more headway changes from other potential adjustments.

Table 3: Routes by Revenue Hours and Passengers per Revenue Hours

Tier 1- 15-Minute Headways	Revenue Hours per Weekday	Productivity (Passengers per Revenue Hour)
B7	110	20.4
Owl	8.5	6.3
Tier 2 – 20-Minute Headways		
B6	67	14.3
G1	110	19.1
P20	100	17.5
Other Routes Considered		
Tier 3 – 30-Minute Headways		
X90	90	7.5
Tier 4 – 60-Minute Headways		
G2E	7.5	2

The B6 and B7:

After reviewing potential changes to headways that would pose the least disruption to the existing schedule, the P20, G1, B6, and B7 had the most revenue hours in the top two tiers.

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After reviewing total hours on the route, staff reviewed productivity on those routes. The B7 was most productive with 20.4 passengers per revenue hour, but due to the many revenue hours (110 hours per weekday) on the route, reducing headways from 15 minutes to 20 minutes would provide a substantial level of savings (36 hours per weekday). Productivity on the G1 meant that any change would have an outsized impact on riders than other routes with the same headway. And a decrease in headway would prove to be at least a 10-minute increase in headways. The P20 was assessed with a similar outcome.

The exceptions to those rules were the X90 and G2E.

The X90:

Resources:

The X90 has far more revenue hours than any other route in its tier (at 90 hours per weekday, the route has 25 more hours per weekday than the G2) and is far less productive (7.5 passengers per revenue hour, roughly half of the B4 with 13.7 PPRH)

Ridership:

Ridership on the X90 in particular had been in decline prior to the COVID-19 pandemic. A quick review of ticket purchases by location through the online Bytemark App displayed a clear North-South divide to the ridership at Chicopee Big Y. This data was used anecdotally. To retain hourly headways both North and South of Big Y, the route was split. The natural break being Chicopee Big Y.

Table 4: X90 Ridership

X90 Ridership		% Change From Base (FY 2018)
FY 2018	297,913	
FY 2019	274,094	8%
FY 2020	228,571	23%
FY 2021	144,164	52%

As stated previously, the route had 7.5 PPRH. Considering the outsized use of resources and underperformance, this route was identified for potential changes.

The G2E

Overview:

The G2E was a cutout service from the G2 to provide direct express service between Union Station and the Memorial Industrial Park (and the new SATCo Garage). PVTA was concerned that the G2E performance was not reaching intended quantitative and qualitative targets.

Resources:

Initially it was thought that the route would use vehicles and drivers scheduled to deadhead between Union Station and the new SATCo garage. Deadheading vehicles did not fall on regular intervals. An additional vehicle and 8-hour driver block was removed from the G2 and added to the G2E to for more predictable scheduling.

Scheduling:

The G2E maintained roughly 50-minute headways to accommodate an additional trip in the 3pm peak ridership hour. The bus did not arrive at the same time each hour, roaming throughout the day.

Existing G2 service (which will continue without change) has a 28-minute-long trip to and from Memorial Industrial Park at 30-minute headways. This travel time is just 3 minutes longer than the 25-minute-long trips on the G2E from Union Station to Memorial Industrial Park and 8 minutes longer than the 20-minute return trips. On paper there were three departures each hour between 10am and 7:30pm between the two destinations if counting trips from both the G2 and G2E. (two runs of the G2 and one of the G2E). In practice the G2E was duplicative: departing within 5-10 minutes prior or after the arrival of the G2 at Union Station.

Ridership:

During September '21 (a robust ridership month for the system) the G2E saw just 443 passengers, just over 20 passengers a day, or an average of 1 passenger per trip direction. The G2E also represented just 1.5% of the parent G2 route ridership (connecting the same two destinations with local service).

Demand for an express route between these two destinations was limited.

3. Description of Changes

The goal of these changes was to decrease driver hours to match actual CDL labor hours available. There are a few constraints on the solution to meet this goal based on the nature of transit in the Pioneer Valley.

- The solution must come from routes operated by SATCo CDL Drivers as routes are contracted out by third party transit operator.
- The solution must be least disruptive to existing scheduled departures.
- The solution must not eliminate or reduce service to an impractical level in any community.
- The solution should prioritize routes by their productivity (riders per revenue hour) with a heavier weight on less productive routes.
- Alternatively, PVTA would consider “low hanging fruit” or routes that did not meet their desired agency intent or ridership.

3.1 The G2E Route

- PVTA Administration proposes elimination of the route due to low ridership and misalignment with intended transit practices.
- The route saves 8 revenue hours per day.

3.2 The B6 Route

- PVTA proposed reducing frequency from 20 minutes to 30 minutes.
- This eliminated 22.5% of trips on the route within an ideal month (22 weekdays, 4 Saturdays, 4 Sundays).
- This would save 23 revenue hours per day.

3.3 The B7 Route

- PVTA proposed reducing frequency from 15 minutes to 20 minutes.

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- This eliminated 15.5% of trips on the route within an ideal month (22 weekdays, 4 Saturdays, 4 Sundays).
- This would save 17 revenue hours per day.

3.4 The X90 Route

- Because the route takes its largest variations north of Chicopee Big Y, PVTA proposed splitting the route into Northern and Southern sections. Frequency at bus stops north of Chicopee Big Y keep the same hourly headways, while bus stops South of Big Y reduce frequency from 30 minutes to 60 minutes on stops South of Chicopee Big Y.
- This eliminated 31.69% of trips on the route within an ideal month (22 weekdays, 4 Saturdays, 4 Sundays).
- This would save 32 revenue hours per day.

4. Service Equity Analysis by Route

This section presents the following information for each of the service changes that were implemented December 12, 2021. These changes met the major service changes threshold as determined by the Title VI Update 2021. The Advisory Board approved Public Hearings on June 22, 2022, and subsequently the report and public comments are addressed. The Service Equity Analysis is scheduled to be approved by the November 16, 2022, Advisory Board meeting. All changes to the B6 and B7 are implemented with the condition that they would be completely restored when labor becomes available. The X90 frequency changes will be rescinded to the southern section when labor becomes available. The G2E will remain eliminated and frequency on the G2 will increase to FY2019 levels when labor becomes available. These changes will be rescinded in order of greatest rider benefit if labor levels increase.

4.1 Summary of Service Equity Analysis by Route

Following are key points of the service equity analysis for each route.

- Four of PVTA's 44 bus routes are affected.
- 15% of weekday trips effect 22% of weekday passenger trips on the B7.
- 32% of weekday trips effect 29% of weekday passenger trips on the X90.
- 23% of weekday trips effect 26% of weekday passenger trips on the B6.
- 100% of weekday trips effect 100% of weekday passenger trips on the G2E.
- All of these changes are both a disparate impact on people of color and disproportionate burden on low-income riders.
- For all these routes, analysis is presented to show there is no less discriminatory alternative available for that route which still accomplishes the necessary business purpose of reducing CDL driver hours within the SATCo network to close the nearly 100 hours per day gap in labor needs.

4.2 Data Sources and Relevant Policies

Route Description	Describes the travel corridor and route where the proposed change would occur, including trip frequency and key characteristics of the service.
Proposed Change or Changes	Description of the service change as implemented emergently.

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Communities Affected	The municipality(ies) in which the proposed change(s) would occur.
Effective Date	Date the proposed service change would be implemented.
Major Service Change	<p>Determination whether or not the proposed service change would meet or exceed the PVRTA 25% policy threshold in eliminated service on a single service day to be considered a “major service change”.</p> <ul style="list-style-type: none"> The automatic passenger counters (APCs) were used to determine an accurate bus stop trips count for each route before and after the affected change. This process provides a more accurate picture than a review of trip patterns by direction and time when changes are made to the trip’s route or frequency changes occur on specific parts of the route.
Customers Affected	<p>An estimated percentage of customers affected per route based on the scheduled trips eliminated.</p> <ul style="list-style-type: none"> The automatic passenger counters (APCs) were used to determine the spread of ridership impacted from the trip pattern by direction and time eliminated (different than the bus stop trips used to estimate Major Service Changes due to data availability) September 2021 Weekday trips were used to determine the percentage of riders affected on the route. No changes occurred on Saturdays or Sundays.
Disparate (Racial Discrimination) Impact Analysis	<p>Explains whether or not there are likely to be differences in the adverse impacts that the proposed service change will have on customers of color in comparison to customers who are white. This is a federally required assessment known as a “disparate impact analysis.” The threshold for this impact is established in the Disparate Impact Policy adopted by the PVRTA Advisory Board which states: “the Pioneer Valley Transit Authority has defined a disparate impact as a Major Service Change in which the adverse impacts of the change that people of color experience as compared to non-people of color is 20% or more. For the purposes of this document, the term ‘people of color’ is synonymous with the term ‘minority’ as used in Federal Circular 4702.1B (page 1-4).” (October 1, 2021)</p> <p>Therefore, if the difference in the proportion of customers of color who will be affected by the service change compared to white customers is more than +20%, then the change will be considered to have a disparate impact.</p> <p>For example, if rider surveys show that 60% of the riders on a route are people of color and the remaining 40% are white, then the difference (60% minus 40%) is +20%, which meets the +20% threshold to be considered a disparate impact. As another example, if 35% of riders are people of color and the remaining 65% are white, then the difference (35% minus 65%) is -30%, which is less than +20% and would not be a disparate impact.</p>

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	<p>Data for this analysis are the systemwide customer surveys of 1,529 passenger rides in 2019 (Hampden County) and 1,577 passenger rides in 2022 (Hampshire County).²</p> <p>Because our customer surveys indicate a majority of riders as people of color, we also include the impact as compared to the system average for discussion purposes. The system averages just under 60% people of color vs. just over 40% white riders, therefore much of the ridership on many of the routes would meet the disparate impact threshold.</p>
<p>Disproportionate (Low-income) Burden Analysis</p>	<p>This section explains whether or not the proposed change would have adverse impacts on customers who have low incomes in comparison to those who do not have low incomes. This is a federally required assessment known as “disproportionate impact analysis.” The threshold for this impact is established by the PVRTA Advisory Board’s Disproportionate Impact Policy which states: “the Pioneer Valley Transit Authority has defined a disproportionate burden to be a change in service where low-income customers would experience a negative impact 20% or larger compared to non-low-income customers. For the purposes of this policy, “low income” is defined as a person reporting an income below the federal poverty line.” (October 1, 2021)</p> <p>For example, if 60% of the riders surveyed on a route are low-income (earning \$11,770/year or less), then the remaining 40% are considered not to be low-income, and the difference (60% minus 40%) is +20%. This meets the policy’s +20% threshold and would therefore be considered a disproportionate impact. In another example, if 35% of riders are low-income, then 65% are not low-income, and the difference (35% minus 65%) is -30%, which is less than the +20% policy threshold, and so would not be considered a disproportionate impact.</p> <p>Data for this analysis are the systemwide customer surveys of 1,529 passenger rides in 2019 (Hampden County) and 1,577 passenger rides in 2022 (Hampshire County).</p> <p>Consistent with the disparate burden analysis, inclusion of a comparison against the system average is included.</p>
<p>ADA Van Service Impact?</p>	<p>Explains whether or not there would be an impact to ADA van service areas or hours because of the change to the hours or geographic coverage of the underlying fixed route on which the local ADA service is based.</p> <p>In this case, no changes were made to ADA Van Service due to the overlapping nature of service within the areas impacted.</p>
<p>Alternate Transit Service Available?</p>	<p>Description of alternate bus routes and transportation available to make trips in the corridor in which the service change occurs.</p>

² The Public Hearing Presentation displayed a chart showing the difference between the system average and the affected population as the disparate impact and disproportionate burden. The percent people of color was also represented in this chart.

<p>Least Discriminatory Alternative</p>	<p>This section provides information on whether or not there is another alternative that could achieve the business purpose of the approved service change that would be less discriminatory. This analysis is required by the PVTA Disparate and Disproportionate Impact and Disparate Burdens Policies (adopted September 23, 2015) which states: “...in the event that the proposed service change would have an adverse impact that affects customers of color or those with low-incomes (defined as the federal poverty level) more than the non-low income or non-minority populations with a disparity that exceeds the adopted 20% thresholds, PVTA must evaluate whether there is an alternative that has a more equitable impact... and demonstrate that a legitimate business purpose cannot otherwise be accomplished and that the proposed change is the least discriminatory alternative.”</p>
<p>Mitigation and Modifications in Response to Public Comments</p>	<p>If the service change is expected to have either a disparate or disproportionate impact, mitigation must be proposed and implemented to lessen the effects on riders, as required by the PVTA Disparate and Disproportionate Impact Policies (adopted October 1, 2021) which state: “...PVTA must take measures to mitigate the impact of the proposed action on the affected minority population or low-income population...”</p> <p>This section describes the public comments received that pertain to the service change proposal. It also describes mitigation measures and modifications made by staff to the original December 2021 proposal to anticipated adverse impacts of the change on riders, as well as future and ongoing monitoring and evaluation and additional service changes to reduce adverse effects on riders.</p>

4.3 Detailed Descriptions and Service Equity Analysis by Route

All four route changes are Disproportionate Impacts on people of color and disparate burdens on low-income riders.

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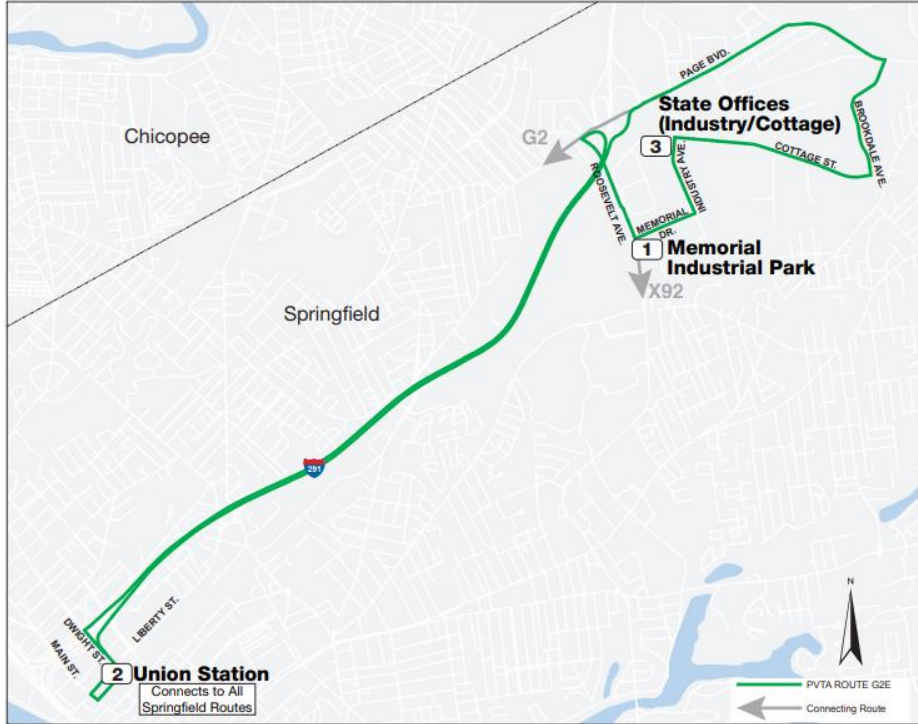
Table 5: Disproportionate Impacts and Disparate Burdens Analysis

	Sept '21 Passengers		People of Color %	Riders of Color
G2E	443	100%	76.98%	341
B6	21,208	22.57%	77.32%	16398
B7	49,396	3.39%	82.65%	40827
X90	14,440	31.69%	75.00%	10830
	85,487		% Burden	80.01%
		System Average	57.30%	
		Change from System		22.71%
	Sept '21 Passengers	Trips Lost	Low Income %	Low Income Riders
G2E	443	100%	67.86%	300
B6	21,208	22.57%	67.90%	14400
B7	49,396	3.39%	70.30%	34725
X90	14,440	31.69%	63.77%	9208
	85,487		% Impact	68.59%
		System Average	40.53%	
		Change from System		28.06%

This table shows the spread of the impact by each route’s ridership. Impacts on Low-income populations above 60% (68.50%) are considered Disparate Impacts and 60% (80.01%) on people of color are considered disproportionate burden. The overall impact of all the changes exceeds 60% in both metrics, meeting the threshold as both a disproportionate burden and disparate impact.

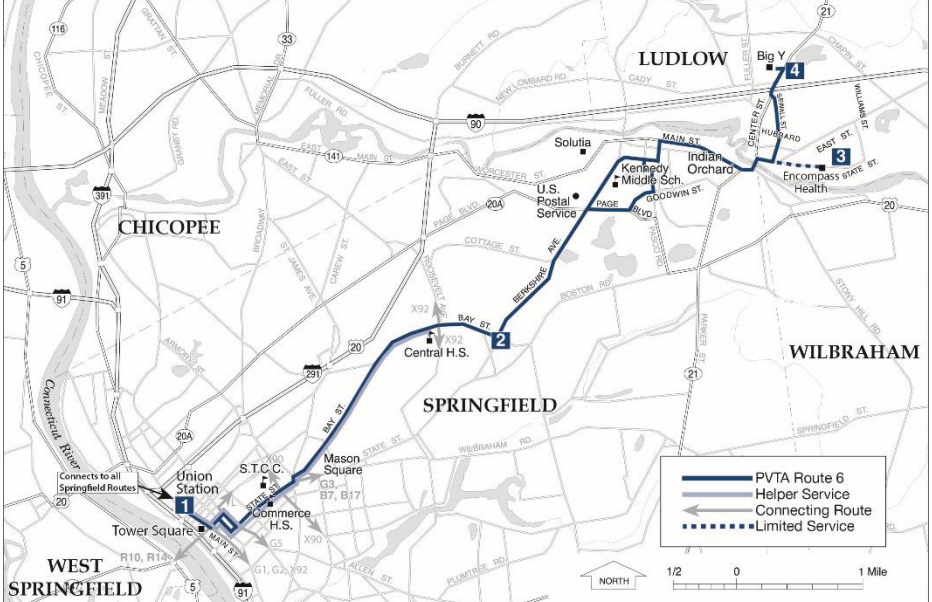
It is also important to note that the difference between those impacted by the change vs. the system before the change also exceeds 20%.

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<p><i>G2E</i> Route Description</p>	 <p>Description:</p> <p>The G2E is an express route to parent route G2 with a stop at Union Station and stops within the Memorial Industrial Park. The route serves as a connection to the new SATCo Bus Garage, Government Services, and manufacturers from downtown Springfield.</p> <p>Headways and Schedule:</p> <p>The G2E offers 50-minute headways to accommodate an extra trip within the 3pm hour. This is accomplished with a roaming clock-face schedule. The route runs Monday through Friday, 10am through 5:30pm.</p> <p>Resources:</p> <ul style="list-style-type: none"> • One Eight-hour Driver Block per Weekday • One Bus <p>Ridership:</p> <p>Averaging 396 passengers per month from June 2020 – December 2021.</p>
<p>Proposed Change or Changes</p>	<p>PVTA Administration proposes elimination of the route due to low ridership and misalignment with intended transit practices.</p> <p>The route saves One Eight-Hour driver shift per day.</p>
<p>Communities Affected</p>	<p>The municipality(ies) in which the proposed change(s) would occur.</p> <p>Springfield</p>
<p>Effective Date</p>	<p>Date the proposed service change would be implemented.</p> <p>December 12, 2021</p>
<p>Major Service Change</p>	<p>Due to the proposed 100% elimination of the route, this exceeds the 25% threshold that defines PVTA’s “major service change.”</p>
<p>Customers Affected</p>	<p>Unlinked Passenger Trips average 20 per service day in the month of September (a typical month with full academic service).</p>

Service Equity Analysis of SATCo Service Adjustments FY22

<p>Disparate (Racial Discrimination) Impact Analysis</p>	<p>This route was implemented after the last Southern System Customer Survey. In lieu of surveys, PVRTA considers demographics on the G2 as a match for G2E ridership demographics. This route is considered both a low income and people of color route (minority route). The route's elimination is a disparate impact on people of color. Ridership accounts for just a tenth of a percent (0.12%) of overall fixed-route ridership. In a perfect month, APCs record 3,168 bus stop trips (counts of a bus passing any bus stop).</p> <p>Based on the G2 2019 Customer Surveys, 79.98% of riders are People of Color (Minority) and the remainder (20.02%) are white. 59.96% more people of color are impacted. These adjustments are therefore a Disparate Impact on people of color. This adjustment impacts a larger proportion of people of color: 22.68% above the system average of 57.30%.</p>
<p>Disproportionate (Low-income) Burden Analysis</p>	<p>Using the 2019 Southern System Customer Survey for the G2, 67.86% of riders are low income and the remainder (32.14%) have higher income. 35.72% more low-income riders are impacted. These adjustments are therefore a Disproportionate Burden on low-income riders. This adjustment impacts a larger proportion of people of color: 10.56% above the system average of 57.30%.</p>
<p>ADA Van Service Impact?</p>	<p>There is no impact on ADA Van Service. These bus stops and the service span are duplicative to other routes.</p>
<p>Alternate Transit Service Available?</p>	<p>The G2 provides the same service with additional local stops. Travel time is near equal, 28 minutes from Union Station to Memorial Industrial Park and 23 minutes return trip. This route arrives every half hour with a longer span from 5:30am – 10:15pm.</p>
<p>Least Discriminatory Alternative</p>	<p>This route severely underperforms almost all routes in the system with the exception of grant funded or municipal funded routes.</p>
<p>Mitigation and Modifications in Response to Public Comments</p>	<p>The adjustments were determined with the agency business interests of decreasing labor needs while minimizing the impact on the riders' experience and retaining access throughout the geographic service area. The low performance of the G2E and the unmet business interests to the agency placed the route at the forefront for elimination.</p> <p>No mitigation is necessary based on the number of riders impacted. Riders on the route have minimal disruption by using the existing G2 service. This route did not receive comment during the public hearings or public outreach.</p>

<p>B6 Route Description</p>	 <p>Description:</p> <p>The B6 is a local route from Union Station through Bay Neighborhood and Indian Orchard, ending at the Ludlow Big Y. The route offers a connection to one of the busiest stops in the PVRTA system, Ludlow Big Y.</p> <p>Headways and Schedule:</p> <p>The B6 offers 20-minute headways.</p> <p>Resources:</p> <ul style="list-style-type: none"> • 67 Revenue Hours of Driving per Weekday • Four Buses <p>Ridership:</p> <p>Averaging 14.3 passengers per revenue mile in September 2021.</p>
<p>Proposed Change or Changes</p>	<p>PVRTA proposed reducing frequency from 20 minutes to 30 minutes.</p> <p>This eliminated 22.5% of trips on the route within an ideal month (22 weekdays, 4 Saturdays, 4 Sundays).</p> <p>This would save 23 revenue hours per day.</p>
<p>Communities Affected</p>	<p>The municipality(ies) in which the proposed change(s) would occur.</p> <p>Springfield, Ludlow</p>
<p>Effective Date</p>	<p>Date the proposed service change would be implemented.</p> <p>December 12, 2021</p>
<p>Major Service Change</p>	<p>While only 22.57% of trips are directly impacted, all trips have shifted to accommodate these adjustments. Therefore, the impact is on 100% of weekday trips. Because the change impacts more than 25% of trips on this</p>

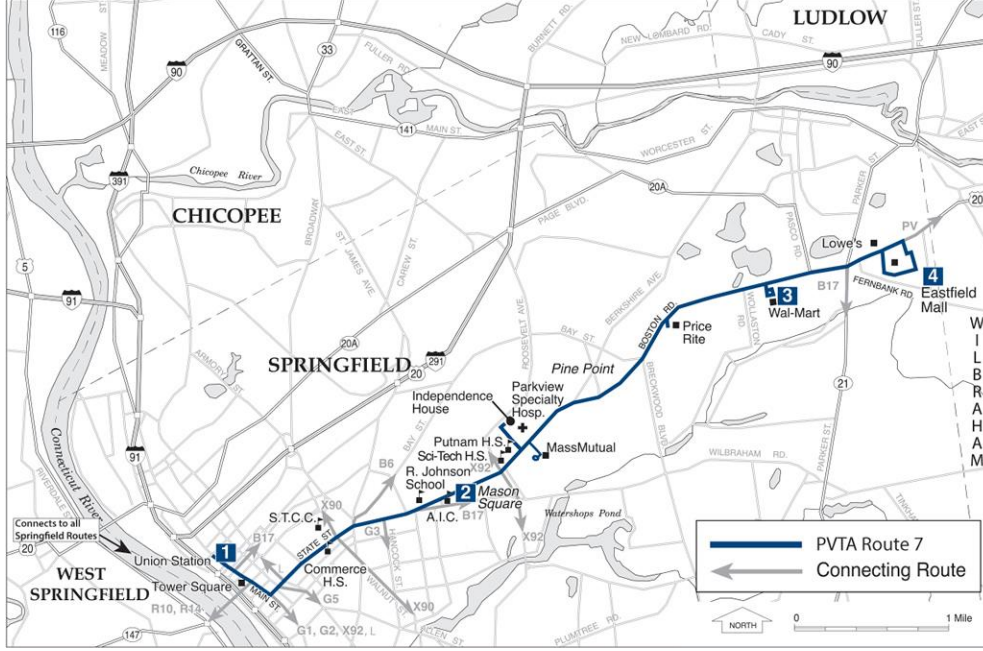
Service Equity Analysis of SATCo Service Adjustments FY22

	route, it reaches the threshold of a “Major Service Change” and an Equity Analysis is triggered.
Customers Affected	26% of Passenger Trips are expected to be affected by the change.
Disparate (Racial Discrimination) Impact Analysis	Using the 2019 Southern System Customer Survey, 77.32% of riders are People of Color (Minority) and the remainder (22.68%) are white. 54.64% more people of color are impacted. These adjustments are therefore a Disparate Impact on people of color. This adjustment impacts a larger proportion of people of color: 20.03% above the system average of 57.30%.
Disproportionate (Low-income) Burden Analysis	The low-income population on the route makes up 67.90% of riders and the remainder 32.10% are of higher income. Therefore, this adjustment is a Disproportionate Burden on Low Income riders. 35.80% more low-income riders are impacted. This adjustment impacts a larger proportion of low-income riders: 27.37% above the system average of 40.53%.
ADA Van Service Impact?	There is no impact on ADA Van Service. These bus stops and the service span are duplicative to other routes.
Alternate Transit Service Available?	Travelling East/West, this route shares destinations between Union Station and American International College with the B17 and B6. The B17 also terminates at the Eastfield Mall from a southerly direction.
Least Discriminatory Alternative	This route offered the greatest impact to driving hours with the least disruption to passengers as the analysis performed indicated. While this route is both a disparate impact on people of color and a disproportionate burden on low-income populations, the alternatives would have disrupted service to more riders or impact the geographic service area. There were few alternatives given the intended agency objectives to conduct business.

Service Equity Analysis of SATCo Service Adjustments FY22

<p>Mitigation and Modifications in Response to Public Comments</p>	<p>The adjustments made to existing service were determined by strict parameters through agency objectives. These agency objectives to conduct business elevated certain routes over others based on the route’s resource demands (CDL driver hours), potential impact to the riders’ experience (changes to headways), ridership and productivity (Passengers per Revenue Hour). Restoration of frequency on the route is prioritized based on its productivity.</p> <p>Comment (C): Florida St walks to Bay St too long to walk especially in winter Indian Orchard/seniors stop was changed and now it is four blocks. Family Dollar – Main St stop should be reinstated. The entrance to the plaza has changed. Please look at it again. R: These changes did not impact the stop locations themselves. PVTA will discuss this further.</p> <p>C: Courtesy of drivers is important, especially the new drivers who are not as nice as the old ones such as on the B6. Drivers are driving too fast. Drivers from other countries are very, very nice decent people, and very respectful to seniors. Response (R): PVTA has many new drivers. This is a time of transition for many of those drivers as they get acquainted with the job. PVTA will take this comment back to the bus operating companies. Drivers need to keep a level of speed to match existing schedules. PVTA periodically reviews schedules and runs for schedule adherence. The B6 will be added to this list for review. PVTA will bring back your compliments on the attitude of the drivers to the Operating companies.</p> <p>C: The bus driver on the B6 can be rude. I want to see more courtesy from drivers. I have to do many route changes to get to Indian Orchard from Union Station, ideally there should be a more direct route to East Springfield. R: Adjustments to the B6 were necessary to stem the tide of the CDL driver shortage.</p> <p>C: They don’t want cuts for the B6 or the B7 too. R: We also did not want to implement these adjustments. Other adjustments would have been more substantive and impact more riders. Changes to this route were designed first to minimize the impact on overall ridership but maximize a reduction in revenue hours.</p>
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Service Equity Analysis of SATCo Service Adjustments FY22

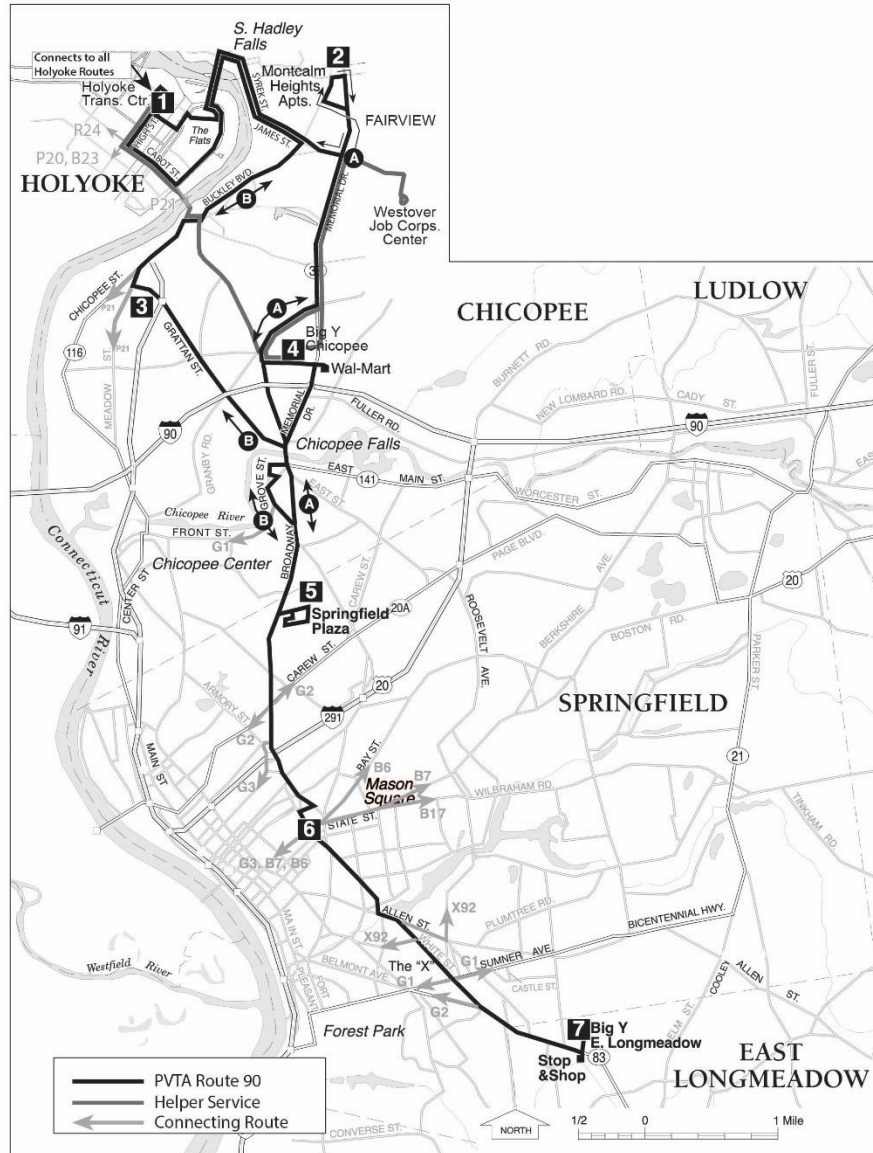
<p>B7 Route Description</p>	 <p>Description:</p> <p>The B7 is a local route from Union Station through Old Hill, McKnight, Bay, Upper Hill, and Pine Point out to Boston Road, terminating at the Eastfield Mall.</p> <p>Headways and Schedule:</p> <p>The B7 offers 15-minute headways.</p> <p>Resources:</p> <ul style="list-style-type: none"> • 110 Revenue Hours of Driving per Weekday • Six Buses <p>Ridership:</p> <p>Averaging 20.7 passengers per revenue mile in September 2021.</p>
<p>Proposed Change or Changes</p>	<p>PVRTA proposed reducing frequency from 15 minutes to 20 minutes.</p> <p>This eliminated 15.5% of trips on the route within an ideal month (22 weekdays, 4 Saturdays, 4 Sundays).</p> <p>This would save 17 driving hours per day.</p>
<p>Communities Affected</p>	<p>The municipality(ies) in which the proposed change(s) would occur.</p> <p>Springfield</p>
<p>Effective Date</p>	<p>Date the proposed service change would be implemented.</p> <p>December 12, 2021</p>
<p>Major Service Change</p>	<p>While only 15.5% of trips are directly impacted, all trips have shifted to accommodate these adjustments. Therefore, the impact is on 100% of weekday trips. Because the change impacts more than 25% of trips on this route, it reaches the threshold of a “Major Service Change” and an Equity Analysis is triggered.</p>

Service Equity Analysis of SATCo Service Adjustments FY22

Customers Affected	22% of Passenger Trips are expected to be affected by the change.
Disparate (Racial Discrimination) Impact Analysis	Using the 2019 Southern System Customer Survey, 82.65% of riders are People of Color (Minority) and the remainder (17.35%) are white. These adjustments are therefore a Disparate Impact on people of color. 65.30% more people of color are impacted. This adjustment impacts a larger proportion of people of color: 25.35% above the system average of 57.30%.
Disproportionate (Low-income) Burden Analysis	The low-income population on the route makes up 70.30% of riders and the remainder 29.70% are of higher income. 40.60% more of low-income riders are impacted. Therefore, this adjustment is a Disproportionate Burden on Low Income riders. This adjustment impacts a larger proportion of low-income riders: 29.77% above the system average of 40.53%.
ADA Van Service Impact?	There is no impact on ADA Van Service. These bus stops and the service span are duplicative to other routes.
Alternate Transit Service Available?	This route shares destinations between Union Station and St. James Avenue with the B6 and B17. The B17 also shares the Eastfield Mall terminus stop.
Least Discriminatory Alternative	This route offered the greatest impact to driving hours with the least disruption to passengers.
Mitigation and Modifications in Response to Public Comments	<p>The adjustments made to existing service were determined by strict parameters through agency objectives. These agency objectives to conduct business elevated certain routes over others based on the route's resource demands (CDL driver hours), potential impact to the riders' experience (changes to headways), ridership and productivity (Passengers per Revenue Hour). Restoration of frequency on the route is prioritized based on its productivity.</p> <p>C: A Rider expressed the need for later service on the B7 route. R: Span of service has not changed on this route. PVRTA will take this information back for a later time when expansion of service is possible.</p> <p>C: A rider expressed not wanting cuts for the B6 or the B7 too. R: These adjustments were necessary to stem the tide caused by the CDL Labor Shortage and the Massachusetts Family and Medical Leave Act. Until additional hiring needs are met, PVRTA will have to adjust service.</p> <p>Changes to this route were designed first to minimize the impact on overall ridership but maximize a reduction in revenue hours.</p>

X90

Route Description



Description:

The X90 serves as a local route connecting neighborhoods North and South within Springfield, Chicopee, and Holyoke.

Headways and Schedule:

The X90 offers 30-minute headways south of Chicopee Big Y and two hourly variations between Chicopee Big Y and Holyoke Transportation Center.

Resources:

- 90 Revenue Hours of Driving per Weekday
- Six Buses

Ridership:

Averaging 7.4 passengers per revenue hour in September 2021.

Service Equity Analysis of SATCo Service Adjustments FY22

Proposed Change or Changes	Because the route takes its largest variations north of Chicopee Big Y, PVTA proposed splitting the route into Northern and Southern sections. Frequency at bus stops north of Chicopee Big Y keep the same hourly headways, while bus stops South of Big Y reduce frequency from 30 minutes to 60 minutes on stops South of Chicopee Big Y. This eliminated 31.69% of trips on the route within an ideal month (22 weekdays, 4 Saturdays, 4 Sundays). This would save 32 driving hours per day.												
Communities Affected	The municipality(ies) in which the proposed change(s) would occur. Springfield, Chicopee, Holyoke												
Effective Date	Date the proposed service change would be implemented. December 12, 2021												
Major Service Change	While 31.69% of trips are directly impacted, all trips have shifted to accommodate these adjustments. Therefore, the impact is on 100% of weekday trips. Because the change impacts more than 25% of trips on this route, it reaches the threshold of a “Major Service Change” and an Equity Analysis is triggered.												
Customers Affected	29% of Passenger Trips are expected to be affected by the change.												
Disparate (Racial Discrimination) Impact Analysis	Using the 2019 Southern System Customer Survey, 75.00% of riders are People of Color (Minority) and the remainder (25.00%) are white. 50.00% more of people of color are impacted. These adjustments are therefore a Disparate Impact on people of color. This adjustment impacts a larger proportion of people of color: 17.70% above the system average of 57.30%.												
Disproportionate (Low-income) Burden Analysis	The low-income population on the route makes up 63.77% of riders and the remainder 36.33% are of higher income. 27.44% more low-income riders are impacted. Therefore, this adjustment is a Disproportionate Burden on Low Income riders. This adjustment impacts a larger proportion of low-income riders: 23.24% above the system average of 40.53%.												
ADA Van Service Impact?	There is no impact on ADA Van Service. These bus stops and the service span are duplicative to other routes.												
Alternate Transit Service Available?	As a local Springfield Neighborhood route, the X90 compliments many existing routes. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><i>Route</i></th> <th style="text-align: center;"><i>Destination</i></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><i>X92, G2 and G5</i></td> <td style="text-align: center;">Forest Park</td> </tr> <tr> <td style="text-align: center;"><i>G3, B17, B7 and B6</i></td> <td style="text-align: center;">Old Hill</td> </tr> <tr> <td style="text-align: center;"><i>G1</i></td> <td style="text-align: center;">Chicopee Big Y</td> </tr> <tr> <td style="text-align: center;"><i>P21</i></td> <td style="text-align: center;">Willimansett</td> </tr> <tr> <td style="text-align: center;"><i>P21E</i></td> <td style="text-align: center;">Holyoke Transportation Center</td> </tr> </tbody> </table>	<i>Route</i>	<i>Destination</i>	<i>X92, G2 and G5</i>	Forest Park	<i>G3, B17, B7 and B6</i>	Old Hill	<i>G1</i>	Chicopee Big Y	<i>P21</i>	Willimansett	<i>P21E</i>	Holyoke Transportation Center
<i>Route</i>	<i>Destination</i>												
<i>X92, G2 and G5</i>	Forest Park												
<i>G3, B17, B7 and B6</i>	Old Hill												
<i>G1</i>	Chicopee Big Y												
<i>P21</i>	Willimansett												
<i>P21E</i>	Holyoke Transportation Center												

<p>Least Discriminatory Alternative</p>	<p>This route offered the greatest impact to driving hours with the least disruption to passengers.</p>
<p>Mitigation and Modifications in Response to Public Comments</p>	<p>The adjustments made to existing service were determined by strict parameters through agency objectives. These agency objectives to conduct business elevated certain routes over others based on the route’s resource demands (CDL driver hours), potential impact to the riders’ experience (changes to headways), ridership and productivity (Passengers per Revenue Hour). Restoration of frequency on the route is prioritized based on its productivity.</p> <p>C: Times do not match the schedule, do not know when it is coming, new drivers not nice to disabled R: PVTA continues to review schedule adherence on the route. The schedule is designed to match existing travel patterns. PVTA uses comments like these and ridership data to adjust schedules to better fit the riders’ needs.</p> <p>PVTA will review any claims provided regarding drivers acting inappropriately and PVTA will review existing trainings.</p> <p>C: Transfer failing P21 to G1 or G2; X92 to P21, Chicopee to Longmeadow Need 90 back to the way it’s supposed to be – no coordination leaving Holyoke R: PVTA is constantly reassessing transfer times and schedule adherence on routes including the X90. PVTA also understands the importance of P21 to G1 and G2 transfers and X92 to P21 transfers that have overlapping destinations with the X90 route. This information helps PVTA understand the connections and trips being made. PVTA chose to split the route at Chicopee Big Y rather than decrease already long headways on the Northern section of the X90 (between Big Y and HTC).</p> <p>C: X90 has too many service cuts. R: PVTA agrees these changes are substantial, especially to the X90. Alternatives would have likely impacted more riders without any service at all or longer headways without alternatives.</p>

5. Labor Shortage Adjustments Equity Impact Analysis

This section presents analysis of the cumulative equity impacts of the four major service changes implemented in the SATCo service area on December 12, 2021.

- As an emergent action, the PVTA Administrator implemented reduced frequencies on three routes and the elimination of a fourth route after extensive consultation with SATCo and DGR Management regarding the recruitment stream, enhancement of benefits and recruitment advertising.

Service Equity Analysis of SATCo Service Adjustments FY22

- The new CDL recruitment and paid leave landscape have required PVTA to retain these adjustments longer than anticipated.

Table 6: Adjusted Trips by Route

Routes	Bus Stop Trips Prior to Change	Bus Stop Trips Reduced	% of Adjusted Bus Stop Trips
G2E	3,168	3,168	100%
B6	104,496	23,586	22.57%
B7	120,884	18,730	15.49%
X90	108,740	34,456	31.69%
Total Bus Stop Trips	337,288	79,940	23.70%

5.1: DI/DB Impact Analysis Method

The impact on trips and frequency was conducted using the local metric: Route Stop Trip Date (RSTD). Each RSTD is a record of a bus passing a bus stop with a route, trip ID, date, and time stamp. A count on a best fit date for September '21 weekdays and Saturdays and Sundays was multiplied out (22 Weekdays, four Saturdays, and Four Sundays) to create an ideal month prior to the implemented adjustment. This was compared to a similar best fit for April '22 after the adjustment.

Table 7: Ideal Month of Service Bus Stop Trip Calculation

Weekdays ³	Saturdays	Sundays
(22 x September 16 RSTD Count) + (4 x September 11 RSTD Count)	(4 x September 19 RSTD Count)	(22 x April 7 RSTD Count) + (4 x April 9 RSTD Count) + (4 x April 10 RSTD Count)

The total RSTD from April 2022 was subtracted from the total RSTD for September 2021 to arrive at the total number of bus stop trips lost for each route.

The Unlinked Passenger Trips from all four routes in September '21 was used to determine the minority population impacted. Because the service loss in this case is a decrease in frequency (longer headways), the population impacted was not just those on the trips eliminated but felt by all those onboard. Therefore, routes impacted with minority ridership above 20% greater than the system average are considered to have a Disparate Impact on minority populations while routes impacted with low-income ridership above 20% greater than the system average are considered to have a disproportionate burden on low-income populations.

³ Because RSTD comes from data derived from the Automatic Passenger Counter, RSTD is a close match to the way the route was run on a given day. September 16 proved to be an outlier for the B7 with a few missed or miss recorded trips. Staff chose to base weekdays off of September 15 in this case for a better match to the pre-adjusted schedule. The Public Hearing presentation used figures from September 16 for all routes before the adjustment was identified.

DI/DB was also calculated on all four changes. Each route impact was spread proportionally to the unlinked passenger trips in September '21.

6: Public Outreach and Consultation

PVTA reached out for public comments and engagement about the service change proposals in public meetings, at public hearings, and through email and voicemail comments. This section summarizes input received from the public through these processes.

6.1: Public Meetings

PVTA conducted quarterly riders' meetings in public locations in both the Northern System (UMTS and VATCo networks) and Southern System (SATCo network).

Here is a chart of those events and related comments.

Table 8: Comments by Quarterly Rider Meeting

<i>Date and Time and Location</i>	<i>Number of Comments</i>	<i>Summary of Comments</i>
<i>September 19, 9-11am Union Station, Springfield</i>	<i>12 relevant comments about the Labor Shortage or the adjusted routes.</i>	<i>C: Because there is a driver shortage, there should be more signs hiring for drivers on buses C: Would like buses to run more frequently, such as every 15 minutes instead of 30. The bus runs okay but wants more frequent stops. C: Someone mentioned that they are concerned about how empty the buses are and worry about the service wasting money.</i>
<i>October 4, 9-11am, Holyoke Transportation Center</i>	<i>7 relevant comments about the Labor Shortage or the adjusted routes.</i>	<i>C: More bus drivers C: Likes to see city, state, Fed to assist in providing support to get the workforce needed</i>

Specific comments from these events are written in-line within 4.3 4.3 Detailed Descriptions and Service Equity Analysis by Route. General comments are included within the Summary of Comments column. A full accounting of comments from these events are included as an appendix.

6.2 Public Hearings

PVTA performed two public hearings on September 29 at 3pm and 7pm.

These events were conducted virtually in compliance with the Open Meeting Law, that recently extended the option for virtual attendance to public meetings. PVTA utilized Massachusetts Guidelines for Successful Virtual Public Meetings and complied with the existing FY2021 Public Participation Plan and FY2021 Title VI Update.

Service Equity Analysis of SATCo Service Adjustments FY22

Table 9: Comments by Public Hearings

<i>Date and Time and Location</i>	<i>Number of Comments</i>	<i>Summary of Comments</i>
<i>September 29, 3pm, Virtual (Zoom)</i>	0	No comments.
<i>September 29, 7pm, Virtual (Zoom)</i>	1	Expression of regret that service had to be cut due to labor shortage issues.

7. Conclusion

The goal of these service adjustments was to decrease the number of hours necessary to perform service in the SATCo network area. The reason for decreasing hours performed in service is to meet the constraints of the labor market due to a shortage in CDL driver applicants and Massachusetts Paid Family and Medical Leave recipients. These adjustments meet the goal of decreasing driving hours to mitigate the labor shortage challenge.

These adjustments have a disproportionate impact on low-income riders and disparate burden on people of color.

CDL Driver employment is based on the bus Operator (SATCo, VATCo and UMTS). There are labor restrictions and employment rule differences between operators.


The routes were chosen based on their least impact on the overall system, while maintaining the span of service and geographic service area. Headways were reduced on the B6, B7 and X90. The G2E, an express route to compliment G2 service, was eliminated.

The X90, G2E, B6 and B7 offer services through dense neighborhoods throughout Springfield, Chicopee, and Ludlow. Other routes offered alternate ways to reach many of the same major destinations. The X90 provides riders travel North and South through Springfield and Chicopee. In Springfield (the largest portion of the X90 changes) the route stops within ¼ mile of most other existing routes. Similarly, the G2E provided express options with minimal time savings between Union Station and the Memorial Industrial Park without intermediate stops. Ridership on this route has been minimal (443 UPTs in September 2021 with 18 days of service).

Within the process of choosing these routes, PVTA reviewed all other SATCo routes by their revenue hours, then by existing headway and finally by average Passengers per Revenue Hour. These routes fit the business priorities of the PVTA with the fewest riders impacted without impacting the geographic service area.

PVTA will increase service on the B6, B7 and X90 to match previous service headway levels when CDL Drivers become available and trained. Due to the underperformance of the G2E and misalignment with the business interests of the agency, PVTA will not be reinstating service on this route. Resources will be added to the G2 to return that service back to FY2019 service levels.

Appendix A: Presentation



PVTA
SATCo Labor Shortage
Service Adjustments
Title VI Analysis

PREPARED BY PVPC 2022

Authorities and Responsibilities

- ▶ Under Title VI of the Civil Rights Act of 1964 and subsequent executive orders and FTA Circular 4702.1B, PVTA must conduct an analysis of any major service change
- ▶ The following routes qualify for this analysis under the major service changes definition:
 - ▶ X90 – Reduction of frequency on the route from 30 minutes to 60 minutes
 - ▶ B7 – Reduction of frequency on the route from 15 minutes to 20 minutes
 - ▶ B6 – Reduction of frequency on the route from 20 minutes to 30 minutes
 - ▶ G2E – Elimination of the route

The Challenge

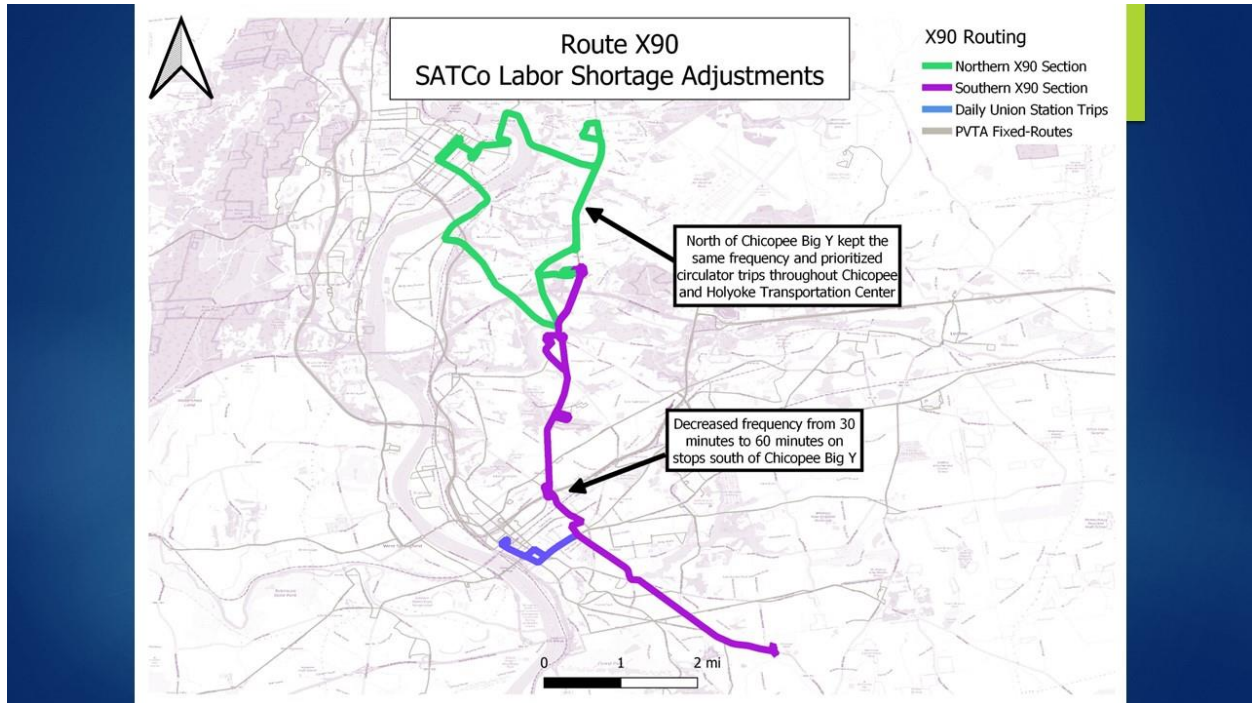
- ▶ Commercial Drivers License (CDL) labor shortage
 - ▶ Signs internationally started in January 2021
 - ▶ Directly impacted PVTA service October 2021
- ▶ **SATCo, the largest operator of PVTA fixed-routes**, out of the Springfield and Holyoke area experienced a shortage of **roughly 100 driving hours per day**
- ▶ As a result, PVTA implemented the following adjustments to the routes that SATCo operates
 - ▶ **These adjustments will be reversed when staffing becomes available**

Adjustments and Benefits

- ▶ X90 – Decreased frequency on the southern section from 30 minutes to 60 minutes
 - ▶ **32 Hours Saved per Day**
- ▶ B6 – Decreased frequency throughout the route from 20 minutes to 30 minutes
 - ▶ **20 Hours Saved per Day**
- ▶ B7 – Decreased frequency throughout the route from 15 minutes to 20 minutes
 - ▶ **20 Hours Saved per Day**
- ▶ G2E – Elimination of the route
 - ▶ **8 Hours Saved per Day**
- ▶ Total driving hours saved: **80 Hours Saved per day**
 - ▶ Other changes were made to reach the goal

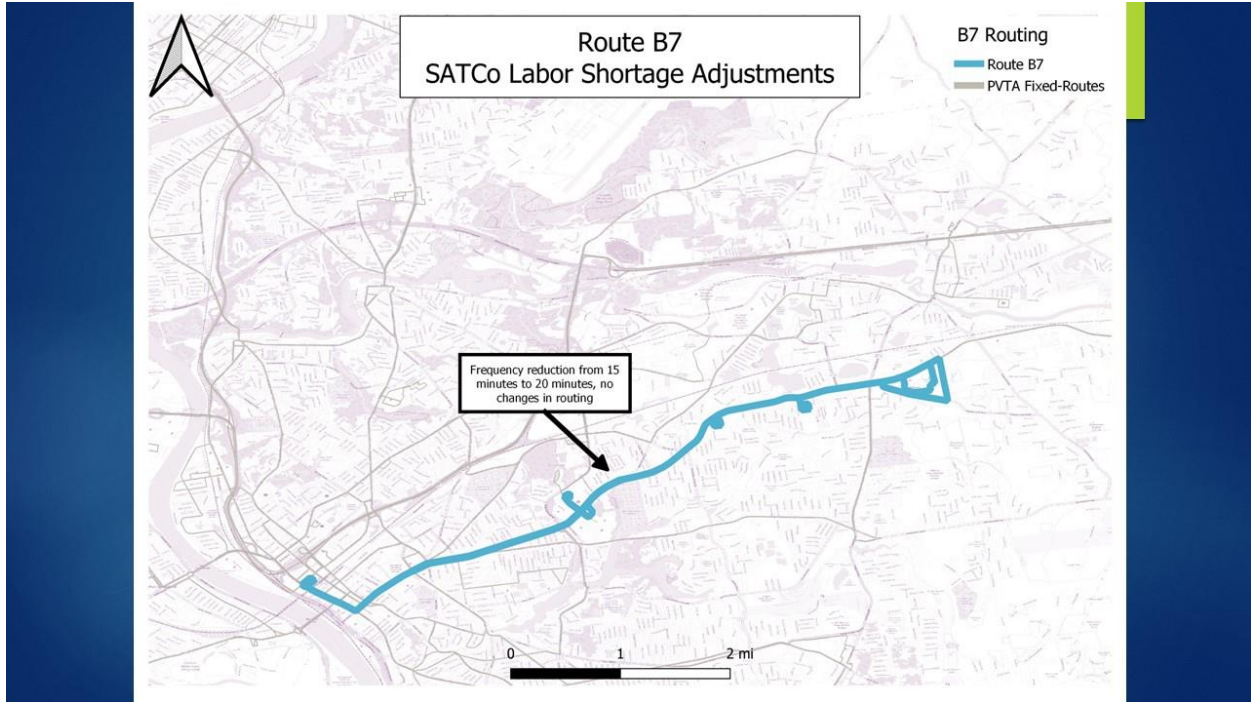
X90 Route Performance Description

- ▶ Tier 4 – Hourly service
- ▶ Minority Route
- ▶ Headway Standard Met
- ▶ OTP Standard Met
- ▶ Load Standard Met
- ▶ Stop Spacing Standard Met



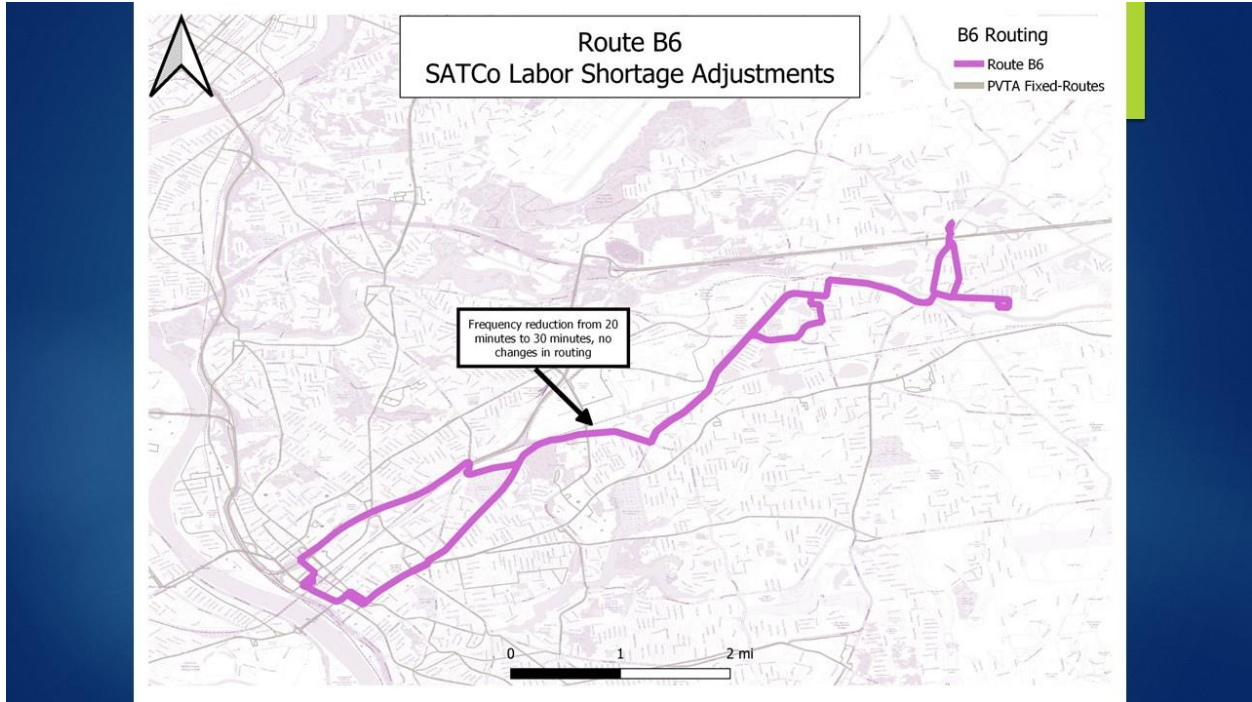
B7 Route Performance Description

- ▶ Tier 1 – 15 Minute service
- ▶ Minority Route
- ▶ Headway Standard Met
- ▶ OTP Standard Not Met
- ▶ Load Standard Met
- ▶ Stop Spacing Standard Not Met



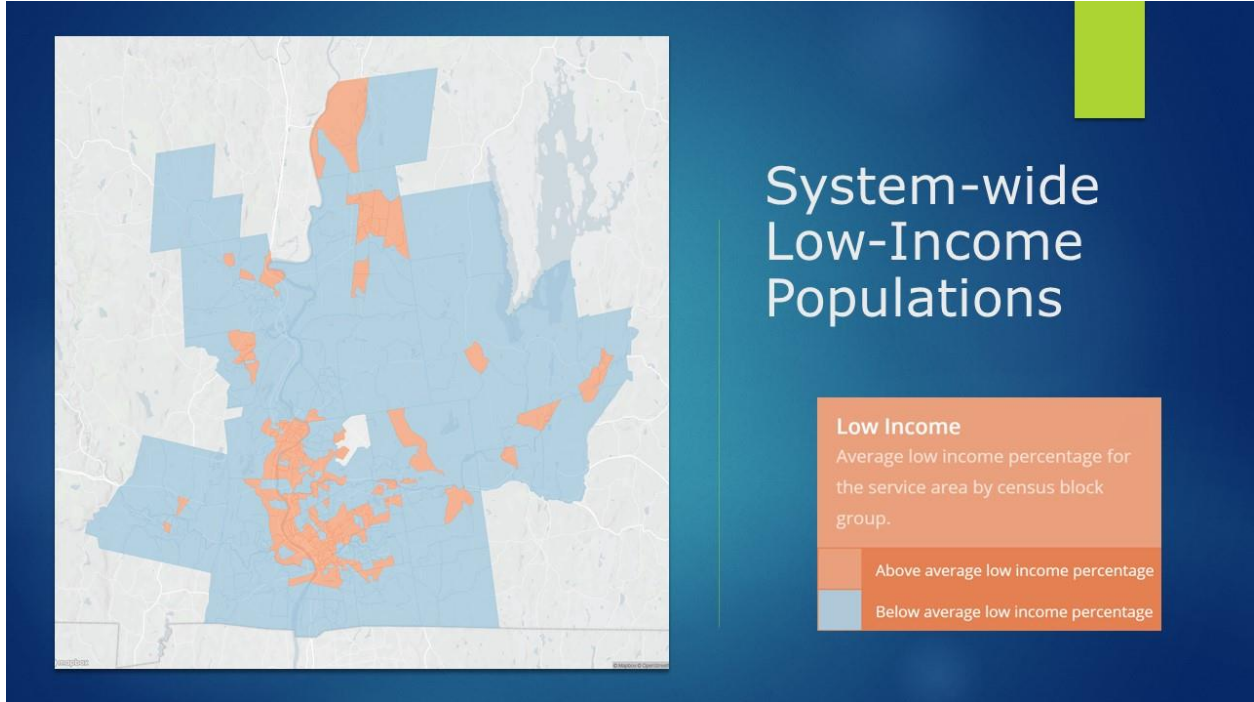
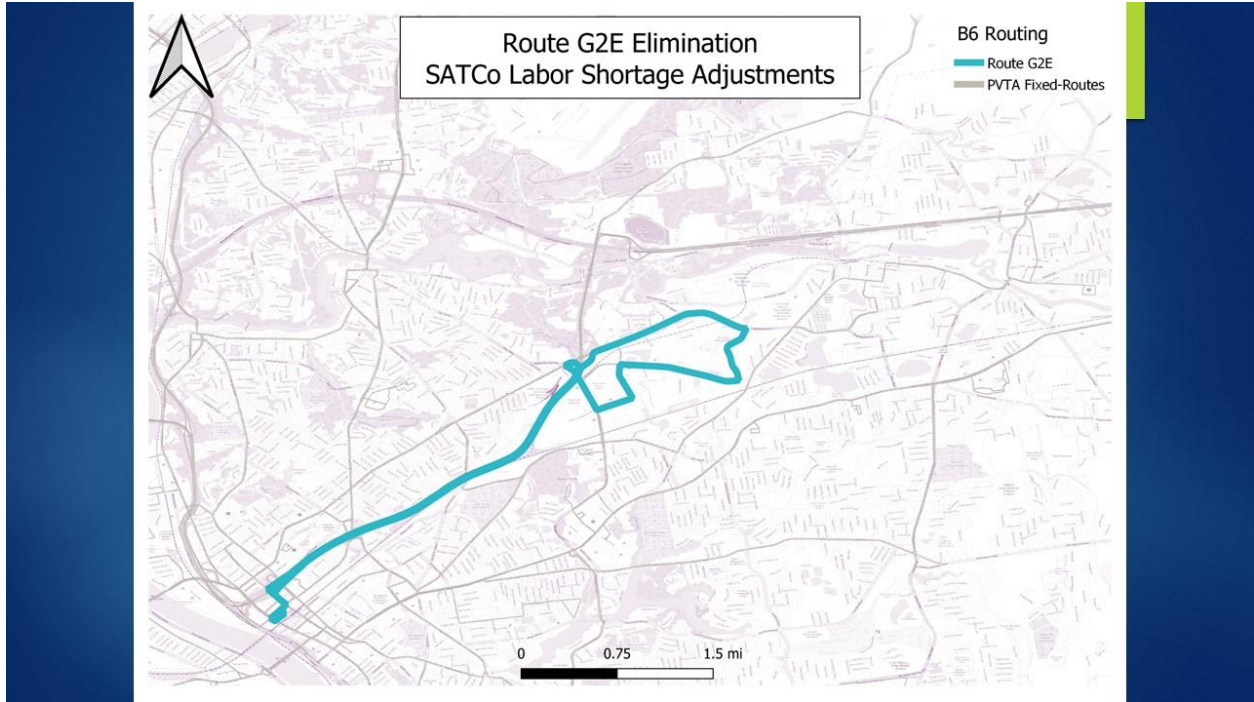
B6 Route Performance Description

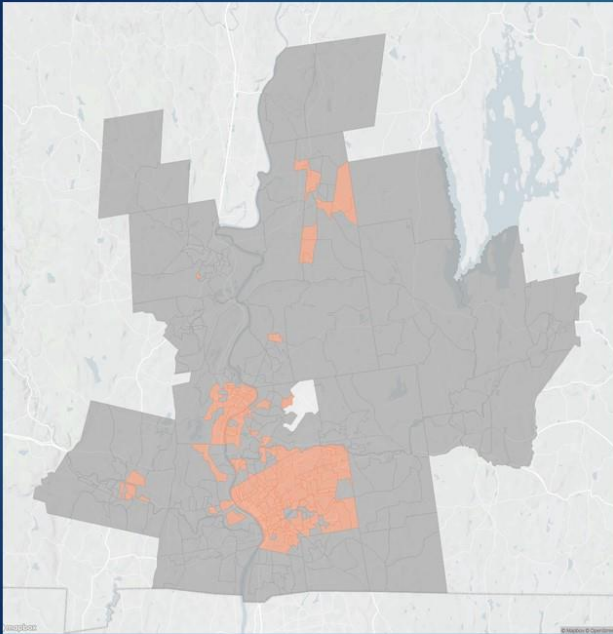
- ▶ Tier 2 – 20 Minute service
- ▶ Minority Route
- ▶ Headway Standard Met
- ▶ OTP Standard Not Met
- ▶ Load Standard Met
- ▶ Stop Spacing Standard Not Met



G2E Route Performance Description

- ▶ Tier 4 – Hourly service
- ▶ Minority Route
- ▶ Headway Standard Met
- ▶ OTP Standard Met
- ▶ Load Standard Met
- ▶ Stop Spacing Standard Met





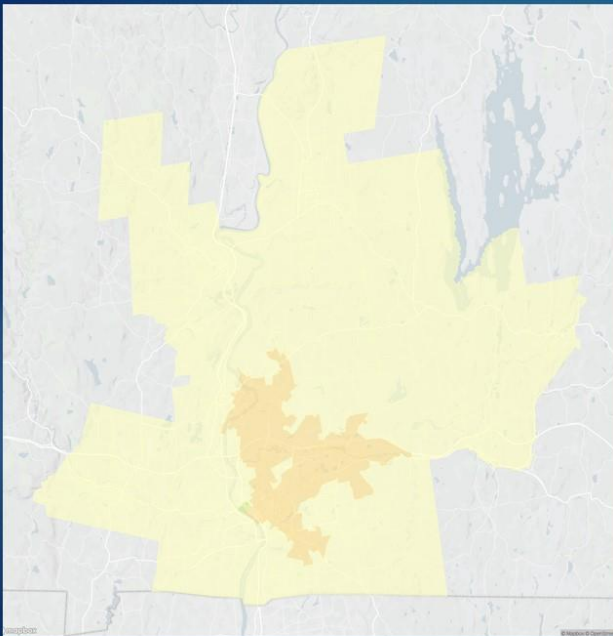
System-wide People of Color Populations

Minority

Average minority percentage for the service area by census block group.

Above average minority percentage

Below average minority percentage



Decreased Trips by Area

Trip Difference

Service changes by census block group.

Eliminated service

Neutral or not many service changes

Additional service

SATCo Labor Shortage Title VI DI/DB

	Trips in an Average 2021 Month	Trips in an Average 2022 Month	Trips Lost	People of Color %	Riders of Color
G2E	3,168	0	100.00%	76.98%	341
B6	104,496	80,910	22.57%	77.32%	16,398
B7	105,682	102,154	3.39%	82.65%	40,827
X90	108,740	74,284	31.69%	75.00%	10,830
				% Burden	80.01%
			System Average	57.30%	
			Disproportionate Burden		22.71%
	Trips in an Average 2021 Month	Trips in an Average 2022 Month	Trips Lost	Low Income %	Low Income Riders
G2E	3,168	0	100.00%	67.86%	300
B6	104,496	80,910	22.57%	67.90%	14,400
B7	105,682	102,154	3.39%	70.30%	34,725
X90	108,740	74,284	31.69%	63.77%	9,208
				% Impact	68.59%
			System Average	40.53%	
			Disparate Impact		28.06%

These changes as a whole and individually represent a disparate impact on People of Color, reaching the threshold of 20% above the system average.

These changes represent a disproportionate burden on riders of low income as a whole and individually, reaching the threshold of 20% above the system average.

Please provide us with your comments

- ▶ We are seeking any comments on these adjustments that PVTA implemented to continue service with the least interruption
- ▶ Please provide us with your comments today or use one of the following options:
 - ▶ Submit comments through the website at pvta.com
 - ▶ Submit comments by emailing PVTA at comments@pvta.com
 - ▶ Phone: 413-732-6248 ext. 2237
 - ▶ Mailing comments:
 - PVTA
 - c/o Paul Burns-Johnson
 - 2808 Main Street
 - Springfield, MA 01107

Appendix B: Public Comments

Holyoke Transportation Center
Quarterly Fixed Route Ridership Outreach Event
October 4, 2022

Would like the Holyoke Transportation Center open on Sundays

HTC signs display wrong times

B48 should run every half hour. I always miss it

If you get a new phone, it's impossible to transfer the pass to the new phone w/ app.

More buses to go past Appleton late at night I go to night school

More heating/ cooling shelters

B43 needs extra service, Ex. UMAss move-in / Taste of Northampton.

Waited at Target for over an hour because buses were drop-off only

More articulated buses on B43

Make passengers more aware they're being recorded, and they behave better.

Little strobe lights on camera lens to grab attention

Split LED screen for double advertising.

R29 express trips - make sure they mesh with core routes otherwise they're ineffective

Wants B7 to run later

B48 - needs to run later than 6:30PM HTC trip

B48 should go to 8:30PM, late trip so he can work longer

B48 should run later then 6:30PM

B23 needs more trips 9-10PM, she likes that there is one at 9:30 but wants more options, takes classes

Some drivers are very friendly, Holyoke drivers are very helpful

Service Equity Analysis of SATCo Service Adjustments FY22

Working ok, everything is close to on time most of the time

Heating/cooling in bus shelters

B43 Sunderland, Amherst, Bus was late because of taste of Noho

More buses linking colleges on the weekend

Not really had an issue take the 21 to Chicopee

B23 has some service issues

R25 does not pull into hospital stop

Buses sometimes come every 2 hours

Haven't taken the bus in 6 months

Sometimes buses at night are unreliable

Service is great/timing is great no problems getting to Big Y and is bike friendly

Take the bus every day, only trouble with time was using the X90

B48 should run later than 6:30PM

B23 needs more trips 9-10 PM

- 973 Holyoke bus leaving even when seeing the 20/connections issue
- All-Chicopee seeing people get off and connecting bus takes off without waiting
- Drivers are difficult, not all of them, but some they treat passengers badly, rudely
- Running late and waiting outside in cold is difficult
- Cheaper all-day pass

Service Equity Analysis of SATCo Service Adjustments FY22

- More bus drivers
- Put TVs in bus
- Be more aware of disabled people and their IDs
- Louie is a very nice bus driver
- R14 feeding hills blew by their bus stop
- R14 not enough service/frequency feeding hills need service that connects to south Hadley
- Never had a problem
- More frequent service in the evenings and weekends
- Better connections to Longmeadow at converse St. (works at nursing home)
- Trips can be over an hour and sometimes she arrives late walks from route 5
- Likes to see city, state, Fed to assist in providing support to get the workforce needed
- Appreciates the P11 service – uses it to get to computer lab
- Needs Saturday/Sunday Northampton St between Dwight and work around PVTA schedule
- Service on B24 prevents elderly from going out as there is no Saturday/Sunday
- Drivers are helpful and polite, others are not and appears they do not want to be bus drivers
- It takes me where I need to go
- Anyone over 70yrs old should ride for free
- Service has been great save me from various seasons
- Drivers in this area are great
- About the seats (cloth) need to be cleaned there can be a heaven for bacteria
- Increase frequency as sometimes they wait can be 45 min
- People should not eat onboard, they get the bus dirty during the day
-

PVTA Rider Forum at Union Station, Springfield, MA
9/19, 9:00-11:00 AM
Public Comment Log
Klara, Chanel, Tatum

1. RG5 is too slow - Virginia street to Walgreens is too long to bus stop
 2. B6 - Florida St walks to Bay St too long to walk especially in the winter
 3. X90 times do not match the schedule, do not know when it is coming
New drivers not nice to disabled
- R14 detour for Big Y: detour around major ridership are with little notice, not all drivers aware, no signs at suspended stops
- B17 too infrequent, aim for every 30 minutes, drivers sometimes pass waiting passengers by
- Many questions about where buses are when people are waiting at Springfield -> post schedules? possible sign installment in the station?
- Transfer failing P21 -. G1 or G2, X92->P21, Chicopee to Longmeadow
- Park Street Senior Center in West Springfield needs a bench
R10 should be every 30 minutes
25 Center Street bus doesn't go in
R14 should always service Maple Street ("if you ask the people who ride that route, they'll agree!")
- X92 needs to run more often like every 30 minutes
- Need 90 back to the way it's supposed to be - no coordination leaving Holyoke
- Need shelter back on Front Street near Senior housing in Chicopee Center
- Didn't know Fall schedule were starting until they got on the bus
- Trim trees at Bus stops like G2 inbound parking lot at CVS, otherwise like it.
- Bus drivers should wait at bus stops a little bit longer because a lot of people are running to busses
- The busses are too expensive

Service Equity Analysis of SATCo Service Adjustments FY22

The bus seats are dirty, and people should be asked to not put their feet on them

Real time transit app should be updated better, especially during downtown events such as parades

The R10 should come more often. The Park Street Senior Center needs a bench at the stop.

The time is confusing at times because buses come early, late, or take hours to reach a stop.

Concerns about substances

Indian Orchard/seniors stop was changed and now it is four blocks. Family Dollar - Main Street stop should be reinstated. The entrance to the plaza has changed. Please look at it again. Courtesy of drivers is important, especially the new drivers- who are not as nice as the old ones, such as on the B6. Drivers are driving too fast. Drivers from other countries are very, very nice, decent people, and very respectful to seniors.

From a person who takes the express route to Holyoke P21 - love the fastness of routes (p21).

No problem

Fine so far, only take it a few times

No issues, no place that I want to go that I can't

Doing good. No place I want to go that I can't. No changes.

Someone who works two full time jobs is pretty happy with the services.

No comment

Fine for me. My concern is that some buses are still very dirty.

Trash and drivers' area is not cleaned well at all on the ib46, Service is good, he likes it.

Everything is good for me. Sometimes in winter it

Because there is a driver shortage, there should be more signs hiring for drivers on buses

More buses - I have to wait at least 45 minutes for the P21 at Chestnut and Carew. The G2 needs more buses too.

The B1, and the G1, G2, and G3 are mostly late and should run every half an hour. The bus driver on the B6 can be rude. I want to see more courtesy from drivers. I have to do many route changes to get to Indian Orchard from Union Station, ideally there should be a more direct route to East Springfield.

On Saturday/Sunday I go to work and the Holyoke Mall, back in the Union Station. No service on the G1 at Summer Ave. Friendliness of bus drivers.

Service Equity Analysis of SATCo Service Adjustments FY22

More shade of Union Station and shelters.

From someone who goes to work at the mall on Saturday, there is not enough service in the evenings and on weekends. After he gets to the U.S. on P20 there is no service to get home. Chicopee - G1.

The attitude of the drivers is rude - no common courtesy. Disregard questions.

Letting people without fare, especially on the P20.

Service is good. No issues.

It is a great service. Help people get to where they need to go who have no car.

No complaints.

Someone wasn't aware of the PVTA's air purification units on the buses. X90 has too many service cuts. They don't want cuts for the B6 or the B7 too.

From someone who works in Noho, they like the express service on the G73, though there is one driver who is always late.

Saturday the B4 does not connect with any other services, and there is a 20-minute wait. Drivers do not leave on time and are talking on the phone.

Would like to see cushions added to seats, it's a hard ride with the plastic seat. Attitude of drivers should be more friendliness.

For someone who works at Dollar General and gets off at 9/9:30, they almost cannot get a bus home. There should be more frequency. Time ending on Sunday is an issue.

Someone knows of a co-worker who had to quit as she needed to walk home to Chicopee from Union Station.

Would like buses to run more frequently, such as every 15 minutes instead of 30. The bus runs okay but wants more frequent stops.

Bring back the paper schedules- not everyone has the technology.

Better lost and found system

Wish the bus was free, especially for seniors.

Buses run well.

Someone only uses the bus during the Big E since they work there. The stop is close to their home, so it works out great.

Service Equity Analysis of SATCo Service Adjustments FY22

X92 and G5: someone wishes it had more frequent service on Saturdays for appointments (senior)

Someone wishes they could buy a valley bike pass with their bus pass since they don't have the technology to use the service but loves riding bikes.

Someone's service dog was not allowed on the bus.

Someone was very happy about the G73 as it gets them to work fast and is always on time.

Someone mentioned that it takes almost 2 hours to get to UMass Amherst from Springfield and they wish there could be an express bus.

Someone mentioned that they are concerned about how empty the buses are and worry about the service wasting money.

Drivers do not stop at bus stop even when people are waiting (the person gave address for the stop 25 S Court Springfield).

Driver was rude and didn't help when asking directions.

G2: Upset that the stop by the cemetery was removed from the service because it adds a lot of time to their route since the driver has to drive all the way around before they get close to their destination.

Someone was concerned that when it snows the paths and bus stops aren't shoveled. The person was especially worried for the seniors who use the bus stops.