Fresno Area Express
FIXED-ROUTE SYSTEM RESTRUCTURE STUDY

Final Draft Report

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Executive Summary

Project Introduction

Fresno Area Express (FAX) is governed by the City of Fresno and is the largest public transportation provider in the Central San Joaquin Valley region, with 9.6 million annual boardings in Fiscal Year 2017 and an operating budget of approximately $36 million per year. FAX service consists of 16 fixed routes in the City of Fresno with three major hubs: the Downtown Transit Mall; the Manchester Transit Center along Blackstone Avenue north of downtown; and a transfer point at the River Park Shopping Center in north Fresno.

In 2014 the Fresno Council of Governments (Fresno COG) completed a Fresno Clovis Metropolitan Area (FCMA) Public Transportation Strategic Service Evaluation Project the purpose of which was to examine areawide travel patterns via extensive origin and destination studies, transit ride check and transfer studies, and public and stakeholder input with a goal of reducing transit travel times, and improving linkages to major trip generators. As a result of this planning effort, FAX is considering implementing a significant number of service improvements that were developed during the process. The proposed adjustments require a very thorough review with the community, stakeholders and policy makers.

Overall objectives of the Faster FAX Planning process included the following:

✓ Conduct a Service Equity Analysis of the purposed Faster FAX Plan for system changes, which includes an analysis of adverse effects relating to possible disparate impacts for minority populations and disproportionate burdens for low income populations.
✓ Prepare a Public Involvement Plan (PIP) that builds on the outreach and education strategies implemented during the Public Involvement phase of the FCMA Strategic Service Evaluation Project
✓ Implement the PIP to inform a wide range of people about the outcomes of the system evaluation effort and to ensure community stakeholders and residents are well engaged and informed about the impact of the proposed route changes.
✓ Provide direct community contact as the most effective way to get the project message out.
✓ Following the Title VI analysis, and initial public review, identify specific refinements to the Faster FAX Plan.
✓ Provide final review and adoption of the Faster FAX Plan.
**Faster FAX**

The Faster FAX network scenario entails near-term changes intended to improve the frequency of service to key destinations and high-density areas. These service changes are expected to generate more riders at lower costs per passenger compared to the current routes and schedules. The major changes included in the Faster FAX scenario, compared to the existing network (i.e., the network since the implementation of FAX Q Bus Rapid Transit (BRT) in February 2018) are:

- **Extension of FAX 15 high-frequency service on route 38-Cedar for the entire length of the route.** Today, 15-minute service is available only on Cedar Avenue between River Park and Jensen Avenue. In the Faster FAX scenario, 15-minute service is available during peak and rush hour on all segments of the route, including the portion between Jensen Avenue and Cedar Avenue and Downtown Fresno passing through southwest Fresno. The changes to Route 38 also include the discontinuation of the existing deviation of the route in southwest Fresno off Walnut Avenue along Church Avenue and Belgravia Avenue serving Computech Middle School. While this increases the walk distance required to access the route, the shorter wait provided by the enhanced frequency of Route 38 (as well as new Route 29 on Martin Luther King Jr. (MLK) Boulevard, described below) will provide faster travel times between this area and other parts of the city.

- **Provide future service on MLK Boulevard in southwest Fresno with a new 15 minute pilot project, Route 29, by discontinuing Route 32 in this area from downtown in order to provide service from downtown to southwest Fresno along Fresno Street to MLK Boulevard to North Avenue to the Fresno Industrial Park area bounded by Freeways 41 and 99 south of Freeway 180, home to Amazon, Ulta, DHL, and other businesses. Route 32 will operate as usual until the pilot project in launched at a time to be determined later.**

- **Route adjustment to routes 9 and 39.** The segment of Route 9 west of Brawley Avenue is discontinued, and Route 39 is extended north to serve the area west of Highway 99. The extended Route 39 would use the same alignment as the current Route 9, except that instead of using Polk Avenue to reach Shaw Avenue from Fairmont Avenue, the redesigned Route 39 would circulate around Polk Avenue, Gettysburg Avenue, and Hayes Avenue, extending bus service to Inspiration Park and the nearby neighborhoods for the first time. Service to the segments of Shields Avenue, Blythe Avenue, and Clinton Avenue currently served by the one-way turnaround loops of routes 9 and 39 would be discontinued.

- **Route 26 is realigned at Chestnut Avenue, and would now run (described eastbound from Butler Avenue and Chestnut Avenue) south on Chestnut Avenue, east on Hamilton Avenue and north on Winery Avenue, before resuming its current route. This allows Route 26 to more directly serve the Senior Citizen’s Village and commercial area at the intersection of Kings Canyon Road and Peach Avenue, which was previously served by the loop of Route 28 (discontinued with the implementation of FAX Q BRT service).**

- **Route 34 is realigned at its northern end, in order to facilitate a transfer with BRT and other FAX routes near River Park.** Its existing north end one-way turnaround loop via Herndon Avenue, Cedar Avenue, Spruce Avenue, Millbrook Avenue, Nees Avenue, and First Street is replaced with two-way service to Riverpark via Millbrook Avenue and Alluvial Avenue. This improves access to both Kaiser Hospital and Saint Agnes Medical Center.

- **Routes 33 and 35 would now operate every 30 minutes on Saturdays and Sundays, an increase from the current 45 or 60 minute headways each route runs on weekends today.**
Figure 2 on page 19 displays route and bus frequency changes under Faster FAX in map form.

**Title VI Service Equity Analysis**

As a recipient of funding from the Federal Transit administration, FAX is required to comply with the Federal Transit Administration (FTA) Title VI Requirements and Guidelines, as detailed in FTA Circular 4702. 1B and authorized by the Civil Rights Act of 1964. For fixed transit providers operating more than fifty vehicles in peak service, these requirements include evaluating major service changes to determine whether those changes will have a discriminatory impact based on race, color, or national origin. This evaluation process is called a *service equity analysis* and requires development and adoption of multiple policies for conduct that is compliant with FTA guidance. The Title VI Service Equity Analysis prepared for FAX serves to discuss, evaluate, and recommend service equity analysis-related policies that have not yet been adopted by FAX.

The policies required to conduct a service equity analysis are:

- **Major Service Change Policy**: A major service change policy establishes a percentage threshold for what is a major service change. When that threshold is exceeded, it triggers a service equity analysis.
- **Disparate Impact Policy**: Disparate Impact is a facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin. The disparate impact policy establishes a threshold for determining when a major service change has a disparate impact on minority populations.
- **Disproportionate Burden Policy**: Disproportionate Burden is a facially neutral policy or practice that disproportionately affects low income populations more than non-low income populations. The Disproportionate Burden Policy establishes a threshold for determining whether a major service change has a disproportionate burden on low income populations versus non-low income populations.

**Peer Review of Service Equity Analysis Policies**

The service equity analysis policies of six peer public transportation programs were reviewed to provide perspective on thresholds that may be appropriate for FAX. The six peer agencies were selected by FAX project staff and include Sun Tran, ABQ RIDE, Sun Metro, San Joaquin RTD, and Sacramento RT. Peers’ policies are presented in the Title VI Service Equity Analysis section of this report. Review of these policies included noting the scale of thresholds for change or impact maintained by each peer; exemptions to agency-adopted policies; and criteria included in the policy. Policy considerations were developed from these observations to guide the FAX organization in developing its own Title VI service equity policies.

Drawn from these peer policy observations and informed by operational and demographic characteristics of the FAX public transportation program, recommended FAX service equity policies are presented below.

**Major Service Change Policy**

A Major Service Change adds or removes **25%** or more:

- Revenue miles on any route.
- Revenue hours on any route.
Recommended exemptions to the Major Service Change Policy are:

✓ Initiation /discontinuance of temporary or demonstration services lasting one (1) year or less.
✓ Initiation/discontinuance of any promotional fares.
✓ Changes to or suspension of routes due to natural or catastrophic disasters.
✓ Temporary route detours: short-term changes to a route caused by road construction, routine road maintenance, road closures, emergency road conditions, fiscal crisis, civil demonstrations, or any uncontrollable circumstance.
✓ Initiation/discontinuance of any Special Event Routing.

Disparate Impact Policy

A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by 20% or more than the adverse effects borne by the general population in the affected area.

Disproportionate Burden Policy

A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects by 20% or more than the adverse effects borne by the general population in the affected area.

Faster FAX Title VI Service Equity Analysis – Key Route Changes

Included in this discussion is a preliminary analysis of the impact of Faster FAX on the distribution of service to minority and low-income communities; an overview of impacts that would be anticipated with future service changes introducing adjustments to the network consistent with this scenario. The Title VI analysis module provided in the transit planning software package Remix was used to conduct this assessment. A detailed description of the methodology used for this analysis is described here: https://www.remix.com/title-vi and is summarized in Appendix B.

The flow chart in Figure 1 on page 11 below shows the steps necessary for conducting the Title VI Service Equity Analysis. In essence, the following questions need to be answered in sequential order:

1. Does the Faster FAX service change exceed the proposed major service change threshold policy of 25% for one or more routes?
2. If yes to #1, does the Faster FAX service change require the minority population to bear adverse effects by 20% or more than the adverse effects borne by the general population?
3. If yes to #1, does the Faster FAX service change require the low income population to bear adverse effects by 20% or more than the adverse effects borne by the general population?
4. If yes to #2 or #3, what are the service alternatives for a less discriminatory service change?

Of the changes included in Faster FAX, changes to three routes meet or exceed the Major Change threshold of +/- 25% change in annual revenue hours or miles. The routes exceeding this threshold are routes 9, 29/32 and 39; Route 9 is shortened, and Route 39 is extended to serve the segment of Route 9 where service is discontinued. The service level of this segment (30-minute frequency throughout the day, with 60-minute service in the evenings) remains the same. New Route 29, a high-frequency 15-minute pilot project connecting Downtown Fresno and the North Pointe Business Park located southwest of the
intersection of North Avenue and East Avenue, replaces route 32 south of Courthouse Park, and therefore the combined Route 29/32 exceeds the major change threshold of 25%.

Since Routes 9, 29/32 and 39 exceed the major service change threshold, the study analyzed if minority populations bear adverse affects by 20% or more than the effects borne by the general population. This analysis detailed in the body of the report, shows that the Faster FAX service has no disparate impact on minority populations that approach or exceed the 20% threshold.

Similarly, since Routes 9, 29/32 and 39 exceed the major service change threshold, the study examined whether the service changes on any of these three routes would cause low income populations to bear adverse affects 20% or greater than the effects borne by the general population. The analysis indicates that the Faster FAX service has no disproportionate burden on low income populations in Fresno.

With no disparate impact on minority populations and no disproportionate burden impact on low income populations, there is no need for FAX to make service adjustments to address any discriminatory issues under Title VI.

Public Involvement

Public involvement is a problem-solving approach, which brings together community members and planners to discuss complex issues facing the communities and their residents. Working together to achieve a common goal, this partnership encourages affected parties to bring forward unique ideas and solutions to potential issues. To assist with the outreach program for the Faster FAX Plan, a Public Involvement Plan (PIP) was developed that clarifies the outreach program so that affected agencies, and the public understood how they could become involved and provide input as the Plan was being developed. The purpose of the PIP was to ensure meaningful and sustained participation by the City’s elected and appointed officials, stakeholders, residents, and businesses. FAX is committed to active communication with stakeholders, individuals, community leaders, and organizations to ensure that their experiences and opinions are heard and taken into account as part of the Plan’s development.

The PIP proposes using a broad array of channels that will enable FAX to foster:

- Continuous public involvement from the start of the planning process to its completion (and beyond).
- Diverse participation that includes communities and populations that often go under-represented in similar initiatives.
- Broad understanding of the Faster FAX Plan at its various stages.

The PIP details the various mechanisms and strategies used to engage the public throughout the Faster FAX Plan outreach process. Providing the framework for achieving consensus and communicating the decision-making process between the general public, public agencies, and governmental officials, the PIP identified solutions for the Faster FAX Plan and lends credibility to key decisions made during the development process.

The public engagement process stemming from the PIP included the development of a project webpage, the use of social media and other media to engage the public. A total of eight (8) workshops were held as part of the outreach efforts for this study, with a total attendance of approximately 120 people. Materials were also disseminated at pop-up events at the Big Fresno Fair, Cencalvia Open Street, and the Veteran’s
Day parade. The ultimate goal of the PIP was to provide affected agencies and the public opportunities throughout the process to influence the development of the Faster FAX Plan.

Onboard Survey

A survey of FAX passengers was conducted on four weekdays, a Saturday, and a Sunday between January 12th and January 18th, 2018, excluding the Martin Luther King Jr. holiday on January 15th. The survey sample included morning, midday, and evening runs. Onboard surveys were administered by a survey staff that were trained to ask every rider who appeared to be over the age of twelve to complete the questionnaire. When discussing the survey with FAX riders, the survey staff explained the purpose of the survey, offered a pencil, and were available to answer questions and assist as needed. Most survey staff were bilingual and those who were not were able to convey that the questionnaire was available in Spanish. Survey staff wore a smock identifying themselves as part of the transit survey team.

During the six days that the onboard survey was conducted, survey staff approached approximately 5,366 riders aged 12 or older. Of these, 2,904 accepted a questionnaire and 2,444 completed the questionnaire. Among the people who did not accept a questionnaire 366 were marked down as having a language barrier, 874 had already completed the survey, and 2,096 were general refusals. Of those eligible to complete the survey, the response rate was 45.5%. Additionally, on January 17th two survey staff distributed the survey to passengers boarding and alighting from FAX buses at the downtown transit center. Survey staff asked for and recorded the route number for each person that returned a survey. There were an additional 82 surveys collected at the transit center, and these surveys have been included as part of the onboard survey analysis.

Report Organization and Content

This report discusses the Title VI Service Equity Analysis and parameters (threshold, disparate impact, and disproportionate burden policies), and how they are applied to the analysis of the Faster FAX plan.

The next section describes the public involvement process used to engage stakeholders, residents, businesses, and other as part of the planning process. Included in this discussion is the development of a PIP, public participation objectives, and completed public involvement activities and results from these activities.

Lastly, this report examines the findings of the onboard survey and related surveys conducted to gauge public feedback on the proposed service changes. This summary covers the methodology used for the onboard survey, and details how riders use FAX, rider demographics, service ratings, potential improvements and other areas probed in the surveys.
Title VI Service Equity Analysis

Introduction

As a recipient of funding from the Federal Transit Administration (FTA), FAX is required to comply with FTA’s Title VI Requirements and Guidelines, as detailed in FTA Circular 4702.1B. For fixed transit providers operating more than fifty vehicles in peak service, these requirements include evaluating major service changes to determine whether those changes will have a discriminatory impact based on race, color, or national origin.

FAX has developed a 2016 Title VI Report demonstrating its compliance with Title VI requirements. The Title VI report includes how FAX complies with general reporting requirements and requirements for fixed route providers. While the requirement to evaluate service changes is addressed, including a discussion of FAX’s locally developed process for evaluating service changes, some elements expressed in FTA C4702.1B are not included.

This Title VI Service Equity Analysis serves to discuss, evaluate, and recommend the additional service equity analysis-related policies that have not yet been adopted by FAX. A complete copy of the Title VI Service Equity Analysis Policies Working Paper can be found in Appendix A.

The recommendations were formulated in a meeting of the FAX representatives and consulting team. Both the peer analysis and public input received during the public participation process were considered.

Title VI Service Equity Analysis Requirements and Policies

FTA requirements for evaluating major service changes include developing the following policies:

✓ Major Service Change Policy.
✓ Disparate Impact Policy.
✓ Disproportionate Burden Policy.

These policies must be developed with public input. Details about service equity analysis policies are provided below. The basis of Title VI and definitions of the three service equity policies were summarized in boards and handouts in English and Spanish and presented at eight community workshops.

Major Service Change Policy

A major service change policy establishes a percentage threshold for what is a major service change. When that threshold is exceeded, it triggers a service equity analysis.
A major service change policy is typically presented as a numerical standard, such as a change that affects “x” percent of a route or “x” number of route miles or hours. There can also be a threshold for the number of people affected. It can be route-specific or systemwide. If the threshold is exceeded, then a service equity analysis is required for disparate impacts for minority populations and disproportionate burden for low income populations.

**Disparate Impact Policy**

Disparate Impact is a *facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin.*

The Disparate Impact Policy establishes a threshold for determining when a major service change has a disparate impact on minority populations. That is, do minority populations bear more of the impacts than nonminority populations?

**Disproportionate Burden Policy**

Disproportionate Burden is a *facially neutral policy or practice that disproportionately affects low income populations* more than non-low income populations.

The Disproportionate Burden Policy establishes a threshold for determining whether a major service change has a disproportionate burden on low income populations versus non-low income populations. That is, do low income populations bear more of the impacts than non-low income populations?

The Disproportionate Burden Policy applies only to low income populations that are not also minority populations.

**Title VI Target Populations**

Title VI protects individuals from discrimination based on their race, color, or national origin. While low income populations are not specifically protected under Title VI, this population must be considered when evaluating service changes. FTA C 4702.1B states that, “recognizing the inherent overlap of environmental justice principles in this area, and because it is important to evaluate the impacts of service and fare changes on passengers who are transit-dependent, FTA requires transit providers to evaluate proposed service and fare changes to determine whether low income populations will bear a disproportionate burden of the changes”, (Chapter IV-11).

**Defining Minority Population**

Minority population means any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, are geographically dispersed/transient populations (such as migrant workers or Native Americans) who will be similarly affected by a proposed Federal Department of Transportation program, policy, or activity.
Minority persons include the following:

✓ American Indian and Alaska Native, which refers to people having origins in any of the original peoples of North and South America (including Central America), and who maintain tribal affiliation or community attachment.

✓ Asian, which refers to people having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

✓ Black or African American, which refers to people having origins in any of the Black racial groups of Africa.

✓ Hispanic or Latino, which includes persons of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

✓ Native Hawaiian or Other Pacific Islander, which refers to people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

**Defining Low Income Population**

Low income population refers to any readily identifiable group of low income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FTA program, policy or activity.

Low income person means a person whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines of 150 percent of the poverty line. Based upon 2017 Federal Poverty Levels, this would reflect an income of less than $18,090 for a single individual and less than $36,900 for a family of four.

**Title VI Service Equity Analysis Process**

FTA Title VI regulations provide guidelines for the development of the required Title VI service equity analysis procedures and the conduct of a service equity analysis. This process, also presented in Figure 1, is summarized below:

✓ The transit provider must develop a Major Service Change Policy to identify what changes are considered “major.” Service changes that meet this threshold are subject to a service equity analysis.
  - The transit provider shall engage the public in the decision-making process to develop the Major Service Change Policy.

✓ The transit provider must develop a Disparate Impact Policy to establish a threshold for determining when adverse effects of service changes are borne disproportionately by minority populations.
  - The transit provider shall engage the public in the decision-making process to develop the Disparate Impact Policy.

✓ The transit provider must develop a Disproportionate Burden Policy to establish a threshold for determining when adverse effects of service changes are borne disproportionately by low income populations.
  - The transit provider shall engage the public in the decision-making process to develop the Disproportionate Burden Policy.
* The transit provider’s approval of these policies must be included in the provider’s Title VI Program.

✓ When the transit provider is considering changes that meet the established major service change policy, the transit provider must conduct a service equity analysis.

- A service equity analysis shall include evaluating the impacts of proposed service changes on minority and low-income populations and use the established thresholds to determine if any of the impacts will result in disparate burdens on minority populations or disproportionate burdens on low-income populations

- The transit provider must develop written procedures for evaluation of service changes consistent with FTA C 4702.1B, Chapter IV, Section 7. Framework for these procedures are detailed in FTA C 4702.1B.

✓ If the threshold for disparate impacts or disproportionate burdens has been exceeded, the transit provider will take steps to avoid, minimize, or mitigate impacts where practicable.

- Where disparate impacts are identified, the transit provider shall provide a meaningful opportunity for public comment on any proposed mitigation measures, including any less discriminatory alternatives that may be available.

- The transit provider may implement the service change only if the transit provider has a substantial legitimate justification for the proposed service change, and the transit provider can show that there are no alternatives that would have a less disparate impact

- Additional requirements for analyzing and implementing alternatives are detailed in FTA C 4702.1B, Chapter IV, Section 7.

- The written procedures and results of equity analyses and the board’s consideration, awareness, and approval of the analysis shall be included in the transit provider’s Title VI Program.
Figure 1 - Title VI Service Equity Analysis Process Flowchart

Eight public workshops: input on Service Equity Analysis policies for Fresno Area Express (FAX).

Fresno City Council Reviews and Adopts FAX Service Equity Policies.

Does service change exceed major service change threshold policy?

- No, no equity analysis.

Yes, service equity analysis initiated.

Does service change exceed disparate impact threshold for minority populations?

- Yes, analyze alternatives for a less discriminatory service change.
  - No, no disparate impact.
  - FAX will evaluate service change alternatives to address the adverse impacts.

Does service change exceed disproportionate burden impact threshold for low income populations?

- No, no disproportionate burden.
Review of Peer Policies

Introduction

The Title VI service equity analysis policies of several of FAX’s peers were reviewed to understand how similar agencies identify these policies. The six peer agencies were selected by FAX project staff and include Sun Tran, ABQ RIDE, Sun Metro, San Joaquin RTD, and Sacramento RT. The Title VI Program and polices of a seventh peer, Modesto Area Express, was reviewed but not included in this analysis as they are not required to develop these policies based on the number of vehicles they operate.

Peer Major Service Change Policies

Observations

Observations from the review of Peer Major Service Change Policies, as shown in Table 1, included:

- All peer policies for major service changes are at the individual route level.
- Peer policies demonstrate how thresholds can apply to multiple criteria, such as revenue hours; revenue miles; route length; bus stops; or ridership. All peers used more than one criterion to define major service change.
- Major service change includes reductions and increases in service.
- The threshold for determining a major service change varies among peers from 15 percent change to 35 percent change on any route, including new and existing.
- Five of the six peers (all Peers except ABQ Ride) identify exemptions to their Major Service Change Policy, including changes to demonstration, temporary, or special event services and changes due to emergencies or natural disasters.

Policy Considerations

The adopted major service policy should clearly state that:

- The percentage change that is considered “major.” A 25% percent threshold seems to be a reasonable threshold for being a major change and is the midpoint of peer agencies.
- Major change is at the route level.
- The service parameters to be included. Keeping it simple as RTD in Stockton has done is one clear option. Including: 1) the number of route miles of a route and 2) daily revenue miles provides two simple parameters as part of the policy.
- The exemptions that FAX would like to include in the policy. At a minimum, these exemptions should be included:
  - Emergency changes due to forces of nature.
  - Temporary route detours.
  - Elimination of a demonstration or pilot route lasting 1 year or less.
  - Initiation/discontinuance of any promotional fares.
**Table 1 - Peer Major Service Change Policies**

<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Major Service Change Thresholds</th>
<th>Exemptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sun Tran</strong></td>
<td>A Major Service Change adds or removes <strong>25% or more</strong> of the:</td>
<td>1. Initiation/discontinuance of temporary or demonstration services.  2. Initiation/discontinuance of any promotional fares.  3. Natural or catastrophic disasters.  4. Temporary route detours.</td>
</tr>
<tr>
<td><strong>ABQ RIDE</strong></td>
<td>A Major Service Change increases or decreases service on any route by <strong>35% or more</strong> of the:</td>
<td>N/A</td>
</tr>
<tr>
<td>Albuquerque, NM</td>
<td>1. Revenue hours of service; 2. Service to bus stops on that route.</td>
<td></td>
</tr>
<tr>
<td><strong>GET Bus</strong></td>
<td>A Major Service Change is the establishment of a new transit route, or increases or decreases of <strong>25% or more</strong> of:</td>
<td>1. Discontinuance of temporary services.  2. Adjustments during new line “Break-In” period.  3. Forces of nature.  4. Competing infrastructure failures.  5. Reductions to overlapping services.</td>
</tr>
<tr>
<td>Bakersfield, CA</td>
<td>1. Route length of a route; 2. Revenue miles on a route; 3. Revenue hours on a route.</td>
<td></td>
</tr>
<tr>
<td><strong>Sun Metro</strong></td>
<td>A Major Service Change is a reduction or increase of <strong>30% or more</strong> in:</td>
<td>1. Changes to routes with fewer than 20 total trips.  2. Introduction/discontinuation of short/limited-term service.  3. Sun Metro-operated transit service replaced by different mode or operator.  4. Deactivation of routes with fewer than 10 passengers/hour or 1.0 passengers/mile after 6 months.</td>
</tr>
<tr>
<td>El Paso, TX</td>
<td>1. Revenue miles on any service area or route; 2. Revenue hours on any service area or route.</td>
<td></td>
</tr>
<tr>
<td><strong>San Joaquin RTD</strong></td>
<td>A Major Service Change increases or reduces <strong>25% or more</strong> of:</td>
<td>1. Experimental or emergency service.  2. Standard seasonal variations in service.</td>
</tr>
<tr>
<td>Stockton, CA</td>
<td>1. Daily revenue miles of a route; 2. The number of transit route miles of a route.</td>
<td></td>
</tr>
<tr>
<td><strong>Sacramento RT</strong></td>
<td>A Major Service Change: 1. Creation of any new bus route exceeding <strong>150 daily revenue miles</strong>;</td>
<td>1. Elimination of routes according to RT’s route sunset process.  2. Creation/alteration/elimination of a supplemental route 1.  3. Emergency changes.  4. Creation/alteration/elimination of temporary/demonstration service lasting 1 year or less.  5. Creation/alteration/elimination of special event service.</td>
</tr>
<tr>
<td>Sacramento, CA</td>
<td>2. Creation of any new light rail route or extension of any existing light rail routes; 3.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any change to an existing bus or light rail route that affects <strong>15% or more</strong> of daily revenue miles.</td>
<td></td>
</tr>
</tbody>
</table>
Recommendation for Major Service Change Policy

A Major Service Change adds or removes 25% or more:
✓ Revenue miles on any route.
✓ Revenue hours on any route.

Recommended exemptions to the Major Service Change Policy are:
✓ Initiation/discontinuance of temporary or demonstration services lasting one (1) year or less.
✓ Initiation/discontinuance of any promotional fares.
✓ Changes to or suspension of routes due to natural or catastrophic disasters.
✓ Temporary route detours: short-term changes to a route caused by road construction, routine road maintenance, road closures, emergency road conditions, fiscal crisis, civil demonstrations, or any uncontrollable circumstance.
✓ Initiation/discontinuance of any Special Event Routing.

Peer Disparate Impact Policies

Observations

The review of Peers’ Disparate Impact Policies, as shown in Table 2, yielded the following observations:
✓ Three of the six peers (Sun Tran; Sun Metro; Sacramento RT) analyze the impact of changes to the minority population compared to the impact on the general population.
✓ Two peers (ABQ Ride; Get Bus) analyze impact of changes to the minority population compared to the size of the minority population in the service area.
✓ One peer (San Joaquin RTD) has classified routes as minority or non-minority. To identify disparate impact, they analyze change to vehicle revenue miles on affected minority-classified routes compared to change to vehicle revenue miles on affected non-minority-classified routes.
✓ The threshold for identifying a disparate impact varies among peers from 10 percent to 25 percent.

Policy Considerations for Disparate Impact

The disparate impact policy should include:
✓ The population that the minority population is compared to. The whole rationale of the service equity analysis is to ensure that discrimination against minority populations along route does not occur. The best basis for this comparison would appear to be the comparison with either non-minority populations or the general population.
✓ The percentage change threshold that when exceeded would be a disparate impact. Overall, a 10% threshold seems low and a 25% disparate impact seems like a very high bar for a disparate impact. A disparate impact of 15% to 20% would seem like a reasonable threshold.
Table 2 - Peer Disparate Impact Policies

<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Disparate Impact Policy (Minority only or Minority and Low income)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Tran Tucson, AZ</td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by 20% or more than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>ABQ RIDE Albuquerque, NM</td>
<td>A Disparate Impact exists when the percent of minorities adversely affected by a major service change is greater by 10% than the average percent of minorities in the service area.</td>
</tr>
<tr>
<td>GET Bus Bakersfield, CA</td>
<td>A Disparate Impact exists when the minority population adversely affected by a major service change is more than 10% than the average minority population in the service area.</td>
</tr>
<tr>
<td>Sun Metro El Paso, TX</td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects over 25% than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>San Joaquin RTD Stockton, CA</td>
<td>A Disparate Impact exists if the percentage of vehicle revenue hours on minority-classified routes affected by the major service change is at least 25% higher than the vehicle revenue hours on non-minority-classified routes affected by the major service change.</td>
</tr>
<tr>
<td>Sacramento RT Sacramento, CA</td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by 15% or more than the adverse effects borne by the general population.</td>
</tr>
</tbody>
</table>

Recommendation for Disparate Impact Policy

A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by 20% or more than the adverse effects borne by the general population in the affected area.

Peer Disproportionate Burden Policies

Observations

The review of Peers’ Disproportionate Burden Policies, depicted in Table 3, yielded the following observations:

✓ Three of the six peers (Sun Tran; Sun Metro; Sacramento RT) analyze the impact of changes to the low income population compared to the impact on the general population.
✓ Two peers (ABQ Ride; Get Bus) analyze impact of changes to the low income population compared to the size of the low income population in the service area.
✓ One peer (San Joaquin RTD) has classified routes as below-poverty-level or above-poverty-level. To identify disproportionate burden, they analyze change to vehicle revenue miles on affected on below-
poverty-level-classified routes compared to change to vehicle revenue miles on affected above-poverty-level-classified routes.
✓ The threshold for identifying a disproportionate burden varies among peers from 10 percent to 25 percent.

Policy Considerations for Disproportionate Burden

The disproportionate burden policy should include:
✓ **The population that the low income population is compared to.** The purpose of the service equity policy is to ensure lack of discrimination against low income populations. It would make sense to compare the low income population compared to the general population.
✓ **The percentage threshold that when exceeded would be a disproportionate burden.** This should likely be the same percentage established for disparate impact of 15% to 20% but FAX has the option of considering alternative thresholds.

**Table 3 - Peer Disproportionate Burden Policies**

<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Disproportionate Burden Policies (Low income only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Tran Tucson, AZ</td>
<td>A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects by 20% or more than the adverse effects borne by the general populations.</td>
</tr>
<tr>
<td>ABQ RIDE Albuquerque, NM</td>
<td>A Disproportionate Burden exists when the percent of low income households adversely affected by a major service change is greater by 10% than the average percent of low income households in the service area.</td>
</tr>
<tr>
<td>GET Bus Bakersfield, CA</td>
<td>A Disproportionate Burden exists when the low income population adversely affected by a major service change is more than 10% than the average low income population of the service area.</td>
</tr>
<tr>
<td>Sun Metro El Paso, TX</td>
<td>A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects over 25% than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>San Joaquin RTD Stockton, CA</td>
<td>A Disproportionate Burden exists if the percentage of vehicle revenue hours on below-poverty-level classified routes affected by the major service change is at least 25% higher than the percentage of vehicle revenue hours on above-poverty-level classified routes affected by the major service change.</td>
</tr>
<tr>
<td>Sacramento RT Sacramento, CA</td>
<td>A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects by 15% or more than the adverse effects borne by general populations.</td>
</tr>
</tbody>
</table>
Recommendation for Disproportionate Burden Policy

A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects by 20% or more than the adverse effects borne by the general population.

Title VI Analysis of “Faster FAX’ Network Redesign Scenario

An analysis of the impact of potential future service adjustments on minority, low-income and general populations served by FAX was conducted to gauge the degree to which the changes to the network currently under consideration would impact different groups. This analysis compared a model of the existing network to a future redesign scenario called “Faster FAX”, key elements of which were presented to the public in meetings, public workshops, and pop-up events. This scenario was designed to introduce elements of the 2015 “Strategic Service Enhancement” network into the system as currently operated.

Faster FAX

The Faster FAX network scenario describes a set of possible changes to the FAX network intended to improve the frequency of service to key destinations and high-density areas capable of generating high ridership per unit cost. Elements of this scenario are likely to be implemented by FAX in the future, though the ultimate design of the service to be implemented will depend on currently-available operational resources and the time of the service change in which they are introduced.

The major changes included in the Faster FAX scenario, compared to the existing network (i.e., the network since the implementation of FAX Q BRT in February 2018) are:

✓ Extension of FAX 15 high-frequency service on route 38-Cedar for the entire length of the route. Today, 15-minute service is available only on Cedar Avenue between River Park and Jensen Avenue. In the Faster FAX scenario, 15-minute service is available during peak and rush hour on all segments of the route, including the portion between Jensen Avenue and Cedar Avenue and Downtown Fresno passing through southwest Fresno. The changes to Route 38 also include the discontinuation of the existing deviation of the route in southwest Fresno off Walnut Avenue along Church Avenue and Belgravia Avenue serving Computech Middle School. While this increases the walk distance required to access the route, the shorter wait provided by the enhanced frequency of Route 38 (as well as new Route 29 on Martin Luther King Jr. (MLK) Boulevard, described below) will provide faster travel times between this area and other parts of the city.

✓ Provide future service on MLK Boulevard in southwest Fresno with a new 15 minute pilot project, Route 29, by discontinuing Route 32 in this area from downtown in order to provide service from downtown to southwest Fresno along Fresno Street to MLK Boulevard to North Avenue to the Fresno Industrial Park area bounded by Freeways 41 and 99 south of Freeway 180, home to Amazon, Ulta, DHL, and other businesses. Route 32 will operate as usual until the pilot project in launched at a time to be determined later.

✓ Route adjustment to routes 9 and 39. The segment of Route 9 west of Brawley Avenue is discontinued, and Route 39 is extended north to serve the area west of Highway 99. The extended Route 39 would use the same alignment as the current Route 9, except that instead of using Polk Avenue to reach Shaw Avenue from Fairmont Avenue, the redesigned Route 39 would circulate around Polk Avenue, Gettysburg Avenue, and Hayes Avenue, extending bus service to Inspiration Park and the nearby
neighborhoods for the first time. Service to the segments of Shields Avenue, Blythe Avenue, and Clinton Avenue currently served by the one-way turnaround loops of routes 9 and 39 would be discontinued. This service adjustment is mapped in detail in Figure 2.

✓ Route 26 is realigned at Chestnut Avenue, and would now run (described eastbound from Butler Avenue and Chestnut Avenue) south on Chestnut Avenue, east on Hamilton Avenue and north on Winery Avenue, before resuming its current route. This allows Route 26 to more directly serve the Senior Citizen’s Village and commercial area at the intersection of Kings Canyon Road and Peach Avenue, which was previously served by the loop of route 28 (discontinued with the implementation of FAX Q BRT service).

✓ Route 34 is realigned at its northern end, in order to facilitate a transfer with BRT and other FAX routes near River Park. Its existing north end one-way turnaround loop via Herndon Avenue, Cedar Avenue, Spruce Avenue, Millbrook Avenue, Nees Avenue, and First Street is replaced with two-way service to Riverpark via Millbrook Avenue and Alluvial Avenue. This improves access to both Kaiser Hospital and Saint Agnes Medical Center.

✓ Routes 33 and 35 would now operate every 30 minutes on Saturdays and Sundays, an increase from the current 45 or 60 minute headways each route runs on weekends today.

A map of Faster FAX is shown below in Figure 2. This map color codes each line by its midday frequency, the level of service that would be available between approximately 10 am and 3 pm. Dashed lines represent segments of new service (new routing or major frequency changes), while yellow lines represent currently served segments where service would be discontinued.
Figure 2 - Faster FAX Network Scenario
Faster FAX Title VI Service Equity Analysis

This section provides the analysis of the impact of Faster FAX on the distribution of service to minority and low-income communities, an overview of impacts that would be anticipated with future service changes introducing adjustments to the network consistent with this scenario. The Title VI analysis module provided in the transit planning software package Remix was used to conduct this assessment. A detailed description of the methodology used for this analysis is described here: https://www.remix.com/title-vi and is summarized in Appendix B.

The flow chart in Figure 1 shows the steps necessary for conducting the Title VI Service Equity Analysis. In essence, the following questions need to be answered in sequential order:

1. Does the Faster FAX service change exceed the proposed major service change threshold policy of 25% for one or more routes?
2. If yes to #1, does the Faster FAX service change require the minority population to bear adverse effects by 20% or more than the effects borne by the general population?
3. If yes to #1, does the Faster FAX service change require the low income population to bear adverse effects by 20% or more than the adverse effects borne by the general population?
4. If yes to #2 or #3, what are the service alternatives for a less discriminatory service change?

1. Does the Faster FAX service change exceed the proposed major service change threshold policy of 25% for one or more routes?

To answer question #1, Table 4 below shows the change in the distribution of service for the Existing System compared to Faster FAX. The far right column indicates whether or not the proposed 25% major service change threshold policy by route has been exceeded.

Of the changes included in Faster FAX, changes to three routes meet or exceed the Major Change threshold of +/- 25% change in annual revenue hours or miles. The routes exceeding this threshold are routes 9, 29/32 and 39; Route 9 is shortened, and Route 39 is extended to serve the segment of Route 9 where service is discontinued. The service level of this segment (30-minute frequency throughout the day, with 60-minute service in the evenings) remains the same. New Route 29, a high-frequency 15-minute pilot project connecting Downtown Fresno and the North Pointe Business Park located southwest of the intersection of North Avenue and East Avenue, replaces route 32 south of Courthouse Park, and therefore the combined Route 29/32 exceeds the major change threshold of 25%.
Table 4 - Change in Distribution of Service by Route

<table>
<thead>
<tr>
<th>Route</th>
<th>Existing Network (Actual Annual Revenue Hours and Miles from Trapeze Export)</th>
<th>Faster FAX (Estimated Annual Revenue Hours and Miles)</th>
<th>% Change Revenue Hours and Miles</th>
<th>Meets or Exceeds Major Changes Threshold (+/- 25%)?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Revenue Hrs.</td>
<td>Revenue Miles</td>
<td>Revenue Hrs.</td>
<td>Revenue Miles</td>
</tr>
<tr>
<td>1</td>
<td>70285</td>
<td>764299</td>
<td>70285</td>
<td>764299</td>
</tr>
<tr>
<td>9</td>
<td>36813</td>
<td>418247</td>
<td>30249</td>
<td>303504</td>
</tr>
<tr>
<td>20</td>
<td>15105</td>
<td>186913</td>
<td>16056</td>
<td>196097</td>
</tr>
<tr>
<td>22</td>
<td>24337</td>
<td>298409</td>
<td>24768</td>
<td>291822</td>
</tr>
<tr>
<td>26</td>
<td>27006</td>
<td>345523</td>
<td>30120</td>
<td>333179</td>
</tr>
<tr>
<td>28</td>
<td>37674</td>
<td>413402</td>
<td>39786</td>
<td>394852</td>
</tr>
<tr>
<td>29/32</td>
<td>25541</td>
<td>269995</td>
<td>40716</td>
<td>247651</td>
</tr>
<tr>
<td>33</td>
<td>7981</td>
<td>97841</td>
<td>8226</td>
<td>101756</td>
</tr>
<tr>
<td>34</td>
<td>33339</td>
<td>356457</td>
<td>36720</td>
<td>386251</td>
</tr>
<tr>
<td>35</td>
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<td>167338</td>
<td>13692</td>
<td>159208</td>
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<td>41708</td>
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<td>39</td>
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<td>23825</td>
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<td>26473</td>
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<td>30120</td>
<td>335508</td>
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<tr>
<td>45</td>
<td>13227</td>
<td>186316</td>
<td>13194</td>
<td>184299</td>
</tr>
<tr>
<td>58</td>
<td>3916</td>
<td>65493</td>
<td>3786</td>
<td>64324</td>
</tr>
<tr>
<td>Total</td>
<td>391950</td>
<td>4613115</td>
<td>429966</td>
<td>4869895</td>
</tr>
</tbody>
</table>

2. Since Routes 9, 29/32 and 39 exceed the major service change threshold, does the Faster FAX service change on any of these three routes the minority population to bear adverse affects by 20% or more than the effects borne by the general population?

Table 5 is a summary of the disparate impact analysis for Routes 9, 29/32, and 39. On Route 9, minorities bear an 8.4% disparate impact compared to the general population, but is significantly less than the 20% disparate impact threshold. Routes 29/32 and 39 have a positive impact on minority populations with Faster FAX providing a higher level of service to minority populations than the general public. An example of these improved service levels is the 15-minute service on the new Route 29 from Courthouse Park to North Pointe Business Park via Fresno Street, Martin Luther King (MLK) Boulevard, North Avenue, Orange Avenue, Central Avenue and East Avenue.
Table 5 – Disparate Impact on Minority Populations

<table>
<thead>
<tr>
<th>Route</th>
<th>Disparate Impact for Minorities*</th>
<th>Exceeds 20% Threshold?</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>8.42%</td>
<td>No</td>
</tr>
<tr>
<td>29/32</td>
<td>-8.43%</td>
<td>No</td>
</tr>
<tr>
<td>39</td>
<td>-0.81%</td>
<td>No</td>
</tr>
</tbody>
</table>

* % impact borne more by minorities compared to general public. Negative percentage means minorities bear less burden or benefit more than the general population.

An important finding of the analysis is that the Faster FAX service has no disparate impact on minority populations that exceed the 20% threshold.

3. Since Routes 9, 29/32 and 39 exceed the major service change threshold, does the Faster FAX service change on any of these three routes the low income population to bear adverse affects by 20% or more than the effects borne by the general population?

On Routes 9 and 39, there is about a 1% disproportionate burden on low income populations compared to the general public, as seen in Table 6. The reconfigured Routes 29/32 has a positive impact on low income populations. This is also very likely due to the improved service level of 15-minute service on the new Route 29.

Table 6 – Disproportionate Burden On Low Income Populations

<table>
<thead>
<tr>
<th>Route</th>
<th>Disproportionate Burden Low Income*</th>
<th>Exceeds 20% Threshold?</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>0.93%</td>
<td>No</td>
</tr>
<tr>
<td>29/32</td>
<td>-5.76%</td>
<td>No</td>
</tr>
<tr>
<td>39</td>
<td>1.28%</td>
<td>No</td>
</tr>
</tbody>
</table>

* % impact borne more by low income individuals compared to general public. Negative percentage means low income individuals bear less burden than general population or benefit more than the general population.
An important finding of the analysis is that the Faster FAX service has no disproportionate burden on low income populations in Fresno.

With no disparate impact on minority populations and no disproportionate burden impact on low income populations, there is no need for FAX to make service adjustments to address any discriminatory issues.

Public Involvement

Public involvement is a problem-solving approach, which brings together community members and planners to discuss complex issues facing the communities and their residents. Working together to achieve a common goal, this partnership encourages affected parties to bring forward unique ideas and solutions to potential issues. As each community member is different, so too are their hopes and aspirations and the ways to implement them. By listening to each other, the decisions generated will reflect the greater community at large.

The process of community engagement is most successful when the process is transparent with access to decisions, services, and information for all interested stakeholders and community members. The active participation of the community ensures that the outcomes are better tuned to meeting the community’s needs today and into the future. State and federal transportation laws, regulations, policies, and guidance require and encourage public involvement throughout the planning process, particularly in regard to environmental justice populations and underserved communities, including low-income and minority populations.

Public Involvement Plan

It was vital to have a written document that clarifies the outreach program for the Faster FAX Plan so that FAX and other affected agencies, and the public understood how they could become involved and provide input during the Plan development process. Hence, a Public Involvement Plan (PIP) was prepared that clarifies the outreach program.

It was critical to communicate recommended changes to the FAX transit network and the public in a timely and effective manner. A major goal of the plan was to reach out to nontraditional as well as traditional audiences to include them in the implementation process. Lack of information or understanding of how the system works is often a significant barrier to utilization.

The aim of the PIP was to connect with community stakeholders; including community members, schools, public agencies, underserved populations, business community, and community-based organizations, youth, seniors, and elected officials. An integral part of a plan was to reach bus passengers, businesses, and property owners, particularly near the transit routes. The database of contacts developed during the public involvement phase of the FCMA Strategic Service Evaluation Project and the Consultant Team’s existing databases covering Fresno served as the mailing list for meetings, announcements, newsletters, project documents and other initial project notices. A key stakeholder lists was also developed and used to keep all stakeholders up to date on the proposed changes.
Multiple public involvement and information strategies and activities were conducted to support the separate branding strategy, route changes and generate interest and participation from the community. Key among the strategies was a basic customer opinion survey as part of the plan to obtain an early indication of public feedback on the proposed changes.

Public Participation Objectives

For the public and agencies to effectively evaluate and comment on the Faster FAX Plan, they must be adequately informed about the study and understand the details associated with the analysis. The PIP is designed to provide a roadmap for the process that maximizes public engagement and information, and at the same time create opportunities for stakeholders and interested members of the public to provide input. The objectives of the PIP included:

- Identify effective coordination and communication with affected public agencies.
- Ensure broad-based involvement in the Plan development process.
- Engage a variety of interests and stakeholders, as well as the public-at-large, especially those who have not been involved in the outreach process historically.
- Provide meaningful opportunities for involvement and input before, after, and during Workshops covering seven (7) geographic areas or “communities” within the City of Fresno.
- Listen to and fully consider participants’ comments and concerns while at the same time documenting the issues.
- Ensure that expectations and the desires of the public, stakeholders, and the elected officials are met.
- Educate the community by helping it envision the Faster FAX System.
- Maximize engagement opportunities and disseminate Project information in a proactive and timely manner.
- Provide clear, concise information regarding the project.
- Build awareness among the general public and decision makers utilizing innovative methods and combinations of different public engagement techniques.
- Establish opportunities for early and continuing public engagement and provide adequate notice.
- Provide the public a reasonable opportunity to comment on the proposed Plan by utilizing methods, aside from traditional public meetings, such as email correspondence and web-based outreach strategies.

Public Engagement Activities

As part of the Faster FAX Plan development process, the Project Team utilized several participation and communication methods to ensure that continuous public access to Project information was provided throughout the planning process.

It is important to ensure that the public, interested parties, and stakeholder groups have ample opportunities to provide informed input throughout the planning process. For this to happen a variety of public engagement activities were used to reach each different audience in the most effective manner. Factors considered in determining the most appropriate public engagement tool included the size and type of audience, level, awareness and knowledge of transportation issues, geographic distributions, and preferred formats. The most effective public engagement efforts use a combination of methods and
technologies to convey and receive information; build awareness; provide resources; and develop relationships. The public outreach methods used to keep the public informed were:

✓ PIP.
✓ Stakeholder Database.
✓ Project Webpage.
✓ Media Relations.
✓ Fact Sheets/Brochures.
✓ Surveys.
✓ Public Workshops.
✓ Stakeholder Meetings and Interviews.
✓ Pop-Up Events and Materials.
✓ Staffing public information booths at key transit centers and high-volume locations.

A complete copy of the Public Outreach Synopsis for this effort can be found in Appendix C.

Completed Public Involvement Activities

One of the major components of the planning process being used to help inform the development of the Faster FAX Plan is receiving comments and input from the public. To help achieve public input during this phase of the project, the Project Team participated in multiple outreach activity events in October through December 2017. These outreach events included public workshops, pop-up events, and a media event. Public workshops allowed the Project team an opportunity to hear from and provide access to information regarding the Faster FAX Plan to all residents, employers, and other stakeholders representing all the diverse socioeconomic characteristics of the Study Area. Workshop locations were chosen to provide geographic equity across the Fresno Metropolitan Area. Pop-up events were a subset of the public workshops and called for short, but meaningful interactions with the public at already established events. The Project Team participated in the following public involvement activities:

✓ October 1, 2017 – Cencalvia Open Streets pop-up event at the FAX Information Booth located on Ventura Avenue, between First Street and Cedar Avenue. Materials disseminated at the Cencalvia Open Streets event included fliers of the workshops in November and December 2017.
✓ October 14, 2017 and October 15, 2017 – Big Fresno Fair Pop-up event at the Fresno Council of Governments (Fresno COG) Fair Booth located at 1121 S. Chance Ave. Materials disseminated at the Big Fresno Fair included fliers of the upcoming in November and December 2017.
✓ October 30, 2017 – Media Event at Fresno City Hall Media Room located at 2600 Fresno Street, and held between 11:00 AM – 12:00 PM.
✓ November 4, 2017 – Workshop at Fresno City College, Skylight Room located at 1101 E. University Avenue, and held between 11:00 AM and 1:00 PM.
✓ November 6, 2017 – Workshop at the Central Valley Regional Center located at 4615 N. Marty Avenue, and held between 5:30 PM and 7:30 PM.
✓ November 7, 2017 – Workshop at the Mosqueda Community Center located at 4670 E. Butler Avenue and held between 5:30 PM and 7:30 PM.
✓ November 8, 2017 – Workshop at the Frank H. Ball Community Center located at 760 Mayor Avenue and held between 5:30 PM and 7:30 PM.
✓ November 9, 2017 – Workshop at the Woodward Library, Woodward Park Meeting Room located at 944 E. Perrin Avenue, and held between 10:00 AM and 12:00 PM.
✓ November 9, 2017 – Workshop at the Pinedale Community Center located at 7170 N. San Pablo Avenue and held between 5:30 PM and 7:30 PM.
✓ November 11, 2017 – Workshop at the Holmes Community Center located at 212 S. First Street and held between 11:00 AM and 1:00 PM.
✓ November 11, 2017 – Veteran’s Day Parade Pop-up event at the FAX Booth located in downtown Fresno by the Old Fresno Water Tower on Fresno Street and O Street and held between 10:00 AM and 2:00 PM. Materials disseminated at the Veteran’s Day Parade included a notice of the Wrap-Up Workshop to be held on December 6, 2017 at the Pinedale Community Center, a short explanation of the Faster FAX Plan, and a short survey to determine participant opinion regarding the Draft Plan.
✓ November 28, 2017 - Pop-up presentation to Leadership Counsel invitees at Jane Addams Elementary School held between 9:00 and 11:00 AM. The event included a PowerPoint presentation and two group exercises.
✓ December 6, 2017 – Wrap-up Workshop at the Pinedale Community Center located at 7170 N. San Pablo Avenue and held between 5:30 PM and 7:30 PM.

Workshop Noticing

All noticing was completed in both English and Spanish and was posted online and in the targeted newspaper, at least one (1) week, but no more than two (2) weeks prior to scheduled workshops. Noticing strategies included the following:

✓ Email content created for all workshops scheduled. Content included a workshop flyer with the date, time, and location information of all workshops. Content was distributed via email to the Stakeholder Database, which included well over 400 contacts including stakeholders, elected officials, the general public, and other government agencies.
✓ A regional workshop notice was placed in the Vida En El Valle (Spanish version of the Fresno Bee) newspaper.
✓ The workshop flyer was provided to FAX and posted to the project webpage, and to its social media links such as Facebook and Twitter.
✓ Graphical posters were created and distributed to FAX for placement on each of the City’s transit buses, and to select Community Based Organizations (CBOs) for posting. All information was provided in English and Spanish.

Finally, the Project Team coordinated with FAX staff and other members of the Project Team (reference Project Team Members in the Public Outreach Synopsis) to ensure that members of disadvantaged and disabled communities were engaged and invited. The Project Team also contacted every CBO, Faith-Based Organization (FBO), health associations, youth organizations, and college and school district identified in the Stakeholder Database to assist with the identification and noticing of workshop participants.

Conducting Each Workshop Session

A total of eight (8) workshops were held as part of the outreach efforts for this study, with a total attendance of approximately 120 people. Each of the venues used for the workshops met the following criteria: equitable geographic distribution; adequate space for attendees, displays, and involvement exercises; low venue cost; ADA accessible; and directly accessible to public transportation.
Spanish language interpreters and headsets were available at all workshops. Meeting announcement information regarding special accommodations was also provided.

The workshops followed an open house format and included an introductory PowerPoint presentation (reference English and Spanish PowerPoint in the Public Outreach Synopsis). Each of the workshops, (except for the Wrap-Up Workshop where noted below) included the following elements:

- **✓** Public input on Title VI policies, including the threshold changes, disparate impact and disproportionate burden. Options from earlier tasks would be provided with the rationale for recommended policies. Input would be solicited from participants on both the policy options and the recommended policies. Each of the displays/handouts are provided in the Public Outreach Synopsis.

- **✓** A review of the key findings of the Draft Strategic Service Evaluation and the three scenarios evaluated. The recommendation from that study effort were explained to individual attendees. In addition, the “Jane” travel distances from three scenarios were shown to illustrate the travel time, residential and job access from a key location in each of the seven (7) geographic areas or “communities” within the City of Fresno. Maps of the existing, productivity, and coverage scenarios, as well as the “Jane” scenarios generated from Remix, were also available so that participants could understand the strengths, weaknesses, and opportunities for refinement on the recommended network from the Strategic Service Evaluation. Finally, a review of lifeline mobility options for residents located in lower demand areas that currently do not generate sufficient fixed-route ridership. Each of these displays are provided in the Public Outreach Synopsis.

- **✓** The Project Team incorporated the use of Turning Point software, a tool that allows the Project Team to not only educate, but to gather ideas and input simultaneously from everyone attending a workshop. Turning Point can solicit answers, selections, and priorities using a real-time response key pad. The software provides the opportunity to stratify the polling results by stakeholder group and other demographic information received during the poll. A poll was not conducted at the Wrap-Up Workshop.

- **✓** Two group exercises were conducted at the workshops to receive critical feedback regarding funding priorities for various FAX service improvements and priority elements that FAX should consider as the Draft Faster FAX Plan is implemented. Group exercises were not conducted at the Wrap-Up Workshop.

- **✓** Comment cards were available for comments and feedback.
The Project Team displayed the existing FAX network and the Draft Strategic Service Evaluation recommended network (reference Public Outreach Synopsis).

A map of the existing FAX route structure was available to attendees so that they could post comments regarding a specific route or issue using Post It Notes. This made it easy for the Project Team and FAX to identify attendee issues with specific routes and other route amenities/characteristics. The Public Outreach Synopsis provides the resulting comments from each workshop.

A map of Fresno was also made available to attendees to post where their residential neighborhood was located and the location of their primary daily destination. A map was not available at the Wrap-up Workshop.

As noted above, translation was provided at all workshops using available translation equipment.

Comment sheets and workshop displays were also translated for ease of understanding.

The Project Team also provided stations for registration, comments, and refreshments.

During the Wrap-up workshop, attendees were presented with a synopsis of all polling, group exercise results, and comments received during the seven (7) workshops conducted in November 2017 and as described above.

Summary of Workshop Findings

Polling

Results of each poll conducted at most of the workshops are provided in the Public Outreach Synopsis. A total of 67 workshop attendees participated in the polling exercise. A synopsis of each question polled for all workshops combined is also provided in the Public Outreach Synopsis. A few of the workshops were lightly-attended; therefore, a poll was not conducted. Major findings for combined polling included:

- 75% of workshop attendees lived in the City of Fresno and thirty percent were between the ages of 51 and 65.
- More than a third of the workshop attendees were public citizens; public agency staff accounted for just under a third of attendees.
- 81% of attendees have regular access to a motor vehicle and more than half of the attendees drove a car to the workshop location; 17% arrived via bus.
- If a car is not available, 33% of attendees use the bus for transportation while 34% would ask a friend, neighbor, or relative for a ride.
- 23% of attendees take FAX four or more days a week with the most important trip noted as to and from work.
- About 30% of the respondents are not sure if the Draft Faster FAX Plan will be better for them or their family and friends; 25% feel that the Draft Faster FAX Plan is definitely not better for their neighborhoods; but 31% do feel that it is better for Fresno.
- More than half of the respondents do not feel that the Draft FAX Plan will lead them to take transit for work or family trips.
- 32% of workshop attendees feel that if FAX were able to obtain more funding that the best service option for the low-density areas seeing less service from the Draft Faster FAX Plan would be coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount.
✓ 44% of respondents noted that well-paved, well-lighted safe sidewalks and other pathways would offset the longer distances between stops for faster FAX service *(FAX has noted that the City of Fresno Public Work Department is responsible for improvements related to sidewalks and other pathways).*

✓ Over 60% of attendees felt that the Turning Point technology used at the workshop was very effective.

✓ 26% of attendees heard about the workshops through a noticing email.

**Group Exercises**

As mentioned previously, two group exercises were conducted at the workshops to receive critical feedback regarding funding priorities for various FAX service improvements and priority elements that FAX should consider as the Draft Faster FAX Plan is implemented. Results of the Priority Funding Improvement exercise and the System Feature Priorities exercise for each Workshop are provided in the Public Outreach Synopsis along with a total for all workshops.

The top three FAX Priority Funding Improvements for all workshops combined were:

✓ Improving frequency of buses.
✓ Real time information (electronic signs and internet) at all bus shelters showing when the bus arrives.
✓ Extensions of routes to additional areas of Fresno including new activity centers.

The top three FAX System Feature Priorities for all workshops combined included:

✓ Ease of bus transfers between FAX buses.
✓ Reliability (on-time buses).
✓ Safety and security.

**Comment Cards**

Comment cards were available for comments and feedback at all of the public workshops. Comments received at each individual workshop and comments received during or following the workshop series can be found in the Public Outreach Synopsis. Primary comments received included:

✓ Public friendly interface for real-time (GPS) information.
✓ Faster, more frequent service.
✓ Faster, more efficient transfers.
✓ Expanded routes, less wait time.
✓ Increase frequencies over coverage.
✓ Additional weekend hours.
✓ More frequent service, especially evenings for FAX 45 and Clovis 50.
✓ Extended night services; need west side services for Zacky Farms and Cargill after 11:30pm.
✓ Accessible public transportation for students @ Clovis Community College.
✓ Services to Veteran’s Home.
✓ Add services for Fig Garden Loop area.
✓ Add services for Herndon between West & Willow.
✓ Expand services at S. Peach and E. Church.
✓ On bus Wi-Fi and portable electronic charging stations.
✓ Bike share would be helpful for the last mile.
✓ Stronger promotion of transit-oriented development.
✓ Deeper integration with other jurisdictions and agencies.
✓ Express routes connecting to major transportation hubs and serving more education institutions.
✓ Building a foundation for a regional light-rail system connecting with other cities.

**Mapping**

As mentioned previously, a map of the existing FAX route structure was available to attendees so that they could post comments regarding a specific route or issue using Post It Notes. This made it easy for the project Team and FAX to identify attendee issues with specific routes and other route amenities/characteristics. The Public Outreach Synopsis contains summarized comments for each workshop.

**Pop-up Events (Information Booths), Materials, and Results**

Pop-up event materials were available for dissemination at short, but meaningful interactions with the public that allowed their feedback to be incorporated into the Draft Plan while ultimately reaching a significantly higher number of residents than a traditional public workshop. The Project Team worked with FAX staff to provide materials for dissemination at high-volume locations in the City of Fresno. Such locations included the Big Fresno Fair, the Cencalvia Open Streets event, and the Veteran’s Day Parade.

Materials disseminated at the Big Fresno Fair (October 14 and 15, 2017) and the Cencalvia Open Streets (October 1, 2017) events included fliers of the workshops in November and December 2017.

Materials distributed at the Veteran’s Day Parade (November 11, 2017) included a notice of the Wrap-Up Workshop to be held on December 6 at the Pinedale Community center, a short explanation of the Draft
Faster Fax Plan, and a short survey (described below) to determine participant opinion regarding the Draft Plan.

The Project Team developed and implemented a survey instrument aimed at gathering general public transit user feedback on the proposed system changes. The survey form was provided to participants at the Veteran’s Day Parade. The survey form and results from the survey can be found in the Public Outreach Synopsis. Approximately 55 completed surveys were submitted by participants. Primary survey results indicate that a majority of participants (46%) agreed that the Draft Faster FAX Plan would be better for them, 44% believed that more comfortable stops should be provided to off-set longer distances between some stops in order to make FAX service faster, and 28% of participants indicated that coordinated Uber/Lyft service to reach the nearest FAX line discounted to 40% should be utilized to off-set a few areas in Fresno where less FAX bus service will occur under the Draft Faster FAX Plan. Comment cards completed at the Veteran’s Day Parade can be found in the Public Outreach Synopsis, common themes include:

✓ Love the system, keep up the good work.
✓ East/West buses should run more often, including weekends.
✓ Bus stops should have shade coverings and benches.
✓ Drivers need more customer service training; need to be patient with riders.
✓ SE/SW Fresno needs transportation, most benefit to them.
✓ More frequent service, with longer hours, less wait time.
✓ Need buses between Ashlan and Shields on Willow.
✓ Evening services.
✓ Buses are not safe; adult fist fighting with no help.
✓ Buses leaving riders because a shift was over.

Other Outreach

One (1) additional event was held following the workshops to receive additional input from the community. On November 28, 2017 the Leadership Counsel for Justice and Accountability invited the Consultant Team and FAX Staff to Jane Addams Elementary to present information related to the Faster FAX Plan and receive input from attendees. Approximately 18 attendees were present and provided valuable input regarding existing route issues and the proposed Plan. Sign in sheets, comments cards, and polling results from the presentation can be found in the Public Outreach Synopsis.

Stakeholder Interviews

The consultant team sought stakeholder input on the Draft Faster FAX Plan, as presented at the November workshops. The stakeholder outreach built upon and was coordinated with a parallel set of interviews performed for a parallel Long Range Transit Plan study for Fresno COG; the two efforts resulted in approximately 25 interviews. Stakeholder groups consulted include major employers and educational institutions, FAX management, other transit transportation providers, City and County officials, health providers, educational institutions and youth groups and environmental advocates.

For a typical interview, the Draft Faster Fax Plan was provided in advance; questions were tailored to individual interviewees but generally asked:
✓ What are you hearing from your institution or clients about getting around that is relevant to the Draft Faster FAX Plan, or to longer term transit planning and trends?
✓ From your group’s and your clients’ perspectives, what are the most important areas for FAX to focus on?
✓ Other topics important to the stakeholder (e.g., safety).

Below are the major themes from the stakeholder interviews.

**Route Specific comments on the Faster FAX Plan**
✓ The County sees a need for 30 minute service on Route 45 due to planned consolidation of social services.
✓ More tripper services are needed at some high schools.
✓ There was a general sentiment that the route changes be well publicized to riders and potential riders.

**Key Longer Range Comments**

**General**
✓ There is significant appreciation for FAX services among key stakeholders.
✓ Public sector stakeholders understand the dilemmas posed increasing costs of providing transportation services and maintaining infrastructure with limited funding.
✓ Some stakeholders understand constraints on FAX, e.g., funding source limitations farebox requirements – but many do not.
✓ While there is some movement toward more compact growth in parts of Fresno, sprawl continues and makes transit service more difficult.
✓ Timely information is key: Many don’t know what transit options are available to them.
✓ Existing services need improved frequency, later evening service, and improved connectivity before expansions are considered.
✓ Goal should be to reduce the time it takes by transit between key “Points A and B.”

**Safety, Convenience and the Image of Transit**
✓ Perceived issues with safety and security riding bus, bike, and walking make consideration of alternatives to driving difficult for some.
  - Transit volunteers – regular riders with simple uniforms were suggested by some. Volunteers would provide directions and a sense of order on buses and would be able to summon aid without involving the driver in minor incidents.
✓ Transit to many is not safe and “cool” (several stakeholders mentioned this). YARTS was offered as an example of a safe, cool, and fun transit option.
  - Wi-Fi on buses was suggested to make transit more attractive.
  - Bathrooms at major stops were also viewed as a valued amenity.

**Educational Institutions and Major Employers**
✓ The community colleges are growing and there will be a deficit of parking – a transit market if the right services can be provided.
✓ Bulk fare programs (e.g., where a college ID becomes a fare card) are viewed a good way to promote ridership but such programs need promotion and a champion to be successful, even at the colleges where they are currently implemented.
✓ Other, non-educational employers and medical providers were intrigued by bulk fare programs for their employees but had no plans to implement such a program.

Compact Development, Economic Development, Infill, and Transit Services
✓ Transit is more and more a part of land use decision-making, but local control over land use decisions still leads to decisions without consideration of mobility options.
✓ Mixed use development is possible, but current zoning is a big problem.
✓ Local government officials need access to training or education about the value of Transit, TOD and mixed-use.
✓ Improved investment in local community mobility options and traditional demand response services is supported.

Coordination with Other Modes
✓ Sidewalk improvements and quality bus stops.
✓ Active transportation infrastructure improvement is “in style.” FAX needs to coordinate and benefit with active transportation plans and projects.
✓ There was support for secure bike parking at transit facilities and bike racks at stops.
✓ Connectivity to schedules of intercity transportation providers is important; seamless connections are critical.
✓ Land use opportunities for affordable housing and mixed-use development adjacent to high speed rail is an important opportunity.

Collaborative Decision-making
✓ Collaboration with all government and nongovernmental entities is needed for effective transit service. Competing interests often do not match the needs of the riding public.
✓ There needs to be a better job including voices that have been historically excluded.
✓ School districts and students need to be at the table. High school students offered very insightful and detailed critiques of services and issues.
FAX Onboard Survey

Methodology

A survey of FAX passengers was conducted on four weekdays, a Saturday, and a Sunday between January 12th and January 18th, 2018, excluding the Martin Luther King Jr. holiday on January 15th. The survey sample included morning, midday, and evening runs. Survey staff were trained to ask every rider who appeared over 12 to complete the questionnaire. Staff briefly explained the purpose of the survey, offered a pencil, and were available to answer questions and assist as needed. Most survey staff were bilingual and those who were not were able to convey that the questionnaire was available in Spanish. Survey staff wore a smock identifying themselves as part of the transit survey team.

The survey questionnaire was distributed on 8.5x14 cardstock with English and Spanish on opposing sides. Individual questionnaires were serially numbered in order to keep track of the specific routes and trips they were distributed on. The final survey can be found in the FAX Onboard Survey Report. Survey staff kept a log of the passengers that did not accept a questionnaire separated into the following categories: rider was under 12, there was a language barrier, rider had already completed the survey, or general refusal. Passengers who were unable to complete the survey onboard were instructed to turn the survey into any driver by the following day.

During the six days that the onboard survey was conducted, survey staff approached approximately 5,366 riders aged 12 or older. Of these, 2,904 accepted a questionnaire and 2,444 completed the questionnaire. Among the people who did not accept a questionnaire 366 were marked down as having a language barrier, 874 had already completed the survey, and 2,096 were general refusals. Of those eligible to complete the survey, the response rate was 45.5%. Additionally, on January 17th two survey staff distributed the survey to passengers boarding and alighting from FAX buses at the downtown transit center. Survey staff asked for and recorded the route number for each person that returned a survey. There were an additional 82 surveys collected at the transit center, and these surveys have been included as part of the onboard survey analysis. A complete copy of the FAX Onboard Survey report can be found in Appendix D.

Prior to analysis, the data set was weighted to reflect actual ridership by route. This eliminates any disproportionality in response rates and ensures that the information included in this report is representative of FAX’s overall ridership.

A separate survey effort using the same questionnaires was conducted to gather input from Punjabi and Hmong populations. Nearly all questionnaires were completed at religious spaces. In many cases, a translator interpreted the questions and recorded the answers for the respondent. Most respondents were of an older age segment, as younger people tend not to attend religious events as regularly or tended not to congregate with elders when filling out the questionnaires. The results of these surveys are discussed separately in a later section of this report.
How Riders Use FAX

Frequency Riding

Riders were asked how many days out of the past seven they rode FAX. A large proportion (39%) of FAX riders are frequent riders who use the bus six to seven days per week, as seen in Figure 3. Regular riders that use the bus four to five days per week make up another 36%. The final quarter of riders are occasional riders who ride one to three days per week. Predictably, people that were traveling for work or school were more likely to use the bus five or more days per week than people traveling for other purposes.

![Figure 3 - Days Ridden Per Week](image)

Another measure of intensity of use is the number of trips riders make on the bus in one day. For this purpose, a trip was defined as origin to destination even if the trip took more than one bus. Overall, 64% of riders made one to two trips on the day they were surveyed and 21% made four or more, as presented in Figure 4. Occasional riders were much likelier to take fewer trips in a day (81%) than regular and frequent riders. Frequent riders were likelier to take four or more trips in a day (34%).
**Duration of Use**

Figure 5 shows that a majority of FAX riders are long-term users, having begun riding in 2011 or before (6+ years). Twenty percent are new riders that began riding in 2016 or 2017. New riders were more likely to be on their way to/from school or college and are presumably students.
Trip Purpose

Riders were asked to select the main purpose of their bus trip. About half of all riders were making commute trips traveling for work or school, with 26% going to/from work, 11% elementary, middle, or high school, and 12% college or vocational school, as displayed in Figure 6. Non-commute riders reported traveling for a variety of other reasons, including social services, doctor or medical, shopping, errand or other appointment, social or recreation, and other trip purpose.

Figure 6 - Trip Purpose of Riders
Transportation Options

Use of Uber & Lyft

Riders were asked whether they’ve used the Uber and/or Lyft services in Fresno in the past month, for what purpose(s), and how often. Figure 7 shows than a third (38%) reported that they had used the services during the past month.

As displayed in Figure 8, Uber/Lyft usage rates were highest among riders who were employed part time (47%), full time (45%), and in college (43%). They were lowest among retired (23%) and not employed (27%) riders.

Figure 7 - Have you used Uber or Lyft in the City of Fresno in the past month?

Figure 8 - Employment Status of Uber or Lyft Users
When looking at the distribution of household income, there was no significant difference between FAX riders who had used Uber/Lyft and those that had not. There was also very little difference in the rate of Uber/Lyft usage between occasional, regular, and frequent FAX riders.

Figure 9 summarizes that riders aged 18 to 34 were more likely to have used Uber/Lyft. Riders aged 12-17 and over 35 were more likely to have not.

![Figure 9 - Age of Uber or Lyft Users and Nonusers](image)

Riders that used Uber/Lyft were asked which trip purposes they use the services for. Multiple purposes could be selected. Figure 10 shows that about half of the riders who used Uber/Lyft indicated that they use the services to get to/from work, the most common trip purpose. Medical (18%) and Social/Recreation (7%) were the least common trip purposes.

![Figure 10 - Trip Purposes of Uber or Lyft Users](image)
Most FAX riders who used Uber/Lyft do so infrequently. As seen in Figure 11, sixteen percent reported that they use the services less than once a week and 52% used the service once or twice a week. Another 25% used Uber/Lyft 3 to 6 times per week.

**Figure 11 - How Many Times Do You Ride Uber or Lyft Each Week?**

![](image1.png)

*How many times do you ride Uber/Lyft each week?*

**Driver’s License & Vehicle Availability**

In order to determine FAX riders’ dependence on transit, they were asked if they have a valid driver’s license and if a vehicle was available for them to drive for the trip they were currently making, as seen in Figure 12. A majority of riders (59%) reported that they don’t have a driver’s license and that there was not a vehicle available for their trip. Only 8% of riders indicated that a vehicle had been available and that they have a valid driver’s license.

**Figure 12 - Driver's License and Vehicle Availability**

![](image2.png)
Demographics

Age

Surveys were distributed to FAX riders aged 12 and older. As displayed in Figure 13, youth aged 12 to 17 accounted for 12% of returned surveys, however survey staff noted that riders in this age range were less likely to accept a survey.

The proportions of riders aged 25 to 34, 35 to 64, and 65+ are reflective of the City of Fresno population as a whole. The proportion of riders aged 18 to 24 (27%) is significantly higher than Fresno residents overall (12%), as presented in Figure 14.\(^1\)

Figure 13 - Age of Survey Respondents

Figure 14 – Age of Riders Compared to Age of City of Fresno Population

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\(^1\) The data for the City of Fresno is from the American Community Survey (ACS) 5-year estimates from 2012 to 2016. This data was not available for the category 12 to 17.
Employment Status

Riders were asked to describe their employment status by selecting one or more of the options shown in Figure 15 below. Most people selected only one option, however there are a small number of college students who are also employed part time. Riders who are employed full time and part time comprise 22% and 23%, respectively. A significant proportion of riders are not employed (23%).

College students account for 17% of riders and retired persons account for 9%. Riders in elementary, middle, and high school comprise 11%, but, as previously noted, this group was less inclined to accept a survey.

![Figure 15 - Employment Status of Riders](image)

Income

The household income of most FAX riders is quite low. As seen in Figure 16, more than three quarters of fax riders have a household income of less than $25,000. When compared to the annual income of the City of Fresno residents overall from the American Community Survey, the proportion of FAX riders with an annual household income under $10,000 is far higher (45%) than total city residents (10%).

Federal poverty levels vary depending on household size. The poverty level for a one-person household in 2017 is an annual income of $12,060 or less and $16,240 or less for a two-person household. Given these thresholds it can reasonably be assumed that a large proportion of FAX riders are living in poverty.
Language
Ten percent of FAX riders indicated that they primarily speak Spanish at home and a large majority (88%) of FAX riders reported that they speak English at home. Similarly, 97% of returned surveys were filled out in English and 3% in Spanish. Riders that speak Hmong and Punjabi are discussed separately in the Hmong and Punjabi section of this report.

Ethnicity
FAX riders were asked to select one or more ethnicities that describe themselves. The largest proportion of riders identified as Hispanic (45%). The second largest group identified as African American (24%) and the third largest identified as white (20%). A summary of the ethnicity of FAX riders is provided in Figure 17.

Figure 16 - Annual Household Income of Riders

Figure 17 – Ethnicity of Riders
Service Ratings

Riders were asked to rate six aspects of FAX service and FAX service overall on a scale of 1 (poor) to 7 (excellent). Figure 18 shows the distribution of responses for each service aspect and Figure 19 displays the average score for each. “How close the bus stops are to the places you need to go” received the highest proportion of excellent ratings (32%) and the highest average rating (5.41). FAX service overall received the second highest proportion of excellent ratings (27%) and average rating (5.37).

The bottom four service aspects received similar proportions of excellent ratings, ranging from 17% to 22%, and have similar average ratings. It is important to note that these four bottom service aspects are all important for growing ridership.

The service aspects with the largest proportion of poor ratings (ratings of a 1 or 2) were “The hours when the bus runs” and “The time required to take a trip.” The service attribute with the lowest mean rating was “How often the bus runs on time.”

Figure 18 - FAX Service Ratings
Potential Improvements

FAX Riders were asked to rate ten potential service improvements on a scale from 1 (not important) to 7 (very important). Figure 20 shows the distribution of responses for each potential improvement and Figure 21 displays the average importance rating for each improvement. Most potential improvements were rated as highly important and all but one improvement has an average score above 5.

The top five important improvements all pertain to service frequency or span of service improvements. “More routes with 15-minute service from 6 AM to 6 PM” received the highest importance rating with 65% of riders rating the importance at “7”, an additional 15% rating it at “6”, and an average score of 6.24. “More late night bus routes that run until 1 AM” received the second highest importance ratings.

The following five important improvements received very similar ratings in the middle of the spectrum:

- More frequent bus service on weekends.
- Extended service to new areas of Fresno.
- More frequent service on the route you ride most often.
- Realtime info displays at bus shelters.
- Bus shelters at more bus stops.

The lowest importance ratings went to:

- Better sidewalk access to bus stops.
- Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price.
- Bike share stations at major FAX bus stops.

However, these least important improvements were still rated “very important” by at least 25% of riders.
**Figure 20 - Importance of Service Improvements**

Importance of Service Improvements

- **7 Very Important**
- **6**
- **5**
- **4**
- **3**
- **2**
- **1 Not important**

- More routes with 15 minute service from 6 AM to 6 PM: 64% (Very Important), 15% (Important)
- More late night bus routes that run until 1 AM: 59% (Very Important), 13% (Important)
- More frequent bus service on weekends: 54% (Very Important), 18% (Important)
- Extended service to new areas of Fresno: 53% (Very Important), 17% (Important)
- More frequent service on the route you ride most often: 53% (Very Important), 17% (Important)
- Realtime info displays at bus shelters: 52% (Very Important), 17% (Important)
- Bus shelters at more bus stops: 51% (Very Important), 16% (Important)
- Better sidewalk access to bus stops: 41% (Very Important), 17% (Important)
- Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price: 38% (Very Important), 15% (Important)
- Bike share stations at major FAX bus stops: 25% (Very Important), 13% (Important)

**Figure 21 - Average Importance Rating for Service Improvements**

Average Importance Rating for Service Improvements

- More routes with 15 minute service from 6 AM to 6 PM: 6.24
- More late night bus routes that run until 1 AM: 5.95
- More frequent service on the route you ride most often: 5.93
- More frequent bus service on weekends: 5.92
- Realtime info displays at bus shelters: 5.91
- Extended service to new areas of Fresno: 5.91
- Bus shelters at more bus stops: 5.81
- Better sidewalk access to bus stops: 5.52
- Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price: 5.17
- Bike share stations at major FAX bus stops: 4.40
As seen in Figure 22, riders were asked which of the improvements they would choose if FAX could only make one, in order to clarify priorities. This produced a more varied spectrum of importance. The top five were the same service improvements that also received the highest proportions of high importance ratings.

“More late night bus routes that run until 1 AM” was the most popular priority improvement, selected by nearly a quarter of riders. The result was the same across trip purposes and all but one income category. This was the highest priority improvement that passengers would like to see implemented by a significant margin.

The second and third top choices each have to do with increased frequency. “More routes with 15 minute service from 6 AM to 6 PM” received 16% and “More frequent service on the route you ride most often” received 15%. The specific routes associated with riders who chose “More frequent service on the route you ride most often” are shown in Figure 38.

The least important improvements were “Better sidewalk access” at 4%, “Bike share stations at major FAX bus stops” at 3%, and “Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price at 3%.

Figure 22 - What is the Most Important Improvement?

<table>
<thead>
<tr>
<th>Which is the Most Important Improvement?</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>More late night bus routes that run until 1 AM</td>
<td>23%</td>
</tr>
<tr>
<td>More routes with 15 minute service from 6 Am to 6 PM</td>
<td>16%</td>
</tr>
<tr>
<td>More frequent service on the route you ride most often</td>
<td>15%</td>
</tr>
<tr>
<td>More frequent bus service on weekends</td>
<td>11%</td>
</tr>
<tr>
<td>Extended service to new areas of Fresno</td>
<td>11%</td>
</tr>
<tr>
<td>Realtime info displays at bus shelters</td>
<td>8%</td>
</tr>
<tr>
<td>Bus shelters at more bus stops</td>
<td>7%</td>
</tr>
<tr>
<td>Better sidewalk access to bus stops</td>
<td>4%</td>
</tr>
<tr>
<td>Bike share stations at major FAX bus stops</td>
<td>3%</td>
</tr>
<tr>
<td>Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price</td>
<td>3%</td>
</tr>
</tbody>
</table>
Figure 23 shows that more late night bus routes that run until 1 AM was the top choice for all trip purposes. Riders making work and shopping/errand trips especially favored more late night service. More frequent service was the second and third choices for most trip purposes, with one exception. People riding to social service or medical destinations slightly favored more frequent service on weekends over more frequent service on the route they ride most often.

There were little or no differences when selections for the most important improvement were compared by riders’ frequency of FAX usage, age, income, and whether or not they use Uber/Lyft.

**Figure 23 - Most Important Improvement by Trip Purpose**

<table>
<thead>
<tr>
<th>Most Important Improvement by Trip Purpose</th>
<th>Work</th>
<th>Elem/MS/HS</th>
<th>College</th>
<th>Soc. Service/ Medical</th>
<th>Shopping/ Errand/ Rec/Other</th>
<th>All Riders</th>
</tr>
</thead>
<tbody>
<tr>
<td>More late night bus routes that run until 1 AM</td>
<td>25%</td>
<td>19%</td>
<td>21%</td>
<td>22%</td>
<td>25%</td>
<td>23%</td>
</tr>
<tr>
<td>More routes with 15 minute service from 6 AM to 6 PM</td>
<td>15%</td>
<td>16%</td>
<td>19%</td>
<td>16%</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td>More frequent service on the route you ride most often</td>
<td>14%</td>
<td>18%</td>
<td>15%</td>
<td>12%</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>More frequent bus service on weekends</td>
<td>12%</td>
<td>8%</td>
<td>7%</td>
<td>14%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Extended service to new areas of Fresno</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
<td>11%</td>
<td>12%</td>
<td>10%</td>
</tr>
<tr>
<td>Realtime info displays at bus shelters</td>
<td>7%</td>
<td>11%</td>
<td>13%</td>
<td>8%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Bus shelters at more bus stops</td>
<td>7%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Better sidewalk access to bus stops</td>
<td>4%</td>
<td>5%</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Discounted Uber/Lyft/Taxi service to reach the nearest FAX bus stop</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Service Improvement Tradeoffs

Given limited resources, transit service levels often represent tradeoffs between various service aspects, dependent upon priorities. In order to determine riders’ priorities, they were asked four questions that required them to choose between two service alternatives.

As presented in Figure 24, the first tradeoff question matched bus frequency against the distance to a stop. Riders are willing to travel farther to a stop for more frequent service. There was a clear preference for “A bus runs every 15 minutes, but the bus stop is ½ mile away” (72%) over “A bus runs every 30 minutes, but the stop is ¼ mile away” (28%). This aligns with the finding that riders chose increases to bus frequency as the second and third most important improvements.

![Figure 24 – Results of First Tradeoff Question](image)

As displayed in Figure 25, the second tradeoff question compared the same bus frequencies against the overall service area. An expanded service area to new parts of Fresno was the fourth most popular selection for most important improvement, below the improvement rating for improve frequency. However, riders were very closely split when asked to choose between “Buses that run every 15 minutes but only operate in the current FAX service area” (52%) over “Bus routes that runs every 30 minutes and the service area is expanded to serve areas of Fresno not currently served” (48%). Overall, improved frequency is very important to passengers. However, input received from the public workshops on the need to expand service geographically is also important to 48% of existing FAX passengers when they had to choose between “Bus runs every 30 minutes and the service area is expanded or “Bus runs every 15 minutes with the same service area.”
“More late night bus routes that run until 1 AM” was chosen as the top most important improvement. However, in the third tradeoff question regarding late night service riders were almost evenly split on their preference for “Buses run until 11 PM on most routes” (51%) versus “Buses run until 1 AM on most popular routes” (49%), as seen in Figure 26.
The last tradeoff question compared the service hours and bus frequency of weekend service. There was a moderate preference for “Later service on weekends ending at 10 PM” (61%) over “More frequent service on the weekends, during the hours currently served” (39%), which is depicted in Figure 27.

Figure 27 – Results of Fourth Tradeoff Question

![Bar chart showing preferences: 39% for more frequent service; 61% for later service ending at 10 PM.]

Figure 28 compares the first two questions that include bus frequency tradeoffs. The highest proportion of riders (40%) chose both “A bus runs every 15 minutes, but the bus stop is ½ mile away” and “Buses that run every 15 minutes but only operate in the current FAX service area.” This again demonstrates a high preference for increased frequencies over other service improvements. The second most popular combination with 31% was “A bus runs every 15 minutes, but the bus stop is ½ mile away” and “Bus routes that runs every 30 minutes and the service area is expanded to serve areas of Fresno not currently served.”

Figure 28 – Comparison of Tradeoff Questions One and Two

<table>
<thead>
<tr>
<th>Scenario</th>
<th>31%</th>
<th>17%</th>
<th>40%</th>
<th>12%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A bus runs every 15 minutes, but the bus stop is ½ mile away</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A bus runs every 15 minutes, but the bus stop is ½ mile away</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A bus runs every 15 minutes, but the bus stop is ¼ mile away</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A bus runs every 30 minutes, but the service area expanded</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A bus runs every 15 minutes, same service area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Answers to the third and fourth tradeoff questions combined are shown in Figure 29. The highest proportion (33%) favored later service on weekends and buses that run until 1 AM on the most popular routes.

**Figure 29 – Comparison of Tradeoff Questions Three and Four**

<table>
<thead>
<tr>
<th></th>
<th>More frequent service on weekends, during current service hours</th>
<th>Later service on weekends, ending at 10 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buses run until 11 PM on most routes</td>
<td>22%</td>
<td>28%</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buses run until 1 AM only on most popular routes</td>
<td>16%</td>
<td>33%</td>
</tr>
</tbody>
</table>

**Comparison by Route**

This section presents the results of the onboard survey broken down by the route that the rider was on when they received a survey. Results that are considerably different between routes are noted, but in many cases, there were no significant differences. Route 58 was not included due to the low number of surveys returned for this route.

*How Riders Use FAX*

Figure 30 shows that for all routes, except route 39, more than half of riders are long term riders that have been riding FAX since 2011 or before. Routes 9, 39, 41, and 45 have relatively higher than average proportions of newer riders.

Most riders use FAX at least four days per week and take one to two trips per day. Route 9 and 33 have the highest proportions of occasional riders that ride only one to three days per week.
Route 9 has the highest proportion of riders (46%) going to/from work, however the results were fairly consistent across routes with most between 30% and 40%. Routes 26, 33, 39, and 41 have the highest proportions of students taking a trip to/from elementary, middle, and high school and routes 20, 28, and 39 have high proportions of college/vocational students. These results are displayed in Figure 31.
Transportation Options

As seen in Figure 32, most riders do not have a valid driver’s license nor a vehicle available for them to make their trip and this holds true across routes. Routes 9 and 45 have the relatively highest proportion of Uber/Lyft users and route 35 has the lowest.

**Figure 32 – Transportation Options for Riders by Route**

<table>
<thead>
<tr>
<th>Route</th>
<th>Valid driver’s license</th>
<th>Vehicle availability</th>
<th>Uber/Lyft Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes 30%</td>
<td>70%</td>
<td>21% 79%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 31%</td>
<td>69%</td>
<td>28% 72%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 32%</td>
<td>68%</td>
<td>15% 85%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 26%</td>
<td>74%</td>
<td>18% 82%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 32%</td>
<td>68%</td>
<td>14% 85%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 35%</td>
<td>65%</td>
<td>22% 78%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 36%</td>
<td>64%</td>
<td>22% 79%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 33%</td>
<td>67%</td>
<td>22% 78%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 35%</td>
<td>65%</td>
<td>14% 86%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 25%</td>
<td>75%</td>
<td>15% 85%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 29%</td>
<td>71%</td>
<td>17% 83%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 26%</td>
<td>74%</td>
<td>17% 83%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 25%</td>
<td>75%</td>
<td>15% 85%</td>
</tr>
<tr>
<td>No</td>
<td>Yes 38%</td>
<td>62%</td>
<td>14% 86%</td>
</tr>
<tr>
<td>Avg.</td>
<td>Yes 31%</td>
<td>69%</td>
<td>18% 82%</td>
</tr>
</tbody>
</table>

Demographics

Age

No single age group comprises a majority for any of the routes. As would be expected, the routes with higher than average proportions of riders aged 12 to 17 mirror those with high proportions of riders traveling to/from elementary, middle, and high school and riders who listed these as their employment status.

Routes 20 and 28 have high proportion of riders aged 18 to 24, that were traveling to/from college or vocational school, and that named college/vocational school as their employment status.

Route 20 also has the lowest proportion of riders aged 25 to 64. In most cases riders over the age of 65 comprise a very small share (0% to 7%). The exceptions are route 45 with 10% over age 65 and route 33 with 12%. An overall summary of the age of FAX riders can be seen in Figure 33.
Figure 33 – Age of Riders by Route

<table>
<thead>
<tr>
<th>Route</th>
<th>12 to 17</th>
<th>18 to 24</th>
<th>25 to 34</th>
<th>35 to 64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>11%</td>
<td>35%</td>
<td>20%</td>
<td>31%</td>
<td>4%</td>
</tr>
<tr>
<td>20</td>
<td>17%</td>
<td>42%</td>
<td>9%</td>
<td>24%</td>
<td>7%</td>
</tr>
<tr>
<td>22</td>
<td>5%</td>
<td>30%</td>
<td>17%</td>
<td>42%</td>
<td>5%</td>
</tr>
<tr>
<td>26</td>
<td>10%</td>
<td>27%</td>
<td>19%</td>
<td>40%</td>
<td>3%</td>
</tr>
<tr>
<td>28</td>
<td>7%</td>
<td>38%</td>
<td>21%</td>
<td>30%</td>
<td>5%</td>
</tr>
<tr>
<td>30</td>
<td>14%</td>
<td>20%</td>
<td>29%</td>
<td>33%</td>
<td>4%</td>
</tr>
<tr>
<td>32</td>
<td>8%</td>
<td>25%</td>
<td>22%</td>
<td>41%</td>
<td>4%</td>
</tr>
<tr>
<td>33</td>
<td>13%</td>
<td>29%</td>
<td>17%</td>
<td>29%</td>
<td>4%</td>
</tr>
<tr>
<td>34</td>
<td>17%</td>
<td>21%</td>
<td>22%</td>
<td>34%</td>
<td>7%</td>
</tr>
<tr>
<td>35</td>
<td>6%</td>
<td>33%</td>
<td>24%</td>
<td>31%</td>
<td>7%</td>
</tr>
<tr>
<td>38</td>
<td>18%</td>
<td>37%</td>
<td>18%</td>
<td>27%</td>
<td>1%</td>
</tr>
<tr>
<td>39</td>
<td>23%</td>
<td>25%</td>
<td>16%</td>
<td>36%</td>
<td>0%</td>
</tr>
<tr>
<td>41</td>
<td>20%</td>
<td>23%</td>
<td>16%</td>
<td>42%</td>
<td>0%</td>
</tr>
<tr>
<td>45</td>
<td>2%</td>
<td>25%</td>
<td>24%</td>
<td>39%</td>
<td>10%</td>
</tr>
<tr>
<td>Avg.</td>
<td>12%</td>
<td>29%</td>
<td>20%</td>
<td>34%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Language & Ethnicity

Figure 34 and Figure 35 show that riders who identify as Hispanic comprise the largest proportion for each route. Routes 20, 22, and 34 have higher than average percentages of riders who primarily speak Spanish.

Route 20 has a much higher than average share of riders who identify as African American (34%) and the highest share of both Native American riders (10%) and riders who identified as “Other.” Route 39 has the highest share of Asian riders (12%).

Figure 34 - Primary Language of Riders by Route
Income

FAX riders with annual household incomes under $20,000 comprise the majority across all routes. Routes 20, 26, 33, and 39 have especially high proportions of riders who have household incomes under $10,000. Household income data is played in Figure 36.

Figure 36 - Household Income of Riders by Route
Service Ratings

As seen in Figure 37, the average ratings for different aspects of FAX service by route. Riders on routes 9, 22, and 33 tended to rate FAX service characteristics positively, including FAX service overall.

Routes 22, 33, and 45 riders rated the proximity of stops to their destinations especially well, although this service characteristic was rated highly in general.

Riders on routes 39 and 45 tended to rate “How frequently the bus runs” relatively poorly. Route 39 has 30 minute service and Route 45 has 60 minute service frequencies.

Riders on routes 39 and 41 rated “The hours when the bus runs” relatively poorly. Both routes run until around 9 pm on weekdays and 7 pm on weekends.

Figure 37 - Average Service Ratings by Route

<table>
<thead>
<tr>
<th></th>
<th>9</th>
<th>20</th>
<th>22</th>
<th>26</th>
<th>28</th>
<th>30</th>
<th>32</th>
<th>33</th>
<th>34</th>
<th>35</th>
<th>38</th>
<th>39</th>
<th>41</th>
<th>45</th>
<th>Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do you rate FAX</td>
<td>5.6</td>
<td>5.3</td>
<td>5.8</td>
<td>5.3</td>
<td>5.3</td>
<td>5.2</td>
<td>5.7</td>
<td>5.4</td>
<td>5.4</td>
<td>5.1</td>
<td>5.2</td>
<td>5.4</td>
<td>5.4</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>How close the bus 22</td>
<td>5.6</td>
<td>5.4</td>
<td>5.7</td>
<td>5.5</td>
<td>5.4</td>
<td>5.3</td>
<td>5.4</td>
<td>5.7</td>
<td>5.3</td>
<td>5.4</td>
<td>5.5</td>
<td>5.2</td>
<td>5.2</td>
<td>5.7</td>
<td>5.4</td>
</tr>
<tr>
<td>stops are to your</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
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<td>destination</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How frequently the</td>
<td>5.3</td>
<td>4.9</td>
<td>5.5</td>
<td>4.9</td>
<td>4.9</td>
<td>5.0</td>
<td>4.8</td>
<td>5.2</td>
<td>5.0</td>
<td>5.1</td>
<td>4.6</td>
<td>4.8</td>
<td>4.6</td>
<td>5.0</td>
<td>5.0</td>
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<tr>
<td>bus runs</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The hours when the</td>
<td>5.0</td>
<td>4.9</td>
<td>5.4</td>
<td>4.8</td>
<td>4.9</td>
<td>4.9</td>
<td>4.7</td>
<td>4.9</td>
<td>4.9</td>
<td>4.8</td>
<td>4.6</td>
<td>4.5</td>
<td>4.7</td>
<td>4.9</td>
<td>4.9</td>
</tr>
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<td>bus runs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The time required to</td>
<td>5.0</td>
<td>4.7</td>
<td>5.3</td>
<td>4.9</td>
<td>4.8</td>
<td>4.8</td>
<td>4.6</td>
<td>5.3</td>
<td>4.9</td>
<td>4.8</td>
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<td>4.6</td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>make a trip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often the bus is</td>
<td>5.0</td>
<td>4.7</td>
<td>5.4</td>
<td>4.6</td>
<td>4.7</td>
<td>4.8</td>
<td>4.7</td>
<td>5.0</td>
<td>5.0</td>
<td>5.2</td>
<td>4.8</td>
<td>4.2</td>
<td>4.4</td>
<td>4.4</td>
<td>4.8</td>
</tr>
<tr>
<td>on time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Improvements

Riders’ selection for the most important improvement was fairly consistent across routes, as summarized in Figure 38. “More late night bus routes that run until 1 AM” was the top selection for all but one route - riders on route 45 showed a strong preference for “More frequent service on the route your ride most.” As stated above, this is not surprising as Route 45 has 60 minute service frequency.

Improvements to frequency of service on the route they ride most and from 6 AM to 6 PM were consistently the second and third most popular choice, with some exceptions. Riders on route 22 preferred “Extended service to new areas of Fresno” nearly as much as late night bus service, their top choice. Riders on route 30 preferred “More frequent bus service on weekends” as their second most popular choice.
Figure 38 - Most Important Improvements by Route

<table>
<thead>
<tr>
<th>Most important improvement?</th>
<th>Route 9</th>
<th>Route 20</th>
<th>Route 22</th>
<th>Route 26</th>
<th>Route 28</th>
<th>Route 30</th>
<th>Route 32</th>
<th>Route 33</th>
<th>Route 34</th>
<th>Route 35</th>
<th>Route 38</th>
<th>Route 39</th>
<th>Route 41</th>
<th>Route 45</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>More late night bus routes that run until 1 AM</td>
<td>21%</td>
<td>26%</td>
<td>22%</td>
<td>22%</td>
<td>23%</td>
<td>23%</td>
<td>26%</td>
<td>21%</td>
<td>21%</td>
<td>24%</td>
<td>23%</td>
<td>21%</td>
<td>28%</td>
<td>15%</td>
<td>23%</td>
</tr>
<tr>
<td>More frequent service on the route you ride most</td>
<td>13%</td>
<td>11%</td>
<td>13%</td>
<td>16%</td>
<td>14%</td>
<td>9%</td>
<td>16%</td>
<td>21%</td>
<td>14%</td>
<td>24%</td>
<td>14%</td>
<td>16%</td>
<td>15%</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td>More routes with 15 min service from 6AM to 6PM</td>
<td>12%</td>
<td>19%</td>
<td>6%</td>
<td>24%</td>
<td>17%</td>
<td>14%</td>
<td>17%</td>
<td>13%</td>
<td>17%</td>
<td>14%</td>
<td>15%</td>
<td>16%</td>
<td>12%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Extended service to new areas of Fresno</td>
<td>10%</td>
<td>10%</td>
<td>21%</td>
<td>7%</td>
<td>9%</td>
<td>12%</td>
<td>7%</td>
<td>5%</td>
<td>15%</td>
<td>8%</td>
<td>13%</td>
<td>10%</td>
<td>10%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>More frequent bus service on weekends</td>
<td>14%</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
<td>13%</td>
<td>15%</td>
<td>15%</td>
<td>11%</td>
<td>10%</td>
<td>3%</td>
<td>12%</td>
<td>6%</td>
<td>9%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Realtime info displays at bus shelters</td>
<td>12%</td>
<td>7%</td>
<td>6%</td>
<td>7%</td>
<td>9%</td>
<td>6%</td>
<td>6%</td>
<td>13%</td>
<td>7%</td>
<td>8%</td>
<td>6%</td>
<td>12%</td>
<td>11%</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>Bus shelters at more bus stops</td>
<td>6%</td>
<td>10%</td>
<td>9%</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>5%</td>
<td>9%</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
<td>7%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>Better sidewalk access to bus stops</td>
<td>6%</td>
<td>8%</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>5%</td>
<td>5%</td>
<td>7%</td>
<td>3%</td>
<td>6%</td>
<td>3%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Bike share stations at major FAX bus stops</td>
<td>3%</td>
<td>1%</td>
<td>7%</td>
<td>3%</td>
<td>2%</td>
<td>7%</td>
<td>1%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Discounted Uber/Lyft/Taxi to the nearest bus stop</td>
<td>3%</td>
<td>1%</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
<td>5%</td>
<td>4%</td>
<td>5%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Total

Service Improvement Tradeoffs

Figure 39 shows that across routes, riders consistently chose increased frequency to 15 minutes with a stop a ½ mile away over 30 minute frequency with a stop ¼ mile away.

Riders on routes 26, 35, and 38 showed a preference for 15 minute frequency in the same service area. Routes 26 and 35 currently have 30 minute service and route 38 has 15 to 20 minute service. Conversely, riders on routes 20, 32, and 45 showed a preference for an expanded service with 30 minute frequency. Routes 20 and 32 currently have 30-minute service. For route 45, 30 minute frequency would be an increase from the current 60 minute frequencies.

Riders on routes 20 and 45 preferred that buses run until 11 pm on most routes over buses running until 1 AM on the most popular routes. Both of these routes currently run until 9-10 pm on weekdays. Riders on routes 26, 35, and 58 preferred the opposite.

The tradeoff results for weekend service were fairly similar across routes with a moderate preference for later service on weekends over more frequent service during the same service hours.
This section presents the results of a concentrated effort to gather input from Hmong and Punjabi communities in Fresno. The surveys were filled out mostly at religious sites and none were distributed or completed onboard the bus. The analysis includes 96 completed surveys from riders who’s primary
language is Hmong and 342 surveys from riders who’s primary language is Punjabi. Selected charts below show the onboard survey results to provide context for how the communities differ from the overall FAX rider population.

**Demographics**

A majority (59%) of Hmong and most (84%) Punjabi survey respondents were over the age of 51, as seen in Figure 40. These proportions are much higher than FAX ridership overall with only 21% over the age of 51. Moreover, the largest portion (42%) of Punjabi respondents are retired compared to only 9% from the onboard survey. There were no Hmong and Punjabi respondents in elementary, middle, or high school. This overrepresentation of older Hmong and Punjabi riders is due to the survey collection method and should be taken into account for the following discussion of results.

**Figure 40 – Demographics of Hmong and Punjabi Riders**

<table>
<thead>
<tr>
<th>Age</th>
<th>HMONG n=96</th>
<th>PUNJABI n=342</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 to 23</td>
<td>12%</td>
<td>3%</td>
<td>35%</td>
</tr>
<tr>
<td>24 to 30</td>
<td>2%</td>
<td>2%</td>
<td>16%</td>
</tr>
<tr>
<td>31 to 43</td>
<td>10%</td>
<td>3%</td>
<td>20%</td>
</tr>
<tr>
<td>44 to 50</td>
<td>18%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>51 or older</td>
<td>59%</td>
<td>84%</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed full time</td>
<td>10%</td>
<td>12%</td>
<td>22%</td>
</tr>
<tr>
<td>Employed part time</td>
<td>32%</td>
<td>26%</td>
<td>23%</td>
</tr>
<tr>
<td>College Student</td>
<td>11%</td>
<td>3%</td>
<td>17%</td>
</tr>
<tr>
<td>Elem/MS/HS</td>
<td>0%</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>Not employed</td>
<td>33%</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>Retired</td>
<td>14%</td>
<td>42%</td>
<td>9%</td>
</tr>
</tbody>
</table>
How Riders Use FAX

The Hmong and Punjabi riders are relatively new to using FAX when compared to FAX ridership overall. Very few Hmong and Punjabi riders have been riding since 2011 or before, around half have been riding since 2012 to 2015, and a significant portion are new riders, as displayed in Figure 41.

The majority of Hmong and Punjabi riders tend to be occasional riders who use the bus one to three days per week and a smaller portion are regular riders who ride four to five days per week. Almost none are frequent riders, compared to 39% of overall FAX ridership. This finding aligns with dominant age and retirement status of the respondents.

**Figure 41 – How Hmong and Punjabi Riders Use FAX**
Transportation Options

A higher proportion (43%) of Hmong riders reported having a valid driver’s license than Punjabi riders and overall FAX ridership. Vehicle availability was very low (5%) for both Hmong and Punjabi riders. A summary of these findings is depicted in Figure 42.

[Figure 42 – Transportation Options for Hmong and Punjabi Riders]

<table>
<thead>
<tr>
<th></th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver’s License: Yes</td>
<td>43%</td>
<td>25%</td>
<td>32%</td>
</tr>
<tr>
<td>Driver’s License: No</td>
<td>57%</td>
<td>75%</td>
<td>68%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle available: Yes</td>
<td>5%</td>
<td>5%</td>
<td>18%</td>
</tr>
<tr>
<td>Vehicle available: No</td>
<td>95%</td>
<td>95%</td>
<td>82%</td>
</tr>
</tbody>
</table>

As presented in Figure 43, Hmong and Punjabi riders use Lyft and Uber at a much lower rate than FAX ridership overall. Only 16% of Hmong riders and 8% of Punjabi riders reported using Uber or Lyft in the past month. Of those that had, nearly all reported using the services only once or twice per week.

[Figure 43 – Uber or Lyft Usage for Hmong and Punjabi Riders]

<table>
<thead>
<tr>
<th></th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you use Uber/Lyft?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16%</td>
<td>8%</td>
<td>38%</td>
</tr>
<tr>
<td>No</td>
<td>84%</td>
<td>92%</td>
<td>62%</td>
</tr>
</tbody>
</table>

If yes, how many times per week?

<table>
<thead>
<tr>
<th></th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60%</td>
<td>48%</td>
<td>31%</td>
</tr>
<tr>
<td>2</td>
<td>40%</td>
<td>44%</td>
<td>21%</td>
</tr>
<tr>
<td>3</td>
<td>0%</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>4+</td>
<td>0%</td>
<td>0%</td>
<td>21%</td>
</tr>
</tbody>
</table>
Service Ratings

Hmong and Punjabi riders tended to rate service aspects and FAX service overall lower than the onboard survey respondents. Hmong riders tended to give neutral ratings. These riders rated the proximity of bus stops to their origin/destination and the time required to make a trip the highest. Punjabi riders rated how often the bus is on time the highest. Hmong and Punjabi service ratings are presented in Figure 44 and Figure 45.

Figure 44 - Service Ratings - Hmong

![Service Ratings - Hmong](image-url)

<table>
<thead>
<tr>
<th>Service Aspect</th>
<th>Hmong Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAX Overall</td>
<td></td>
</tr>
<tr>
<td>How often is the bus on time</td>
<td></td>
</tr>
<tr>
<td>Proximity of bus stops to your O/D</td>
<td></td>
</tr>
<tr>
<td>The time required to make a trip</td>
<td></td>
</tr>
<tr>
<td>How frequently the bus runs</td>
<td></td>
</tr>
<tr>
<td>The hours when the bus runs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hmong</th>
<th>The hours when the bus runs</th>
<th>How frequently the bus runs</th>
<th>The time required to make a trip</th>
<th>Proximity of bus stops to your O/D</th>
<th>How often is the bus on time</th>
<th>FAX Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4%</td>
<td>4%</td>
<td>11%</td>
<td>12%</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>5</td>
<td>15%</td>
<td>22%</td>
<td>19%</td>
<td>20%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>4</td>
<td>54%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>19%</td>
<td>44%</td>
</tr>
<tr>
<td>3</td>
<td>15%</td>
<td>14%</td>
<td>19%</td>
<td>16%</td>
<td>32%</td>
<td>17%</td>
</tr>
<tr>
<td>2</td>
<td>12%</td>
<td>22%</td>
<td>12%</td>
<td>9%</td>
<td>19%</td>
<td>7%</td>
</tr>
<tr>
<td>1</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>5%</td>
<td>5%</td>
<td>1%</td>
</tr>
</tbody>
</table>
### Figure 45 - Service Ratings - Punjabi

#### Service Ratings - Punjabi

<table>
<thead>
<tr>
<th>Service Rating</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAX Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often is the bus on time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity of bus stops to your O/D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The time required to make a trip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How frequently the bus runs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The hours when the bus runs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Punjabi

<table>
<thead>
<tr>
<th></th>
<th>The hours when the bus runs</th>
<th>How frequently the bus runs</th>
<th>The time required to make a trip</th>
<th>Proximity of bus stops to your O/D</th>
<th>How often is the bus on time</th>
<th>FAX Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>8%</td>
<td>13%</td>
<td>12%</td>
<td>14%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>6</td>
<td>26%</td>
<td>28%</td>
<td>22%</td>
<td>21%</td>
<td>22%</td>
<td>28%</td>
</tr>
<tr>
<td>5</td>
<td>21%</td>
<td>17%</td>
<td>17%</td>
<td>18%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>4</td>
<td>32%</td>
<td>29%</td>
<td>35%</td>
<td>28%</td>
<td>22%</td>
<td>36%</td>
</tr>
<tr>
<td>3</td>
<td>8%</td>
<td>6%</td>
<td>7%</td>
<td>9%</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>2</td>
<td>3%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>1</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Improvements

As seen in Figure 46, Punjabi riders chose “More frequent service on the route you ride most often” as their most important improvement. When asked which route this is, 37% chose route 9, 32% chose route 20, and 25% chose route 22. This improvement was a close second most popular among Hmong riders and they chose routes 22 (40%), 41 (20%), and 28 (17%).

The most popular choice for Hmong riders was realtime information displays at bus shelters. In contrast, this improvement ranked 5th or 6th among FAX riders overall. The second most popular choice among Punjabi riders was better sidewalk access to bus stops. Again, this improvement ranked 8th for FAX riders overall. The discrepancy in preference between Hmong/Punjabi and the onboard survey respondents does not seem to be a result of the difference in age, since riders 55 and older that responded to the onboard survey also ranked these two improvements as low priority.

**Figure 46 - Most Important Improvement for Hmong and Punjabi Riders**

<table>
<thead>
<tr>
<th>Most important improvement</th>
<th>HMONG</th>
<th>PUNJABI</th>
</tr>
</thead>
<tbody>
<tr>
<td>More frequent service on the route you ride most often</td>
<td>19%</td>
<td>25%</td>
</tr>
<tr>
<td>Better sidewalk access to bus stops</td>
<td>11%</td>
<td>20%</td>
</tr>
<tr>
<td>More routes with 15 minute service from 6 AM to 6 PM</td>
<td>6%</td>
<td>19%</td>
</tr>
<tr>
<td>Extended service to new areas of Fresno</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Bus shelters at more bus stops</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Realtime info displays at bus shelters</td>
<td>21%</td>
<td>9%</td>
</tr>
<tr>
<td>More frequent bus service on weekends</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>More late night bus routes that run until 1 AM</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>FAX bus stop at discounted price</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Bike share stations at major FAX bus stops</td>
<td>2%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Service Improvement Tradeoffs

Figure 47 shows that Hmong and Punjabi riders mirrored the preference of all riders for more frequent service that is a ½ mile away. Punjabi riders showed more of a preference for more frequent service over an expanded service area, a tradeoff that FAX riders overall were split evenly on.

Hmong riders preferred that buses run until 1 AM only on most popular routes over buses running until 11 PM on most routes, which is also a tradeoff that FAX riders overall were split evenly on.

Both Hmong and Punjabi riders expressed a moderate preference for more frequent service on weekends during current service hours rather than later service on weekends, the opposite of FAX riders overall.

Figure 47 – Service Improvement Tradeoffs for Hmong and Punjabi Riders

<table>
<thead>
<tr>
<th>Service Improvement</th>
<th>HMONG</th>
<th>PUNJABI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus runs every 15 min but stop is 1/2 mi away</td>
<td>81%</td>
<td>74%</td>
</tr>
<tr>
<td>Bus runs every 30 min but stop is 1/4 mi away</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>Bus runs every 30 min, service area expanded</td>
<td>46%</td>
<td>30%</td>
</tr>
<tr>
<td>Bus runs every 15 min, same service area</td>
<td>54%</td>
<td>70%</td>
</tr>
<tr>
<td>Buses run until 11 PM on most routes</td>
<td>35%</td>
<td>45%</td>
</tr>
<tr>
<td>Buses run until 1 AM only on most popular routes</td>
<td>65%</td>
<td>55%</td>
</tr>
<tr>
<td>More frequent service on weekends, during current service hours</td>
<td>58%</td>
<td>57%</td>
</tr>
<tr>
<td>Later service on weekends, ending at 10 PM</td>
<td>42%</td>
<td>43%</td>
</tr>
</tbody>
</table>
FAX Driver Surveys

A parallel survey of drivers was conducted by FAX, using selected questions from the on-board passengers, as well as questions to elicit drivers’ ideas for improving service in conjunction with the Route Restructuring. The survey form was a truncated version of the on-board rider survey and the drivers were selected to reflect the same routes covered by the rider survey.

The drivers echo public workshop participant’s preference for expansion of service to new areas. There was also a large segment in the onboard survey that wants additional service area covered: There was almost equal support among passengers between “Bus runs every 30 min, service area expanded” (48%) versus “Bus runs every 15 minutes, same service area” (52%). The drivers and community respondents both show a preference for more coverage, while current passengers are divided between wanting more coverage. Frequency has the highest rating for improvement, but there is a compelling number of passengers and the community who want expanded coverage.

Examining driver comments, the single most important change FAX should make is improving on-time performance. Driver comments and other data suggest that on-time performance is important to growing ridership. The FAX study has focused on routes and frequencies, but improved schedule adherence particularly at transfer points appears to be a critical need.

Drivers responded quite differently than passengers to the tradeoff questions: they strongly favor evening service until 11 pm as opposed to 1 am. Drivers generally do not favor discounted Uber/Lyft/Taxi service to reach the nearest FAX bus stop. They favor in real time information availability, and voiced support for Route 45 service going to 30-minute headways.

Nineteen drivers participated in the FAX driver survey. Results from the tradeoff questions are displayed in Figure 48. The full list of questions and a tabulated summary of responses can be found in Appendix E.

Figure 48 – Driver Surveys Tradeoff Question Results

<table>
<thead>
<tr>
<th>Question</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus runs every 15 min but stop is 1/2 mi away</td>
<td>71%</td>
</tr>
<tr>
<td>Bus runs every 30 min but stop is 1/4 mi away</td>
<td>29%</td>
</tr>
<tr>
<td>Bus runs every 30 min, service area expanded</td>
<td>81%</td>
</tr>
<tr>
<td>Bus runs every 15 min, same service area</td>
<td>19%</td>
</tr>
<tr>
<td>Buses run until 11 PM on most routes</td>
<td>82%</td>
</tr>
<tr>
<td>Buses run until 1 AM only on most popular routes</td>
<td>18%</td>
</tr>
<tr>
<td>More frequent service on weekends, during current service hours</td>
<td>47%</td>
</tr>
<tr>
<td>Later service on weekends, ending at 10 PM</td>
<td>53%</td>
</tr>
</tbody>
</table>
FAX FIXED-ROUTE SYSTEM
RESTRUCTURE STUDY

Title VI Service Equity Analysis Policies
Working Paper

REVISED DRAFT January 4, 2018

VRPA TECHNOLOGIES, INC.

AMMA TRANSIT PLANNING

mobility PLANNERS
FAX Title VI Service Equity Analysis Policies Working Paper

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Executive Summary

Introduction

As a recipient of funding from the Federal Transit administration, FAX is required to comply with FTA’s Title VI Requirements and Guidelines, as detailed in FTA Circular 4702.1B and authorized by the Civil Rights Act of 1964. For fixed transit providers operating more than fifty vehicles in peak service, these requirements include evaluating major service changes to determine whether those changes will have a discriminatory impact based on race, color, or national origin. This evaluation process is called a service equity analysis and requires development and adoption of multiple policies for conduct that is compliant with FTA guidance.

This paper serves to discuss, evaluate, and recommend service equity analysis-related policies that have not yet been adopted by FAX.

Title VI Service Equity Analysis Policies

Per FTA Circular 4702.1B, when a transit operator wishes to undertake changes over a certain threshold, the impact of those changes must be evaluated. The intent of this evaluation, a service equity analysis, is to identify any adverse effects on members of a group identified by race, color, or national origin.

The policies required to conduct a service equity analysis are:

- **Major Service Change Policy:** A major service change policy establishes a percentage threshold for what is a major service change. When that threshold is exceeded, it triggers a service equity analysis.

- **Disparate Impact Policy:** Disparate Impact is a facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin. The disparate impact policy establishes a threshold for determining when a major service change has a disparate impact on minority populations.

- **Disproportionate Burden Policy:** Disproportionate Burden is a facially neutral policy or practice that disproportionately affects low income populations more than non-low income populations. The Disproportionate Burden Policy establishes a threshold for determining whether a major service change has a disproportionate burden on low income populations versus non-low income populations.
Peer Review of Service Equity Analysis Policies

The service equity analysis policies of six of peer public transportation programs were reviewed to provide perspective on thresholds that may be appropriate for FAX. The six peer agencies were selected by FAX project staff and include Sun Tran, ABQ RIDE, Sun Metro, San Joaquin RTD, and Sacramento RT. Peers’ policies are presented in the following pages of this report. Review of these policies included noting the scale of thresholds for change or impact maintained by each peer; exemptions to agency-adopted policies; and criteria included in the policy. Policy considerations were developed from these observations to guide the FAX organization in developing its own Title VI service equity policies.

Drawn from these peer policy observations and informed by operational and demographic characteristics of the FAX public transportation program, recommended FAX service equity policies are presented here.

Major Service Change Policy

A Major Service Change adds or removes 25% or more:

1. Revenue miles on any route
2. Revenue hours on any route.

Recommended exemptions to the Major Service Change Policy are:

1. Initiation /discontinuance of temporary or demonstration services lasting 1 year or less
2. Initiation/discontinuance of any promotional fares
3. Changes to or suspension of routes due to natural or catastrophic disasters
4. Temporary route detours: short-term changes to a route caused by road construction, routine road maintenance, road closures, emergency road conditions, fiscal crisis, civil demonstrations, or any uncontrollable circumstance.
5. Initiation/discontinuance of any Special Event Routing.

Disparate Impact Policy

A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by 20% or more than the adverse effects borne by the general population in the affected area.

Disproportionate Burden Policy

A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects by 20% or more than the adverse effects borne by the general population in the affected area.
Introduction

As a recipient of funding from the Federal Transit administration, FAX is required to comply with FTA’s Title VI Requirements and Guidelines, as detailed in FTA Circular 4702.1B. For fixed transit providers operating more than fifty vehicles in peak service, these requirements include evaluating major service changes to determine whether those changes will have a discriminatory impact based on race, color, or national origin.

FAX has developed a 2016 Title VI Report demonstrating its compliance with Title VI requirements. The Title VI report includes how FAX complies with general reporting requirements and requirements for fixed route providers. While the requirement to evaluate service changes is addressed, including a discussion of FAX’s locally developed process for evaluating service changes, some elements expressed in FTA C4702.1B are not included.

This paper serves to discuss, evaluate, and recommend the additional service equity analysis-related policies that have not yet been adopted by FAX.

The recommendations were formulated in a meeting of the FAX representatives and consulting team. Both the peer analysis and public input received during the public participation process were considered. Final recommendations will be provided to the City of Fresno City Council at a future date.

Title VI Service Equity Analysis Requirements and Policies

FTA requirements for evaluating major service changes include developing the following policies:

- Major Service Change Policy
- Disparate Impact Policy
- Disproportionate Burden Policy

These policies must be developed with public input. Details about service equity analysis policies are provided below. The basis of Title VI and definitions of the three service equity policies were summarized in boards and handouts in English and Spanish and presented at eight community workshops. The community participation process for public input is described later in the working paper.

Major Service Change Policy

A major service change policy encompasses a percentage threshold for what constitutes a major service change. When that threshold is exceeded, it triggers a service equity analysis.

A major service change policy is typically presented as a numerical standard, such as a change that affects “x” percent of a route or “x” number of route miles or hours. There can also be a threshold for
the number of people affected. It can be route-specific or systemwide. If the threshold is exceeded, then a service equity analysis is required for disparate impacts for minority populations and disproportionate burden for low income populations.

**Disparate Impact Policy**

Disparate Impact is a *facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin*.

The Disparate Impact Policy establishes a threshold for determining when a major service change has a disparate impact on minority populations. That is, do minority populations bear more of the impacts than nonminority populations?

**Disproportionate Burden Policy**

Disproportionate Burden is a *facially neutral policy or practice that disproportionately affects low income populations* more than non-low income populations.

The Disproportionate Burden Policy establishes a threshold for determining whether a major service change has a disproportionate burden on low income populations versus non-low income populations. That is, do low income populations bear more of the impacts than non-low income populations.

The Disproportionate Burden Policy applies only to low income populations that are not also minority populations.

**Title VI Target Populations**

Title VI protects individuals from discrimination based on their race, color, or national origin. While low income populations are not specifically protected under Title VI, this population must be considered when evaluating service changes. FTA C 4702.1B states that, “recognizing the inherent overlap of environmental justice principles in this area, and because it is important to evaluate the impacts of service and fare changes on passengers who are transit-dependent, FTA requires transit providers to evaluate proposed service and fare changes to determine whether low income populations will bear a disproportionate burden of the changes,” (Chapter IV-11).

**Defining Minority Population**

Minority population means any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, are geographically dispersed/transient populations (such as migrant workers or Native Americans) who will be similarly affected by a proposed Federal Department of Transportation program, policy, or activity.

Minority persons include the following:

1. American Indian and Alaska Native, which refers to people having origins in any of the original peoples of North and South America (including Central America), and who maintain tribal affiliation or community attachment.
2. Asian, which refers to people having origins in any of the original peoples of the Far East,
Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

(3) Black or African American, which refers to people having origins in any of the Black racial groups of Africa.

(4) Hispanic or Latino, which includes persons of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

(5) Native Hawaiian or Other Pacific Islander, which refers to people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

**Defining Low Income Population**

Low income population refers to any readily identifiable group of low income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FTA program, policy or activity.

Low income person means a person whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines of 150 percent of the poverty line. Based upon 2017 Federal Poverty Levels, this would reflect an income of less than $18,090 for a single individual and less than $36,900 for a family of four.

**Title VI Service Equity Analysis Process**

FTA Title VI regulations provide guidelines for the development of the required Title VI service equity analysis procedures and the conduct of a service equity analysis. This process, also presented in Figure 1, is summarized here.

1. The transit provider must develop a Major Service Change Policy to identify what changes are considered “major.” Service changes that meet this threshold are subject to a service equity analysis.
   a. The transit provider shall engage the public in the decision-making process to develop the Major Service Change Policy.

2. The transit provider must develop a Disparate Impact Policy to establish a threshold for determining when adverse effects of service changes are borne disproportionately by minority populations.
   a. The transit provider shall engage the public in the decision-making process to develop the Disparate Impact Policy.

3. The transit provider must develop a Disproportionate Burden Policy to establish a threshold for determining when adverse effects of service changes are borne disproportionately by low income populations.
a. The transit provider shall engage the public in the decision-making process to develop the Disproportionate Burden Policy.

b. The transit provider’s approval of these policies must be included in the provider’s Title VI Program.

4. When the transit provider is considering changes that meet the established major service change policy, the transit provider must conduct an equity analysis.

   a. An equity analysis include shall evaluating the impacts of proposed service changes on minority and low income populations and use the establish thresholds to determine if any of the impacts will result in disparate burdens on minority populations of disproportionate burdens on low income populations.

   b. The transit provider must develop written procedures for evaluation of service changes consistent with FTA C 4702. 1B, Chapter IV, Section 7. Framework for these procedures are detailed in FTA C 4702. 1B.

5. If the threshold for disparate impacts or disproportionate burdens has been exceeded, the transit provider will take steps to avoid, minimize, or mitigate impacts where practicable.

   a. Where disparate impacts are identified, the transit provider shall provide a meaningful opportunity for public comment on any proposed mitigation measures, including any less discriminatory alternatives that may be available.

   b. The transit provider may implement the service change only the transit provider has a substantial legitimate justification for the proposed service change, and the transit provider can show that there are no alternatives that would have a less disparate impact.

   c. Additional requirements for analyzing and implementing alternatives are detailed in FTA C 4702. 1B, Chapter IV, Section 7.

   d. The written procedures and results of equity analyses and the board’s consideration, awareness, and approval of the analysis shall be included in the transit provider’s Title VI Program.
Figure 1, Title VI Service Equity Analysis Process Flowchart

1. Eight public workshops: input on Service Equity Analysis policies for Fresno Area Express (FAX).
2. Fresno City Council Reviews and Adopts FAX Service Equity Policies.
3. Does service change exceed major service change threshold policy?
   - No, no equity analysis.
   - Yes, service equity analysis initiated.
4. Does service change exceed disparate impact threshold for minority populations?
   - No, no disparate impact.
   - Yes, analyze alternatives for a less discriminatory service change.
5. Does service change exceed disproportionate burden impact threshold for low income populations?
   - No, no disproportionate burden.
   - FAX will evaluate service change alternatives to address the adverse impacts.
Review of Peer Policies

Introduction

The Title VI service equity analysis policies of several of FAX’s peers were reviewed to understand how similar agencies identify these policies. The six peer agencies were selected by FAX project staff and include Sun Tran, ABQ RIDE, Sun Metro, San Joaquin RTD, and Sacramento RT. The Title VI Program and policies of a seventh peer, Modesto Area Express, was reviewed but not included in this analysis as they are not required to develop these policies based on the number of vehicles they operate.
<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Major Service Change Thresholds</th>
<th>Exemptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Tran</td>
<td>A Major Service Change adds or removes <strong>25% or more</strong> of the: 1. Revenue miles on any route; 2. Revenue hours on any route; 3. Ridership on any route.</td>
<td>1. Initiation/discontinuance of temporary or demonstration services 2. Initiation/discontinuance of any promotional fares. 3. Natural or catastrophic disasters 4. Temporary route detours</td>
</tr>
<tr>
<td>ABQ RIDE</td>
<td>A Major Service Change increases or decreases service on any route by <strong>35% or more</strong> of the: 1. Revenue hours of service; 2. Service to bus stops on that route.</td>
<td>N/A</td>
</tr>
<tr>
<td>GET Bus</td>
<td>A Major Service Change is the establishment of a new transit route, or increases or decreases of <strong>25% or more</strong> of: 1. Route length of a route; 2. Revenue miles on a route; 3. Revenue hours on a route.</td>
<td>1. Discontinuance of temporary services 2. Adjustments during new line “Break-In” period 3. Forces of nature 4. Competing infrastructure failures 5. Reductions to overlapping services</td>
</tr>
<tr>
<td>Sun Metro</td>
<td>A Major Service Change is a reduction or increase of <strong>30% or more</strong> in: 1. Revenue miles on any service area or route; 2. Revenue hours on any service area or route.</td>
<td>1. Changes to routes with fewer than 20 total trips 2. Introduction/discontinuation of short/limited-term service 3. Sun Metro-operated transit service replaced by different mode or operator 4. Deactivation of routes with fewer than 10 passengers/hour or 1.0 passengers/mile after 6 months</td>
</tr>
<tr>
<td>San Joaquin RTD</td>
<td>A Major Service Change increases or reduces <strong>25% or more</strong> of: 1. Daily revenue miles of a route; 2. The number of transit route miles of a route.</td>
<td>1. Experimental or emergency service 2. Standard seasonal variations in service</td>
</tr>
</tbody>
</table>
Peer Major Service Change Policies

<table>
<thead>
<tr>
<th>Sacramento RT</th>
<th>Sacramento, CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Major Service Change:</td>
<td>1. Elimination of routes according to RT’s route sunset process</td>
</tr>
<tr>
<td>1. Creation of any new bus route exceeding <strong>150 daily revenue miles</strong>;</td>
<td>2. Creation/alteration/elimination of a supplemental route1</td>
</tr>
<tr>
<td>2. Creation of any new light rail route or extension of any existing light rail routes;</td>
<td>3. Emergency changes</td>
</tr>
<tr>
<td>3. Any change to an existing bus or light rail route that affects <strong>15% or more</strong> of daily revenue miles.</td>
<td>4. Creation/alteration/elimination of temporary/demonstration service lasting 1 year or less</td>
</tr>
<tr>
<td>4. Creation/alteration/elimination of special event service</td>
<td>5. Creation/alteration/elimination of special event service</td>
</tr>
</tbody>
</table>
Observations
Observations from the review of peer Major Service Change Policies included:

- All peer policies for major service changes are at the individual route level.
- Peer policies demonstrate how thresholds can apply to multiple criteria, such as revenue hours; revenue miles; route length; bus stops; or ridership. All peers used more than one criterion to define major service change.
- Major service change includes reductions and increases in service.
- The threshold for determining a major service change varies among peers from 15 percent change to 35 percent change on any route, including new and existing.
- Five of the six peers (all peers except ABQ Ride) identify exemptions to their Major Service Change Policy, including changes to demonstration, temporary, or special event services and changes due to emergencies or natural disasters.

Policy Considerations
The adopted major service policy should clearly state that:

- The percentage change that is considered “major”. A 25% percent threshold seems to be a reasonable threshold for being a major change, and is the midpoint of peer agencies.
- Major change is at the route level.
- The service parameters to be included. Keeping it simple as RTD in Stockton has done is one clear option. Including 1) the number of route miles of a route and 2) daily revenue miles provides two simple parameters as part of the policy.
- The exemptions that FAX would like to include in the policy. At a minimum, these exemptions should be included:
  - Emergency changes due to forces of nature
  - Temporary route detours
  - Elimination of a demonstration or pilot route lasting 1 year or less
  - Initiation/discontinuance of any promotional fares

Recommendation for Major Service Change Policy
A Major Service Change adds or removes 25% or more:

1. Revenue miles on any route
2. Revenue hours on any route.

Recommended exemptions to the Major Service Change Policy are:

1. Initiation/discontinuance of temporary or demonstration services lasting 1 year or less
2. Initiation/discontinuance of any promotional fares
3. Changes to or suspension of routes due to natural or catastrophic disasters
4. Temporary route detours: short-term changes to a route caused by road construction, routine road maintenance, road closures, emergency road conditions, fiscal crisis, civil demonstrations, or any uncontrollable circumstance.
5. Initiation/discontinuance of any Special Event Routing

Peer Disparate Impact Policies

<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Disparate Impact Policy (Minority only or Minority and Low income)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Tran</td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by 20% or more than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>Tucson, AZ</td>
<td></td>
</tr>
<tr>
<td>ABQ RIDE</td>
<td>A Disparate Impact exists when the percent of minorities adversely affected by a major service change is greater by 10% than the average percent of minorities in the service area.</td>
</tr>
<tr>
<td>Albuquerque, NM</td>
<td></td>
</tr>
<tr>
<td>GET Bus</td>
<td>A Disparate Impact exists when the minority population adversely affected by a major service change is more than 10% than the average minority population in the service area.</td>
</tr>
<tr>
<td>Bakersfield, CA</td>
<td></td>
</tr>
<tr>
<td>Sun Metro</td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects over 25% than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>El Paso, TX</td>
<td></td>
</tr>
<tr>
<td>San Joaquin RTD</td>
<td>A Disparate Impact exists if the percentage of vehicle revenue hours on minority-classified routes affected by the major service change is at least 25% higher than the vehicle revenue hours on non-minority-classified routes affected by the major service change.</td>
</tr>
<tr>
<td>Stockton, CA</td>
<td></td>
</tr>
<tr>
<td>Sacramento RT</td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by 15% or more than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>Sacramento, CA</td>
<td></td>
</tr>
</tbody>
</table>

Observations
The review of peers’ Disparate Impact Policies yielded the following observations:

- Three of the six peers (Sun Tran; Sun Metro; Sacramento RT) analyze the impact of changes to the minority population compared to the impact on the general population.
- Two peers analyze (ABQ Ride; Get Bus) impact of changes to the minority population compared to the size of the minority population in the service area.
- One peer (San Joaquin RTD) has classified routes as minority or non-minority. To identify disparate impact, they analyze change to vehicle revenue miles on affected minority-classified routes compared to change to vehicle revenue miles on affected non-minority-classified routes.

- The threshold for identifying a disparate impact varies among peers from 10 percent to 25 percent.

**Policy Considerations for Disparate Impact**

The disparate impact policy should include:

- The population that the minority population is compared to. The whole rationale of the service equity analysis is to ensure that discrimination against minority populations along route does not occur. The best basis for this comparison would appear to be the comparison with either non-minority populations or the general population.

- The percentage change threshold that when exceeded would be a disparate impact. Overall, a 10% threshold seems low and a 25% disparate impact seems like a very high bar for a disparate impact. A disparate impact of 15% to 20% would seem like a reasonable threshold.

**Recommendation for Disparate Impact Policy**

A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by **20%** or more than the adverse effects borne by the general population in the affected area.
### Peer Disproportionate Burden Policies

<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Disproportionate Burden Policies (Low income only)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sun Tran</strong></td>
<td>A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects by <strong>20%</strong> or more than the adverse effects borne by the general populations.</td>
</tr>
<tr>
<td>Tucson, AZ</td>
<td></td>
</tr>
<tr>
<td><strong>ABQ RIDE</strong></td>
<td>A Disproportionate Burden exists when the percent of low income households adversely affected by a major service change is greater by <strong>10%</strong> than the average percent of low income households in the service area.</td>
</tr>
<tr>
<td>Albuquerque, NM</td>
<td></td>
</tr>
<tr>
<td><strong>GET Bus</strong></td>
<td>A Disproportionate Burden exists when the low income population adversely affected by a major service change is more than <strong>10%</strong> than the average low income population of the service area.</td>
</tr>
<tr>
<td>Bakersfield, CA</td>
<td></td>
</tr>
<tr>
<td><strong>Sun Metro</strong></td>
<td>A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects over <strong>25%</strong> than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>El Paso, TX</td>
<td>Brews</td>
</tr>
<tr>
<td><strong>San Joaquin RTD</strong></td>
<td>A Disproportionate Burden exists if the percentage of vehicle revenue hours on below-poverty-level classified routes affected by the major service change is at least <strong>25%</strong> higher than the percentage of vehicle revenue hours on above-poverty-level classified routes affected by the major service change.</td>
</tr>
<tr>
<td>Stockton, CA</td>
<td></td>
</tr>
<tr>
<td><strong>Sacramento RT</strong></td>
<td>A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects by <strong>15%</strong> or more than the adverse effects borne by general populations.</td>
</tr>
<tr>
<td>Sacramento, CA</td>
<td></td>
</tr>
</tbody>
</table>

### Observations

The review of peers’ Disproportionate Burden Policies yielded the following observations:

- Three of the six peers (Sun Tran; Sun Metro; Sacramento RT) analyze the impact of changes to the low income population compared to the impact on the general population.

- Two peers analyze (ABQ Ride; Get Bus) impact of changes to the low income population compared to the size of the low income population in the service area.

- One peer (San Joaquin RTD) has classified routes as below-poverty-level or above-poverty-level. To identify disproportionate burden, they analyze change to vehicle revenue miles on affected on below-poverty-level-classified routes compared to change to vehicle revenue miles on affected above-poverty-level-classified routes.

- The threshold for identifying a disproportionate burden varies among peers from 10 percent to 25 percent.
Policy Considerations for Disproportionate Burden

The disproportionate burden policy should include:

- The population that the low income population is compared to. Again, the whole purpose of the service equity policy is to ensure lack of discrimination against low income populations. It would make sense to compare the low income population compared to the general population.

- The percentage threshold that when exceeded would be a disproportionate burden. This should likely be the same percentage established for disparate impact of 15% to 20% but FAX has option of considering alternative thresholds.

Recommendation for Disproportionate Burden Policy

A Disproportionate Burden exists if a major service change requires a low income population to bear adverse effects by 20% or more than the adverse effects borne by the general population.

Community Outreach

Per FTA C4702.1B, FAX engaged the public to develop these service equity analysis policies. A series of community workshops were held in November to solicit public input on the fixed route system restructure study and these policies. Eight workshops were held in the morning and evening in various locations throughout Fresno.

An information station was dedicated to Title VI issues to solicit input on the criteria and thresholds making up FAX’s Title VI service equity analysis policies. Considerable effort was taken to develop materials that communicated the service equity analysis purposes, process, and policies in plain language that could be readily understood by members of the public. Workshop materials included:

- Display board summarizing Title VI and the service equity analysis process and policies;
- Maps of minority and low income populations within FAX’s service area (shown in the picture at the right);
- Service Equity Analysis process flowchart (Figure 1);
- Handouts that presented the peer analysis of policies and encouraged participants to vote on appropriate thresholds and criteria for FAX’s policies.

Workshop Content:
- Introductory presentation
- Information stations
- Visioning exercise
- Interactive polling exercises
- Spanish Translation

Workshop Locations:
- Fresno City College
- Central Valley Regional Center
- Mosqueda Community Center
- Frank H. Ball Community Center
- Woodward Library
- Pinedale Community Center: workshop and wrap-up
- Holmes Community Center
- All boards and handouts were translated into Spanish. A member of the consultant team was present at the station to walk through the materials with participants, answer questions, and invite feedback.

Appendix A is the workshop poster publicizing the workshop including the invitation for the public to participate in establishing service equity policies.

Appendix B provides all of the handouts made available at the eight public workshops.

One of the English and Spanish handouts included summaries of FAX peer transit system’s service equity analysis policies and included a questionnaire soliciting public input on FAX’s service equity analysis policies. Appendix C summarize the results from the four respondents. Overall, this was too small of a sample size for any meaningful interpretation of the survey results.

Appendix D provides the four poster that we were utilized for the Title VI Service Equity Analysis station at seven of the public workshops.
Appendix B
Title VI Service Equity Analysis Methodology and Calculations
Service Equity Analysis Methodology and Calculations

This appendix provides documentation on how the service equity analysis was conducted for the Faster FAX service changes. The Title VI requirements, public participation process and recommended policies are fully documented in the FAX Fixed Route System Restructure Study report.

As described in the FAX Fixed Route System Restructure Study report, Routes 9, 29/32 and 39 all exceeded the proposed major service change threshold of 25%. Per the Title VI Circular, only routes that exceed the major service change threshold are subject to the service equity analysis.

The Title VI Circular on Service Equity Analysis (FTA C 4702.1B) guidelines provides transit operators the choice of either utilizing ridership data or population data for the analysis. FAX has chosen to utilize the population data analysis. FAX is licensed to Remix, a software platform that was utilizing for transit planning for the Faster FAX network. The software includes methodology for the Title VI service equity analysis. Described briefly, this method, for each scenario (Existing and Faster FAX):

✓ Calculates the number of annual trips provided on each route.
✓ Produces a shape representing the area within ¼ mile of each stop, and calculates the total population, minority population, and low-income population within ¼ mile of the route. The population data is American Community Survey 2009-13 data. Block group data is utilized.
✓ Multiplies the total number of bus trips per route by the total population of the routes’ service area, and the population of minority and low-income people in the route’s service area, to produce the number of trips provided per person per year (described as “total person-trips”, “minority person-trips”, and “low-income person trips”, respectively). It’s important to note that the total number of low-income or minority person-trips can approach or exceed the number of total person-trips, since some people are counted in both categories.
✓ Calculates the total difference in person-trips by subtracting the number calculated for all routes in the scenario from the number calculated for all routes in the existing network.
✓ Calculates the percentage of the change in total person-trips borne by the general population minority and low-income populations.

The output of Remix is a hypothetical number of total population, minority population, and low income population by multiplying the number of bus trips times the population within a ¼ mile of the existing and Faster FAX route. Therefore, the output has very large person trip numbers as the Remix methodology multiplies the total population times the number of trips on the route. It should be clear that this is the population estimate and NOT a ridership estimate.

The full documentation of the Remix methodology can be found at: https://www.remix.com/title-vi

Table 1 shows the output of person trips for the three routes with a major service change. In millions of person trip, the table shows how total, low-income and minority person trips there are for the existing FAX network compared to the Faster FAX network. For example, for Route 9, based on the Remix methodology of population living with a ¼ mile of Route 9 times the number of bus trip on Route 9, this equates 939 million total person trips, 418 million low-income person trips and 628 million minority person trip. With Faster FAX, with the shortened route length that would be picked up by Route 39, there are 797 million total person trips, 351 low-income person trips and 488 million person-trips. For Route 9, the proportion of Faster FAX person-trips is 85% for total trips, 84% of low-income individuals and 78% for minority individuals.
Table 1 - Person Trips by Route for Three Routes with Major Service Change (Existing Network and Faster FAX)

<table>
<thead>
<tr>
<th>Route</th>
<th>Total</th>
<th>Low-Income</th>
<th>Minority</th>
<th>Total</th>
<th>Low-Income</th>
<th>Minority</th>
<th>% Change Person-Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>939M</td>
<td>418M</td>
<td>628M</td>
<td>797M</td>
<td>351M</td>
<td>488M</td>
<td>85% 84% 78%</td>
</tr>
<tr>
<td>29/32</td>
<td>686M</td>
<td>555M</td>
<td>386M</td>
<td>1024M</td>
<td>859M</td>
<td>610M</td>
<td>149% 154% 158%</td>
</tr>
<tr>
<td>39</td>
<td>512M</td>
<td>258M</td>
<td>407M</td>
<td>723M</td>
<td>359M</td>
<td>579M</td>
<td>141% 139% 142%</td>
</tr>
</tbody>
</table>

Disparate Impact Calculations

For there to be a finding that there is no disparate impact for minority population, there has to be less than a 20% difference in the adverse effects of the minority populations before and after the major service change, compared to the general population.

Table 2 shows the Summary of Disparate Impacts for minority populations.

Table 2 – Summary of Disparate Impact for Minority Populations for Three Routes with Major Service Changes (Existing FAX Network compared to Faster FAX)

<table>
<thead>
<tr>
<th>Route</th>
<th>Disparate Impact Minorities*</th>
<th>Exceeds 20% Threshold?</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>8.4%</td>
<td>No</td>
</tr>
<tr>
<td>29/32</td>
<td>-3.6%</td>
<td>No</td>
</tr>
<tr>
<td>39</td>
<td>-0.81%</td>
<td>No</td>
</tr>
</tbody>
</table>

* % impact borne more by minorities compared to general public. Negative percentage means minorities bear less burden than general population or a positive benefit for minority populations

The formula for calculating disparate impact of minority populations is:

\[ \frac{1}{1 - \left(\frac{\text{minority person trips Faster FAX}}{\text{minority person trips Current FAX Network}}\right) / \left(\frac{\text{total persons trips Faster FAX}}{\text{total person trips Current FAX Network}}\right)} \]

For Route 9, utilizing the data (in millions) from Table 1:
\[
1 - \left(\frac{488/628}{797/939}\right) = 8.4\% \text{ (small rounding errors from truncating millions). 8.4\% is below the 20\% threshold for disparate impacts. Therefore, there is not a disparate impact for minority populations for Route 9.}
\]

Route 29/32 has a higher proportion of minority person trips due to the Faster FAX network when compared to the general population. There is a 158\% increase in person trips for minority trips from the Faster FAX network, compared to a 149\% increase for the general population. This results in a negative 3.6\% disparate impact, which means that minority populations have a positive benefit from the proposed changes. A small positive benefit is also realized for Route 39.

None of the three Faster Fax routes that result in a major service change have a disparate impact on minority populations that exceed the 20\% threshold.

**Disproportionate Burden Calculations**

For there to be a finding that there is no disparate impact for low-income populations, there has to be less than a 20\% difference in the adverse effects of the low-income populations before and after the major service change, compared to the general population.

Table 3 shows a summary of the disproportionate burden for the three routes that exceed the 25\% major service change threshold.

**Table 3 – Summary of Disproportionate Burden for Low Income Populations for Three Routes with Major Service Change (Existing FAX Network compared to Faster FAX)**

<table>
<thead>
<tr>
<th>Route</th>
<th>Disproportionate Burden Low Income*</th>
<th>Exceeds 20% Threshold?</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>0.93%</td>
<td>No</td>
</tr>
<tr>
<td>29/32</td>
<td>-5.76%</td>
<td>No</td>
</tr>
<tr>
<td>39</td>
<td>1.28%</td>
<td>No</td>
</tr>
</tbody>
</table>

* % impact borne more by low income individuals compared to general public. Negative percentage means low income individuals bear less burden than general population or a positive benefit for low-income populations.

The formula for calculating disparate impact of minority populations is:

\[
1 - \left(\frac{\text{low-income person trips Faster FAX}}{\text{low-income person trips Current FAX Network}}\right) / \left(\frac{\text{total persons trips Faster FAX}}{\text{total person trips Current FAX Network}}\right)
\]

For Route 9, utilizing the data (in millions) from Table 1:
1 - ((351/418))/((797/939)) = 0.93% (small rounding errors from truncating millions). 0.93% is below the 20% threshold and is therefore does not exceed the 20% threshold. Therefore, there is not a disproportionate burden for low income populations for Route 9.

For Route 29/32, low income populations have a positive benefit from the proposed Faster FAX service change with a 5.76% more low income person trips than the total general population person trips when comparing the proportions of the proposed Faster FAX to the current FAX network. The negative sign in Table 3 means less adverse impact for low income person or a positive benefit.

For Route 39, there is 1.28% more general population person trips compared to low income person trips, well below the 20% disparate impact threshold.

None of the three routes that have a major service change from implementation of Faster FAX have a disproportionate burden for low income populations.
Appendix C

Public Outreach Synopsis
Fresno Area Express
FIXED-ROUTE SYSTEM RESTRUCTURE PUBLIC INVOLVEMENT SERVICES

Draft
Public Outreach Synopsis
Outreach Activities Between October 1, 2017 and December 6, 2017

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December 15, 2017
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Introduction

Fresno Area Express (FAX) is considering implementing a significant number of service improvements that were developed during preparation of the Fresno Clovis Metropolitan Area (FCMA) Public Transportation Strategic Service Evaluation Project conducted through the Fresno Council of Governments (Fresno COG). The purpose of the project was to examine metropolitan travel patterns through extensive origin and destination studies, transit ride check and transfer studies, and public and stakeholder input with a goal of reducing transit travel times, and improving linkages to major trip generators.

The proposed adjustments require a very thorough review with the community, stakeholders and policy makers. VRPA Technologies, Inc. and its subconsultants are working with FAX staff to develop and implement a public review process that will lead to the adoption of a FAX Preferred Network Plan. Overall objectives of the FAX Preferred Network Planning process include the following:

✓ Conduct a Service Equity Analysis of the purposed FAX Preferred Network Plan for system changes, which includes an analysis of adverse effects relating to possible disparate impacts and disproportionate burdens - Underway.
✓ Prepare a public involvement plan that builds on the outreach and education strategies implemented during the Public Involvement phase of the FCMA Strategic Service Evaluation Project needs to be developed – Draft Public Involvement Plan (PIP) is complete.
✓ Implement the PIP to inform a wide range of people about the outcomes of the system evaluation effort and to ensure community stakeholders and residents are well engaged and informed about the impact of the proposed route changes – Underway.
✓ Provide direct community contact as the most effective way to get the project message out - Underway.
✓ Following the Title VI analysis, and initial public review, identify specific refinements to the Preferred Network Plan – To be completed.
✓ Provide final review and adoption of the FAX Preferred Network Plan – To be completed.
Public Involvement Plan Outreach Goals

The ultimate goal of the outreach process is to allow the public and other community members opportunities throughout the process to influence the development of the FAX Preferred Network Plan. The PIP reflects ways to identify and contact the community, inform them of the need for the FAX Preferred Network Plan, and involve them in the decision-making process. The PIP includes tasks that will identify the affected public creating an inventory of neighborhoods and school organizations, businesses, church groups, ethnic organizations, homeowners’ associations, environmental or cultural organizations, special interest groups and civil rights groups; educate the identified stakeholders on the planned FAX Preferred Network Plan; and provide opportunities for participation and feedback.

The goal of the PIP is to actively seek the participation of communities and their stakeholders, agencies, individual interest groups, and the general public throughout the FAX Preferred Network Plan development process. The PIP provides the framework for achieving consensus and communicating the decision-making process between the general public, public agencies, and governmental officials to identify solutions for the FAX Preferred Network Plan. Public involvement provides the public and agencies with continuing opportunities to be involved. Input from affected agencies and the public also lends credibility to key decisions made during the FAX Preferred Network Plan development process.

Organizational Structure

The FAX Preferred Network Plan planning process includes several tiers designed to ensure overall management of the analysis and planning phases as well as to secure appropriate guidance from the various audiences’ essential to the FAX Preferred Network Plan’s success.

Project Team

The Project Team consists of key FAX staff, several Community Based Organizations (CBOs), as well as staff from VRPA Technologies, Inc., the lead consultant, and its subconsultant affiliates. To ensure goals and objectives are addressed in a timely manner, the Project Team will meet on a weekly basis to monitor Plan progress, coordinate activities, identify strategic issues with development and next steps. The Project
Team is tasked with producing materials to be presented to specific audiences in the various tiers and the engagement activities to ensure that feedback is summarized and addressed as appropriate in the FAX Preferred Network Plan. A list of Project Team members can be found in Appendix A.

**Elected Officials**

Elected officials will be kept apprised of the planning process and their input sought. Information on Plan milestones and public meetings will be provided to elected officials to be distributed to their constituencies.

**Stakeholder Groups**

Stakeholders are organizations that serve as a vehicle for reaching a broader audience, having a strong interest in transit and transportation planning and a constituency that must be included in the process. Stakeholders also include members of other community or business organizations, governmental entities, or service organizations that have a high level of interest in the Plan and can work cooperatively with the Project Team on engagement activities. Stakeholders will receive detailed information about the Plan and be given opportunities to comment on existing conditions, future scenarios, and other critical path issues. The Project Team will work with stakeholders to keep the broader community informed on Plan progress and ask them to provide feedback as the development process advances. The stakeholder list will be updated throughout the process.

**Interested Parties**

Interested parties can either be organizations or individuals who learn of the Plan and express interest in receiving regular details related to the Plan and its development. This can include property owners, business owners, state and local officials, community groups and development corporations, local institutions, transit users, motorists and non-motorists. Any individual or group that shows interest in the Plan will be added to the stakeholder listing ensuring that receipt of meeting invitations, plan status updates, and other materials or information. Information about the project and all public meetings will be disseminated through as many avenues as possible to reach a broad cross-section of Fresno residents. This will include extending information through the above-mentioned committee structures as well as the outreach mechanisms listed below. Anyone who attends a public meeting or provides contact information through the Project webpage will be added to the stakeholder list. It is anticipated that
participation by interested parties will occur throughout the course of the FAX Preferred Network Plan development process.

Public Participation Objectives

For the public and agencies to effectively evaluate and comment on the FAX Preferred Network Plan, they should be adequately informed about the study and understand the details associated with the analysis. The PIP is designed to provide a roadmap for the process that maximizes public engagement and information at the same time that it creates opportunities for stakeholders and interested members of the public to provide input. The objectives of the PIP are:

✓ Identify effective coordination and communication with affected public agencies.
✓ Ensure broad-based involvement in the Plan development process.
✓ Engage a variety of interests and stakeholders, as well as the public-at-large, especially those who have not been involved in the outreach process historically.
✓ Provide meaningful opportunities for involvement and input before, after, and during Workshops covering seven (7) geographic areas or “communities” within the City of Fresno.
✓ Listen to and fully consider participants’ comments and concerns while at the same time documenting the issues.
✓ Ensure that expectations and the desires of the public, stakeholders, and the elected officials are met.
✓ Educate the community by helping it envision the restructured FAX System.
✓ Maximize engagement opportunities and disseminate Project information in a proactive and timely manner.
✓ Provide clear, concise information regarding the project.
✓ Build awareness among the general public and decision makers utilizing innovative methods and combinations of different public engagement techniques.
✓ Establish opportunities for early and continuing public engagement and provide adequate notice.
✓ Provide the public a reasonable opportunity to comment on the proposed Plan by utilizing methods, aside from traditional public meetings, such as email correspondence and web-based outreach strategies.
Key Audiences

As mentioned above, stakeholders for the study will include various groups or individuals who are affected by, or have an interest in the development of the FAX Preferred Network Plan. Because of the diverse audiences that will be participating in the study process, the Project Team will reach out to stakeholders in different ways, striving to identify, target and strategize on how best to engage each group and individuals. The PIP will create a structure for gaining an understanding of different community interests and characteristics. The following listing provides additional potential stakeholders:

- **Affected Public Agencies** including representatives of State transportation organizations, regional transportation planning staff and officials, local elected officials, economic development agencies, and others.
- **Public Transit and Transportation Users and Providers/Employers** including other regional transit providers and mass transit organizations.
- **Business Organizations** including the Chamber of Commerce, transit workers unions, and local businesses.
- **Educational Institutions** including universities, colleges, and school districts.
- **Persons with Disabilities** including those with visual, hearing, and mobility impairments, and the mentally challenged.
- **Cultural, Historical, and Resource Advocacy Groups.**
- **Representatives of Environmental Justice Organizations.**
- **Other Individuals and parties** including youth and seniors who may be interested in commenting.

Public Engagement Activities

As part of the FAX Preferred Network Plan development process, the Project Team is utilizing several participation and communication methods to ensure that continuous public access to Project information is provided throughout the planning process.

It is important to ensure that the public, interested parties, and stakeholder groups have ample opportunities to provide informed input throughout the planning process. For this to happen a variety of public engagement activities will be used to reach each different audience in the most effective manner. Factors to be considered in determining the most appropriate public
engagement tool include the size and type of audience, level, awareness and knowledge of transportation issues, geographic distributions, and preferred formats. The most effective public engagement efforts use a combination of methods and technologies to convey and receive information; build awareness; provide resources; and develop relationships. The public outreach methods that will be used to keep the public informed are:

- ✓ PIP
- ✓ Stakeholder Database
- ✓ Project Webpage
- ✓ Media Relations
- ✓ Fact Sheets/Brochures
- ✓ Surveys
- ✓ Public Workshops
- ✓ Stakeholder Meetings and Interviews
- ✓ Pop-Up Events and Materials
- ✓ Staffing public information booths at key transit centers and high-volume locations

**Stakeholder Database**

The Project Team continues to research and create one (1) stakeholder database. Existing databases have been compiled and augmented with additional interested members. The database contains the name of the agency or individual, their physical and email addresses, telephone number(s), notes regarding attendance at workshops or events, and comments received. This is an ongoing task throughout the FAX Preferred Network Plan development process, which includes adding stakeholder, workshop attendee, webpage commenter, pop-up event attendee, and other community outreach activity participant contact information to the growing database.

**Project Webpage**

The project has been included on the FAX webpage at the link below to provide user-friendly, easy Internet access to information about the FAX Preferred Network Plan planning process:
The Project Team coordinated with FAX’s webmaster and provided materials for posting related to the November 2017 Workshops and the Pop-Up Events. A final “Wrap-Up Workshop” was held on December 6, 2017 at the Pinedale Community Center. Such materials included the Workshop Flier (reference Appendix B and C), Workshop PowerPoint Presentation, and Polling Questions. All materials are provided in both English and Spanish. Also included on the Webpage are descriptions of the planning process and Title VI requirements. The webpage will continue to serve as a repository for all future documents related to the Project.

Media Relations

Social Media

Social networking has made significant strides in areas of civic engagement, which is just one of the reasons the Project Team suggested using FAX’s current social media platforms to engage greater numbers of City residents in the FAX Preferred Network Plan planning process. FAX and Project Team staff utilized Facebook and Twitter to post materials related to the November and December Workshops. The Project Team will continue to provide materials to FAX staff for posting Project-related updates on social media sites.

Other Media

Media relations related to the scheduled workshops was completed by FAX and other City Staff. Specifically, a media event was held on October 30, 2017 in the Media Room at Fresno City Hall. News outlets attended the event, along with City and FAX staff, and a member of the Project Team. The Project Team and City/FAX staff also distributed and sent a media advisory related to the workshops, which was distributed to print, television, radio, and online media by the City (reference Appendix D). A Public Service Announcement (PSA) with a video was also sent to the Lotus Communications Digital platform regarding the workshop series. Links for news articles and segments produced following the media event can be found below:
Public Workshops

Public workshops were held in November 2017 during the planning process as a way to disseminate information about the Draft Preferred Network Plan and its development process, as well as to secure feedback. The Project Team identified seven (7) workshops locations with the assistance of City and FAX staff. A final wrap-up workshop was held in December 2017. Appendix B (English) and C (Spanish) provide the locations, dates and time of each of the workshop conducted.

Workshop Noticing

All noticing was completed in both English and Spanish and was posted online and in the targeted newspaper, at least one (1) week, but no more than two (2) weeks prior to scheduled workshops. Noticing strategies included the following:

- Email content created for all workshop scheduled. Content included the date, time, and location information. Content was distributed via email to the Stakeholder Database, which included well over 400 contacts including stakeholders, elected officials, the general public, other government agencies.
- A regional workshop notice was placed in the *Vida En El Valle* (Spanish version of the Fresno Bee) newspaper.
- The workshop notice was provided to FAX and posted to the project webpage, and to its social media links such as Facebook and Twitter.
- Graphical posters were created and distributed to FAX for placement on each of City’s transit buses, and to selected CBOs for posting. All information was provided in English and Spanish.

Finally, the Project Team coordinated with FAX staff and other members of the Project Team referenced in Appendix A to ensure that members of disadvantaged and disabled communities were engaged and
invited. The Project Team also contacted every CBOs, Faith-Based Organizations (FBOs), health associations, youth organizations, and college and school district identified in the Stakeholder Listing to assist with the identification and noticing of workshop participants.

**Workshop Overview and Results**

Sign-in sheets for each workshop, including the Wrap-up Workshop, can be found in Appendix E and Appendix V. Attendees included:

- City of Fresno and FAX staff, employees, and representatives
- Planning Team Members
- Staff from the offices of Senator Andy Vidak (R-Hanford)
- County of Fresno staff including representatives from the Department of Public Health
- City of Clovis staff
- Fresno Handy Ride
- Transit unions
- Clovis Community College administrators, teachers, and students
- Central Unified School District staff
- State Center Community College District
- Fresno Economic Opportunities Commission (EOC)
- Veterans Home of California
- KG Communications
- Community Medical Center
- Resources for Independence Central Valley
- Cultiva La Salud
- Leadership Counsel for Justice & Accountability
- Action and Change
- The League of Women Voters
- Woodward Park Library
- Members of the bicycle and pedestrian community
- Jakara Movement
- Boys and Men of Color
- Youth Leadership Institute
- Fresno Barrios Unidos
- Building Healthy Communities
- Residents, business owners, and employees
- Other stakeholders

Each of the venues used for the workshops all met the following criteria: equitable geographic distribution; adequate space for attendees, displays, and involvement exercises; low venue cost; ADA accessible; and directly accessible to public transportation.
Spanish language interpreters and headsets were available at all workshops. Meeting announcement information regarding special accommodations was also provided.

The workshops followed an open house format and included an introductory PowerPoint presentation (reference Appendix F and G provided in English and Spanish). Each of the workshops included the following elements, except for the Wrap-Up Workshop, where noted below:

✓ Public input on Title VI policies, including the threshold changes, disparate impact and disproportionate burden. Options from earlier tasks would be provided with the rationale for recommended policies. Input would be solicited from participants on the both the policy options and the recommended policies. Each of the displays/handouts are provided in Appendix H.

✓ A review of the key findings of the Draft Strategic Service Evaluation and the three scenarios evaluated. The recommendation from that study effort were explained to individual attendees. In addition, the “Jane” travel distances from three scenarios were shown to illustrate the travel time, residential and job access from a key location in each of the seven (7) geographic areas or “communities” within the City of Fresno. Maps of the existing, productivity, and coverage scenarios, as well as the “Jane” scenarios generated from Remix, were also available so that participants could understand the strengths, weaknesses, and opportunities for refinement on the recommended network from the Strategic Service Evaluation. Finally, a review of lifeline mobility options for residents located in lower demand areas that currently do not generate sufficient fixed-route ridership. Each of these displays are provided in Appendix I.

✓ The Project Team incorporated the use of Turning Point software, a tool that allows the Project Team to not only educate, but to gather ideas and input simultaneously from everyone attending a workshop. Turning Point can solicit answers, selections, and priorities using a real-time response key pad. The software provides the opportunity to stratify the polling results by stakeholder group and other demographic information received during the poll.

Results of each poll conducted at most of the workshops are provided in Appendix J. A poll was not conducted at the Wrap-Up Workshop. A total of 67 workshop attendees participated in the polling exercise for all workshops. A synopsis of each question polled for all workshops combined is provided in Appendix K. A few of the workshops were lightly-attended; therefore, a poll was not conducted. Major findings for combined polling include:

- 75% of workshop attendees lived in the City of Fresno and thirty percent were between the ages of 51 and 65
More than a third of the workshop attendees were public citizens; public agency staff accounted for just under a third of attendees

- 81% of attendees have regular access to a motor vehicle and more than half of the attendees drove a car to the workshop location; 17% arrived via bus
- If a car is not available, 33% of attendees use the bus for transportation while 34% would ask a friend, neighbor, or relative for a ride
- 23% of attendees take FAX four or more days a week with the most important trip noted as to and from work
- About 30% of the respondents are not sure if the Draft FAX Plan will be better for them or their family and friends; 25% feel that the Draft FAX Plan is definitely not better for their neighborhoods; but 31% do feel that it is better for Fresno
- More than half of the respondents do not feel that the Draft FAX Plan will lead them to take transit for work or family trips
- 32% of workshop attendees feel that if FAX were able to obtain more funding that the best service option for the low-density areas seeing less service from the Draft FAX Plan would be coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount
- 44% of respondents noted that well-paved, well-lighted safe sidewalks and other pathways would offset the longer distances between stops for faster FAX service (*FAX has noted that the City of Fresno Public Work Department is responsible for improvements related to sidewalks and other pathways*)
- Over 60% of attendees felt that the Turning Point technology used at the workshop was very effective
- 26% of attendees heard about the workshops through a noticing email

✓ Two group exercises were conducted at the workshops to receive critical feedback regarding funding priorities for various FAX service improvements and priority elements that FAX should consider as the Draft Preferred Network Plan is implemented. Results of the funding priorities for each Workshop are provided in Appendix L along with a total for all workshops. Results of the priority FAX Service Features for each workshop are provided in Appendix M, along with a total for all workshops. Group exercises were not conducted at the Wrap-Up Workshop. The top three FAX Priority Funding Improvements for all workshops combined were:

- Extensions of routes to additional areas of Fresno including new activity centers
▪ Real time information (electronic signs and internet) at all bus shelters showing when the bus arrives
▪ Improving frequency of buses

The top three FAX System Feature Priorities for all workshops combined included:
▪ Ease of bus transfers between FAX buses
▪ Reliability (on-time buses)
▪ Safety and security

A synopsis of each group exercise from the seven (7) workshops was presented at the Wrap-up workshop and are presented in Appendix L and M.

✓ Comment cards were available for comments and feedback. Appendix N provides comments received at each individual workshop, Appendix V provides comments received at the wrap-up workshop, and Appendix O provides comments received during or following the workshop series. Primary comments received include:
▪ Public friendly interface for real-time (GPS) information
▪ Faster, more frequent service
▪ Faster, more efficient transfers
▪ Expanded routes, less wait time
▪ Increase frequencies over coverage
▪ Additional weekend hours
▪ More frequent service, especially evenings for FAX 45 and Clovis 50
▪ Extended night services; need west side services for Zacky Farms and Cargill after 11:30pm
▪ Accessible public transportation for students @ Clovis Community College
▪ Services to Veteran’s Home
▪ Add services for Fig Garden Loop area
▪ Add services for Herndon between West & Willow
▪ Expand services at S. Peach and E. Church
▪ On bus Wi-Fi and portable electronic charging stations
▪ Bike share would be helpful for the last mile
▪ Stronger promotion of transit-oriented development
▪ Deeper integration with other jurisdictions and agencies
▪ Express routes connecting to major transportation hubs and serving more education institutions
▪ Building a foundation for a regional light-rail system connecting with other cities
▪ One-hour service is an issue
▪ Planned on-board surveys need to be language sensitive; especially to Hmong riders since their language is not easy to read or write
▪ Need a transit stop at Hayes and Polk
▪ Need additional ways to communicate with riders
▪ Would like Uber/Lyft service available on all routes between 8am and 12pm at a discount
▪ Improve bus security
▪ Add WIFI service on the buses
Real time mapping of bus locations along routes

The Project Team displayed the existing FAX network and the Draft Strategic Service Evaluation recommended network (reference Appendix P and Q).

A map of the existing FAX route structure was available to attendees so that they could post comments regarding a specific route or issue using Post It Notes. This made it easy for the project Team and FAX to identify attendee issues with specific routes and other route amenities/characteristics. Appendix R provides the resulting comments from each workshop. Comments from the wrap-up Workshop are included in Appendix V. With the exception of the workshop held at the Mosqueda Community Center, comments for each workshop are summarized below:

**Fresno City College Mapping Comments**

- There are virtually no stops at or near Clovis Community College. This makes it way difficult for students to get school on time.
- Lack of transportation to students of Clovis Community College coming other areas of Fresno (southeast downtown). There is no bus that directly goes there, and equal service is important.
- Scenario of what one of our students (Clovis Community College Student) have to do to get to our campus school
  1. Catch bus near Ashlan and Marks
  2. Bus near Fresno state
  3. Another bus near Herndon Campus
  4. Walk to Herndon Campus
  5. Catch Shuttle to Campus
- Clovis Community College, another scenario:
  1. Catches bus near FCC
  2. Take that bus to Blackstone
  3. Another Bus to River Park
  4. Takes that bus to Champlain and Perrin
  5. Rides bike to campus
- This system map drives me crazy because the distorted scale makes FAX coverage appear more comprehensive (area wise) than it is
- “99 R Bus Route”
Herndon/99 (El Paseo) to downtown
- Stops at: Veterans, Shaw, Ashlan, Clinton, and Olive interchanges
  - Rideshare coordination
- Need more East/West buses
- Route Bus 45 run early on weekends
- Route Bus 45 every half hour
- Route 26, some bus stops too close to each other, eliminate some (global comment)
- Need more frequency during peak times
- Route 32 by CH & VA hospitals old buses slow to kneel or lift wheel chairs. Should use new buses with ramps.
- Service to Vets home

Central Valley Regional Center Mapping Comments
- Service to El Paseo
- Increase frequency 45
- Service to Campus Pointe Line 28
- Extend route 20 to Figarden and Bullard
- Crosstown service along Ashlan
- Stop line 20 at Blackstone and McKinley
- Service to Veterans home

Frank H. Ball Community Center Mapping Comments
- Herndon Ave Expansion?
- More availability from Northeast/Clovis to the south end of town, from south of Jensen to Annadale and Cherry Avenue
- Park and Ride in the low density/residential areas
- Bus stop should all have: seating, coverage, lighting
- Route 28 peak hour frequency increase
- Need more seating on 30
- Reorganize S.W Fresno night service to serve larger area
- Increase service on weekends from Southwest Fresno to entertainment and retail on the north end
- Info for each stop posted at bus stop
- Clovis Ave/Sunnyside expansion

Woodward Library Mapping Comments
- Clovis College FAX and Clovis Stageline
- Need access to Clovis Community College
- Add Clovis Community College to this map
- Connection to Clovis Community College
- Bus service to Clovis North High school
- Bus Service to connect CCC to Fresno residents
- We need transportation to Clovis Community College!
- Clovis Community College!!
- We need a bus to Clovis Community College and Willow and International in Fresno
- Fill access on Herndon between Willow and Cedar
- Convince Clovis to update their system
- Route 32, 20-minute service
- Need lines North to South
- Connect 45 to 9
- El Paseo (arrow pointing West on Route 45)
- Forgotten Fresno (arrow pointing West of Island Water Park)
- More frequent schedule for #45
- Direct shuttle to the airport and Amtrak

**Pinedale Community Center Mapping Comments**
- Clovis Community College Students should be able to use a FAX bus (along with a Clovis bus) if needed to commute to school
- Clovis Community College
- Everybody deserves the right to go to their college of choice
- If students need public transit access to Clovis Community College, it should be provided to them
- Fig Garden Loop Area Service
- More frequency on Route 45 – extended schedules
- Service to Veterans home
- Service to Industrial after 11:30pm, Cargill Meat Solutions

**Holmes Community Center Mapping Comments**
- Need bus stop at Inspiration Park
- Need bus stop at Patch Farms, 4565 W Dakota
- Have hand sanitizer on bus
- The bus Line 30 late night is good
- Install exact change machines in each bus
- Have bathrooms on the bus
- Keep buses clean of graffiti and painted
- Time based transfers
- Service East/West on McKinley
- Courteous behaviors from bus drivers
- Electronic announcements of bus arrival posted
- Safe, smooth, wheelchair/walker accessible routes to bus stop
- More frequent buses

**Wrap-up Workshop Mapping Comments (at Pinedale Community Center)**
- Add Clovis Community College as at stop along Rte. 58
- Need more grid-based east-west routes like a single route along Herndon Avenue
- Need a bus top at Hayes and Shaw Avenues
- Need a bus stop at Inspiration Park

✓ A map of Fresno was also made available to attendees to post where their residential neighborhood was located and the location of their primary daily destination. A map was not available at the Wrap-
up Workshop. They were then asked to identify the route they took between their neighborhood and the primary destination. This information gives the Project Team and FAX staff a sense of where attendees reside and where they travel to on a daily basis compared to the FAX routes available to provide the connection between the two locations. Appendix S provides results of this mapping exercise from all workshops.

✓ As noted above, translation was provided at all workshops using available translation equipment.
✓ Comment sheets and workshop displays were also translated for ease of understanding.
✓ The Project Team also provided stations for registration, comments, and refreshments.
✓ During the Wrap-up workshop, attendees were presented with a synopsis of all polling, group exercise results, and comments received during the seven (7) workshops conducted in November 2017 and as described above. Appendix K also includes the synopsis of polling conducted at the 7 workshops.

Pop-Up Events (Information Booths), Materials, and Results

Pop-up event materials were available for dissemination at short, but meaningful interactions with the public that allowed their feedback to be incorporated into the Draft Plan while ultimately reaching a significantly higher number of residents than a traditional public workshop. The Project Team worked with FAX staff to provide materials for dissemination at high-volume locations in the City of Fresno. Such locations included the Big Fresno Fair, the Cencalvia Open Streets event, and the Veteran’s Day Parade.

Materials disseminated at the Big Fresno Fair (October 14 and 15, 2017) and the Cencalvia Open Streets (October 1, 2017) events included fliers of the upcoming workshops in November and December 2017.

Materials distributed at the Veteran’s Day Parade (November 11, 2017) included a notice of the Wrap-Up Workshop to be held on December 6 at the Pinedale Community center, a short explanation of the Draft Fax Preferred Network Plan, and a short survey (described below) to determine participant opinion regarding the Draft Plan.

The VRPA Team developed and implemented a survey instrument aimed at gathering general public transit user feedback on the proposed system changes. The survey form was provided to participants at the Veteran’s Day Parade (reference Appendix T). Survey results are also provided in Appendix T. Approximately 55 completed surveys were submitted by participants. Primary survey results indicate that a majority of participants (46%) agreed that the Draft FAX Plan would be better for them, 44% believed that more comfortable stops should be provided to off-set longer distances between some stops in order to make FAX service faster, and 28% of participants indicated that coordinated Uber/Lyft service to reach the nearest FAX line discounted to 40% should be utilized to off-set a few areas in Fresno where less FAX
bus service will occur under the Draft FAX Plan. Comment cards completed at the Veteran’s Day Parade can be found in Appendix T, common themes include:

✓ Love the system, keep up the good work
✓ East/West buses should run more often, including weekends
✓ Bus stops should have shade coverings and benches
✓ Drivers need more customer service training; need to be patient with riders
✓ SE/SW Fresno needs transportation, most benefit to them
✓ More frequent service, with longer hours, less wait time
✓ Need buses between Ashlan and Shields on Willow
✓ Evening services
✓ Buses are not safe; adult fist fighting with no help
✓ Buses leaving riders because a shift was over

Other Outreach

One (1) additional event was held following the workshops to receive additional input from the community. On November 28, 2017 the Leadership Counsel invited the Consultant Team and FAX Staff to Jane Addams Elementary to present information related to the FAX Restructure Plan and receive input from attendees. Approximately 18 attendees were present and provided valuable input regarding existing route issues and the proposed Plan. Sign in sheets, comments cards, and polling results from the presentation can be found in Appendix U.
Appendix A

Project Team Members
## Project Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Firm</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
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<td>(415) 425-6496</td>
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<td>(520) 322-9607</td>
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<td>(951) 784-1333</td>
</tr>
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<td>Principal</td>
<td>Jarrett Walker + Associates</td>
<td><a href="mailto:jarrett@jarrettwalker.com">jarrett@jarrettwalker.com</a></td>
<td>(530) 208-4249</td>
</tr>
<tr>
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<td>Jarrett Walker + Associates</td>
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<td>(503) 564-8077</td>
</tr>
<tr>
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<td>Associate</td>
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<td>(971) 266-4220</td>
</tr>
</tbody>
</table>
WE NEED YOUR HELP DEFINING FAX TRANSIT SERVICE FOR 2018 AND BEYOND

The City of Fresno is making a significant investment to improve Fresno Area Express (FAX) services. We need your help envisioning a FAX transit system that reflects your and the community's needs to improve your experience on FAX. With rapid growth, auto-oriented development, and strict air quality and environmental justice requirements, FAX is challenged with maintaining a sustainable and efficient public transportation system that addresses your needs!

Get Involved
We invite you to join us at an upcoming workshop to provide your input. We encourage you to invite your friends, family and neighbors to attend as well.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Contact</th>
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</thead>
<tbody>
<tr>
<td>Saturday, November 4, 2017</td>
<td>11:00 am - 1:00 pm</td>
<td>Fresno City College, Skylight Room 1101 E. University Avenue Fresno, CA 93741</td>
<td>Todd Sobrado, Planning Coordinator (559) 621-1532 or <a href="mailto:Harold.Sobrado@fresno.gov">Harold.Sobrado@fresno.gov</a></td>
</tr>
<tr>
<td>Monday, November 6, 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Central Valley Regional Center 4615 N. Marty, Fresno, CA 93722</td>
<td>Jeff Long, FAX Senior Regional Planner (559) 621-1436 or <a href="mailto:Jeff.Long@fresno.gov">Jeff.Long@fresno.gov</a></td>
</tr>
<tr>
<td>Tuesday, November 7, 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Mosqueda Community Center 4670 E. Butler Avenue Fresno, CA 93702</td>
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<tr>
<td>Wednesday, November 8, 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Frank H. Ball Community Center 760 Mayor Avenue Fresno, CA 93706</td>
<td></td>
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<tr>
<td>Thursday, November 9, 2017</td>
<td>10:00 am – 12:00 pm</td>
<td>Woodward Library, Woodward Park Meeting Room 944 E. Perrin Avenue Fresno, CA 93720</td>
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<tr>
<td>Thursday, November 9, 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Pinedale Community Center 7170 N. San Pablo Avenue Pinedale, CA 93650</td>
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<tr>
<td>Saturday, November 11, 2017</td>
<td>11:00 am – 1:00 pm</td>
<td>Holmes Community Center 212 S. First Street Fresno, CA 93702</td>
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</table>

Wrap-up Workshop
Wednesday, December 6, 2017 5:30 pm – 7:30 pm Pinedale Community Center 7170 N. San Pablo Avenue Pinedale, CA 93650

Workshops will include:
- An introductory presentation
- Information stations
- A visioning exercise
- An interactive polling exercise
- Spanish Translation
- Refreshments and Raffle Prizes

The event location is physically accessible. Services of an interpreter and additional accommodations such as assistive listening devices can be made available. Requests for accommodations should be made more than five working days but no later than 48 hours prior to the scheduled meeting/event. Please contact Todd Sobrado at 559-621-1532 or Harold.Sobrado@fresno.gov.
Appendix C

Workshop Flier - Spanish
NECESITAMOS TU AYUDA DEFINIENDO EL SERVICIO DE TRANSITO DE FAX A PARTIR DEL 2018 EN ADELANTE

La Ciudad de Fresno está haciendo inversiones significantes para mejorar los servicios de autobús del Fresno Area Express (FAX). Necesitamos tu ayuda en visionando el sistema de transito FAX que refleje las necesidades tuyas y las de la comunidad para darte una mejor experiencia de FAX. Con el crecimiento rápido, el desarrollo auto-orientado, y estrictos requerimientos de calidad de aire y justicia ambiental, FAX confronta el reto de lograr mantener un sistema de transportación publica sustentable y eficiente que tome en cuenta sus necesidades.

Involúcrate

Te invitamos a que te unas a nosotros para los siguientes talleres para que des tu punto de vista. Te motvamos a que invites a tus amigo/as, familia, y vecinos a que participen también.

<table>
<thead>
<tr>
<th>Fecha</th>
<th>Hora</th>
<th>Localización</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sábado 4 de noviembre del 2017</td>
<td>11:00 am - 1:00pm</td>
<td>Colegio Comunitario de Fresno, En el Salon Skylight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1101 E. University Avenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fresno, CA 93741</td>
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<tr>
<td>Miércoles 8 de noviembre del 2017</td>
<td>5:30 pm - 7:30 pm</td>
<td>Centro Comunitario Frank H. Ball</td>
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<tr>
<td></td>
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<td>760 Mayor Avenue</td>
</tr>
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<td></td>
<td></td>
<td>Fresno, CA 93706</td>
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<tr>
<td>Jueves 9 de noviembre del 2017</td>
<td>10:00 am – 12:00 pm</td>
<td>Libreria Woodward, Cuarto de Reuniones del Parque Woodward</td>
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<tr>
<td></td>
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<td>944 E. Perrin Avenue</td>
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<td>Fresno, CA 93720</td>
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<tr>
<td>Jueves 9 de noviembre del 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Centro Comunitario Pinedale</td>
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<td></td>
<td></td>
<td>7170 N. San Pablo Avenue</td>
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<td></td>
<td></td>
<td>Pinedale, CA 93650</td>
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<tr>
<td>Sábado 11 de noviembre del 2017</td>
<td>11:00 am – 1:00 pm</td>
<td>Centro Comunitario Holmes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>212 S. First Street</td>
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<td></td>
<td></td>
<td>Fresno, CA 93702</td>
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<td>Taller para Unificar</td>
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<tr>
<td>Miércoles 6 de Diciembre del 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Centro Comunitario Pinedale</td>
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<tr>
<td></td>
<td></td>
<td>7170 N. San Pablo Avenue</td>
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<td></td>
<td></td>
<td>Pinedale, CA 93650</td>
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Los talleres incluirán:
- Una presentación introductoria
- Estaciones Informativas
- Ejercicio de Visión
- Ejercicio de Votación Interactiva
- Traducción en español
- Refrigerios y Premios de Ráfases

¿Preguntas?

Todd Sobrado, Coordinador de Planeamiento  
(559) 621-1532 o Harold.Sobrado@fresno.gov

Jeff Long, FAX Planeador Regional con Señoría  
(559) 621-1436 o Jeff.Long@fresno.gov

La ubicación del evento es físicamente accesible. Servicios de un intérprete y herramientas adicionales como dispositivos de ayuda auditiva pueden ser disponibles. Las solicitudes de dispositivos de ayuda auditiva deben realizarse más de cinco días hábiles, pero a más tardar 48 horas antes de la reunión / evento programado. Favor de ponerse en contacto con Todd Sobrado al 559-621-1532 o Harold.Sobrado@fresno.gov.
Appendix D

Workshop Media Advisory
Are you INTERESTED in helping FAX plan transit service improvements for the FUTURE?

Fresno Area Express (FAX) is operated by the City of Fresno as a public service to residents and visitors. It is the largest public transportation provider in the Central San Joaquin Valley region serving the communities and residents of Fresno with 16 fixed routes operating from three major hubs: the Downtown Transit Mall; the Manchester Transit Center; and a transfer point at the River Park Shopping Center. FAX is currently looking at transit service improvements and needs your help envisioning a FAX transit system that reflects the needs of Fresno’s communities and residents and provides a positive public transportation experience. With rapid growth, auto-oriented development, and strict air quality and environmental justice requirements, FAX is challenged with maintaining a sustainable and efficient public transportation system that is accessible for all.

FAX invites you to attend an upcoming workshop to ensure that any changes to current services benefit you and improves your experience with public transportation in the City of Fresno. All workshops are open to the public and will be easily accessible to attendees. Join us to learn more about the planning process, talk to the planning team, and provide your ideas, concerns, and thoughts.

Get involved and encourage your friends, family, and neighbors to join you!

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<tr>
<th>Date</th>
<th>Time</th>
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<tr>
<td>Saturday, November 4, 2017</td>
<td>11:00 am - 1:00pm</td>
<td>Fresno City College, Skylight Room</td>
<td>1101 E. University Avenue, Fresno, CA 93741</td>
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<tr>
<td>Monday, November 6, 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Central Valley Regional Center</td>
<td>4615 N. Marty, Fresno, CA 93722</td>
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<tr>
<td>Tuesday, November 7, 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Mosqueda Community Center</td>
<td>4670 E. Butler Avenue, Fresno, CA 93702</td>
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<tr>
<td>Wednesday, November 8, 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Frank H. Ball Community Center</td>
<td>760 Mayor Avenue, Fresno, CA 93706</td>
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<tr>
<td>Thursday, November 9, 2017</td>
<td>10:00 am – 12:00 pm</td>
<td>Woodward Library, Woodward Park Meeting Room</td>
<td>944 E. Perrin Avenue, Fresno, CA 93720</td>
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<tr>
<td>Thursday, November 9, 2017</td>
<td>5:30 pm – 7:30 pm</td>
<td>Pinedale Community Center</td>
<td>7170 N. San Pablo Avenue, Pinedale, CA 93650</td>
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<tr>
<td>Saturday, November 11, 2017</td>
<td>11:00 am – 1:00 pm</td>
<td>Holmes Community Center</td>
<td>212 S. First Street, Fresno, CA 93702</td>
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Wrap-up Workshop

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<td>Pinedale Community Center</td>
<td>7170 N. San Pablo Avenue, Pinedale, CA 93650</td>
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Workshops will include:
- An introductory presentation
- Information stations
- A visioning exercise
- An interactive polling exercise
- Spanish Translation
- Refreshments and Raffle Prizes

Visit www.fresno.gov/transportation/fax/ for additional information.

Todd Sobrado, Planning Coordinator
(559) 621-1532 or Harold.Sobrado@fresno.gov

Jeff Long, FAX Senior Regional Planner
(559) 621-1436 or Jeff.Long@fresno.gov
Appendix E

Workshop Sign-In Sheets
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Olga Bowles</td>
<td>FAX</td>
<td><a href="mailto:Olga.Bowles@yaho.com">Olga.Bowles@yaho.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael Mendoza SR</td>
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<td></td>
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</tr>
<tr>
<td>Victor Medina</td>
<td>RICV</td>
<td><a href="mailto:V.medina@ricv.org">V.medina@ricv.org</a></td>
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<tr>
<td>Gregory Barfield</td>
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<td></td>
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</tr>
<tr>
<td>Yonas Paulos</td>
<td>Veteran Advocate</td>
<td><a href="mailto:Y.Paulos@veterans.la.gov">Y.Paulos@veterans.la.gov</a></td>
<td></td>
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<tr>
<td>Jim Appleton</td>
<td>Veterans Home of</td>
<td>jappleton@veteranshomeofcalif</td>
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<tr>
<td></td>
<td>California - Fresno</td>
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</tr>
<tr>
<td>Muraka Kezala</td>
<td>Self</td>
<td><a href="mailto:Muraka.Kezala@gmail.com">Muraka.Kezala@gmail.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tim Higuera</td>
<td>Self</td>
<td><a href="mailto:Tim.Higuera@gmail.com">Tim.Higuera@gmail.com</a></td>
<td></td>
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</tr>
<tr>
<td>Gene Corey</td>
<td>FAX</td>
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<td></td>
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</tr>
<tr>
<td>George Hrstoffen</td>
<td></td>
<td><a href="mailto:george.hrstoffen@gmail.com">george.hrstoffen@gmail.com</a></td>
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<tr>
<td>Farah Khurshid</td>
<td>CCC ASG</td>
<td><a href="mailto:farah.khurshid@gmail.com">farah.khurshid@gmail.com</a></td>
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<tr>
<td>Tracy Beckham</td>
<td>Student</td>
<td><a href="mailto:ta.beckham@ec.edu">ta.beckham@ec.edu</a></td>
<td></td>
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</tr>
<tr>
<td>David Luchi</td>
<td>Dept of Public Health</td>
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<tr>
<td>Ken Mest</td>
<td></td>
<td></td>
<td><a href="mailto:kmest@mst.edu">kmest@mst.edu</a></td>
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<tr>
<td>Gene Richards</td>
<td></td>
<td><a href="mailto:gcreichards@gmail.com">gcreichards@gmail.com</a></td>
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<tr>
<td>Jaime Sandall</td>
<td>City of Fresno</td>
<td><a href="mailto:jaime.sandall@fresno.gob">jaime.sandall@fresno.gob</a></td>
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<tr>
<td>Andrea Boyle</td>
<td></td>
<td><a href="mailto:0749404@my.scad.edu">0749404@my.scad.edu</a></td>
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<tr>
<td>Sandra Ribe</td>
<td>KB Communications</td>
<td><a href="mailto:sandra@kbcomm.net">sandra@kbcomm.net</a></td>
<td></td>
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<tr>
<td>Reem Anani</td>
<td>ClovisCommunityCollege</td>
<td>reem.anani@Gmail</td>
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<tr>
<td>John Reynolds</td>
<td>@alvet.fresno.edu</td>
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<tr>
<td>Jacqui Willis</td>
<td>KG Communication</td>
<td>jacqui@kgcommunication</td>
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</tr>
<tr>
<td>Daniel Braunick</td>
<td>Odell Planning &amp; Research</td>
<td><a href="mailto:daniel@odellplanning.com">daniel@odellplanning.com</a></td>
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## Fresno Area Express Fixed-Route System Restructure Study

### Community Engagement Workshops

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<td>Joe Vargas</td>
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<td><a href="mailto:joe.vargas@fresno.gov">joe.vargas@fresno.gov</a></td>
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<tr>
<td>Michael Leather</td>
<td>Rich</td>
<td><a href="mailto:leatherm@fresno.gov">leatherm@fresno.gov</a></td>
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<tr>
<td>Judith Nishi</td>
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<td>judith.nishi@frensho</td>
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<tr>
<td>Nicole Conners</td>
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<td>nicole <a href="mailto:cunningham@gmail.com">cunningham@gmail.com</a></td>
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<tr>
<td>Marianne Kast</td>
<td>LWVFresno</td>
<td><a href="mailto:fourkastse@gmail.com">fourkastse@gmail.com</a></td>
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<tr>
<td>Flores Isabell</td>
<td></td>
<td><a href="mailto:flores.isabell@gmail.com">flores.isabell@gmail.com</a></td>
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<tr>
<td>Itzi Robles</td>
<td>City of Fresno</td>
<td><a href="mailto:itzi.robles@fresno.gov">itzi.robles@fresno.gov</a></td>
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<tr>
<td>Brandon Hill</td>
<td>Ma</td>
<td><a href="mailto:dhill968@gmail.com">dhill968@gmail.com</a></td>
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<tr>
<td>Rick Stetz</td>
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<tr>
<td>Demond Hopkins</td>
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<td>Yasmeen Pakiani</td>
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<tr>
<td>Steven Martinez</td>
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<tr>
<td>Brittney Watson</td>
<td>Senator Vidak</td>
<td><a href="mailto:brittney.watson@sen.gov">brittney.watson@sen.gov</a></td>
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<tr>
<td>Juan Castillo</td>
<td>Cultiva La Salud</td>
<td>juan@cc策略.org</td>
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<tr>
<td>Vincent Castillo</td>
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<td>Gabriela Mares</td>
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<td>Michael Lynn Lewis</td>
<td>Action Change</td>
<td><a href="mailto:mllyonlewis2@gmail.com">mllyonlewis2@gmail.com</a></td>
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<td>Andy Hansen-Smith</td>
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<td>Ashley Werner</td>
<td>Leadership Council</td>
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<td>Trés Mendoza</td>
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<td>Fidel Alvarado</td>
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<tr>
<td>Edith R.</td>
<td>Community Member</td>
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More information is available at: www.fresno.gov/transportation/fax/
### Community Engagement Workshops

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<tr>
<td>June Stanfield</td>
<td>Resident</td>
<td>kaysmith2665@gmail</td>
<td></td>
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<tr>
<td>Raze Stanfield</td>
<td>Resident</td>
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<tr>
<td>Sandi Seely</td>
<td>Fresno County</td>
<td><a href="mailto:sseeley@co.fresno.ca.us">sseeley@co.fresno.ca.us</a></td>
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<tr>
<td>Brianna Sherman</td>
<td>Fresno County</td>
<td><a href="mailto:brisherman@co.fresno.ca.us">brisherman@co.fresno.ca.us</a></td>
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<tr>
<td>Gordon Yamamoto</td>
<td>—</td>
<td><a href="mailto:Pomiimi@hotmail.com">Pomiimi@hotmail.com</a></td>
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<tr>
<td>Crystal Lanfranco</td>
<td>Central Unified</td>
<td><a href="mailto:Clunfranco@centralunified.com">Clunfranco@centralunified.com</a></td>
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<tr>
<td>Lori Bennett</td>
<td>Clovis Comm. College</td>
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<tr>
<td>Shonna Halterman</td>
<td>City of Clovis</td>
<td><a href="mailto:Shonnat@cityofclovis.com">Shonnat@cityofclovis.com</a></td>
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<tr>
<td>Rob Eyman</td>
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<tr>
<td>Emilie Gowery</td>
<td>Clovis Comm College</td>
<td><a href="mailto:emiliegowery@cloviscollege.edu">emiliegowery@cloviscollege.edu</a></td>
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<tr>
<td>John Forbes</td>
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<td><a href="mailto:john.forbes@cloviscollege.edu">john.forbes@cloviscollege.edu</a></td>
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<tr>
<td>R. Thomas</td>
<td>SELF</td>
<td><a href="mailto:ron.thomas@smail.com">ron.thomas@smail.com</a></td>
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<tbody>
<tr>
<td>Kim Tippins</td>
<td>Clovis Community College</td>
<td>kira.tippins@cloviscollege</td>
<td></td>
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</tr>
<tr>
<td>Tommy McKinney</td>
<td>Central Unified Schools</td>
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<td></td>
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<tr>
<td>Eliana Troncal</td>
<td>Community Regional</td>
<td>etroncal@community</td>
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<tr>
<td>Carmine Hernandez</td>
<td>Fresno EOC WIC Program</td>
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<tr>
<td>Cliff Haffner</td>
<td>Handy Ride</td>
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<td>Noela Rios</td>
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<tr>
<td>Kathy Morleyarde</td>
<td>Library</td>
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<tr>
<td>Ellen Lipp</td>
<td></td>
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<tr>
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<td></td>
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<tr>
<td>Erica Rodriguez</td>
<td></td>
<td><a href="mailto:eyrodriguez.arte@gmail.com">eyrodriguez.arte@gmail.com</a></td>
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<td>Austin T. D. Hall</td>
<td></td>
<td><a href="mailto:austin+t.dhall@gmail.com">austin+t.dhall@gmail.com</a></td>
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<tr>
<td>Benjamin Tuggy</td>
<td></td>
<td>benjaminsite.com</td>
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<tr>
<td>Sue Bowers</td>
<td></td>
<td><a href="mailto:meanmom.esue2@yahoo.com">meanmom.esue2@yahoo.com</a></td>
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<td>Edward Peter Gomes</td>
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</tr>
<tr>
<td>Leo Pedretti</td>
<td>retired</td>
<td><a href="mailto:jpedretti1@mac.com">jpedretti1@mac.com</a></td>
<td></td>
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<tr>
<td>Von Torres</td>
<td>Clovis Community College</td>
<td><a href="mailto:von.torres@cloviscollege.edu">von.torres@cloviscollege.edu</a></td>
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<tr>
<td>Brodie Major Sr</td>
<td>Amalgamated Transit Union</td>
<td><a href="mailto:bmodjo@gmail.com">bmodjo@gmail.com</a></td>
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<tr>
<td>Lori Bennett</td>
<td>Clovis Comm College</td>
<td><a href="mailto:lori.bennett@cloviscollege.edu">lori.bennett@cloviscollege.edu</a></td>
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<tr>
<td>Gurdeep Hebert</td>
<td>CCC</td>
<td><a href="mailto:gurdeep.hebert@cloviscollege.edu">gurdeep.hebert@cloviscollege.edu</a></td>
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More information is available at: www.fresno.gov/transportation/fax/
<table>
<thead>
<tr>
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<th>Organization</th>
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<tr>
<td>LosErnesto</td>
<td>CCMAS</td>
<td><a href="mailto:ccm1512@gmail.com">ccm1512@gmail.com</a></td>
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<tr>
<td>Jacob Garcia</td>
<td>Citizen</td>
<td>jacobo.garcia.Outlook.com</td>
<td></td>
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<tr>
<td>Estela Oteya</td>
<td></td>
<td><a href="mailto:categaestelas@gmail.com">categaestelas@gmail.com</a></td>
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<tbody>
<tr>
<td>Tonya Pitt</td>
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<tr>
<td>Susan Dall</td>
<td>Leadership</td>
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<tr>
<td>Sandra Vasquez</td>
<td>Council</td>
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</table>

More information is available at: www.fresno.gov/transportation/fax/
Appendix F

Workshop PowerPoint Presentation - English
Agenda for this Evening (All aboard)!

- 5:30 – 6:00 Open House
- 6:00 Presenting FAX’s Draft Route Restructure
- 6:35 Group Exercise: Your ranking of FAX Features and Funding
- 7:00 Interactive Poll: Tell us what you think
- 7:35 Raffle Prizes & Workshop Wrap-up
FAX and the Draft FAX Plan
The Existing System
Current projects FY17-18

- Open BRT line in February 2018
- Increase bus frequency on busier segments of the FAX network. This consists of those routes that intersect primarily with BRT
- Construct bus stop and transit center improvements
What is the *Draft FAX Plan*?
It’s All About Meeting Needs
Factors driving FAX ridership

1. **Frequency**: How often buses come
2. **Duration**: How long the trip takes:
   a) Time on the bus
   b) Waiting time
   c) Transfer time (if you need to change buses)
3. **Density**: How many people and destinations are on the route
4. **Walkability**: How easy it is to get the bus
5. **How Direct** your route is, both:
   a) On the bus
   b) Getting to and from the bus
Frequency is an important variable

- Frequency means “we’re ready to go when you are”
- Frequency is expensive, BUT it leads to high ridership in high-demand places
- Frequency makes FAX something you can rely on, not something you have to plan around
- Frequency is one big factor that needs to be reviewed to determine how FAX is meeting the needs of transit users
Frequent *grids* especially benefit riders

A high-frequency grid bus system allows you to travel between any point A and any point B, with minimal delay, and on a direct path. It’s the key to broadly useful transit.

Fresno’s geography is already perfect for it!
FAX ridership today shows grid’s value

- DEEP Blue = most boardings
- BRT will concentrate on Blackstone and Kings Canyon/Ventura whereas FAX 15 focuses on Cedar and Shaw
- Especially strong where frequent lines cross
- Why there?
  - Highest frequency
  - Development along lines encourages transit ridership
  - Easy Transfers
Frequency is 1 factor. But there are others.
Time of day is another important factor

When should FAX maintain frequency so that “the bus is always coming soon” and connections become easy and attractive?

- Should weekend service be higher?
- Evening service is important so people can get home from evening jobs and activities
- Evening and weekend service helps people own fewer cars, rely on transit more
Buses can’t be frequent everywhere

- Some parts of Fresno are just not dense or walkable enough to generate high ridership
- High ridership always arises from these key features:
  - Density – lots of people and activity around the stops
  - Walkability – people can easily walk to the stop
  - Directness – straight paths for transit, easy in Fresno!
  - Proximity – many destinations close to one another
Density

How many people are going to and from the area around each stop?

High Ridership

Lower Ridership
Walkability

Can the people around the stop walk to the stop?

High Ridership

And it must be possible to cross the street at the stop!

Lower Ridership
Directness

Can transit buses run in straight lines that attract through-riders?

High Ridership

Lower Ridership
Proximity

Do transit buses have to cross long low-ridership gaps?
Designing a transit system
Is Ridership the Goal?

- Most people assume the measure of transit’s success is ridership.
- But transit agencies are expected to run service for non-ridership reasons, such as:
  - Social service needs in expensive-to-serve places
  - Desire that the network cover the whole city
- Those non-ridership goals are the basis of “coverage” service.
- So how much of our budget should be focused on a ridership goal vs. a coverage goal?
Why are ridership and coverage opposites?

Think about this simple urban area, where each dot represents people or jobs. Dots close together mean density.

Suppose we had 18 buses to deploy.
Ridership or Coverage?

- **To maximize ridership** you think like a business, choosing which markets you will enter.
- **The straight lines offer** density, walkability, and an efficient transit path, so you focus on frequent, attractive service there.

Performance Measure:

*Productivity*

- Productivity: Passengers per unit of service cost (high)
- Operating cost per rider, subsidy per rider (low)
Ridership or Coverage?

- To maximize **coverage**, think like a government service. Try to serve everyone, even those in expensive-to-serve places.
- The result is more routes covering everyone, but less frequency, more complexity, and lower ridership.

Performance Measure: Availability

% of population and jobs that can walk to some all-day service.
Two Extreme Alternatives

Ridership Alternative
• Focus resources on high-ridership, high-density areas to provide frequent, convenient service
• This alternative pushes the balance of resources even more towards ridership

Coverage Alternative
• Extends low-frequency service to a larger area
• This alternative reduces the level of service on the most productive segments, instead investing in extending service to new parts of the region that currently don’t have access to FAX routes
Ridership scenario. Frequency concentrated on busiest corridors. 15-minute service means that bus is always coming soon.

This scenario also:
- extends service on red lines to midnight
- On weekends, runs red lines every 15 min for grid effect

But it deletes ALL low ridership segments!
<table>
<thead>
<tr>
<th>Coverage Scenario. New routes added in response to customer and stakeholder requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanded service area means lower frequency</td>
</tr>
<tr>
<td>Routes along Cedar, Jensen and First cut from 20 min to 30 min.</td>
</tr>
<tr>
<td>So lower ridership</td>
</tr>
<tr>
<td>Service extended to:</td>
</tr>
<tr>
<td>Highway City</td>
</tr>
<tr>
<td>E Church St</td>
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<tr>
<td>Far NE Dial-a-Ride</td>
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<tr>
<td>Far SE Dial-a-Ride</td>
</tr>
</tbody>
</table>
The Conversation and Direction

• Hopefully, this information gives you an understanding of what is involved in redesigning a transit system

• Equipped with this information, help us envision a FAX transit system that better meets the needs of all citizens of the City of Fresno in 2018 and beyond

• By providing us with feedback, we can together design a FAX transit system that meets the needs of our citizenry, as well as Federal and state requirements
Please go to the Stations to provide your comments and ideas
Reestructuración de Rutas FAX

Noviembre de 2017

Reestructuración de Rutas FAX
Agenda para esta tarde (¡Todos a bordo)!

• 11:00 – 11:30 Casa Abierta
• 12:00 Presentación de la reestructuración de ruta de FAX
• 11:50 Remix 12:05 Ejercicio: su votación de FAX características
• 12:30 Encuesta Interactiva: Déjanos saber lo que piensas
• 12:55 Premios de la Rifa y cierre del taller
FAX y el Plan de FAX
El Sistema Existente
Mapa del Sistema Existente de FAX
Proyectos Actuales FY17-18

• Abrir línea BRT en Febrero del 2018
• Aumentar la frecuencia del autobús en los segmentos más ocupados de la red de FAX. Esto consiste en aquellas rutas que se cruzan principalmente con BRT
• Construcción de paradas de autobuses y mejoras al centro de tránsito
¿Qué es el *Plan FAX*?

Se trata de satisfacer las necesidades
Factores que impulsan el uso del FAX

1. **Frecuencia**: Con qué frecuencia vienen los autobuses
2. **Duración**: Cuánto dura el viaje:
   a) Tiempo en el autobús
   b) Tiempo de espera
   c) Tiempo de transferencia (si necesitas tomar otro autobús)
3. **Densidad**: Cuantas personas y destinos hay en la ruta
4. **Transabilidad**: Qué tan fácil es subirse al autobús
5. **Que tan directo es su ruta, tanto:**
   a) En el autobus
   b) Ir y venir del autobús
La frecuencia es un variable importante

- Frecuencia significa "Estamos listos para ir cuando tú estés"
- La frecuencia es costosa, PERO conduce a un alto número de pasajeros en lugares de alta demanda
- La frecuencia hace del FAX algo en lo que puede confiar, no algo que tenga que planificar
- La frecuencia es un factor importante que debe revisarse para determinar cómo FAX satisface las necesidades de los usuarios del tránsito
Las redes frecuentes benefician especialmente a los pasajeros.

Un sistema de autobús de red de alta frecuencia le permite viajar entre cualquier punto A y cualquier punto B, con un retraso mínimo, y en una ruta directa. Es la clave para un tránsito ampliamente útil. La geografía de Fresno ya es perfecta para eso.
El número de usuarios de FAX hoy muestra el valor de la red

- Azul Oscuro = la mayoría de los abordajes
- BRT se concentrará en Blackstone y Kings Canyon / Ventura, mientras que FAX 15 se enfocará en Cedar y Shaw
- Especialmente fuerte donde las líneas frecuentes se cruzan
- ¿Por qué allí?
  - Mayor frecuencia
  - El desarrollo a lo largo de las líneas alienta a los pasajeros en tránsito
  - Transferencias fáciles
La frecuencia es 1 factor. Pero hay otros.
La hora del día es otro factor importante

¿Cuándo debería FAX mantener la frecuencia para que "el autobús siempre llegue pronto" y las conexiones se vuelvan fáciles y atractivas?

• ¿Debe el servicio de fin de semana ser más alto?
• El servicio nocturno es importante para que las personas puedan llegar a casa después de los trabajos y actividades nocturnas
• Servicio de tarde y fin de semana ayuda a las personas a tener menos automóviles, confiando en el tránsito más
Los autobuses no pueden ser frecuentes en todas partes

- Algunas partes de Fresno no son lo suficientemente densas o transitables como para generar un alto número de pasajeros
- El alto número de usuarios siempre surge de estas características clave:
  - Densidad: mucha gente y actividad alrededor de las paradas
  - Transabilidad: las personas pueden caminar fácilmente hasta la parada
  - Directo: caminos sencillos para el tránsito, ¡fácil en Fresno!
  - Proximidad: muchos destinos cerca de uno a otro
Densidad

¿Cuántas personas van y vienen del área alrededor de cada parada?

Mayor cantidad de pasajeros

Menor cantidad de usuarios
Transabilidad

¿Pueden las personas alrededor de la parada caminar hasta la parada?

Mayor cantidad de pasajeros

Menor cantidad de usuarios

¡Y debe ser posible cruzar la calle en la parada!
Franqueza

¿Pueden los autobuses de tránsito circular en líneas rectas que atraen a los pasajeros?

Mayor cantidad de pasajeros

Menor cantidad de usuarios
Proximidad

¿Deben cruzar los autobuses de tránsito las brechas largas de baja cantidad de pasajeros?
2. Diseñando un sistema de tránsito
¿Mas pasajeros el objetivo?

• La mayoría de las personas asume que la medida del éxito del tránsito es la cantidad de pasajeros
• Sin embargo, se espera que las agencias de transporte publiquen el servicio por motivos que no involucran pasajeros, como por ejemplo:
  – Necesidades de servicios sociales en lugares caros para servir
  – Deseo que la red cubra toda la ciudad
• Estos objetivos no basados en pasajeros son la base del servicio de "cobertura"
• Entonces, ¿qué parte de nuestro presupuesto debe enfocarse en un objetivo de transporte versus un objetivo de cobertura?
¿Por qué los usuarios y la cobertura son opuestos?

Piensa en esta simple área urbana, donde cada punto representa personas o trabajos. Los puntos muy juntos significan densidad.

Supongamos que tenemos 18 autobuses para desplegar.
¿Pasajero o cobertura?

• Para maximizar la cantidad de pasajeros, piense como un negocio, elija en qué mercados ingresará.

• Las líneas rectas ofrecen densidad, transitabilidad y una ruta de tránsito eficiente, por lo que se concentra el servicio frecuente y atractivo allí.

Medida de rendimiento:
Productividad

Productividad: Pasajeros por unidad de servicio (alto)
¿Pasajero o cobertura?

- Para maximizar la cobertura, piense como un servicio del gobierno. Trate de servir a todos, incluso aquellos en lugares caros para servir.

- El resultado es más rutas que cubren a todos, pero con menos frecuencia, más complejo y menor cantidad de usuarios.

Medida de rendimiento: disponibilidad

% de población y empleos que pueden caminar a algún servicio de todo el día
Dos Alternativas Extremas

Alternativa de Pasajeros

- Concentrar los recursos en áreas de alta densidad de pasajeros para brindar un servicio frecuente y conveniente
- Esta alternativa empuja el equilibrio de recursos aún más hacia el uso de pasajeros

Alternativa de cobertura

- Extiende el servicio de baja frecuencia a un área más grande
- Esta alternativa reduce el nivel de servicio en los segmentos más productivos, en lugar de invertir en extender el servicio a nuevas partes de la región que actualmente no tienen acceso a las rutas de FAX.
Escenario de Pasajeros. La frecuencia se concentró en los corredores más concurridos. El servicio de 15 minutos significa que el autobús siempre llegará pronto.

Este escenario también:
- extiende el servicio en líneas rojas a la medianoche
- Los fines de semana, pasa líneas rojas cada 15 minutos para obtener un efecto de red

¡Pero borra TODOS los segmentos bajos de usuarios!
Escenario de cobertura. Se agregaron nuevas rutas en respuesta a solicitudes de clientes y partes interesadas.

El área de servicio ampliada significa una frecuencia más baja.

Rutas a lo largo de Cedar, Jensen y First recortadas de 20 min a 30 min.

Por lo tanto, menor cantidad de usuarios.

Servicio extendido a:
- Highway City
- E Church St
- Far NE Dial-a-Ride
- Far SE Dial-a-Ride
La conversación y la dirección

• Con suerte, esta información le brinda una comprensión de lo que implica el rediseño de un sistema de tránsito

• Equipado con esta información, ayúdenos a visualizar un sistema de tránsito FAX que satisfaga mejor las necesidades de todos los ciudadanos de la Ciudad de Fresno en 2018 y más allá

• Al proporcionarnos sus comentarios, podemos diseñar juntos un sistema de tránsito FAX que satisfaga las necesidades de nuestra ciudadanía, así como los requisitos federales y estatales.
Por favor, vaya a las estaciones para proporcionar sus comentarios e ideas
Appendix H

Workshop Title VI Materials
## Major Service Change Policies: Both Service Reductions and Service Expansions

A Major Service Change Policy is typically presented as a numerical standard, such as a change that affects “x” percent of a route or “x” number of route miles or hours. There can also be a threshold for the number of people affected. It can be route-specific or systemwide. If the threshold is exceeded, then a service equity analysis is required to identify disparate impacts for minority populations and disproportionate burdens for low income populations.

<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Major Service Change Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Tran</td>
<td>A Major Service Change adds or removes <strong>25% or more</strong> of the: 1. Revenue miles on any route; 2. Revenue hours on any route; 3. Ridership on any route.</td>
</tr>
<tr>
<td>Tucson, AZ</td>
<td></td>
</tr>
<tr>
<td>ABQ RIDE</td>
<td>A Major Service Change increases or decreases service on any route by <strong>35% or more</strong> of the: 1. Revenue hours of service; 2. Service to bus stops on that route.</td>
</tr>
<tr>
<td>Albuquerque, NM</td>
<td></td>
</tr>
<tr>
<td>GET Bus</td>
<td>A Major Service Change is the establishment of a new transit route, or increases or decreases of <strong>25% or more</strong> of: 1. Route length of a route; 2. Revenue miles on a route; 3. Revenue hours on a route.</td>
</tr>
<tr>
<td>Bakersfield, CA</td>
<td></td>
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<tr>
<td>Sun Metro</td>
<td>A Major Service Change is a reduction or increase of <strong>30% or more</strong> in: 1. Revenue miles on any service area or route; 2. Revenue hours on any service area or route.</td>
</tr>
<tr>
<td>El Paso, TX</td>
<td></td>
</tr>
<tr>
<td>San Joaquin RTD</td>
<td>A Major Service Change increases or reduces <strong>25% or more</strong> of: 1. Daily revenue miles of a route; 2. The number of transit route miles of a route.</td>
</tr>
<tr>
<td>Stockton, CA</td>
<td></td>
</tr>
<tr>
<td>Sacramento RT</td>
<td>A Major Service Change: 1. Creation of any new bus route exceeding <strong>150 daily revenue miles</strong>; 2. Creation of any new light rail route or extension of any existing light rail routes; 3. Any change to an existing bus or light rail route that affects <strong>15% or more</strong> of daily revenue miles.</td>
</tr>
<tr>
<td>Sacramento, CA</td>
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</table>

### Tell us what you think:

1. **Should the Major Service Change threshold be for changes at the systemwide level or individual route level?**
   - **Circle one answer.**
   - a) Systemwide level
   - b) Route level
   - c) No opinion

2. **Which service characteristic is most important to you in measuring Major Service Changes?**
   - **Circle one answer.**
   - a) Revenue miles
   - b) Revenue hours
   - c) Route length in miles
   - d) Number of people affected
   - e) No opinion

3. **What percentage should be used to measure a Major Service Change in the FAX service area?**
   - **Circle one answer.**
   - a) 15%
   - b) 20%
   - c) 25%
   - d) 30%
   - e) No opinion
Disparate Impact Policies

The Disparate Impact Policy establishes a threshold for determining when a major service change has a disparate impact on minority populations. That is, do minority populations bear significantly more of the impacts than non-minority populations.

<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Disparate Impact Policy (Minority only or Minority and Low-Income)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sun Tran</strong></td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by <strong>20%</strong> or more than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>Tucson, AZ</td>
<td></td>
</tr>
<tr>
<td><strong>ABQ RIDE</strong></td>
<td>A Disparate Impact exists when the percent of minorities adversely affected by a major service change is greater by <strong>10%</strong> than the average percent of minorities in the service area.</td>
</tr>
<tr>
<td>Albuquerque, NM</td>
<td></td>
</tr>
<tr>
<td><strong>GET Bus</strong></td>
<td>A Disparate Impact exists when the minority population adversely affected by a major service change is more than <strong>10%</strong> than the average minority population in the service area.</td>
</tr>
<tr>
<td>Bakersfield, CA</td>
<td></td>
</tr>
<tr>
<td><strong>Sun Metro</strong></td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects over <strong>25%</strong> than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>El Paso, TX</td>
<td></td>
</tr>
<tr>
<td><strong>San Joaquin RTD</strong></td>
<td>A Disparate Impact exists if the percentage of vehicle revenue hours on minority-classified routes affected by the major service change is at least <strong>25%</strong> higher than the vehicle revenue hours on non-minority-classified routes affected by the major service change.</td>
</tr>
<tr>
<td>Stockton, CA</td>
<td></td>
</tr>
<tr>
<td><strong>Sacramento RT</strong></td>
<td>A Disparate Impact exists if a major service change requires a minority population to bear adverse effects by <strong>15%</strong> or more than the adverse effects borne by the general population.</td>
</tr>
<tr>
<td>Sacramento, CA</td>
<td></td>
</tr>
</tbody>
</table>

**Tell us what you think:**

1. FAX is proposing to use the **difference in impact on minority population compared to the general population**.

   Is this basis of comparison acceptable?
   *Circle one answer.*

   a) Yes  
   b) No

2. Which percentage should represent this difference in impact between the minority population and the general population?
   *Circle one answer.*

   a) 10%  
   b) 15%  
   c) 20%  
   d) 25%  
   e) No opinion
**Disproportionate Burden Policies**

The Disproportionate Burden Policy establishes a threshold for determining whether a major service change has a disproportionate burden on low-income populations versus non-low-income populations. That is, do low-income populations bear more of the impacts than non-low-income populations.

<table>
<thead>
<tr>
<th>Peer Agencies</th>
<th>Disproportionate Burden Policies (Low-Income only)</th>
<th>Tell us what you think:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sun Tran</strong></td>
<td>A Disproportionate Burden exists if a major service change requires a low-income population to bear adverse effects by 20% or more than the adverse effects borne by the general populations.</td>
<td>1. FAX is proposing to use the difference in impact on low-income populations compared to the general population. Is this basis of comparison acceptable? Circle one answer.</td>
</tr>
<tr>
<td>Tucson, AZ</td>
<td></td>
<td>a) Yes</td>
</tr>
<tr>
<td><strong>ABQ RIDE</strong></td>
<td>A Disproportionate Burden exists when the percent of low-income households adversely affected by a major service change is greater by 10% than the average percent of low-income households in the service area. A Disproportionate Burden exists when the low-income population adversely affected by a major service change is more than 10% than the average minority population of the service area.</td>
<td>b) No</td>
</tr>
<tr>
<td>Albuquerque, NM</td>
<td></td>
<td>2. Which percentage should represent this difference in impact between the low-income population and the general population? Circle one answer.</td>
</tr>
<tr>
<td><strong>GET Bus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bakersfield, CA</td>
<td></td>
<td>a) 10%</td>
</tr>
<tr>
<td><strong>Sun Metro</strong></td>
<td>A Disproportionate Burden exists if a major service change requires a low-income population to bear adverse effects over 25% than the adverse effects borne by the general population.</td>
<td>b) 15%</td>
</tr>
<tr>
<td>El Paso, TX</td>
<td></td>
<td>c) 20%</td>
</tr>
<tr>
<td><strong>San Joaquin RTD</strong></td>
<td>A Disproportionate Burden exists if the percentage of vehicle revenue hours on below-poverty-level classified routes affected by the major service change is at least 25% higher than the percentage of vehicle revenue hours on above-poverty-level classified routes affected by the major service change.</td>
<td>d) 25%</td>
</tr>
<tr>
<td>Stockton, CA</td>
<td></td>
<td>e) No opinion</td>
</tr>
<tr>
<td><strong>Sacramento RT</strong></td>
<td>A Disproportionate Burden exists if a major service change requires a low-income population to bear adverse effects by 15% or more than the adverse effects borne by general populations.</td>
<td></td>
</tr>
</tbody>
</table>
### Pólizas de Cambio de Servicio Mayor: Ambos Reducción de Servicio y Expansión de Servicio

Una Póliza de Cambio de Servicio Mayor es típicamente presentada como un estándar numérico, tal como un cambio que afecta “x” porcentaje de una ruta o “x” número de ruta, millas u horas. También puede haber un límite para la cantidad de personas afectadas. Puede ser específico a una ruta o atreves del sistema. Si el límite es excedido, entonces un análisis de equidad de servicio es requerido para identificar impactos desproportionados para poblaciones de minorías y cargas desproportionadas en poblaciones de bajos ingresos.

<table>
<thead>
<tr>
<th>Agencias a la Par</th>
<th>Límites de Cambios de Servicio Mayores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sun Tran</strong></td>
<td>Un Cambio de Servicio Mayor agrega o reduce un <strong>25% o más</strong> del:</td>
</tr>
<tr>
<td>Tucson, AZ</td>
<td>1. Redito por millas de cualquier ruta;</td>
</tr>
<tr>
<td></td>
<td>2. Redito por horas de cualquier ruta;</td>
</tr>
<tr>
<td></td>
<td>3. Pasajeros en cualquier ruta.</td>
</tr>
<tr>
<td><strong>ABQ RIDE</strong></td>
<td>Un Cambio de Servicio Mayor incrementa o reduce servicio en cualquier ruta por <strong>35% o más</strong> del:</td>
</tr>
<tr>
<td>Albuquerque, NM</td>
<td>1. Redito de horas de servicio;</td>
</tr>
<tr>
<td></td>
<td>2. Servicio a paradas de autobús en esta ruta.</td>
</tr>
<tr>
<td><strong>GET Bus</strong></td>
<td>Una Cambio de Servicio Mayor es el establecimiento de una nueva ruta de tránsito, o incremento o reducción de <strong>más del 25%</strong> de:</td>
</tr>
<tr>
<td>Bakersfield, CA</td>
<td>1. Distancia de Ruta en una ruta;</td>
</tr>
<tr>
<td></td>
<td>2. Redito de millas en una ruta;</td>
</tr>
<tr>
<td></td>
<td>3. Redito de horas en una ruta.</td>
</tr>
<tr>
<td><strong>Sun Metro</strong></td>
<td>Un Cambio de Servicio Mayor es una reducción o incremento del <strong>30% o más</strong> en:</td>
</tr>
<tr>
<td>El Paso, TX</td>
<td>1. Redito de millas en cualquier área de servicio o ruta;</td>
</tr>
<tr>
<td></td>
<td>2. Redito de horas en cualquier área de servicio o ruta.</td>
</tr>
<tr>
<td><strong>San Joaquin RTD</strong></td>
<td>Un Cambio de Servicio Mayor incrementa o reduce un <strong>25% o más</strong> de</td>
</tr>
<tr>
<td>Stockton, CA</td>
<td>1. Redito diario de millas por ruta;</td>
</tr>
<tr>
<td></td>
<td>2. El número de millas de transito de una ruta.</td>
</tr>
<tr>
<td><strong>Sacramento RT</strong></td>
<td>Un Cambio de Servicio Mayor:</td>
</tr>
<tr>
<td>Sacramento, CA</td>
<td>1. Creación de cualquier ruta de autobús nueva excediendo <strong>150 millas de redito diarias</strong>;</td>
</tr>
<tr>
<td></td>
<td>2. Creación de cualquier ruta nueva de vía liviana de ferrocarril o extensión de cualquier ruta liviana de ferrocarril existente</td>
</tr>
<tr>
<td></td>
<td>3. Cualquier cambio a una ruta de autobús o vía de ferrocarril liviana que afecte a <strong>15% o más</strong> del redito por millas diarias.</td>
</tr>
</tbody>
</table>

### Déjanos Saber Lo Que Tú Piensas:

1. ¿Debe el límite de Cambio de Servicio Mayor ser para cambios al nivel de sistema-completo o nivel de ruta individual?  
   *Circula una respuesta.*
   a) Nivel de Sistema-Completo  
   b) Nivel de Ruta  
   c) No opinión

2. ¿Qué característica es más importante para ti en medir Cambios de Servicio Mayor?  
   *Circula una respuesta.*
   a) Redito de millas  
   b) Redito de horas  
   c) Distancia de ruta en millas  
   d) Número de personas afectadas  
   e) No opinión

3. ¿Qué porcentaje debe ser usado para medir un Cambio de Servicio Mayor en el área de servicio de FAX?  
   *Circula una respuesta.*
   a) 15%  
   b) 20%  
   c) 25%  
   d) 30%  
   e) No opinión
## Pólizas de Impacto Desproporcionado
La Póliza de Impacto Desproporcionado establece el límite para determinar cuando un cambio de servicio mayor ha tenido un impacto desproporcionado a poblaciones de minorías. ¿Eso es decir, las poblaciones de minorías soportan más impactos significativos que los impactos a poblaciones que no son minorías?

<table>
<thead>
<tr>
<th>Agencias a la Par</th>
<th>Póliza de Impacto Desproporcionado (Minorías solamente o Minorías y Bajos-Ingresos)</th>
<th>Déjanos Saber Lo Que Tú Piensas:</th>
</tr>
</thead>
</table>
| **Sun Tran**           | *Tucson, AZ* Un Impacto Desproporcionado existe si un cambio de servicio mayor requiere que una población de minorías soporte efectos adversos de un 20% o más que los efectos adversos que impactan a la población general.                               | 1. **FAX** está proponiendo usar la diferencia en impacto a poblaciones de minorías en comparación a la población general. ¿La base de comparación es aceptable?  
  *Circula una respuesta.*  
  
  a) Sí  
  b) No  
  
  2. ¿Cuál porcentaje debe representar la diferencia en impacto entre la población minoría y la población general?  
  *Circula una respuesta.*  
  
  a) 10%  
  b) 15%  
  c) 20%  
  d) 25%  
  e) No opinión                                                                                                                                                                                                 |
| **ABQ RIDE**           | *Albuquerque, NM* Un Impacto Desproporcionado existe cuando un porcentaje de minorías adversamente afectadas por un cambio de servicio mayor es más de 10% que el margen promedio de las minorías en el área de servicio.                                   |                                                                                                                                                                                                                                  |
| **GET Bus**            | *Bakersfield, CA* Un Impacto Desproporcionado existe cuando un porcentaje de población de minorías adversamente afectadas por un cambio de servicio mayor es más de 10% que el margen promedio de las minorías en el área de servicio.               |                                                                                                                                                                                                                                  |
| **Sun Metro**          | *El Paso, TX* Un Impacto Desproporcionado existe si un cambio a servicio mayor requiere que una población minoría cargue con los efectos adversos sobre un 25% que los efectos adversos soportados por la población general.                    |                                                                                                                                                                                                                                  |
| **San Joaquin RTD**    | *Stockton, CA* Un Impacto Desproporcionado existe si el porcentaje de rédito por horas de vehículo en rutas clasificadas para minorías son afectadas por el cambio de servicio mayor por lo menos por un 25% más alto que el redito de horas pro vehículo que las rutas no clasificadas como minorías por el cambio de servicio mayor. |                                                                                                                                                                                                                                  |
| **Sacramento RT**      | *Sacramento, CA* Un Impacto Desproporcionado existe si un cambio de servicio mayor requiere que una población de minorías soporte los efectos adversos por un 15% o más de los efectos adversos soportados por la población general.                |                                                                                                                                                                                                                                  |
## Pólizas de Carga Desproporcionada

La Póliza de Carga Desproporcionada establece un límite para determinar si un cambio de servicio mayor tiene una carga desproporcionada a poblaciones de bajos-ingresos versus poblaciones que no son de bajos ingresos. ¿Esto es decir, poblaciones de bajos-ingresos soportan más el impacto que poblaciones que no son de bajos-ingresos?

<table>
<thead>
<tr>
<th>Agencias a la Par</th>
<th>Póliza de Carga Desproporcionada (Bajos-Ingresos solamente)</th>
</tr>
</thead>
</table>
| **Sun Tran**
Tucson, AZ               | Una Carga Desproporcionada existe si un cambio de servicio mayor requiere que una población de bajos ingresos soporte los efectos adversos por un **20%** o más que los efectos adversos soportados por la población general. |
| **ABQ RIDE**
Albuquerque, NM          | Una Carga Desproporcionada existe cuando el porcentaje de viviendas de bajos-ingresos son adversamente afectadas por un cambio de servicio mayor que es más del **10%** que el porcentaje promedio de viviendas de bajos-ingresos en el área de servicio. Una Carga Desproporcionada existe cuando la población de bajos-ingresos es adversamente afectada por un cambio mayor de servicio por más de **10%** que el promedio de la población de minorías en el área de servicio. |
| **GET Bus**
Bakersfield, CA         | Una Carga Desproporcionada existe si un cambio de servicio mayor requiere que la población de bajos-ingresos soporte efectos adversos sobre un **25%** más que los efectos adversos soportados por la población general. |
| **Sun Metro**
El Paso, TX             | Una Carga Desproporcionada existe si el porcentaje de redito de horas por vehículo en rutas clasificadas por-debajo-del-nivel-de-pobreza son afectados por el cambio de servicio mayor por lo menos por un **25%** más alto que el porcentaje de redito de horas por vehículo en rutas clasificadas por-encima-del-nivel-de-pobreza afectadas por un cambio de servicio mayor. |
| **San Joaquín RTD**
Stockton, CA              | Una Carga Desproporcionada existe si un cambio de servicio mayor requiere que una población de bajos-ingresos soporte los efectos adversos por un **15%** o más que los efectos adversos soportados por la población general. |

### Déjanos Saber Lo Que Tú Piensas:

1. **FAX** está proponiendo usar la diferencia en impacto a poblaciones de bajos-ingresos comparada a la población general. ¿Esta base de comparación es aceptable?

   - Circula una respuesta.
   - a) Sí
   - b) No

2. ¿Qué porcentaje debe representar esta diferencia en impacto entre la población de bajos-ingresos y la población general?

   - Circula una respuesta.
   - a) 10%
   - b) 15%
   - c) 20%
   - d) 25%
   - e) No opinión
Low-Income Areas
Within 3/4-mile from FAX Routes

Based on ACS 2010-2014 data. Quantities shown reflect percent of population at less than 150% of the poverty level.
Non-White Population
Within 3/4-mile from FAX Routes

Based on ACS 2010-2014 data. Quantities shown reflect percent of total population not categorized as "White, Non-Hispanic".

Non-White Population

- Green: < 40%
- Light Green: 40% - 55%
- Yellow: 55% - 70%
- Orange: 70% - 85%
- Red: > 85%

3/4-mile FAX Buffer
City Limits

Title VI and Service Equity Frequently Asked Questions

What is Title VI?

Part of the Civil Rights Act of 1964, Title VI prohibits federally-funded programs from discriminating on the basis of race, color, or national origin.

What Does This Mean for You?

If you think you’ve been excluded from participation in, or denied benefits or services of any Fresno Area Express (FAX) program or activity on the basis of race, color, or nation origin, you can lodge a complaint with FAX. FAX has submitted a Title VI Plan to the Federal Transit Administration and a subsequent update. A summary of the FAX Title VI Policy is on the FAX website and can be accessed through this link: https://www.fresno.gov/transportation/wp-content/uploads/sites/13/2016/10/FAX-Title-VI-Policy-Procedure.pdf

It has also established procedures for investigating Title VI discrimination complaints. The complaint form can be accessed at this link: https://www.fresno.gov/transportation/wp-content/uploads/sites/13/2016/10/FAX-Title-VI-Complaint-Form.pdf

What Does This Mean for FAX?

- FAX will not discriminate on the basis on race, color, or national origin.
- FAX will ensure meaningful access to its programs and services for minority and Limited English Proficient (LEP) persons. This means FAX will provide language assistance.
- FAX will promote inclusive public participation, ensuring minority and LEP individuals are involved in the transportation decision making process.
- FAX will develop policies, with public input, to determine when a detailed analysis of impacts should be undertaken.
- FAX will develop thresholds, with public input, to determine when an action will impact minority and low-income populations less favorably than non-minority and non-low-income populations.

What is a Title VI Service Equity Analysis?

When service changes meet the Major Service Change Threshold, FAX must analyze how the proposed action would impact minority populations as compared to non-minority populations, or low-income populations as compared to non-low-income populations.

If impacts or burdens are found that exceed the established thresholds, FAX must evaluate whether there is an alternative that has a more equitable impact. FAX will implement the proposed change that is the least discriminatory alternative and will take measures to mitigate the impact of the proposed action on the affected population(s).
What is a Major Service Change and Why is a Major Service Change Threshold Policy Established?

FAX often makes minor changes to its schedule or on individual route segments. A major service change policy establishes a percentage threshold that when the threshold is exceeded, it triggers a service equity analysis.

A major service change policy is typically presented as a numerical standard, such as a change that affects “x” percent of a route, or “x” number of route miles or hours. There can also be a threshold for the number of people affected. It can be route-specific or systemwide. If the threshold is exceeded, then a service equity analysis is required for disparate impacts for minority populations and disproportionate burden for low-income populations.

What is a Disparate Impact and Why is a Disparate Impact Policy Established?

Disparate Impact is a policy or practice that unintentionally disproportionately affects members of a group identified by race, color, or national origin. A finding of Disparate Impact requires FAX to evaluate alternatives and mitigate impacts where feasible.

The Disparate Impact policy establishes a threshold for determining when a major service change has a disparate impact on minority populations. That is, do minority populations bear more of the impacts than non-minority populations?

What is a Disproportionate Burden Policy and Why is a Disproportionate Burden Policy Established?

Disproportionate Burden is a policy or practice that unintentionally disproportionately affects low-income populations more than non-low-income populations.

A finding of Disproportionate Burden requires the recipient to evaluate alternatives and mitigate burdens where feasible.

Disproportionate Burden Policy

The Disproportionate Burden policy establishes a threshold for determining whether a major service change has a disproportionate burden on low-income populations versus non-low-income populations. That is, do low-income populations bear more of the impacts than non-low-income populations?

The Disproportionate Burden Policy applies only to low-income populations that are not also minority populations.

Who Are the Minority Populations and How are Minorities Defined for the Purposes of Title VI?

Minority population means any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient populations (such as migrant workers or Native Americans) who will be similarly affected by a proposed Federal Department of Transportation program, policy, or activity.
Minority persons include the following:

1. American Indian and Alaska Native, which refers to people having origins in any of the original peoples of North and South America (including Central America), and who maintain tribal affiliation or community attachment.
2. Asian, which refers to people having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
3. Black or African American, which refers to people having origins in any of the Black racial groups of Africa.
4. Hispanic or Latino, which includes persons of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
5. Native Hawaiian or Other Pacific Islander, which refers to people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

How Are Low-Income Populations Defined and Who is Included?

Low-income population refers to any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FTA program, policy or activity.

Low-income person means a person whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines. Recipients are encouraged to use a locally developed threshold, such as the definition found in 49 U.S.C. 5302 as amended by MAP-21: “refers to an individual whose family income is at or below 150 percent of the poverty line (as that term is defined in Section 673(2) of the Community Services Block Grant Act (42 U.S.C 9902(2)), including any revision required by that section) for a family of the size involved” or another threshold, provided that the threshold is at least as inclusive as the HHS poverty guidelines.

What is a Revenue Hour or Revenue Mile?

A revenue hour is essentially when a bus in available when passengers can get on and off the bus. A revenue hour is when the bus travels one hour and is available for passengers to pay a fare. A revenue mile is when bus travels a mile when the bus in service available for passenger to pay a fare.
Titulo VI y Preguntas Frecuentes sobre Equidad de Servicio

¿Qué es Titulo VI?
Parte de la Ley Civil de Derechos del 1964, Titulo VI prohíbe a programas federalmente-fundados de discriminar sobre la base de raza, color, u origen nacional.

¿Qué Quiere Decir Esto para Ti?
Si tú crees que has sido excluido de participar en, o se te han negado beneficios o servicios de cualquier programa o actividad de Express del Área de Fresno (FAX) en base a raza, color u origen nacional, puedes someter un reclamo con FAX. FAX ha sometido el Plan de Titulo VI a la Administración Federal de Transito y una revisión subsecuente. Un sumario de la Póliza de FAX Titulo VI está en el sitio de internet de FAX y puede ser visto utilizando este enlace: https://www.fresno.gov/transportation/wp-content/uploads/sites/13/2016/10/FAX-Title-VI-Policy-Procedure.pdf

También ha establecido procedimientos para investigar Titulo VI de reclamos de discriminación. La forma de reclamo puede ser vista utilizando este enlace: https://www.fresno.gov/transportation/wp-content/uploads/sites/13/2016/10/FAX-Title-VI-Complaint-Form.pdf

¿Qué quiere decir esto para FAX?
- FAX no va a discriminar en base a raza, color u origen nacional.
- FAX va a asegurar acceso significativo a sus programas y servicios para minorías y personas de Conocimiento en Ingles Limitada (LEP). Esto quiere decir que FAX proveerá asistencia de lenguaje.
- FAX va a promover inclusión de participación asegurando que minorías e individuos de LEP son involucrados en el proceso de decisiones sobre transportación.
- FAX va a desarrollar pólizas, con comentarios e participación publica, para determinar cuando un análisis detallado de impactos debería ser llevado a cabo.
- FAX va a desarrollar límites, con comentarios e participación publica, para determinar cuando una acción impactara minorías y poblaciones de bajos-ingresos menos favorablemente que a los que no son minoría y no son de población de bajos ingresos.

¿Qué es un Análisis de Equidad de Servicio Titulo VI?
Cuando cambios en servicio topan con el Límite de Cambios de Servicio Mayores, FAX debe analizar como la acción propuesta impactaría a poblaciones de minorías en comparación a la población sin minorías o poblaciones de bajos-ingresos en comparación a las poblaciones que no son de bajos-ingresos.

Si se encuentra que los impactos o carga exceden los límites establecidos, FAX debe evaluar si hay una alternativa que tenga un impacto más equitativo. FAX implementara el propuesto cambio que sea la alternativa menos discriminatoria y tomará medidas para mitigar el impacto de la propuesta acción y los efectos sobre la (s) población (es).
¿Qué es un Cambio de Servicio Mayor y Porque se Establece un Límite de Cambios en Servicio Mayores?

Fax seguido hace cambios menores a sus horarios o segmentos de rutas. La póliza que establece un porcentaje de límites a cambios de servicio mayores, indica que cuando excedidos debe hacerse un análisis de equidad de servicio.

Una póliza de cambio de servicio mayor típicamente es representada como un standard numérico, tal como el cambio que afecta “x” porcentaje de una ruta o “x” número de millas de ruta u horas. También puede haber un límite para la cantidad de personas afectadas. También puede ser específica a una ruta o a través del sistema. Si el límite se excede, entonces un análisis de equidad de servicio es requerido para medir impactos desproporcionados para poblaciones de minorías y carga desproporcionada a poblaciones de bajo-impacto.

¿Qué es un Impacto Desproporcionado y Porque se Establece una Póliza de Impacto Desproporcionado?

Impacto Desproporcionado es una póliza o practica que sin intención desproporcionadamente afecta a miembros de un grupo identificado por raza, color u origen nacional. Cuando se encuentra Impacto Desproporcionado se requiere que FAX evalúe alternativas y mitigue impacto donde sea factible.

La póliza de Impacto Desproporcionado establece un límite para determinar cuando un cambio de servicio mayor ha tenido un impacto desproporcionado en poblaciones de minorías. ¿Eso es decir, las poblaciones de minorías soportan más del impacto que poblaciones no minorías?

¿Por Que se Establece una Póliza de Carga Desproporcionada y Por Que es Establecida una Póliza de Carga Desproporcionada?

Carga Desproporcionada es una póliza o practica que sin intención desproporcionadamente afecta poblaciones de bajos-ingresos más que a poblaciones que no son de bajos-ingresos.

Cuando se encuentra una Carga Desproporcionadamente requiere que el recipiente evalúe alternativas para mitigar la carga donde sea factible.

Póliza de Carga Desproporcionada

La póliza de Carga Desproporcionada establece un límite para determinar cuándo un cambio de servicio mayor tiene una carga desproporcionada a poblaciones de bajos ingresos versus cuando no son de bajos-ingresos. ¿Eso es decir, las poblaciones de bajos ingresos cargan más el impacto que poblaciones que no son de bajos ingresos?

La Póliza de Carga Desproporcionada solo aplica a poblaciones de bajos ingresos que no son también poblaciones de minorías.

¿Quiénes son las Poblaciones de Minorías y Como son Definidas las Minorías para Propósito de Titulo VI?
Poblaciones de minorías quiere decir un grupo fácilmente identificado de personas de minorías quienes viven en una geografía aproximada y que si las circunstancias se dan, geográficamente dispersas/poblaciones transcendentales (tales como trabajadores migrantes o Nativo Americanos) quienes serán similarmente afectados por un programa, póliza o actividad propuesta por el departamento de Transportación Federal.

Personas de Minorías incluyen los siguientes:

1. Indio Americanos o Nativos de Alaska, a quienes se les refiere de esta manera si tienen orígenes de cualquier persona de Norte y Sud América (incluyendo América del Centro), y a quienes mantienen afiliación tribal o vehículo comunitario
2. Asiáticos, que se refiere a personas que tienen orígenes de cualquiera de las personas del Lejano Este, Sureste de Asia, o subcontinente de India, incluyendo por ejemplo, Cambodia, China, India, Japón, Korea, Malaysia, Pakistán, y las Islas Filipinas, Tailandia y Vietnam.
3. Negros o Afro Americanos, que se refiere a personas teniendo orígenes en cualquiera de los grupos de raza Negras de África.
4. Hispano o Latina, que se refiere a personas de Cuba, México, Puerto Rico, Sud o Centro América, u otras culturas u orígenes Españoles, sin referencia a raza.
5. Nativo Hawaianos o de Otras Islas Pacificas, que se refiere a personas que tienen orígenes de cualquiera de las personas originales de Hawái, Guam, Samoa, u otras Islas Pacíficas.

¿Cómo Son Las Poblaciones De Bajos-Ingresos Definidas y Quien es Incluido?

Población de Bajos-Ingresos se refiere a cualquier grupo fácilmente identificable de personas de bajos- ingresos que viven en una proximidad geográfica, y que si las circunstancias se dan, geográficamente dispersas/personas transcendentales (tales como trabajadores migrantes o nativo Americanos) quienes serán similarmente afectados por un propuesto programa, póliza o actividad del FTA.

Personas de Bajos-Ingresos ser refiere a personas quienes su ingreso de hogar promedio esta en o abajo de las guías de pobreza del Departamento de Salud y Recursos Humanos (HHS) de E.E.U. Recipientes son motivados a que usen un límite desarrollado local, tal como la definición encontrada en 49 U.S.C. 5302 como fue enmendada por MAP-21: “se refiere a individuos quienes su ingreso esta en o debajo de 150 por ciento de la línea de pobreza (como es definido el termino en Sección 673(2) de la Ley de Becas por Cuadra de Servicios Comunitarios (42 U.S.C. 9902 (2)), incluyendo cualquier revisión requerida por esa sección) para el tamaño de vivienda involucrado” u otro límite, proveído que el límite este en o por lo menos inclusivo de las guías de pobreza del HHS.

¿Qué es un Redito por Hora o Redito por Milla?

Un redito por hora es esencialmente cuando un autobús está disponible para que pasajeros suban y bajen del autobús. Un redito por hora es cuando el autobús viaja por una hora y está disponible para que los pasajeros paguen su tarifa. Un redito por milla es cuando el autobús viaja una hora cuando el autobús esta en servicio y disponible para que los pasajeros paguen una tarifa.
Appendix I

Workshop REMIX Materials
Faster FAX
Job Access Impact

Change in jobs accessible in 60 minutes from block group centers compared to Existing Network

1 dot = 5 residents

- more jobs accessible
  - greater than 20% more jobs accessible
  - 10%-20% more jobs accessible
  - 5%-10% more jobs accessible
  - Minimal Change (5% to -5% greater or fewer jobs accessible)
  - 5%-10% fewer jobs accessible
  - 10%-20% fewer jobs accessible
  - more than 20% fewer jobs accessible

- fewer jobs accessible

Decline in access due to truncation of BRT service at Friant and Fresno (current service on Route 30 extends to Audubon).

Decline in access due to loss of current southbound service on First Ave between Alluvial and Herndon provided by Route 34.

Decline in access due to loss of connection to Kings Canyon currently provided by turn-around loop of Route 28.

Access gains along Cedar north of Shaw due to extension of 15-minute service on 38-Cedar from Shaw to River Park.

Access gains along Kings Canyon due to new BRT service terminating just east of Clovis.

Access gains in SW Fresno due to extension of 15-minute service on 32 servicing Fig and First.
Let's think about transit more than 20% fewer jobs accessible in 60 minutes from block group centers compared to Existing Network.

- more jobs accessible:
  - greater than 20% more jobs accessible
  - 10%-20% more jobs accessible
  - 5%-10% more jobs accessible
  - Minimal Change (5% to -5% greater or fewer jobs accessible)
  - 5%-10% fewer jobs accessible
  - 10%-20% fewer jobs accessible
  - more than 20% fewer jobs accessible

- fewer jobs accessible:

- Access gain along Cedar north of Shaw due to extension of 15-minute frequency on 38-Cedar from Shaw to River Park.
- Access gains along Kings Canyon due to new BRT service terminating just east of Clovis.
- Access gains in SW Fresno due to extension of 15-minute frequency on 38-Cedar and on Route 32 serving Fig and First.
Everywhere you could reach in 45 minutes

This poster shows maps comparing travel times from important places around Fresno using either the Existing FAX transit network or the Faster FAX proposal. Each map shows the area of the city that could be reached in 45 minutes by walking and transit during the middle of the day, starting from the given location, using either transit network.

- Accessible only with Faster FAX
- Accessible with both Faster FAX and the Existing Network
- Accessible only with the Existing Network

The area that can be reached in either scenario is color-coded. If a place is outside of the colored area, it cannot reliably be reached in 45 minutes of travel time; if it is in one of the colored bubbles, one or both transit networks allow a rider to reach it in 45 minutes.

How do we know how far you could go?

The shape on each map represents every place that could be reached in 45 minutes by walking or transit. We figure average travel time like this:

- Transit travel time is the sum of time spent walking to the initial stop, the average wait for the bus at the stop (1/2 the headway), the time spent riding, and the time to walk to the final destination.
- If the trip involves a connection between two routes, an average wait of 1/2 the headway is assumed, as shown in the diagram.

What could you get to?

The shape on each map represents every place that could be reached in 45 minutes by walking or transit, but what sorts of opportunities do those areas actually contain?

Counting jobs is a way of assessing all the potential opportunities (to work, shop, dine, access services, etc) that could be reached from the origin point.

Counting people is a way of looking at how many people in the city could get to the origin point, since travel times are generally very comparable in both directions. The area that can be reached in either scenario is color-coded. If a place is outside of the colored area, it cannot reliably be reached in 45 minutes of travel time; if it is in one of the colored bubbles, one or both transit networks allow a rider to reach it in 45 minutes.

Change in people or jobs that can be reached in 45 minutes with Faster FAX, compared to the Existing Network:

- % Change Population
- % Change Jobs

7.61% +5.5%
5.44% +2.5%

Major Educational Institutions

- Downtown Fresno
- Major Educational Institutions
- Hospitals and Medical Centers

Accessible only with Faster FAX
- Places that could be reached in 45 minutes with Faster FAX that cannot be reached today, because of shorter travel times.

Accessible with both Faster FAX and Existing
- Places that can be reached within 45 minutes using either network. Travel times to these places would not change much.

Accessible only with the Existing Network
- Places that can only be reached within 45 minutes with the Existing Network. Travel to these locations would take longer with Faster FAX.
Appendix J

Workshop Polling Exercise Results by Workshop
FAX Fixed-Route System Restructure Study

Fresno City College
Saturday, November 4, 2017
11:00am – 1:00pm

FAX Proposed Route Restructuring
What is your age?

1. Less than 16
2. 16-25
3. 26-35
4. 36-50
5. 51-65
6. Greater than 65
What is your racial or ethnic background?

1. Anglo/White
2. Hispanic/Chicano/Latino
3. American Indian/Native American
4. African American/Black
5. Asian/Oriental/Pacific Islander
6. Other
7. Rather not answer
What is your household income?

1. Less than $25,000
2. $25,000 - $49,999
3. $50,000 - $74,999
4. $75,000 - $99,999
5. More than $100,000
6. Rather not say
Where do you live?

1. City of Fresno
2. Unincorporated County Area outside of City of Fresno
3. City of Clovis
4. Other Fresno County City
5. Outside of Fresno County
Which of the following subgroups BEST describes you?

1. Elected Official
2. Appointed Official
3. Private Citizen
4. Student
5. Public Agency Staff
6. Community Based Organization/Faith Based Organization
7. Environmental Justice Advocate
8. Union Member or Representative
9. Other
What is your preferred language?

1. English
2. Spanish
3. Southeast Asian dialect (Hmong, Laotian, etc.)
4. Other
Are you disabled?

1. Yes
2. No

1. Yes: 35%
2. No: 65%
How did you get to this workshop today?

1. Drove a car
2. Rode in a car with family/friends
3. Rode on a motorcycle
4. Took Uber/Lyft
5. Took the bus
6. Rode a bike
7. Walked
8. Other
Do you own or have regular access to a vehicle?

1. Yes
2. No

71% Yes
29% No
If a motor vehicle is not available, what type of transportation do you use?

1. Bus
2. Bicycle
3. Walk
4. Ask for a ride from friend, neighbor or family member
5. Uber/Lyft
6. Other
How often do you ride FAX?

1. Four or more days a week
2. Two to three days a week
3. About once every week or two
4. About once a month
5. Rarely/Never
What do you currently ride FAX for (most important trip only)?

1. Trips to and from work
2. Shopping trips
3. Education trips (school, college, job-related classes)
4. Personal business trips (doctor, haircut, etc.)
5. Social and recreational trips (visiting friends/family, entertainment)
6. Do not ride FAX
Is the *FAX Plan* better for me?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *FAX Plan* better for my friends and family?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the **FAX Plan** better for my neighborhood?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *FAX Plan* better for Fresno?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Do you think the **FAX Plan** will lead you to ride transit for more trips to and from work?

1. Yes
2. No

![Bar chart showing 55% for No and 45% for Yes]
Do you think the **FAX Plan** will lead you to ride transit for more shopping trips?

1. Yes
2. No
Do you think the FAX Plan will lead you to ride transit for more education trips (school, college, job-related classes)?

1. Yes
2. No

- Yes: 43%
- No: 57%
Do you think the *FAX Plan* will lead you to ride transit for more personal trips (doctor, haircut, etc.)?

1. Yes
2. No

57% Yes
43% No
Do you think the **FAX Plan** will lead you to ride transit for more social and recreational trips (visiting friends/family, entertainment)?

1. Yes
2. No

62% Yes
38% No
The *FAX Plan* will provide better service in most areas, but some low-density areas will see less service. *If* FAX were to obtain more funding, what is the best option for these areas?

1. No additional service is needed in these areas.
2. Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount
3. Uber/Lyft or Taxi services to any destination with a 20% discount
4. Bikeshare system in these areas
5. FAX should keep bus service at the same level
6. Other (please describe on comment card)
To make FAX service faster, there will be longer distances between some stops. What would help offset this?

1. More comfortable stops – shade, seating, etc.
2. Ensure that sidewalks and other pathways to stops are well-paved, well-lighted and safe
3. Better bike access/more secure bike parking at key bus stops.
4. Alternating “skip stop” service on routes
5. Nothing more is needed – faster service is enough
6. Other (please describe on comment card)
How effective has this meeting been so far to express your opinions?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How useful were the clickers to provide your opinion?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective

0%
71%
19%
10%
0%
How did you learn about today’s workshop?

1. Received a flyer
2. Received an email
3. Heard about it on television
4. Radio
5. Vida En El Valle
6. Saw advertisement on bus
7. Word of mouth
8. Other
FAX Fixed-Route System Restructure Study

Central Valley Regional Center
Monday, November 6, 2017
5:30pm – 7:30pm

FAX Proposed Route Restructuring
What is your age?

1. Less than 16
2. 16-25
3. 26-35
4. 36-50
5. 51-65
6. Greater than 65
What is your racial or ethnic background?

1. Anglo/White
2. Hispanic/Chicano/Latino
3. American Indian/Native American
4. African American/Black
5. Asian/Oriental/Pacific Islander
6. Other
7. Rather not answer
What is your household income?

1. Less than $25,000
2. $25,000 - $49,999
3. $50,000 - $74,999
4. $75,000 - $99,999
5. More than $100,000
6. Rather not say
Where do you live?

1. City of Fresno
2. Unincorporated County Area outside of City of Fresno
3. City of Clovis
4. Other Fresno County City
5. Outside of Fresno County
Which of the following subgroups BEST describes you?

1. Elected Official
2. Appointed Official
3. Private Citizen
4. Student
5. Public Agency Staff
6. Community Based Organization/Faith Based Organization
7. Environmental Justice Advocate
8. Union Member or Representative
9. Other
What is your preferred language?

1. English
2. Spanish
3. Southeast Asian dialect (Hmong, Laotian, etc.)
4. Other
Do you have a disability that either prevents you from getting to or from a bus route, accessing a bus, or understanding how to use the bus system?

1. Yes
2. No
3. Prefer not to answer
How did you get to this workshop today?

1. Drove a car
2. Rode in a car with family/friends
3. Rode on a motorcycle
4. Took Uber/Lyft
5. Took the bus
6. Rode a bike
7. Walked
8. Other
Do you own or have regular access to a vehicle?

1. Yes
2. No

91% Yes
9% No
If a motor vehicle is not available, what type of transportation do you use?

1. Bus
2. Bicycle
3. Walk
4. Ask for a ride from friend, neighbor or family member
5. Uber/Lyft
6. Other
How often do you ride FAX?

1. Four or more days a week
2. Two to three days a week
3. About once every week or two
4. About once a month
5. Rarely/Never
What do you currently ride FAX for (most important trip only)?)

1. Trips to and from work
2. Shopping trips
3. Education trips (school, college, job-related classes)
4. Personal business trips (doctor, haircut, etc.)
5. Social and recreational trips (visiting friends/family, entertainment)
6. I use FAX for all my trips
7. Do not ride FAX
Is the *Draft FAX Plan* better for me?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

![Bar Chart](chart.png)

- 1: 20%
- 2: 30%
- 3: 30%
- 4: 20%
- 5: 0%
Is the **Draft FAX Plan** better for my friends and family?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely</td>
<td>60%</td>
</tr>
<tr>
<td>Probably</td>
<td>30%</td>
</tr>
<tr>
<td>Maybe/Not Sure</td>
<td>10%</td>
</tr>
<tr>
<td>Probably Not</td>
<td>0%</td>
</tr>
<tr>
<td>Definitely Not</td>
<td>0%</td>
</tr>
</tbody>
</table>
Is the Draft FAX Plan better for my neighborhood?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for Fresno?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

![Graph showing the distribution of responses to the question. The majority (60%) of respondents answered with "Definitely." The other options show 0% for "Definitely Not," "Probably Not," and "Maybe/Not Sure."](image-url)
Do you think the Draft FAX Plan will lead you to ride transit for more trips to and from work?

1. Yes
2. No
3. I am not employed
Do you think the *Draft FAX Plan* will lead you to ride transit for more shopping trips?

1. Yes
2. No
Do you think the *Draft FAX Plan* will lead you to ride transit for more education trips (school, college, job-related classes)?

1. Yes
2. No
3. I am not a student
Do you think the *Draft FAX Plan* will lead you to ride transit for more personal trips (doctor, haircut, etc.)?

1. Yes
2. No

70% Yes
30% No
Do you think the *Draft FAX Plan* will lead you to ride transit for more social and recreational trips (visiting friends/family, entertainment)?

1. Yes
2. No

![Bar chart showing 60% Yes and 40% No]
The *Draft FAX Plan* will provide better service in most areas, but some low-density areas will see less service. *If* FAX were to obtain more funding, what is the best option for these areas?

1. **No additional service is needed in these areas.**
2. **Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount**
3. **Uber/Lyft or Taxi services to any destination with a 20% discount**
4. **Bikeshare system in these areas**
5. **FAX should keep bus service at the same level**
6. **Other (please describe on comment card)**
To make FAX service faster, there will be longer distances between some stops. What would help offset this?

1. More comfortable stops – shade, seating, etc.
2. Ensure that sidewalks and other pathways to stops are well-paved, well-lighted and safe
3. Better bike access/more secure bike parking at key bus stops.
4. Alternating “skip stop” service on routes
5. Nothing more is needed – faster service is enough
6. Other (please describe on comment card)
Meeting Evaluation
How effective has this meeting been so far to express your opinions?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How useful were the clickers to provide your opinion?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How did you learn about today’s workshop?

1. Received a flyer
2. Received an email
3. Heard about it on television
4. Radio
5. Vida En El Valle
6. Social Media
7. Internet
8. Saw advertisement on bus
9. Word of mouth
10. Other
FAX Fixed-Route System Restructure Study

Frank H. Ball Community Center
Wednesday, November 8, 2017
5:30pm – 7:30pm
FAX Proposed Route Restructuring
What is your age?

1. Less than 16
2. 16-25
3. 26-35
4. 36-50
5. 51-65
6. Greater than 65
What is your racial or ethnic background?

1. Anglo/White
2. Hispanic/Chicano/Latino
3. American Indian/Native American
4. African American/Black
5. Asian/Oriental/Pacific Islander
6. Other
7. Rather not answer
What is your household income?

1. Less than $25,000
2. $25,000 - $49,999
3. $50,000 - $74,999
4. $75,000 - $99,999
5. More than $100,000
6. Rather not say
Where do you live?

1. City of Fresno
2. Unincorporated County Area outside of City of Fresno
3. City of Clovis
4. Other Fresno County City
5. Outside of Fresno County
Which of the following subgroups BEST describes you?

1. Elected Official
2. Appointed Official
3. Private Citizen
4. Student
5. Public Agency Staff
6. Community Based Organization/Faith Based Organization
7. Environmental Justice Advocate
8. Union Member or Representative
9. Other
What is your preferred language?

1. English
2. Spanish
3. Southeast Asian dialect (Hmong, Laotian, etc.)
4. Other

- English: 75%
- Spanish: 25%
- Other: 0%
- Southeast Asian dialect: 0%
Do you have a disability that either prevents you from getting to or from a bus route, accessing a bus, or understanding how to use the bus system?

1. Yes
2. No
3. Prefer not to answer
How did you get to this workshop today?

1. Drove a car
2. Rode in a car with family/friends
3. Rode on a motorcycle
4. Took Uber/Lyft
5. Took the bus
6. Rode a bike
7. Walked
8. Other
Do you own or have regular access to a vehicle?

1. Yes
2. No

63% 38%
If a motor vehicle is not available, what type of transportation do you use?

1. Bus
2. Bicycle
3. Walk
4. Ask for a ride from friend, neighbor or family member
5. Uber/Lyft
6. Other
How often do you ride FAX?

1. Four or more days a week
2. Two to three days a week
3. About once every week or two
4. About once a month
5. Rarely/Never
What do you currently ride FAX for (most important trip only)?

1. Trips to and from work
2. Shopping trips
3. Education trips (school, college, job-related classes)
4. Personal business trips (doctor, haircut, etc.)
5. Social and recreational trips (visiting friends/family, entertainment)
6. I use FAX for all my trips
7. Do not ride FAX
Is the *Draft FAX Plan* better for me?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for my friends and family?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

![Survey Results](chart.png)
Is the *Draft FAX Plan* better for my neighborhood?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the Draft FAX Plan better for Fresno?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

1: 38%
2: 25%
3: 25%
4: 13%
5: 0%
Do you think the *Draft FAX Plan* will lead you to ride transit for more trips to and from work?

1. Yes  
2. No  
3. I am not employed
Do you think the Draft FAX Plan will lead you to ride transit for more shopping trips?

1. Yes
2. No
Do you think the *Draft FAX Plan* will lead you to ride transit for more education trips (school, college, job-related classes)?

1. Yes
2. No
3. I am not a student
Do you think the *Draft FAX Plan* will lead you to ride transit for more personal trips (doctor, haircut, etc.)?

1. Yes
2. No
Do you think the *Draft FAX Plan* will lead you to ride transit for more social and recreational trips (visiting friends/family, entertainment)?

1. Yes
2. No
The *Draft FAX Plan* will provide better service in most areas, but some low-density areas will see less service. *If* FAX were to obtain more funding, what is the best option for these areas?

1. No additional service is needed in these areas.
2. Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount
3. Uber/Lyft or Taxi services to any destination with a 20% discount
4. Bikeshare system in these areas
5. FAX should keep bus service at the same level
6. Other (please describe on comment card)
To make FAX service faster, there will be longer distances between some stops. What would help offset this?

1. **More comfortable stops – shade, seating, etc.**
2. **Ensure that sidewalks and other pathways to stops are well-paved, well-lighted and safe**
3. **Better bike access/more secure bike parking at key bus stops.**
4. **Alternating “skip stop” service on routes**
5. **Nothing more is needed – faster service is enough**
6. **Other (please describe on comment card)**
How effective has this meeting been so far to express your opinions?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective

![Bar Chart]

- 63%: Very effective
- 25%: Effective
- 13%: Somewhat effective
- 0%: Not very effective
- 0%: Not at all effective
How useful were the clickers to provide your opinion?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How did you learn about today’s workshop?

1. Received a flyer
2. Received an email
3. Heard about it on television
4. Radio
5. Vida En El Valle
6. Social Media
7. Internet
8. Saw advertisement on bus
9. Word of mouth
10. Other
FAX Proposed Route Restructuring

Woodward Library
Thursday, November 9, 2017
10:00am – 12:00pm

FAX Proposed Route Restructuring
What is your age?

1. Less than 16
2. 16-25
3. 26-35
4. 36-50
5. 51-65
6. Greater than 65
What is your racial or ethnic background?

1. Anglo/White
2. Hispanic/Chicano/Latino
3. American Indian/Native American
4. African American/Black
5. Asian/Oriental/Pacific Islander
6. Other
7. Rather not answer
What is your household income?

1. Less than $25,000
2. $25,000 - $49,999
3. $50,000 - $74,999
4. $75,000 - $99,999
5. More than $100,000
6. Rather not say
Where do you live?

1. City of Fresno
2. Unincorporated County Area outside of City of Fresno
3. City of Clovis
4. Other Fresno County City
5. Outside of Fresno County
Which of the following subgroups BEST describes you?

1. Elected Official
2. Appointed Official
3. Private Citizen
4. Student
5. Public Agency Staff
6. Community Based Organization/Faith Based Organization
7. Environmental Justice Advocate
8. Union Member or Representative
9. Other
What is your preferred language?

1. English
2. Spanish
3. Southeast Asian dialect (Hmong, Laotian, etc.)
4. Other
Do you have a disability that either prevents you from getting to or from a bus route, accessing a bus, or understanding how to use the bus system?

1. Yes
2. No
3. Prefer not to answer
How did you get to this workshop today?

1. Drove a car
2. Rode in a car with family/friends
3. Rode on a motorcycle
4. Took Uber/Lyft
5. Took the bus
6. Rode a bike
7. Walked
8. Other
Do you own or have regular access to a vehicle?

1. Yes
2. No
If a motor vehicle is not available, what type of transportation do you use?

1. Bus
2. Bicycle
3. Walk
4. Ask for a ride from friend, neighbor or family member
5. Uber/Lyft
6. Other
How often do you ride FAX?

1. Four or more days a week
2. Two to three days a week
3. About once every week or two
4. About once a month
5. Rarely/Never
What do you currently ride FAX for (most important trip only)?

1. Trips to and from work
2. Shopping trips
3. Education trips (school, college, job-related classes)
4. Personal business trips (doctor, haircut, etc.)
5. Social and recreational trips (visiting friends/family, entertainment)
6. I use FAX for all my trips
7. Do not ride FAX
Is the *Draft FAX Plan* better for me?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

[Graph showing responses:]
- 0% for Definitely
- 7% for Probably
- 13% for Maybe/Not Sure
- 7% for Probably Not
- 73% for Definitely Not

Is the *Draft FAX Plan* better for my friends and family?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for my neighborhood?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

93%
Is the *Draft FAX Plan* better for Fresno?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Do you think the Draft FAX Plan will lead you to ride transit for more trips to and from work?

1. Yes
2. No
3. I am not employed
Do you think the Draft FAX Plan will lead you to ride transit for more shopping trips?

1. Yes
2. No
Do you think the *Draft FAX Plan* will lead you to ride transit for more education trips (school, college, job-related classes)?

1. Yes
2. No
3. I am not a student

**Chart:**
- Yes: 64%
- No: 29%
- I am not a student: 7%
Do you think the *Draft FAX Plan* will lead you to ride transit for more personal trips (doctor, haircut, etc.)? 

1. Yes  
2. No
Do you think the **Draft FAX Plan** will lead you to ride transit for more social and recreational trips (visiting friends/family, entertainment)?

1. Yes  
2. No
The *Draft FAX Plan* will provide better service in most areas, but some low-density areas will see less service. *If* FAX were to obtain more funding, what is the best option for these areas?

1. No additional service is needed in these areas.
2. Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount
3. Uber/Lyft or Taxi services to any destination with a 20% discount
4. Bikeshare system in these areas
5. FAX should keep bus service at the same level
6. Other (please describe on comment card)
To make FAX service faster, there will be longer distances between some stops. What would help offset this?

1. More comfortable stops – shade, seating, etc.
2. Ensure that sidewalks and other pathways to stops are well-paved, well-lighted and safe
3. Better bike access/more secure bike parking at key bus stops.
4. Alternating “skip stop” service on routes
5. Nothing more is needed – faster service is enough
6. Other (please describe on comment card)
Meeting Evaluation
How effective has this meeting been so far to express your opinions?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How useful were the clickers to provide your opinion?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How did you learn about today’s workshop?

1. Received a flyer
2. Received an email
3. Heard about it on television
4. Radio
5. Vida En El Valle
6. Social Media
7. Internet
8. Saw advertisement on bus
9. Word of mouth
10. Other
FAX Fixed-Route System Restructure Study

Pinedale Community Center
Thursday, November 9, 2017
5:30pm – 7:30pm
FAX Proposed Route Restructuring
What is your age?

1. Less than 16
2. 16-25
3. 26-35
4. 36-50
5. 51-65
6. Greater than 65
What is your racial or ethnic background?

1. Anglo/White
2. Hispanic/Chicano/Latino
3. American Indian/Native American
4. African American/Black
5. Asian/Oriental/Pacific Islander
6. Other
7. Rather not answer
What is your household income?

1. Less than $25,000
2. $25,000 - $49,999
3. $50,000 - $74,999
4. $75,000 - $99,999
5. More than $100,000
6. Rather not say
Where do you live?

1. City of Fresno
2. Unincorporated County Area outside of City of Fresno
3. City of Clovis
4. Other Fresno County City
5. Outside of Fresno County
Which of the following subgroups BEST describes you?

1. Elected Official
2. Appointed Official
3. Private Citizen
4. Student
5. Public Agency Staff
6. Community Based Organization/Faith Based Organization
7. Environmental Justice Advocate
8. Union Member or Representative
9. Other
What is your preferred language?

1. English
2. Spanish
3. Southeast Asian dialect (Hmong, Laotian, etc.)
4. Other
Do you have a disability that either prevents you from getting to or from a bus route, accessing a bus, or understanding how to use the bus system?

1. Yes
2. No
3. Prefer not to answer
How did you get to this workshop today?

1. Drove a car
2. Rode in a car with family/friends
3. Rode on a motorcycle
4. Took Uber/Lyft
5. Took the bus
6. Rode a bike
7. Walked
8. Other
Do you own or have regular access to a vehicle?

1. Yes
2. No
If a motor vehicle is not available, what type of transportation do you use?

1. Bus
2. Bicycle
3. Walk
4. Ask for a ride from friend, neighbor or family member
5. Uber/Lyft
6. Other
How often do you ride FAX?

1. Four or more days a week
2. Two to three days a week
3. About once every week or two
4. About once a month
5. Rarely/Never
What do you currently ride FAX for (most important trip only)?

1. Trips to and from work
2. Shopping trips
3. Education trips (school, college, job-related classes)
4. Personal business trips (doctor, haircut, etc.)
5. Social and recreational trips (visiting friends/family, entertainment)
6. I use FAX for all my trips
7. Do not ride FAX
Is the *Draft FAX Plan* better for me?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the Draft FAX Plan better for my friends and family?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for my neighborhood?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for Fresno?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Do you think the *Draft FAX Plan* will lead you to ride transit for more trips to and from work?

1. Yes
2. No
3. I am not employed
Do you think the Draft FAX Plan will lead you to ride transit for more shopping trips?

1. Yes
2. No

56% 44%
Do you think the Draft FAX Plan will lead you to ride transit for more education trips (school, college, job-related classes)?

1. Yes
2. No
3. I am not a student
Do you think the Draft FAX Plan will lead you to ride transit for more personal trips (doctor, haircut, etc.)?

1. Yes
2. No
Do you think the *Draft FAX Plan* will lead you to ride transit for more social and recreational trips (visiting friends/family, entertainment)?

1. Yes
2. No
The Draft FAX Plan will provide better service in most areas, but some low-density areas will see less service. If FAX were to obtain more funding, what is the best option for these areas?

1. No additional service is needed in these areas.
2. Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount
3. Uber/Lyft or Taxi services to any destination with a 20% discount
4. Bikeshare system in these areas
5. FAX should keep bus service at the same level
6. Other (please describe on comment card)
To make FAX service faster, there will be longer distances between some stops. What would help offset this?

1. More comfortable stops – shade, seating, etc.
2. Ensure that sidewalks and other pathways to stops are well-paved, well-lighted and safe
3. Better bike access/more secure bike parking at key bus stops.
4. Alternating “skip stop” service on routes
5. Nothing more is needed – faster service is enough
6. Other (please describe on comment card)
Meeting Evaluation
How effective has this meeting been so far to express your opinions?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How useful were the clickers to provide your opinion?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How did you learn about today’s workshop?

1. Received a flyer
2. Received an email
3. Heard about it on television
4. Radio
5. Vida En El Valle
6. Social Media
7. Internet
8. Saw advertisement on bus
9. Word of mouth
10. Other
Appendix K

Workshop Polling Exercise Results – Totals for All Workshops
FAX Fixed-Route System Restructure Study

November 2017 Workshops
Combined Polling Results

FAX Proposed Route Restructuring
What is your age?

1. Less than 16
2. 16-25
3. 26-35
4. 36-50
5. 51-65
6. Greater than 65
What is your racial or ethnic background?

1. Anglo/White
2. Hispanic/Chicano/Latino
3. American Indian/Native American
4. African American/Black
5. Asian/Oriental/Pacific Islander
6. Other
7. Rather not answer
What is your household income?

1. Less than $25,000
2. $25,000 - $49,999
3. $50,000 - $74,999
4. $75,000 - $99,999
5. More than $100,000
6. Rather not say
Where do you live?

1. City of Fresno
2. Unincorporated County Area outside of City of Fresno
3. City of Clovis
4. Other Fresno County City
5. Outside of Fresno County
Which of the following subgroups BEST describes you?

1. Elected Official
2. Appointed Official
3. Private Citizen
4. Student
5. Public Agency Staff
6. Community Based Organization/Faith Based Organization
7. Environmental Justice Advocate
8. Union Member or Representative
9. Other
What is your preferred language?

1. English
2. Spanish
3. Southeast Asian dialect (Hmong, Laotian, etc.)
4. Other
Do you have a disability that either prevents you from getting to or from a bus route, accessing a bus, or understanding how to use the bus system?

1. Yes
2. No
3. Prefer not to answer

85%
12%
3%
How did you get to this workshop today?

1. Drove a car
2. Rode in a car with family/friends
3. Rode on a motorcycle
4. Took Uber/Lyft
5. Took the bus
6. Rode a bike
7. Walked
8. Other
Do you own or have regular access to a vehicle?

1. Yes
2. No
If a motor vehicle is not available, what type of transportation do you use?

1. Bus
2. Bicycle
3. Walk
4. Ask for a ride from friend, neighbor or family member
5. Uber/Lyft
6. Other
How often do you ride FAX?

1. Four or more days a week
2. Two to three days a week
3. About once every week or two
4. About once a month
5. Rarely/Never
What do you currently ride FAX for (most important trip only)?

1. Trips to and from work
2. Shopping trips
3. Education trips (school, college, job-related classes)
4. Personal business trips (doctor, haircut, etc.)
5. Social and recreational trips (visiting friends/family, entertainment)
6. I use FAX for all my trips
7. Do not ride FAX
Is the *Draft FAX Plan* better for me?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

![Bar chart showing responses to the question.](image-url)
Is the Draft FAX Plan better for my friends and family?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for my neighborhood?

1. **Definitely**
2. **Probably**
3. **Maybe/Not Sure**
4. **Probably Not**
5. **Definitely Not**

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely</td>
<td>14%</td>
</tr>
<tr>
<td>Probably</td>
<td>22%</td>
</tr>
<tr>
<td>Maybe/Not Sure</td>
<td>22%</td>
</tr>
<tr>
<td>Probably Not</td>
<td>17%</td>
</tr>
<tr>
<td>Definitely Not</td>
<td>25%</td>
</tr>
</tbody>
</table>
Is the Draft FAX Plan better for Fresno?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not

31%   29%   22%   9%   9%
Do you think the *Draft FAX Plan* will lead you to ride transit for more trips to and from work?

1. Yes
2. No
3. I am not employed
Do you think the *Draft FAX Plan* will lead you to ride transit for more shopping trips?

1. Yes
2. No
Do you think the Draft FAX Plan will lead you to ride transit for more education trips (school, college, job-related classes)?

1. Yes
2. No
3. I am not a student
Do you think the *Draft FAX Plan* will lead you to ride transit for more personal trips (doctor, haircut, etc.)?

1. Yes
2. No
Do you think the *Draft FAX Plan* will lead you to ride transit for more social and recreational trips (visiting friends/family, entertainment)?

1. Yes
2. No
The Draft FAX Plan will provide better service in most areas, but some low-density areas will see less service. If FAX were to obtain more funding, what is the best option for these areas?

1. No additional service is needed in these areas.
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3. Uber/Lyft or Taxi services to any destination with a 20% discount
4. Bikeshare system in these areas
5. FAX should keep bus service at the same level
6. Other (please describe on comment card)
To make FAX service faster, there will be longer distances between some stops. What would help offset this?

1. More comfortable stops – shade, seating, etc.

2. Ensure that sidewalks and other pathways to stops are well-paved, well-lighted and safe

3. Better bike access/more secure bike parking at key bus stops.

4. Alternating “skip stop” service on routes

5. Nothing more is needed – faster service is enough

6. Other (please describe on comment card)
Meeting Evaluation
How effective has this meeting been so far to express your opinions?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How useful were the clickers to provide your opinion?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How did you learn about today’s workshop?

1. Received a flyer
2. Received an email
3. Heard about it on television
4. Radio
5. Vida En El Valle
6. Social Media
7. Internet
8. Saw advertisement on bus
9. Word of mouth
10. Other
Appendix L

Workshop – Group Exercise
FAX Funding Priorities by Workshop and Total for All Workshops
## FAX Fixed-Route Restructure Study - Workshop Bucket Exercises
### FAX Funding Priorities

<table>
<thead>
<tr>
<th>FAX Services Improvements</th>
<th>Fresno City College</th>
<th>Central Valley Regional Center</th>
<th>Mosqueda Community Center</th>
<th>Frank H. Ball Community Center</th>
<th>Woodward Library</th>
<th>Pinedale Community Center</th>
<th>Holmes Community Center</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Improving frequency of buses. Which route or routes?</td>
<td>$80.00</td>
<td>$190.00</td>
<td>$40.00</td>
<td>$20.00</td>
<td>$150.00</td>
<td>$70.00</td>
<td>$40.00</td>
<td>$590.00</td>
</tr>
<tr>
<td>2) Additional Bus Rapid Transit (BRT) routes: 10-minute peak service</td>
<td>$40.00</td>
<td>$100.00</td>
<td>$10.00</td>
<td>$20.00</td>
<td>$80.00</td>
<td>$90.00</td>
<td>$40.00</td>
<td>$380.00</td>
</tr>
<tr>
<td>3) Additional routes with 15-minute service: 6am to 6pm</td>
<td>$80.00</td>
<td>$140.00</td>
<td>$10.00</td>
<td>$20.00</td>
<td>$130.00</td>
<td>$80.00</td>
<td>$50.00</td>
<td>$510.00</td>
</tr>
<tr>
<td>4) More routes on Night Service to approximately 11am</td>
<td>$120.00</td>
<td>$30.00</td>
<td>$20.00</td>
<td>$80.00</td>
<td>$10.00</td>
<td>$90.00</td>
<td>$0.00</td>
<td>$350.00</td>
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<tr>
<td>5) Discounted Uber and Lyft-type services between 10pm and 1am</td>
<td>$130.00</td>
<td>$100.00</td>
<td>$220.00</td>
<td>$40.00</td>
<td>$10.00</td>
<td>$40.00</td>
<td>$0.00</td>
<td>$300.00</td>
</tr>
<tr>
<td>6) Additional bus stop shelters</td>
<td>$90.00</td>
<td>$100.00</td>
<td>$0.00</td>
<td>$40.00</td>
<td>$60.00</td>
<td>$100.00</td>
<td>$60.00</td>
<td>$450.00</td>
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<tr>
<td>7) Extensions of routes to additional areas of Fresno including new activity centers</td>
<td>$400.00</td>
<td>$210.00</td>
<td>$100.00</td>
<td>$20.00</td>
<td>$770.00</td>
<td>$220.00</td>
<td>$50.00</td>
<td>$1,770.00</td>
</tr>
<tr>
<td>8) Reduce Metro Pass from $48 to $36 per month</td>
<td>$70.00</td>
<td>$10.00</td>
<td>$0.00</td>
<td>$30.00</td>
<td>$50.00</td>
<td>$20.00</td>
<td>$40.00</td>
<td>$220.00</td>
</tr>
<tr>
<td>9) Real time information (Electronic signs and on Internet) at all bus shelters showing when bus arrives</td>
<td>$240.00</td>
<td>$100.00</td>
<td>$20.00</td>
<td>$160.00</td>
<td>$60.00</td>
<td>$20.00</td>
<td>$30.00</td>
<td>$630.00</td>
</tr>
<tr>
<td>10) Improve bus stops</td>
<td>$80.00</td>
<td>$80.00</td>
<td>$30.00</td>
<td>$80.00</td>
<td>$40.00</td>
<td>$60.00</td>
<td>$30.00</td>
<td>$400.00</td>
</tr>
<tr>
<td>11) City of Fresno should improve sidewalks providing access to bus stop/ BRT stations</td>
<td>$40.00</td>
<td>$40.00</td>
<td>$20.00</td>
<td>$40.00</td>
<td>$30.00</td>
<td>$70.00</td>
<td>$70.00</td>
<td>$310.00</td>
</tr>
<tr>
<td>12) Additional or more frequent weekend bus/ BRT service</td>
<td>$40.00</td>
<td>$30.00</td>
<td>$20.00</td>
<td>$50.00</td>
<td>$0.00</td>
<td>$60.00</td>
<td>$40.00</td>
<td>$240.00</td>
</tr>
<tr>
<td>13) Bike share stations at major FAX stops/ BRT stations</td>
<td>$60.00</td>
<td>$40.00</td>
<td>$50.00</td>
<td>$50.00</td>
<td>$60.00</td>
<td>$20.00</td>
<td>$0.00</td>
<td>$230.00</td>
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<tr>
<td>14) More Handy Ride Services</td>
<td>$30.00</td>
<td>$20.00</td>
<td>$10.00</td>
<td>$10.00</td>
<td>$40.00</td>
<td>$40.00</td>
<td>$30.00</td>
<td>$180.00</td>
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<tr>
<td>15) Marketing</td>
<td>$0.00</td>
<td>$20.00</td>
<td>$0.00</td>
<td>$40.00</td>
<td>$30.00</td>
<td>$80.00</td>
<td>$0.00</td>
<td>$170.00</td>
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</table>
Appendix M

Workshop – Group Exercise
FAX System Features Priorities by Workshop and Total for All Workshops
## FAX Fixed-Route Restructure Study - Workshop Bucket Exercises
### FAX System Feature Priorities

<table>
<thead>
<tr>
<th>Most Important Features</th>
<th>Fresno City College</th>
<th>Central Valley Regional Center</th>
<th>Mosqueda Community Center</th>
<th>Frank H. Ball Community Center</th>
<th>Woodward Library</th>
<th>Pinedale Community Center</th>
<th>Holmes Community Center</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Fare Level/ Ease of Payments</td>
<td>10</td>
<td>0</td>
<td>6</td>
<td>9</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td>2) Frequency of Service</td>
<td>9</td>
<td>20</td>
<td>4</td>
<td>2</td>
<td>16</td>
<td>15</td>
<td>5</td>
<td>75</td>
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<tr>
<td>3) Reliability (Buses on time)</td>
<td>17</td>
<td>24</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>8</td>
<td>92</td>
</tr>
<tr>
<td>4) Direct routing of buses</td>
<td>11</td>
<td>23</td>
<td>2</td>
<td>2</td>
<td>23</td>
<td>6</td>
<td>4</td>
<td>71</td>
</tr>
<tr>
<td>5) Speed of bus service</td>
<td>11</td>
<td>12</td>
<td>1</td>
<td>14</td>
<td>2</td>
<td>13</td>
<td>3</td>
<td>56</td>
</tr>
<tr>
<td>6) Minimizing walk distance to bus stop</td>
<td>11</td>
<td>3</td>
<td>1</td>
<td>14</td>
<td>2</td>
<td>17</td>
<td>6</td>
<td>47</td>
</tr>
<tr>
<td>7) Ease of bus transfers between FAX buses</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td>4</td>
<td>20</td>
<td>10</td>
<td>4</td>
<td>64</td>
</tr>
<tr>
<td>8) Ease of transfers from FAX to Clovis and FCRTA Transit buses</td>
<td>22</td>
<td>9</td>
<td>0</td>
<td>5</td>
<td>33</td>
<td>17</td>
<td>7</td>
<td>93</td>
</tr>
<tr>
<td>9) Real-time service information</td>
<td>28</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>51</td>
</tr>
<tr>
<td>10) Safety and Security</td>
<td>9</td>
<td>10</td>
<td>6</td>
<td>13</td>
<td>13</td>
<td>20</td>
<td>5</td>
<td>76</td>
</tr>
</tbody>
</table>
Appendix N

Workshop – Comments Received by Workshop
**FAX Fixed-Route System Restructure Study**

**Public Workshops**

November 4 - 11 and December 6, 2017

Name: **Jacqui Wills**

Comments:  
A public friendly interface for real-time information. (where is the bus? how far away? is there a delay in traffic?)

WE HAVE THIS READY TO DEPLOY!

Please return card by November 24, 2017  
Visit www.fresno.gov/transportation/fax/ for more information

---

**FAX Fixed-Route System Restructure Study**

**Public Workshops**

November 4 - 11 and December 6, 2017

Name: **Yonas Paulos**

Comments:  
This is a great idea to get us involved to assist you on routes. God bless you all.

Please return card by November 24, 2017  
Visit www.fresno.gov/transportation/fax/ for more information
**FAX Fixed-Route System Restructure Study**

**Public Workshops**

November 4 - 11 and December 6, 2017

Name: Oleg Bowles

Address: 

City: 

State: Zip: 

Representing Organization or Agency: Private Citizen

Comments: 26 always late
32 late
28 usually on time

---

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information

---

Name: Nicole Carnes

Address: 

City: 

State: Zip: 

Representing Organization or Agency: ASC Clovis Community College

Comments: There are a lot of students @ our campus who are in need of accessible public transportation. Some do extended commutes varying from catching the bus near FCC, then Blackstone, then River Park then Chown Plain AND rides his bus to campus. Public transportation is essential & significant to students success.

---

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information
Name: Yasmeen Maksumi

Comments: There is no bus that comes directly to or near our campus (Clavis Community College). The closest is the Herston Campus and on Champlain and Perrin. Once there, students are left to finish the route on foot.

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information

---

Name: Darren Bajada

Comments: Students at Clavis Community College not only need a direct route to the campus, but faster & more efficient transfers. We have students riding an hour or two just to make it to their classes.

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information
Public Workshops
November 4 - 11 and December 6, 2017

Name: Damon Rapada
Address:
City: State: Zip:

Representing Organization or Agency: Clovis Community College, A.S.C.
Comments: We need a direct line that goes directly on our campus. The closest stop is at our Herden Campus, which then requires students to ride a shuttle to our main campus. We need a bus stop at Clovis Community College or a closer one that goes past Perrin.

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information

FAX Fixed-Route System Restructure Study Public Workshops November 4 - 11 and December 6, 2017

Name: Andy Hansen-Smith
Address:
City: State: Zip:

Representing Organization or Agency: 
Comments: Bike Share would be helpful for last mile of trip. Increase gas tax to encourage more to take bus.

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information
FAX Fixed-Route System Restructure Study
Public Workshops
November 4 – 11 and December 6, 2017

Name: James O'tker
Address: 
City: State: Zip: 
Representing Organization or Agency: Clovis Community College
Comments: Our students need a direct link to the main campus.

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information

FAX Fixed-Route System Restructure Study
Public Workshops
November 4 – 11 and December 6, 2017

Name: 
Address: 
City: State: Zip: 
Representing Organization or Agency: 
Comments: Have they considered a bus
down Willow to the Clovis Community
college, a bus down Kennedy
from 99 to Clovis Ave. Or
even a bus for Bullard or Niles.
Why are all the buses on one sixth of
town?

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information
FAX Fixed-Route System Restructure Study
Public Workshops
November 4 - 11 and December 6, 2017

Name: Rob Eynon
Address: 
City: 
State: 
Zip: 

Representing Organization or Agency: 

Comments: re: route 58 to serve Clovis Community College only serve Clovis West at school peak. Extend route 45 to el paseo

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information

FAX Fixed-Route System Restructure Study
Public Workshops
November 4 - 11 and December 6, 2017

Name: Gordon Yamanaka
Address: 
City: 
State: 
Zip: 

Representing Organization or Agency: Self

Comments: Re: longer bus stops, #1, 2, 3 on the slide.
I'd use FAX more often if Clovis was better. Now I drive to Sierra Vista Mall and use #9

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information
FAX Fixed-Route System Restructure Study
Public Workshops
November 4 - 11 and December 6, 2017

Name: Deborah Ikeda
Address:
City: State Zip:
Representing Organization or Agency: Clovis Community College
Comments:
We need a bus to Clovis Community College. There are 11,000 students with no bus access.

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information.

---

FAX Fixed-Route System Restructure Study
Public Workshops
November 4 - 11 and December 6, 2017

Name: Lori Bennett
Address:
City: State Zip:
Representing Organization or Agency: Clovis Community College
Comments:
We need bus service to Clovis Community College - M-F

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information.
FAX Fixed-Route System Restructure Study
Public Workshops
November 4 – 11 and December 6, 2017

Name: 
Address: 
City: State: Zip: 
Representing Organization or Agency: 
Comments: Clovis Community College & Clovis North HS need service!

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information

---

FAX Fixed-Route System Restructure Study
Public Workshops
November 4 – 11 and December 6, 2017

Name: Erica Rodriguez
Address: 
City: State: Zip: 
Representing Organization or Agency: 
Comments: I live near Fowler/Ashlan, so in daytime I take Clovis 50 & FAX 45 to get to Palm/Herndon for work. I wish this route was more frequently available, especially during nighttime. I spend $20 on Lyft back home.

Please return card by November 24, 2017
Visit www.fresno.gov/transportation/fax/ for more information
I would love to see a focus on transit as an alternative to driving. Faster and more frequent service (like in the BRT project) is probably the biggest factor. Hopefully we can secure more transit funding to allow both that and expanded routes as well as electrification of more and more buses.
Name: **Sue Bowers**

Comments: **Looking forward to the system. Will use bus more often if it has less wait times.**

---

Name: **Austin Travis Dylan Hall**

Comments: **Good workshop. I feel the biggest challenge to FAX is car-centric design of the city. I would like to see stronger promotion of transit-oriented development from FAX as well as deeper integration with other jurisdictions/ agencies.**
Appendix O

Other Comments Received During or Following the Workshop Series
Good morning. Unfortunately, I will not be able to attend any of the scheduled meetings because I am just becoming aware of the dates and leaving out-of-town tonight.

I do want to share my thoughts about possible improvements to the system. I am a current infrequent rider of FAX, however, through the 1980's and 90's I rode lines 26, 26, and 38, daily. I raise this point to highlight that I can still ride those lines, some 35 years later, with great familiarity because they are unchanged. I am over joyous that FAX is considering restructuring routes to benefit a the vastly different landscape.

Some of my considerations, given that Fresno is a Major City in California and the Central Valley:

1. Regional routes ie. routes that circle through a specific region of Fresno such as NE, NW, SE, and SW.
2. Expanded future BRT service down Shaw Ave.
3. Specific express routes that connect major transportation hubs (airport, Greyhound/Amtrak and future High-Speed Rail.
4. Specific express routes and agreements to serve the major educational institutions in the area (Fresno City- in place, Fresno State, Reedley College, Madera Center, and UC Merced- in addition to Fresno and Clovis Unified)
5. Building a foundation for a (futuristic) regional light-rail system to connect with other cities in the area (Clovis, Madera, Merced, Reedley, Selma, Kerman, Visalia, Hanford, etc.)

I am just sharing some thoughts that I believe will help FAX and Fresno move into the 21st century. Thank you for your time.

--
DAREN Andrew Miller
IBEDAM@gmail.com
559-930-4909 cellular
Hello Todd,

As requested, I am writing to give you my ideas on improvements to FAX routes.

1. Bus on Herndon- from approximately Willow Ave. to West Ave., this would allow passengers to access Doctor's offices along this corridor.
2. FAX 15- 38 and 9- better service to the passenger base if the buses ran the full route. The 9 especially, as the full route 9 is almost always full with passengers standing in the aisles. While the FAX 15 is mostly empty. I experience this on both days I drive 9-03.
3. I have spoke with many passengers that are requesting a couple more hours be added to weekend service. For example, run the buses till 9 pm instead of 7ish. I'm not sure if this would be beneficial as my route 32 on the weekend is light especially north of Shaw ave.
4. Route 9 out of service point- I think it would benefit passengers if the 9 returned to Willow Ave to meet up with the 28 that is laid over at south bound Willow next to Carl's Jr. to allow passengers to return to Fresno and not be stranded at Shaw and Cole ave. at 7:00 pm on week nights. The bus could go out of service at West bound Willow at the Red Carpet and return to the yard via the 168 freeway.
5. WiFi on the bus, this is a big request.
6. Charging stations for phones, laptops, tablets, this is an idea to draw corporate types out of their cars and on to public transportation.
7. An app that gives real time GPS of the Buses so a passenger could see where their bus is and if it's on time so they know if they need to be at the bus stop early or if they still have a few minutes. Especially helpful in extreme weather. Similar to Uber driver tracking.

Thank You,
Bridget Watkins
Dear Harold, Jeff, and Hector,

I am writing to you as the Executive Director of the Jakara Movement. We represent the over 50,000 wide Sikh community here in Fresno County, with our membership base of over 5,000 members. We do have some important concerns about the FAX restructuring.

Unfortunately our key staff members were at a conference last week and with only one-week available to give comments, we weren't able to present our very important concerns. We have had meeting with Mayor Brand and even the other key city officials on the topic. We were hoping and our understanding was that the December meeting was one of still taking input. We are expecting over 20 members from the Sikh community alone to be at the Pinedale meeting. When reading your email today, I am very concerned that the process is being drawn to a close so hastily after only one week of input and that too with very few community members participating.

I wanted to find out if there was time to sit down together and speak about our specific concerns in West Fresno, or if the December meeting will still be a chance for public input. Again this is a grave matter and I appreciate your immediate response on it.

Look forward to being in touch. My number is 559-647-4700.

Kind Regards,
Naindeep Singh
Executive Director
Jakara Movement
www.jakara.org
I was wondering if I could express my concerns to you instead of going to the meeting. It is not convenient because I am in wheelchair and if the meeting last til 7:30 my routes to get home might nit be running anymore for the day. Thanks for your consideration Ron de Contreras
I live on ashlan I. Clovis, I take the 45 to come to fresno. Great for connections going but coming is very hard because of one hour schedule. I always have to take another bus to. It wait for my transfer that long. The buses always look busy to me, so I don't know why it can't run every have hour too. It hard to be in my chair more than two hours. So I try to get joe as soon as possible. If not the 45, I have to travel 3 long blocks more to get home.
Thank you for addressing my concerns.
Ron de contreras

Sent from my iPhone
Hello,

I missed the route planning workshops that were held in November, but I want to express that I’ve lived near the intersection of S. Peach and E. Church Avenues in the neighborhood behind Storey Elementary School since 1995. All during this time, there has been not been a City bus route there. A lot of new homes have been built in the area over the last 10 years bringing many more residents who could use the service. I see Sunnyside High School students walk the two miles on Peach Avenue to Sunnyside High School which is also where the nearest bus stop is located. I think that students would ride the City bus to Sunnyside High and back home again if bus service was available on Peach Avenue. Also, there have been times when I’ve taken my car in for service and or repairs, and I rode the City bus to go home….only to be able to go as far as Peach and Butler and then have to walk the two miles to get to where I live.

I would appreciate it if you would consider the extension of a bus route to reach the intersection of S. Peach and E. Church Avenues.

Thank you.

Emily Madrigal
Comments and Thoughts from the meeting with ATU (Bus Drivers) CFPEA (Supervisors), CFMEA (Managers/Trainers) and Administration along with Cliff

There were 13 present in total.

Introductions
Overview of Community Outreach Meetings
Review of PowerPoint Slides
Concerns / Fixes / Improvements / Comments
  Route 45, increase headways from one hour headways
  Increase frequencies on routes over coverage
  Fax 15 to serve the entire routes on 9 & 38 not just a portion
  Address west of Shaw past Brawley on Fax 15, Route 9
  Add service to the Fig Garden Loop area
  Extended Night Service to add more lines
  Whatever we do need to be reliable in our service
  Need something on Westside to serve Zacky Farms and Cargill in West Fresno after 11:30 pm
  Service to Veterans Home and Clovis Community College
  Increase frequency at night

**Gregory A. Barfield  M.A.**
Assistant Director,

Department of Transportation (FAX, Fleet, & Handy Ride)
- FAX Operations, Planning, Support Services, Training, and Community Relations

Bruce Rudd Administration Building
2223 G Street
Fresno, California 93706
559 621-1520 (office)
559 908-2481 (cell)
Gregory.Barfield@fresno.gov
Greg:

We are partners in transit. We all have a responsibility to make sure that we protect the integrity of the Department. We will be seeing Steve on Friday and request a meeting with him then.

Vincent R. Casella
Sec/Treasurer ATU 1027
atu1027fax@gmail.com
(559)349-5801 Cell
(559)442-4140 Office
Appendix P

Existing FAX Service Network
Appendix Q

FAX Draft Preferred Network Plan Route Map
Let's think about transit

**Faster FAX**
Midday Transit Frequency

- **Bus Rapid Transit (BRT)**
- **BRT Station**
- **15 minute frequency**
- **20 minute frequency**
- **30 minute frequency**
- **60 minute frequency**
- **Frequency change**
- **One-way service**
- **Transit Center**
Fresno City College

Existing FAX Transit System Route Map Comments
There are virtually no stops at or near Clovis Community College. This makes it very difficult for students to get to school in time.

Lack of transportation to students of Clovis Community College coming from other areas of Fresno (Southeast, Downtown). There is no bus that directly goes there and equal service is important.

Scenario of what one of our students have to do to get to our campus:
1. Catch bus near Ashlan & Marks
2. Bus near Fresno State
3. Another bus near Herndon Campus
4. Walk to Herndon Campus
5. Catch Shuttle to Campus

Clovis Community College Another Scenario:
1. Catches Bus near FCC
2. Take that Bus to Blackstone
3. Another Bus to River Park
4. That Bus to Champaign & Perrin
5. Rides Bike or Walk to Campus
This System Map drives me crazy because the distorted scale makes FAX coverage appear more comprehensive (area-wise) than it is.
Route 26 Some Bus Stops too close to each other. Eliminate some. (Global Comment)

Fresno High
Fresno City College
Ratcliffe Stadium
San Joaquin High School

Route 32 By CH & VA hospitals 08 buses Slow to kneel or lift wheelchairs. Should use newer buses with ramps.
Central Valley Regional Center

Existing FAX Transit System Route Map Comments
Frank H. Ball Community Center

Existing FAX Transit System Route Map Comments
Park & Ride in the low density / industrial areas.
bus stops should all have: 
- seating 
- coverage 
- lighting
Julled chills
Seating
ON 30

night service to serve larger area.
Reorganize S.W. Fresno night service to serve larger area.
Increased service on weekends from southwest to southeast on the north end.
Info for each step posted at bus stop
Woodward Library

Existing FAX Transit System Route Map Comments
YOUR IDEAS, COMMENTS, AND ISSUES

- Need access to Clovis Community College!!
- Add Clovis Community College to the map - transportation to Clovis Community College!
- Connection to Clovis Community College!
- Bus service to connect CCC to Fresno residents!
- Bus service to Clovis North HS
- Add FAX & Clovis Stables
- Need more access to Clovis Community College!!
Add Clovis Community College to the map!

Connection to Clovis Community College

Transportation to Clovis Community College!

Bus service to connect CCC to Fresno residents!
Pinedale Community Center

Existing FAX Transit System Route Map Comments
Provide ideas, comments, and issues related to current transit services.

- Need access to Clovis College!
- Clovis College
- Community College
- Buchanan Education Complex
- Clovis Transit Stageline
- Everybody deserves the right to go to their college of choice
- First access in Herndon between Willow and Cedar
- Need public transit access to Clovis Community College, it should be provided to them.
- Clovis Community College students should be able to use a FAX bus (along with a Clovis bus) if needed for a commute to school.
Everybody deserves the right to a quality community college education.

Clovis Community College students should be able to use a fax service (along with a Clovis bus) for a commute to school.

If students need public transit access to Clovis Community College, it should be provided to them.

Full access to Clovis Community College should be provided.

Convince Clovis Transit to update their system.

Add Clovis Community College to the map and read it from Clovis Community College.

Bus service to connect CCC to Fresno residents.

Everybody deserves the right to go to their college of choice.

Need access to Clovis Community College!!

Bus service from Clovis to Clovis Community College!!

Bus service to Clovis Medical Center.

Add Clovis Community College to the map and read it from Clovis Community College.
Service to Veterans Home

Service to Industrial after 11:30 am

Zokey Cargill
Holmes Community Center

Existing FAX Transit System Route Map Comments
install exact change machines in each bus
have bathrooms on the bus
Keep all buses clean at pick up/s, staffed & painted.

Service: S - W on McKinley
Courtlous behavior from bus drivers
Safe, smooth wheelchair/walker accessible routes to bus stop

More frequent buses
Appendix S

Location Map of Workshop Attendee’s Residential Neighborhood, Primary Daily Destination, and Route Utilized Between the Locations
Please place a blue dot where you live and a red dot representing your most frequent daily destination.
Please place a blue dot where you live and a red dot where you work. Then draw a line representing the route you take.
NorthWest
Appendix T

Veteran’s Day Parade Pop-Up Event – Survey Instrument, Survey Instrument Results, and Comment Cards
**WHAT IS THE FAX PLAN?**

- Provides buses every 15-minutes during the day along FAX’s highest ridership routes
- Most of these routes will connect with the soon to implemented Bus Rapid Transit (BRT) or “The Q” (The Q will have 10-minute peak service along Blackstone and Ventura/Kings Canyon Blvd.)
- Provides extended evening service past midnight on some key routes
- Provides enhanced weekend service on some key routes with buses that run every 30-minutes
- Most areas will have improved service.

---

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- Provides buses every 15-minutes during the day along FAX’s highest ridership routes
- Most of these routes will connect with the soon to implemented Bus Rapid Transit (BRT) or “The Q” (The Q will have 10-minute peak service along Blackstone and Ventura/Kings Canyon Blvd.)
- Provides extended evening service past midnight on some key routes
- Provides enhanced weekend service on some key routes with buses that run every 30-minutes
- Most areas will have improved service.
Fresno Area Express Fixed-Route System Restructure Study

Phone Number ______________________ Email Address______________________________

Where do you live? ______ Fresno _______Unincorporated County Area outside of the City of Fresno
________ Clovis _______Other Fresno County City _______Outside of Fresno County

How did you get to today’s event? _____Drove a car ________Rode in a car with family/friends ______Rode a motorcycle _______Took Uber/Lyft _______Took the Bus _______Rode a Bike _______Walked _______Other

How often do you ride FAX? __________4 or more days a week ____2 to 3 days a week ______About once every week or two ______About once a month _______Rarely/Never

Is the Draft FAX Plan better for me? _______Definitely _______Probably _______Maybe/Not Sure _______Probably Not _______Definitely Not

To make FAX service faster, there will be longer distances between some stops.

What would help offset this? _______More comfortable stops (shade, seating, etc.) _______Ensure that sidewalks/pathways to stops are well-paved, well-lighted & safe _______Better bike access/more secure bike parking at key bus stops _______Nothing more is needed – faster service is enough _______Other

A few areas in Fresno will have less service under the Draft FAX Plan. What is the best option for these areas if funding is available?

_____No additional service is needed in these areas _______Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount _____Uber/Lyft or Taxi services to any destination with a 20% discount _____Bikeshare system in these areas _____FAX should keep bus service at the same level

Phone Number ______________________ Email Address______________________________

Where do you live? ______ Fresno _______Unincorporated County Area outside of the City of Fresno
________ Clovis _______Other Fresno County City _______Outside of Fresno County

How did you get to today’s event? _____Drove a car ________Rode in a car with family/friends ______Rode a motorcycle _______Took Uber/Lyft _______Took the Bus _______Rode a Bike _______Walked _______Other

How often do you ride FAX? __________4 or more days a week ____2 to 3 days a week ______About once every week or two ______About once a month _______Rarely/Never

Is the Draft FAX Plan better for me? _______Definitely _______Probably _______Maybe/Not Sure _______Probably Not _______Definitely Not

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A few areas in Fresno will have less service under the Draft FAX Plan. What is the best option for these areas if funding is available?

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Survey Instrument

The Survey Instrument available for respondents during the Veterans Day Parade pop-up event consisted of six multiple choice questions. The questions were designed to determine respondents’ opinions on the Draft FAX Plan. Participants were able to provide input on the survey questions by selecting their preferred answer and submitting their completed survey card to Study Team staff that was present at the pop-up event. Answers from all surveys were totaled and have been graphically displayed below. Numbers in parentheses following each survey question correspond to the total number of responses received for each question. A total of 55 surveys were completed by pop-up event attendees.

1. Where do you live?
   1. Fresno
   2. Unincorporated County Area outside of the City of Fresno
   3. Clovis
   4. Other Fresno County City
   5. Outside of Fresno County

   (55 Responses)

2. Where did you get to today’s event?
   1. Drove a car
   2. Rode in a car with family/friends
   3. Rode a motorcycle
   4. Took Uber/Lyft
   5. Took the Bus
   6. Rode a Bike
   7. Walked
   8. Other

   (54 Responses)

3. How often do you ride FAX?
   1. Four or more days a week
   2. Two to three days a week
   3. About once every week or two
   4. About once a month
   5. Rarely/Never

   (55 Responses)
4. Is the Draft FAX Plan better for me?
   1. Definitely
   2. Probably
   3. Maybe/Not sure
   4. Probably Not
   5. Definitely Not

   (50 Responses)

5. To make FAX service faster, there will be longer distance between some stops. What would help offset this?
   1. More comfortable stops (shade, seating, etc.)
   2. Ensure that sidewalks/pathways to stops are well-paved, well-lighted and safe
   3. Better bike access/more secure bike parking at key bus stops
   4. Nothing more is needed – faster service is enough
   5. Other

   (82 Responses)

*Question 5 was designed for a single answer/response. However, many respondents selected multiple answers.

6. A few areas in Fresno will have less service under the Draft Fax Plan. What is the best option for these areas if funding is available?
   1. No additional service is needed in these areas
   2. Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount
   3. Uber/Lyft or Taxi services to any destination with a 20% discount
   4. Bikeshare system in these areas
   5. FAX should keep bus service at the same level

   (53 Responses)

*Question 6 was designed for a single answer/response. However, many respondents selected multiple answers.
FAX Fixed–Route System Restructure Study
Veterans Day Parade
November 11, 2017

Name: Rusti Painter

Comments: I love our bus system.

Visit www.fresno.gov/transportation/fax/ for more information

FAX Fixed–Route System Restructure Study
Veterans Day Parade
November 11, 2017

Name: GLORIA J. ESPINOZA

Comments: Buses that run east/west should run more often, even on weekends. All bus stops should have coverings (for shade) and be have benches. Drivers need more customer service training.

Visit www.fresno.gov/transportation/fax/ for more information
Comments: I think SE SW Fresno needs the transportation most benefit them tremendously.

Comments: There do buses between Shield + Ashland on Willow. And buses need to run more than every 30 min.
FAX Fixed-Route System Restructure Study
Veterans Day Parade

November 11, 2017

Name: Melissa Jimenez

Comments: Make it a faster pickup
not have to wait a long time

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS

FAX Fixed-Route System Restructure Study
Veterans Day Parade

November 11, 2017

Name: Carlos Arganda

Comments: Keep up the good work

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS
Name: Manuela Díaz

Comments: Gracias por ampliar sus servicios y por pasar más tarde.

Visit www.fresno.gov/transportation/fax/ for more information

Name: Thomas ARviso

Comments: Buses need to be patient with bus riders and needs to run down Shaw after 6pm.

Visit www.fresno.gov/transportation/fax/ for more information
FAX Fixed-Route System Restructure Study
Veterans Day Parade
November 11, 2017

Name: Alvin Areiza
Address: 
City: State: Zip: 
Representing Organization or Agency: N/A
Comments: Thanks for changing & fixing the bus system!

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS

FAX Fixed-Route System Restructure Study
Veterans Day Parade
November 11, 2017

Name: Caro Higollen
Address: 
City: State: Zip: 
Representing Organization or Agency: 
Comments: Safe! Adults in fight is scary... the prison got fist fight & help.

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS
FAX Fixed-Route System Restructure Study
Veterans Day Parade
November 11, 2017

Name: Tony Rodriguez

Address: 

City: 
State: 
Zip: 

Representing Organization or Agency: 

Comments: Longer Hours

---

FAX Fixed-Route System Restructure Study
Veterans Day Parade
November 11, 2017

Name: Mike DeJuarez

Address: 

City: 
State: 
Zip: 

Representing Organization or Agency: Self

Comments: Looks Great
Excited to see

Visit www.fresno.gov/transportation/fax/ for more information
Name: Jil Martinez
Address: 
City: State: Zip: 
Representing Organization or Agency: 
Comments: Please don’t leave riders cause shift was over.
Name: Laura Meza

Comments: it will relay help
if you put chooing
for shade.
Appendix U

Jane Addams Elementary School Presentation – Sign-in Sheets, Comment Cards, Polling Results
<table>
<thead>
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<th>Organization</th>
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<td>Grega Elenor</td>
<td>LCIA</td>
<td><a href="mailto:gelewis@leadershipcounsel.org">gelewis@leadershipcounsel.org</a></td>
<td>559-369-2790</td>
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<td>Maria Guamon</td>
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<tr>
<td>Josefina Vazquez</td>
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<td>carreñ<a href="mailto:o.74.80@gmail.com">o.74.80@gmail.com</a></td>
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<td>Sandra Carreño</td>
<td></td>
<td>gma:lc.com</td>
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<td>Virginia Sixto</td>
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<tr>
<td>Yolanda Sixto</td>
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More information is available at: www.fresno.gov/transportation/fax/
### Community Engagement Workshops

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<tbody>
<tr>
<td>Yesenia Reyes</td>
<td>Parent</td>
<td><a href="mailto:geraldier@ymail.com">geraldier@ymail.com</a></td>
<td></td>
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</tr>
<tr>
<td>Salome Romero</td>
<td>Padre</td>
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<tr>
<td>Laura Garcia</td>
<td>Madre</td>
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<tr>
<td>Josefina Martinez</td>
<td>Parent</td>
<td></td>
<td></td>
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<tr>
<td>Irma Vasquez</td>
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More information is available at: [www.fresno.gov/transportation/fax/](http://www.fresno.gov/transportation/fax/)
Name: Sara Ann Carter

Comments: Increase 96 route to Shaw & coke on weekends. Especially with holidays going on. Drivers CE on how to treat disabled people. Been treated horrible very recently. I might not look disabled but I am.
FAX Fixed-Route System Restructure Study
Public Workshops
November 28, 2017

Name: Josefa Martinez

Comments: no hay asientos para esperar el bus. necesitamos hacientos.

FAX
FRESNO AREA EXPRESS

Visit www.fresno.gov/transportation/fax/ for more information

FAX Fixed-Route System Restructure Study
Public Workshops
November 28, 2017

Name: Guadalupe Morales

Comments: Que pongas mas boses por la area de la wes y estender los horarios.
FAX Fixed-Route System Restructure Study
Public Workshops

November 28, 2017

Name: Josefina Salinas

Address:

City: ___________________________ State: ___________ Zip: ___________

Representing Organization or Agency:

Comments: Mas rutas del área WES
FAX Fixed-Route System Restructure Study
Public Workshops
November 28, 2017

Name: Salome Romero
Address: 
City: 
State: 
Zip: 
Representing Organization or Agency: 
Comments: Quisiera que dejen la ruta 89 que pusieron temporalmente cuando el puente de Clinton y Weber estaba en construcción ya que en Marks y McKinley hay mucha gente que se beneficia del Servicio. También que el servicio 80 faze.

Visit www.fresno.gov/transportation/fax/ for more information

———

FAX Fixed-Route System Restructure Study
Public Workshops
November 28, 2017

Name: Virginia Sixto
Address: 
City: 
State: 
Zip: 
Representing Organization or Agency: 
Comments: Poner mas rutas del lado west

Visit www.fresno.gov/transportation/fax/ for more information
Name: Stephanie Magana
Comments: It was much easier

Name: Luis Magana
Comments: It was much easier for me
FAX Fixed-Route System Restructure Study
Public Workshops
November 28, 2017

Name: Rosalina Cordero de la Comunidad
Address: 
City: 
State: 
Zip: 
Representing Organization or Agency: Comunidad addors
Comments: yosupiero que aigo mas Comunicacion Con la Comunidad.
ese escuela estar para los jovenes en los habitantes de esta Comunidad y más Seguridad. Para
niños y adultos tengo que más

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS

FAX Fixed-Route System Restructure Study
Public Workshops
November 28, 2017

Name: Laura Garcia
Address: 
City: 
State: 
Zip: 
Representing Organization or Agency: 
Comments: que sean frecuentes

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS
Name: Inelida Barralvera

Comments:

mas Rutas de area

Visit www.fresno.gov/transportation/fax/ for more information

Name: Joselina Vazquez

Comments: Mas rutas del lado

Visit www.fresno.gov/transportation/fax/ for more information
FAX Fixed-Route System Restructure Study
Public Workshops
November 28, 2017

Name: Maria Guzman
Address: 
City: 
State: 
Zip: 
Representing Organization or Agency: 
Comments:

No uso bus, porque la ruta 35 es la única que pasa, pero el problema es que siempre viene atrasado y no lleva a ningún lado, y algo importante que deje de usar, porque un conductor de la ruta 35, siempre preguntaba:

Visit www.fresno.gov/transportation/faxi for more information

que edad tiene mi niño, siempre le contaba que 3 años, pero solo lo hacía con migo, y yo venia que a otras razones nunca les preguntaba y mejor decidí nunca volver a tomar el autobús 35 en la tarde, cuando ese conductor estaba.

Hacer mas seguido la ruta 35 para poder llegar más rápido al doctor, de compras.
What is your age?

1. Less than 16
2. 16-25
3. 26-35
4. 36-50
5. 51-65
6. Greater than 65
What is your racial or ethnic background?

1. Anglo/White
2. Hispanic/Chicano/Latino
3. American Indian/Native American
4. African American/Black
5. Asian/Oriental/Pacific Islander
6. Other
7. Rather not answer
What is your household income?

1. Less than $25,000
2. $25,000 - $49,999
3. $50,000 - $74,999
4. $75,000 - $99,999
5. More than $100,000
6. Rather not say
Where do you live?

1. City of Fresno
2. Unincorporated County Area outside of City of Fresno
3. City of Clovis
4. Other Fresno County City
5. Outside of Fresno County
Which of the following subgroups BEST describes you?

1. Elected Official
2. Appointed Official
3. Private Citizen
4. Student
5. Public Agency Staff
6. Community Based Organization/Faith Based Organization
7. Environmental Justice Advocate
8. Union Member or Representative
9. Other
What is your preferred language?

1. English
2. Spanish
3. Southeast Asian dialect (Hmong, Laotian, etc.)
4. Other
Do you have a disability that either prevents you from getting to or from a bus route, accessing a bus, or understanding how to use the bus system?

1. Yes
2. No
3. Prefer not to answer
How did you get to this workshop today?

1. Drove a car
2. Rode in a car with family/friends
3. Rode on a motorcycle
4. Took Uber/Lyft
5. Took the bus
6. Rode a bike
7. Walked
8. Other
Do you own or have regular access to a vehicle?

1. Yes
2. No

[Bar chart showing 73% yes and 27% no]
If a motor vehicle is not available, what type of transportation do you use?

1. Bus
2. Bicycle
3. Walk
4. Ask for a ride from friend, neighbor or family member
5. Uber/Lyft
6. Other
How often do you ride FAX?

1. Four or more days a week
2. Two to three days a week
3. About once every week or two
4. About once a month
5. Rarely/Never
What do you currently ride FAX for (most important trip only)?

1. Trips to and from work
2. Shopping trips
3. Education trips (school, college, job-related classes)
4. Personal business trips (doctor, haircut, etc.)
5. Social and recreational trips (visiting friends/family, entertainment)
6. I use FAX for all my trips
7. Do not ride FAX
Is the *Draft FAX Plan* better for me?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for my friends and family?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for my neighborhood?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Is the *Draft FAX Plan* better for Fresno?

1. Definitely
2. Probably
3. Maybe/Not Sure
4. Probably Not
5. Definitely Not
Do you think the *Draft FAX Plan* will lead you to ride transit for more trips to and from work?

1. Yes
2. No
3. I am not employed
Do you think the *Draft FAX Plan* will lead you to ride transit for more shopping trips?

1. Yes
2. No
Do you think the *Draft FAX Plan* will lead you to ride transit for more education trips (school, college, job-related classes)?

1. Yes
2. No
3. I am not a student

[Bar chart showing:]
- **Yes:** 56%
- **No:** 44%
- **I am not a student:** 0%
Do you think the **Draft FAX Plan** will lead you to ride transit for more personal trips (doctor, haircut, etc.)?

1. Yes
2. No

63% Yes
38% No
Do you think the Draft FAX Plan will lead you to ride transit for more social and recreational trips (visiting friends/family, entertainment)?

1. Yes
2. No
The *Draft FAX Plan* will provide better service in most areas, but some low-density areas will see less service. If FAX were to obtain more funding, what is the best option for these areas?

1. No additional service is needed in these areas.
2. Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount
3. Uber/Lyft or Taxi services to any destination with a 20% discount
4. Bikeshare system in these areas
5. FAX should keep bus service at the same level
6. Other (please describe on comment card)
To make FAX service faster, there will be longer distances between some stops. What would help offset this?

1. **More comfortable stops – shade, seating, etc.**
2. **Ensure that sidewalks and other pathways to stops are well-paved, well-lighted and safe**
3. **Better bike access/more secure bike parking at key bus stops.**
4. **Alternating “skip stop” service on routes**
5. **Nothing more is needed – faster service is enough**
6. **Other (please describe on comment card)**
Meeting Evaluation
How effective has this meeting been so far to express your opinions?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How useful were the clickers to provide your opinion?

1. Not at all effective
2. Not very effective
3. Somewhat effective
4. Effective
5. Very effective
How did you learn about today’s workshop?

1. Received a flyer
2. Received an email
3. Heard about it on television
4. Radio
5. Vida En El Valle
6. Social Media
7. Internet
8. Saw advertisement on bus
9. Word of mouth
10. Other
Appendix V

Wrap-up Workshop (Pinedale Community Center)
All Workshop Materials
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<td>Ekam Singh</td>
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<td>Mohinder Singh</td>
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<td>Mrs. Chacon</td>
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More information is available at: [www.fresno.gov/transportation/fax/](http://www.fresno.gov/transportation/fax/)
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<td>Adrien Ferguson</td>
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<td>Javier Guerro</td>
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<td>Kerry Starks</td>
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More information is available at: www.fresno.gov/transportation/fax/
FAX Fixed-Route System Restructure Study
Wrap-up Workshop

December 6, 2017

Name: Shelley Evans

Representing Organization or Agency: N/A - Private Citizen

Comments:
I am a senior now and retired used to take bus to work. Now would like to take bus to other activities. Biggest concern is the 1hr service -- works going out but can be difficult returning home.

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS

FAX Fixed-Route System Restructure Study
Wrap-up Workshop

December 6, 2017

Name: Hee Young

Representing Organization or Agency: FIRM/IBWOC

Comments:
Surveys will need to be language sensitive in terms of more than just English & Spanish. Difficulty may also arise from having surveys in Khmer or other languages as well as many elderly Khmer folks are illiterate. Can workshops be implemented to solve this issue?

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS
FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: Simranjit Seon
Address:
City: State: Zip:

Representing Organization or Agency:

Comments: Need a stop on Hayes for my family, friends, and grandparents.

Hayes & Polk

Visit www.fresno.gov/transportation/fax/ for more information

FAX
Fresno Area Express

FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: Stephanie Babb
Address:
City: State: Zip:

Representing Organization or Agency: Clovis Community College

Comments: good overview
Thank you

Visit www.fresno.gov/transportation/fax/ for more information

FAX
Fresno Area Express
FAX Fixed-Route System Restructure Study
Wrap-up Workshop

December 6, 2017

Name: Deep Singh

Address:

City:  State:  Zip:

Representing Organization or Agency: Jakara Movement

Comments:
Very concerned re: Route 9 - want a stop on Hayes - since housing development has extended beyond Park & a stop at Inspiration Park

Visit www.fresno.gov/transportation/fax/ for more information

FAX EXPRESS

FAX Fixed-Route System Restructure Study
Wrap-up Workshop

December 6, 2017

Name: Raymond Connelly

Address:

City:  State:  Zip:

Representing Organization or Agency: BMX

Comments: Needs more ways to communicate with those riding bikes

Visit www.fresno.gov/transportation/fax/ for more information

FAX EXPRESS
FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: Angie G. Blanchard
Address:
City: State: Zip:

Representing Organization or Agency: Fresno RTD

Comments: Community involvement needed for a meaningful/palatable plan.

Visit www.fresno.gov/transportation/fax/ for more information

FAX EXPRESS
FRESNO AREA EXPRESS

FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name:
Address:
City: State: Zip:

Representing Organization or Agency:

Comments: From 8-9 to 12 pm if a rider is at a FAX stop can get Uber/Lyft to any stop in Fresno for half off.

Visit www.fresno.gov/transportation/fax/ for more information

FAX EXPRESS
FRESNO AREA EXPRESS
FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: Javier Guerrero
Address:
City: State: Zip:
Representing Organization or Agency:
Comments:

More outreach, there should be more people at the workshops mentioned. 87 participants over 7 workshops is not req. of community.

Visit www.fresno.gov/transportation/fax/ for more information

FAX Fresno Area EXPRESS

FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: Adrien Ferguson
Address:
City: State: Zip:
Representing Organization or Agency: Fresno MOC
Comments:
It was brought to my attention that some bus drivers do not give transfers to riders that use the one fair passes. How do you plan to correct this?

Visit www.fresno.gov/transportation/fax/ for more information

FAX Fresno Area EXPRESS
Name: Josh Curato

Comments: WiFi on the bus that all people can exp use

Visit www.fresno.gov/transportation/fax/ for more information

Name: Kerry Starks

Comments: Improve on bus security

Visit www.fresno.gov/transportation/fax/ for more information
FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: David Jimenez

Comments: I usually ride buses 20 & 9 when I had school. Usually when trying to transfer bus 9 would leave as I'm getting out if the 20 bus. There needs to be a system for bus drivers to communicate so riders do not miss their bus ride.

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS

FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: Mark Pizana, Jr.

Comments: A live map of where the buses are.

Fresno Transit App doesn't have a live map or even on time route system.

Visit www.fresno.gov/transportation/fax/ for more information

FAX
FRESNO AREA EXPRESS
FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: Olaa Boules
Address: 
City: 
State: 
Zip: 
Representing Organization or Agency: Private Citizen
Comments: Buses do not want you to transfer. Why don’t you have solar panels at the bus stops?

Visit www.fresno.gov/transportation/fax/ for more information

FAX Fixed-Route System Restructure Study
Wrap-up Workshop
December 6, 2017

Name: David Bouittavong
Address: 
City: 
State: 
Zip: 
Representing Organization or Agency: Fresno Barrios Unidos
Fresno Boys and Men of Color
Comments: Surveys should be given in Hmong. Some Hmong riders may not be able to even read or write in Hmong. How are they supposed to be aware of changing routes? They will end up lost in Fresno!

FAX should get an app like the Bart apps in the Bay.

Visit www.fresno.gov/transportation/fax/ for more information
Please provide your ideas, comments, and issues regarding Fax's current transit services.

- Add Clovis Community College to route 58
- More grid-based E-W routes, like a single Herndon route
- Seeking a stop off of Hayes Ave & Shaw
- Bus stop @ Inspired Inspiration Park

- Seeking access on Hayes Ave
- Seeking inspiration Park
Survey Instrument

The Survey Instrument available for respondents during the Wrap-up workshop consisted of six multiple choice questions. The questions were designed to determine respondents’ opinions on the Draft FAX Plan. Participants were able to provide input on the survey questions by selecting their preferred answer and submitting their completed survey card to Study Team staff that was present at the workshop. Answers from all surveys were totaled and have been graphically displayed. Numbers in parentheses following each survey question correspond to the total number of responses received for each question. A total of 28 surveys were completed by pop-up event attendees.

1. Where do you live?
   1. Fresno
   2. Unincorporated County Area outside of the City of Fresno
   3. Clovis
   4. Other Fresno County City
   5. Outside of Fresno County

(28 Responses)

2. Where did you get to today’s event?
   1. Drove a car
   2. Rode in a car with family/friends
   3. Rode a motorcycle
   4. Took Uber/Lyft
   5. Took the Bus
   6. Rode a Bike
   7. Walked
   8. Other

(28 Responses)

3. How often do you ride FAX?
   1. Four or more days a week
   2. Two to three days a week
   3. About once every week or two
   4. About once a month
   5. Rarely/Never

(28 Responses)
4. Is the Draft FAX Plan better for me?
   1. Definitely
   2. Probably
   3. Maybe/Not sure
   4. Probably Not
   5. Definitely Not

   (28 Responses)

5. To make FAX service faster, there will be longer distance between some stops. What would help offset this?
   1. More comfortable stops (shade, seating, etc.)
   2. Ensure that sidewalks/pathways to stops are well-paved, well-lighted and safe
   3. Better bike access/more secure bike parking at key bus stops
   4. Nothing more is needed – faster service is enough
   5. Other

   (46 Responses)

*Question 5 was designed for a single answer/response. However, many respondents selected multiple answers.*

6. A few areas in Fresno will have less service under the Draft Fax Plan. What is the best option for these areas if funding is available?
   1. No additional service is needed in these areas
   2. Coordinated Uber/Lyft or Taxi services to reach the nearest FAX line with a 40% discount
   3. Uber/Lyft or Taxi services to any destination with a 20% discount
   4. Bikeshare system in these areas
   5. FAX should keep bus service at the same level

   (27 Responses)

*Question 6 was designed for a single answer/response. However, many respondents selected multiple answers.*
FAX FIXED-ROUTE SYSTEM
RESTRUCTURE STUDY

FAX 2018 ONBOARD SURVEY

Draft Summary of Findings, March 2018

RONNY KRAFT CONSULTING

VRPATECHNOLOGIES, INC.
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METHODOLOGY

A survey of FAX passengers was conducted on four weekdays, a Saturday, and a Sunday between January 12th and January 18th, excluding the Martin Luther King Jr. holiday on January 15th. The survey sample included morning, midday, and evening runs.

Survey staff were trained to ask every rider who appeared over 12 to complete the questionnaire. They briefly explained the purpose of the survey, offered a pencil, and were available to answer questions and assist as needed. Most survey staff were bilingual and those who were not were able to convey that the questionnaire was available in Spanish. Survey staff wore a smock identifying them as part of the transit survey team.

The survey questionnaire was distributed on 8.5x14 cardstock with English and Spanish on opposing sides. Individual questionnaires were serially numbered in order to keep track of the specific routes and trips they were distributed on. The formatted survey is shown in Appendix A.

Survey staff kept a log of the passengers that did not accept a questionnaire separated into the following categories: rider was under 12, there was a language barrier, rider had already completed the survey, or general refusal. Passengers who were unable to complete the survey onboard were instructed to turn the survey into any driver by the following day.

During the six days, survey staff approached approximately 5,366 riders aged 12 or older. Of these, 2,904 accepted a questionnaire and 2,444 completed the questionnaire. Among the people who did not accept a questionnaire 366 were marked down as having a language barrier, 874 had already completed the survey, and 2,096 were general refusals. Of those eligible to complete the survey, the response rate was 45.5%.

On January 17th two survey staff distributed the survey to passengers boarding and alighting from FAX buses at the downtown transit center. Survey staff asked for and recorded the route number for each person that returned a survey. There were 82 surveys collected at the transit center that are included in the analysis.
Prior to analysis, the data set was weighted to reflect actual ridership by route. This eliminates any disproportionality in response rates and insures that the information included in this report is representative of FAX’s overall ridership.

A separate survey effort using the same questionnaires was conducted to gather input from Punjabi and Hmong populations. Nearly all questionnaires were completed at religious spaces. In many cases, a translator interpreted the questions and recorded the answers for the respondent. Most respondents were of an older age segment, as younger people tend not to attend religious events as regularly or tended not to congregate with elders when filling out the questionnaires. The results of these surveys are discussed separately in the final section of this report.

The survey effort was intended to provide direct passenger input into the FAX Restructure Public Involvement Study. The prime consultant to the City of Fresno is VRPA Technologies, Inc. The survey effort and analysis was a team effort of Mobility Planners LLC, Ronny Kraft Consulting, and Transit Marketing, subcontractors to VRPA Technologies, Inc.
Riders were asked how many days out of the past seven they rode FAX. A large proportion (39%) of FAX riders are frequent riders who use the bus six to seven days per week. Regular riders that use the bus four to five days per week make up another 36%. The final quarter of riders are occasional riders who ride one to three days per week. Predictably, people that were traveling for work or school were more likely to use the bus five or more days per week than people traveling for other purposes.
Another measure of intensity of use is the number of trips riders make on the bus in one day. For this purpose, a trip was defined as origin to destination even if the trip took more than one bus. Overall, 64% of riders made one to two trips on the day they were surveyed and 21% made four or more. Occasional riders were much likelier to take fewer trips in a day (81%) than regular and frequent riders. Frequent riders were likelier to take four or more trips in a day (34%).
**DURATION OF USE**

A majority of FAX riders are long-term users, having begun riding in 2011 or before (6+ years). Twenty percent are new riders that began riding in 2016 or 2017. New riders were more likely to be on their way to/from school or college and are presumably students.

![Duration Riding FAX](image)

**TRIP PURPOSE**

Riders were asked to select the main purpose of their bus trip. About half of all riders were making commute trips traveling for work or school, with 26% going to/from work, 11% elementary, middle, or high school, and 12% college or vocational school. Non-commute riders reported traveling for a variety of other reasons, including social services, doctor or medical, shopping, errand or other appointment, social or recreation, and other trip purpose.

![Trip Purpose](image)
TRANSPORTATION OPTIONS

USE OF UBER & LYFT

Riders were asked whether they’ve used the Uber and/or Lyft services in Fresno in the past month, for what purpose(s), and how often. More than a third (38%) reported that they had used the services during the past month.

Uber/Lyft usage rates were highest among riders who were employed part time (47%), full time (45%), and in college (43%). They were lowest among retired (23%) and not employed (27%) riders.

When looking at the distribution of household income, there was no significant difference between FAX riders who had used Uber/Lyft and those that had not. There was also very little difference in the rate of Uber/Lyft usage between occasional, regular, and frequent FAX riders.
Riders aged 18 to 34 were more likely to have used Uber/Lyft. Riders aged 12-17 and over 35 were more likely to have not.

Riders that used Uber/Lyft were asked which trip purposes they use the services for. Multiple purposes could be selected. About half of the riders who used Uber/Lyft indicated that they use the services to get to/from work, the most common trip purpose. Medical (18%) and Social/Recreation (7%) were the least common trip purposes.

Most FAX riders who used Uber/Lyft do so infrequently. Sixteen percent reported that they use the services less than once a week and 52% used the service once or twice a week. Another 25% used Uber/Lyft 3 to 6 times per week.
DRIVER'S LICENSE & VEHICLE AVAILABILITY

In order to determine FAX riders’ dependence on transit, they were asked if they have a valid driver’s license and if a vehicle was available for them to drive for the trip they were currently making. A majority of riders (59%) reported that they don’t have a driver’s license and that there was not a vehicle available for their trip. Only 8% of riders indicated that a vehicle had been available and that they have a valid driver’s license.

DEMOGRAPHICS

AGE

Surveys were distributed to FAX riders aged 12 and older. Youth aged 12 to 17 accounted for 12% of returned surveys, however survey staff noted that riders in this age range were less likely to accept a survey.
The proportions of riders aged 25 to 34, 35 to 64, and 65+ are reflective of the City of Fresno population as a whole. The proportion of riders aged 18 to 24 (27%) is significantly higher than Fresno residents overall (12%).

**EMPLOYMENT STATUS**

Riders were asked to describe their employment status by selecting one or more of the options shown in the chart above. Most people selected only one option, however there are a small number of college students who are also employed part time. Riders who are employed full time and part time comprise 22% and 23%, respectively. A significant proportion of riders are not employed (23%).

---

1 The data for the City of Fresno is from the American Community Survey (ACS) 5-year estimates from 2012 to 2016. This data was not available for the category 12 to 17.
College students account for 17% of riders and retired persons account for 9%. Riders in elementary, middle, and high school comprise 11%, but, as previously noted, this group was less inclined to accept a survey.

**INCOME**

The household income of most FAX riders is quite low. More than three quarters of fax riders have a household income of less than $25,000. When compared to the annual income of the City of Fresno residents overall from the American Community Survey, the proportion of FAX riders with an annual household income under $10,000 is far higher (45%) than total city residents (10%).

Federal poverty levels vary depending on household size. The poverty level for a one-person household in 2017 is an annual income of $12,060 or less and $16,240 or less for a two-person household. Given these thresholds it can reasonably be assumed that a large proportion of FAX riders are living in poverty.

**LANGUAGE**

Ten percent of FAX riders indicated that they primarily speak Spanish at home and a large majority (88%) of FAX riders reported that they speak English at home. Similarly, 97% of returned surveys were filled out in English and 3% in
Spanish. Riders that speak Hmong and Punjabi are discussed separately on page 34.

**ETHNICITY**

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>45%</td>
</tr>
<tr>
<td>African American</td>
<td>24%</td>
</tr>
<tr>
<td>White</td>
<td>20%</td>
</tr>
<tr>
<td>Native American</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
</tr>
<tr>
<td>Prefer not to state</td>
<td>3%</td>
</tr>
</tbody>
</table>

FAX riders were asked to select one or more ethnicities that describe themselves. The largest proportion of riders identified as Hispanic (45%). The second largest group identified as African American (24%) and the third largest identified as white (20%).
Riders were asked to rate six aspects of FAX service and FAX service overall on a scale of 1 (poor) to 7 (excellent). The chart above shows the distribution of responses for each service aspect and the chart on the following page shows the average score for each. “How close the bus stops are to the places you need to go” received the highest proportion of excellent ratings (32%) and the highest average rating (5.41). FAX service overall received the second highest proportion of excellent ratings (27%) and average rating (5.37).

The bottom four service aspects received similar proportions of excellent ratings, ranging from 17% to 22%, and have similar average ratings. It’s important to note that these four bottom service aspects are all important for growing ridership.
The service aspects with the largest proportion of poor ratings (ratings of a 1 or 2) were “The hours when the bus runs” and “The time required to take a trip.” The service attribute with the lowest mean rating was “How often the bus runs on time.”

![Average Service Ratings](image)
POTENTIAL IMPROVEMENTS

FAX Riders were asked to rate ten potential service improvements on a scale from 1 (not important) to 7 (very important). The chart above shows the distribution of responses for each potential improvement and the chart on the following page shows the average importance rating for each improvement. Most potential improvements were rated as highly important and all but one improvement has an average score above 5.

The top five important improvements all pertain to service frequency or span of service improvements. “More routes with 15-minute service from 6 AM to 6 PM” received the highest importance rating with 65% of riders rating the importance at “7”, an additional 15% rating it at “6”, and an average score of 6.24. “More late night bus routes that run until 1 AM” received the second highest importance ratings.
The following five important improvements received very similar ratings in the middle of the spectrum:

- More frequent bus service on weekends
- Extended service to new areas of Fresno
- More frequent service on the route you ride most often
- Realtime info displays at bus shelters
- Bus shelters at more bus stops

The lowest importance ratings went to:

- Better sidewalk access to bus stops
- Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price
- Bike share stations at major FAX bus stops

However, these least important improvements were still rated “very important” by at least 25% of riders.
Riders were asked which of the improvements they would choose if FAX could only make one, in order to clarify priorities. This produced a more varied spectrum of importance. The top five were the same service expansion improvements that also received the highest proportions of high importance ratings.

“More late night bus routes that run until 1 AM” was the most popular priority improvement, selected by nearly a quarter of riders. The result was the same across trip purposes and all but one income category. This was the highest priority improvement that passengers would like to see implemented by a significant margin.

The second and third top choices each have to do with increased frequency. “More routes with 15 minute service from 6 AM to 6 PM” received 16% and “More frequent service on the route you ride most often” received 15%. The specific routes associated with riders who chose “More frequent service on the route you ride most often” are shown on page 31.
The least important improvements were “Better sidewalk access” at 4%, “Bike share stations at major FAX bus stops” at 3%, and “Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price at 3%.

### Most Important Improvement by Trip Purpose

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Work</th>
<th>Elem/MS/HS</th>
<th>College</th>
<th>Soc. Service/Medical</th>
<th>Shopping/Errand/Rec/Other</th>
<th>All Riders</th>
</tr>
</thead>
<tbody>
<tr>
<td>More late night bus routes that run until 1 AM</td>
<td>25%</td>
<td>19%</td>
<td>21%</td>
<td>22%</td>
<td>25%</td>
<td>23%</td>
</tr>
<tr>
<td>More routes with 15 minute service from 6 AM to 6 PM</td>
<td>15%</td>
<td>16%</td>
<td>19%</td>
<td>16%</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td>More frequent service on the route you ride most often</td>
<td>14%</td>
<td>18%</td>
<td>15%</td>
<td>12%</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>More frequent bus service on weekends</td>
<td>12%</td>
<td>8%</td>
<td>7%</td>
<td>14%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Extended service to new areas of Fresno</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
<td>11%</td>
<td>12%</td>
<td>10%</td>
</tr>
<tr>
<td>Realtime info displays at bus shelters</td>
<td>7%</td>
<td>11%</td>
<td>13%</td>
<td>8%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Bus shelters at more bus stops</td>
<td>7%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Better sidewalk access to bus stops</td>
<td>4%</td>
<td>5%</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Discounted Uber/Lyft/Taxi service to reach the nearest FAX bus stop</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

The chart above shows that more late night bus routes that run until 1 AM was the top choice for all trip purposes. Riders making work and shopping/errand trips especially favored more late night service. More frequent service was the second and third choices for most trip purposes, with one exception. People riding to social service or medical destinations slightly favored more frequent service on weekends over more frequent service on the route they ride most often.

There were little or no differences when selections for the most important improvement were compared by riders’ frequency of FAX usage, age, income, and whether or not they use Uber/Lyft.
SERVICE IMPROVEMENT TRADEOFFS

Given limited resources, transit service levels often represent tradeoffs between various service aspects, dependent upon priorities. In order to determine riders’ priorities, they were asked four questions that required them to choose between two service alternatives.

The first tradeoff questions matched bus frequency against the distance to a stop. Riders are willing to travel farther to a stop for more frequent service. There was a clear preference for “A bus runs every 15 minutes, but the bus stop is ½ mile away” (72%) over “A bus runs every 30 minutes, but the stop is ¼ mile away” (28%). This aligns with the finding that riders chose increases to bus frequency as the second and third most important improvements.

The second question compared the same bus frequencies against the overall service area. An expanded service area to new parts of Fresno was the fourth most popular selection for most important improvement, below the improvement rating for improve frequency. However, riders were very closely split when asked to choose between “Buses that run every 15 minutes but only operate in the current FAX service area” (52%) over “Bus routes that runs every 30 minutes and the service area is expanded to serve areas of Fresno not currently served” (48%). Overall, improved frequency is very important to passengers. However, input received from the public workshops on the need to expand service geographically is also important to 48% of existing...
FAX passengers when they had to choose between “Bus runs every 30 minutes and the service area is expanded or “Bus runs every 15 minutes with the same service area. “

“More late night bus routes that run until 1 AM” was chosen as the top most important improvement. However, in the tradeoff question regarding late night service riders were almost evenly split on their preference for “Buses run until 11 PM on most routes” (51%) versus “Buses run until 1 AM on most popular routes” (49%).

The last tradeoff question compared the service hours and bus frequency of weekend service. There was a moderate preference for “Later service on weekends ending at 10 PM” (61%) over “More frequent service on the weekends, during the hours currently served” (39%).

The chart to the right compares the first two questions that include bus frequency tradeoffs. The highest proportion of riders (40%) chose both “A bus runs every 15 minutes, but the bus stop is ½ mile away” and “Buses that run every 15 minutes but only operate in the current FAX service area.” This again demonstrates a high preference for increased frequencies over other service improvements. The second most popular combination with 31% was “A bus runs every 15 minutes,
but the bus stop is ½ mile away” and “Bus routes that runs every 30 minutes and the service area is expanded to serve areas of Fresno not currently served.”

Answers to the third and fourth tradeoff questions combined are shown to the right. The highest proportion (33%) favored later service on weekends and buses that run until 1 AM on the most popular routes.

<table>
<thead>
<tr>
<th>More frequent service on weekends, during current service hours</th>
<th>Later service on weekends, ending at 10 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buses run until 11 PM on most routes OR Buses run until 1 AM only on most popular routes</td>
<td>22% OR 16%</td>
</tr>
</tbody>
</table>
COMPARISON BY ROUTE

This section presents the results of the onboard survey broken down by the route that the rider was on when they received a survey. Results that are considerably different between routes are noted, but in many cases, there were no significant differences. Route 58 was not included due to the low number of surveys returned for this route.

HOW RIDERS USE FAX

<table>
<thead>
<tr>
<th>Route</th>
<th>First year riding FAX</th>
<th>Days ridden this week</th>
<th>One-way trips today</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011 or before</td>
<td>2012 - 2015</td>
<td>2016 - 2017</td>
</tr>
<tr>
<td>9</td>
<td>51%</td>
<td>23%</td>
<td>26%</td>
</tr>
<tr>
<td>20</td>
<td>59%</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td>22</td>
<td>64%</td>
<td>21%</td>
<td>15%</td>
</tr>
<tr>
<td>26</td>
<td>60%</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>28</td>
<td>58%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>30</td>
<td>63%</td>
<td>21%</td>
<td>16%</td>
</tr>
<tr>
<td>32</td>
<td>59%</td>
<td>22%</td>
<td>20%</td>
</tr>
<tr>
<td>33</td>
<td>67%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>34</td>
<td>68%</td>
<td>19%</td>
<td>14%</td>
</tr>
<tr>
<td>35</td>
<td>68%</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>38</td>
<td>51%</td>
<td>27%</td>
<td>22%</td>
</tr>
<tr>
<td>39</td>
<td>46%</td>
<td>26%</td>
<td>29%</td>
</tr>
<tr>
<td>41</td>
<td>52%</td>
<td>21%</td>
<td>26%</td>
</tr>
<tr>
<td>45</td>
<td>52%</td>
<td>19%</td>
<td>29%</td>
</tr>
<tr>
<td>Avg.</td>
<td>58%</td>
<td>21%</td>
<td>20%</td>
</tr>
</tbody>
</table>

For all routes, except route 39, more than half of riders are long term riders that have been riding FAX since 2011 or before. Routes 9, 39, 41, and 45 have relatively higher than average proportions of newer riders.

Most riders use FAX at least four days per week and take one to two trips per day. Route 9 and 33 have the highest proportions of occasional riders that ride only one to three days per week.
Route 9 has the highest proportion of riders (46%) going to/from work, however the results were fairly consistent across routes with most between 30% and 40%. Routes 26, 33, 39, and 41 have the highest proportions of students taking a trip to/from elementary, middle, and high school and routes 20, 28, and 39 have high proportions of college/vocational students.
TRANSPORTATION OPTIONS

Most riders do not have a valid driver's license nor a vehicle available for them to make their trip and this holds true across routes. Routes 9 and 45 have the relatively highest proportion of Uber/Lyft users and route 35 has the lowest.
DEMOGRAPHICS

Age

<table>
<thead>
<tr>
<th>Route</th>
<th>12 to 17</th>
<th>18 to 24</th>
<th>25 to 34</th>
<th>35 to 64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>11%</td>
<td>35%</td>
<td>20%</td>
<td>31%</td>
<td>4%</td>
</tr>
<tr>
<td>20</td>
<td>17%</td>
<td>42%</td>
<td>9%</td>
<td>24%</td>
<td>7%</td>
</tr>
<tr>
<td>22</td>
<td>5%</td>
<td>30%</td>
<td>17%</td>
<td>42%</td>
<td>5%</td>
</tr>
<tr>
<td>26</td>
<td>10%</td>
<td>27%</td>
<td>19%</td>
<td>40%</td>
<td>3%</td>
</tr>
<tr>
<td>28</td>
<td>7%</td>
<td>38%</td>
<td>21%</td>
<td>30%</td>
<td>5%</td>
</tr>
<tr>
<td>30</td>
<td>14%</td>
<td>20%</td>
<td>29%</td>
<td>33%</td>
<td>4%</td>
</tr>
<tr>
<td>32</td>
<td>8%</td>
<td>25%</td>
<td>22%</td>
<td>41%</td>
<td>4%</td>
</tr>
<tr>
<td>33</td>
<td>13%</td>
<td>29%</td>
<td>17%</td>
<td>29%</td>
<td>12%</td>
</tr>
<tr>
<td>34</td>
<td>17%</td>
<td>21%</td>
<td>22%</td>
<td>34%</td>
<td>7%</td>
</tr>
<tr>
<td>35</td>
<td>6%</td>
<td>33%</td>
<td>24%</td>
<td>31%</td>
<td>7%</td>
</tr>
<tr>
<td>38</td>
<td>18%</td>
<td>37%</td>
<td>18%</td>
<td>27%</td>
<td>1%</td>
</tr>
<tr>
<td>39</td>
<td>23%</td>
<td>25%</td>
<td>16%</td>
<td>36%</td>
<td>0%</td>
</tr>
<tr>
<td>41</td>
<td>20%</td>
<td>23%</td>
<td>16%</td>
<td>42%</td>
<td>0%</td>
</tr>
<tr>
<td>45</td>
<td>2%</td>
<td>25%</td>
<td>24%</td>
<td>39%</td>
<td>10%</td>
</tr>
<tr>
<td>Avg.</td>
<td>12%</td>
<td>29%</td>
<td>20%</td>
<td>34%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Age

No single age group comprises a majority for any of the routes. As would be expected, the routes with higher than average proportions of riders aged 12 to 17 mirror those with high proportions of riders traveling to/from elementary, middle, and high school and riders who listed these as their employment status (chart for employment status not shown).

Routes 20 and 28 have high proportion of riders aged 18 to 24, that were traveling to/from college or vocational school, and that named college/vocational school as their employment status.

Route 20 also has the lowest proportion of riders aged 25 to 64. In most cases riders over the age of 65 comprise a very small share (0% to 7%). The exceptions are route 45 with 10% over age 65 and route 33 with 12%.
Language & Ethnicity

Riders who identify as Hispanic comprise the largest proportion for each route. Routes 20, 22, and 34 have higher than average percentages of riders who primarily speak Spanish.

Route 20 has a much higher than average share of riders who identify as African American (34%) and the highest share of both Native American riders (10%) and riders who identified as “Other.” Route 39 has the highest share of Asian riders (12%).

<table>
<thead>
<tr>
<th>Route</th>
<th>English</th>
<th>Spanish</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>94%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>20</td>
<td>85%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>22</td>
<td>79%</td>
<td>20%</td>
<td>2%</td>
</tr>
<tr>
<td>26</td>
<td>86%</td>
<td>13%</td>
<td>1%</td>
</tr>
<tr>
<td>28</td>
<td>86%</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>30</td>
<td>93%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>32</td>
<td>91%</td>
<td>8%</td>
<td>1%</td>
</tr>
<tr>
<td>33</td>
<td>86%</td>
<td>12%</td>
<td>2%</td>
</tr>
<tr>
<td>34</td>
<td>83%</td>
<td>15%</td>
<td>2%</td>
</tr>
<tr>
<td>35</td>
<td>87%</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td>38</td>
<td>85%</td>
<td>12%</td>
<td>3%</td>
</tr>
<tr>
<td>39</td>
<td>89%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>41</td>
<td>92%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>45</td>
<td>92%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>Avg.</td>
<td>88%</td>
<td>11%</td>
<td>2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Route</th>
<th>African Am.</th>
<th>Asian</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>19%</td>
<td>8%</td>
<td>39%</td>
<td>27%</td>
</tr>
<tr>
<td>20</td>
<td>34%</td>
<td>6%</td>
<td>39%</td>
<td>10%</td>
</tr>
<tr>
<td>22</td>
<td>24%</td>
<td>1%</td>
<td>50%</td>
<td>23%</td>
</tr>
<tr>
<td>26</td>
<td>25%</td>
<td>4%</td>
<td>48%</td>
<td>15%</td>
</tr>
<tr>
<td>28</td>
<td>24%</td>
<td>5%</td>
<td>45%</td>
<td>20%</td>
</tr>
<tr>
<td>30</td>
<td>30%</td>
<td>3%</td>
<td>37%</td>
<td>20%</td>
</tr>
<tr>
<td>32</td>
<td>27%</td>
<td>2%</td>
<td>40%</td>
<td>24%</td>
</tr>
<tr>
<td>33</td>
<td>24%</td>
<td>2%</td>
<td>55%</td>
<td>8%</td>
</tr>
<tr>
<td>34</td>
<td>26%</td>
<td>3%</td>
<td>42%</td>
<td>18%</td>
</tr>
<tr>
<td>35</td>
<td>14%</td>
<td>0%</td>
<td>52%</td>
<td>25%</td>
</tr>
<tr>
<td>38</td>
<td>18%</td>
<td>5%</td>
<td>49%</td>
<td>16%</td>
</tr>
<tr>
<td>39</td>
<td>27%</td>
<td>12%</td>
<td>41%</td>
<td>19%</td>
</tr>
<tr>
<td>41</td>
<td>20%</td>
<td>4%</td>
<td>47%</td>
<td>18%</td>
</tr>
<tr>
<td>45</td>
<td>22%</td>
<td>3%</td>
<td>38%</td>
<td>30%</td>
</tr>
<tr>
<td>Avg.</td>
<td>24%</td>
<td>4%</td>
<td>44%</td>
<td>19%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Route</th>
<th>Native Am.</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>20</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>22</td>
<td>10%</td>
<td>3%</td>
</tr>
<tr>
<td>26</td>
<td>15%</td>
<td>3%</td>
</tr>
<tr>
<td>28</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>30</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>32</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>33</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>34</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>35</td>
<td>10%</td>
<td>3%</td>
</tr>
<tr>
<td>38</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>39</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>41</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>45</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Avg.</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>
### Household Income

<table>
<thead>
<tr>
<th>Route</th>
<th>Less than $10,000</th>
<th>$10,000 to $19,999</th>
<th>$20,000 to $34,999</th>
<th>$35,000 to $49,999</th>
<th>$50,000 to $74,999</th>
<th>More than $75,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>41%</td>
<td>15%</td>
<td>36%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>20</td>
<td>52%</td>
<td>14%</td>
<td>20%</td>
<td>11%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>22</td>
<td>38%</td>
<td>21%</td>
<td>33%</td>
<td>4%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>26</td>
<td>51%</td>
<td>12%</td>
<td>24%</td>
<td>3%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>28</td>
<td>48%</td>
<td>20%</td>
<td>22%</td>
<td>4%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>30</td>
<td>46%</td>
<td>20%</td>
<td>25%</td>
<td>3%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>32</td>
<td>41%</td>
<td>23%</td>
<td>27%</td>
<td>4%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>33</td>
<td>51%</td>
<td>17%</td>
<td>14%</td>
<td>9%</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>34</td>
<td>47%</td>
<td>15%</td>
<td>29%</td>
<td>3%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>35</td>
<td>39%</td>
<td>19%</td>
<td>29%</td>
<td>2%</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>38</td>
<td>44%</td>
<td>24%</td>
<td>22%</td>
<td>5%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>39</td>
<td>50%</td>
<td>17%</td>
<td>16%</td>
<td>9%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>41</td>
<td>41%</td>
<td>15%</td>
<td>27%</td>
<td>8%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>45</td>
<td>42%</td>
<td>23%</td>
<td>25%</td>
<td>4%</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>Avg.</td>
<td>45%</td>
<td>18%</td>
<td>25%</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

FAX riders with annual household incomes under $20,000 comprise the majority across all routes. Routes 20, 26, 33, and 39 have especially high proportions of riders who have household incomes under $10,000.
The chart above shows the average ratings for different aspects of FAX service by route. Riders on routes 9, 22, and 33 tended to rate FAX service characteristics positively, including FAX service overall.

Routes 22, 33, and 45 riders rated the proximity of stops to their destinations especially well, although this service characteristic was rated highly in general.

Riders on routes 39 and 45 tended to rate “How frequently the bus runs” relatively poorly. Route 39 has 30 minute service and Route 45 has 60 minute service frequencies.

Riders on routes 39 and 41 rated “The hours when the bus runs” relatively poorly. Both routes run until around 9 pm on weekdays and 7 pm on weekends.
### IMPROVEMENTS

**Most important improvement?**

<table>
<thead>
<tr>
<th>Improvement</th>
<th>9</th>
<th>20</th>
<th>22</th>
<th>26</th>
<th>28</th>
<th>30</th>
<th>32</th>
<th>33</th>
<th>34</th>
<th>35</th>
<th>38</th>
<th>39</th>
<th>41</th>
<th>45</th>
<th>Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>More late night bus routes that run until 1 AM</td>
<td>21%</td>
<td>26%</td>
<td>22%</td>
<td>22%</td>
<td>23%</td>
<td>23%</td>
<td>26%</td>
<td>21%</td>
<td>21%</td>
<td>24%</td>
<td>23%</td>
<td>21%</td>
<td>28%</td>
<td>15%</td>
<td>23%</td>
</tr>
<tr>
<td>More frequent service on the route you ride most</td>
<td>13%</td>
<td>11%</td>
<td>13%</td>
<td>16%</td>
<td>14%</td>
<td>9%</td>
<td>16%</td>
<td>21%</td>
<td>14%</td>
<td>24%</td>
<td>14%</td>
<td>16%</td>
<td>15%</td>
<td>33%</td>
<td>16%</td>
</tr>
<tr>
<td>More routes with 15 min service from 6AM to 6PM</td>
<td>12%</td>
<td>19%</td>
<td>6%</td>
<td>24%</td>
<td>17%</td>
<td>14%</td>
<td>17%</td>
<td>13%</td>
<td>17%</td>
<td>14%</td>
<td>15%</td>
<td>16%</td>
<td>12%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Extended service to new areas of Fresno</td>
<td>10%</td>
<td>10%</td>
<td>21%</td>
<td>7%</td>
<td>9%</td>
<td>12%</td>
<td>7%</td>
<td>5%</td>
<td>15%</td>
<td>8%</td>
<td>13%</td>
<td>10%</td>
<td>10%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>More frequent bus service on weekends</td>
<td>14%</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
<td>13%</td>
<td>15%</td>
<td>15%</td>
<td>11%</td>
<td>10%</td>
<td>3%</td>
<td>12%</td>
<td>6%</td>
<td>9%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Realtime info displays at bus shelters</td>
<td>12%</td>
<td>7%</td>
<td>6%</td>
<td>7%</td>
<td>9%</td>
<td>6%</td>
<td>6%</td>
<td>13%</td>
<td>7%</td>
<td>8%</td>
<td>6%</td>
<td>12%</td>
<td>11%</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>Bus shelters at more bus stops</td>
<td>6%</td>
<td>10%</td>
<td>9%</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>5%</td>
<td>9%</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
<td>7%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>Better sidewalk access to bus stops</td>
<td>6%</td>
<td>8%</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>5%</td>
<td>5%</td>
<td>7%</td>
<td>3%</td>
<td>6%</td>
<td>3%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Bike share stations at major FAX bus stops</td>
<td>3%</td>
<td>1%</td>
<td>7%</td>
<td>3%</td>
<td>2%</td>
<td>7%</td>
<td>1%</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Discounted Uber/Lyft/Taxi to the nearest bus stop</td>
<td>3%</td>
<td>1%</td>
<td>3%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
<td>5%</td>
<td>4%</td>
<td>5%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Riders’ selection for the most important improvement was fairly consistent across routes.** “More late night bus routes that run until 1 AM” was the top selection for all but one route - riders on route 45 showed a strong preference for “More frequent service on the route you ride most.” As stated above, this is not surprising as Route 45 has 60 minute service frequency.

**Improvements to frequency of service on the route they ride most and from 6 AM to 6 PM were consistently the second and third most popular choice, with some exceptions.** Riders on route 22 preferred “Extended service to new areas of Fresno” nearly as much as late night bus service, their top choice. Riders on route 30 preferred “More frequent bus service on weekends” as their second most popular choice.
SERVICE IMPROVEMENT TRADEOFFS

Across routes, riders consistently chose increased frequency to 15 minutes with a stop a ½ mile away over 30 minute frequency with a stop ¼ mile away.

Riders on routes 26, 35, and 38 showed a preference for 15 minute frequency in the same service area. Routes 26 and 35 currently have 30 minute service and route 38 has 15 to 20 minute service. Conversely, riders on routes 20, 32, and 45...
showed a preference for an expanded service with 30 minute frequency. Routes 20 and 32 currently have 30-minute service. For route 45, 30 minute frequency would be an increase from the current 60 minute frequencies.

Riders on routes 20 and 45 preferred that buses run until 11 pm on most routes over buses running until 1 AM on the most popular routes. Both of these routes currently run until 9-10 pm on weekdays. Riders on routes 26, 35, and 58 preferred the opposite.

The tradeoff results for weekend service were fairly similar across routes with a moderate preference for later service on weekends over more frequent service during the same service hours.
HMONG & PUNJABI RIDERS

This section presents the results of a concentrated effort to gather input from Hmong and Punjabi communities in Fresno. The surveys were filled out mostly at religious sites and none were distributed or completed onboard the bus. The analysis includes 96 completed surveys from riders who’s primary language is Hmong and 342 surveys from riders who’s primary language is Punjabi. Selected charts below show the onboard survey results to provide context for how the communities differ from the overall FAX rider population.

DEMOGRAPHICS

<table>
<thead>
<tr>
<th>Age</th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 to 23</td>
<td>12%</td>
<td>3%</td>
<td>35%</td>
</tr>
<tr>
<td>24 to 30</td>
<td>2%</td>
<td>2%</td>
<td>16%</td>
</tr>
<tr>
<td>31 to 43</td>
<td>10%</td>
<td>3%</td>
<td>20%</td>
</tr>
<tr>
<td>44 to 50</td>
<td>18%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>51 or older</td>
<td>59%</td>
<td>84%</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed full time</td>
<td>10%</td>
<td>12%</td>
<td>22%</td>
</tr>
<tr>
<td>Employed part time</td>
<td>32%</td>
<td>26%</td>
<td>23%</td>
</tr>
<tr>
<td>College Student</td>
<td>11%</td>
<td>3%</td>
<td>17%</td>
</tr>
<tr>
<td>Elem/MS/HS</td>
<td>0%</td>
<td>0%</td>
<td>11%</td>
</tr>
<tr>
<td>Not employed</td>
<td>33%</td>
<td>16%</td>
<td>23%</td>
</tr>
<tr>
<td>Retired</td>
<td>14%</td>
<td>42%</td>
<td>9%</td>
</tr>
</tbody>
</table>

A majority (59%) of Hmong and most (84%) Punjabi survey respondents were over the age of 51. These proportions are much higher than FAX ridership overall with only 21% over the age of 51. Moreover, the largest portion (42%) of Punjabi respondents are retired compared to only 9% from the onboard survey. There were no Hmong and Punjabi respondents in elementary, middle, or high school. This overrepresentation of older Hmong and Punjabi riders is due to the survey collection method and should be taken into account for the following discussion of results.
## HOW RIDERS USE FAX

<table>
<thead>
<tr>
<th>First year riding FAX</th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 or before</td>
<td>7%</td>
<td>3%</td>
<td>58%</td>
</tr>
<tr>
<td>2012 - 2015</td>
<td>50%</td>
<td>61%</td>
<td>22%</td>
</tr>
<tr>
<td>2016 - 2017</td>
<td>43%</td>
<td>37%</td>
<td>20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Days ridden this week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 days/wk</td>
</tr>
<tr>
<td>4-5 days/wk</td>
</tr>
<tr>
<td>6-7 days/wk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>One-way trips today</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
</tr>
<tr>
<td>3-4</td>
</tr>
<tr>
<td>5+</td>
</tr>
</tbody>
</table>

The Hmong and Punjabi riders are relatively new to using FAX when compared to FAX ridership overall. Very few Hmong and Punjabi riders have been riding since 2011 or before, around half have been riding since 2012 to 2015, and a significant portion are new riders.

The majority of Hmong and Punjabi riders tend to be occasional riders who use the bus one to three days per week and a smaller portion are regular riders who ride four to five days per week. Almost none are frequent riders, compared to 39% of overall FAX ridership. This finding aligns with dominant age and retirement status of the respondents.
TRANSPORTATION OPTIONS

<table>
<thead>
<tr>
<th></th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver’s License: Yes</td>
<td>43%</td>
<td>25%</td>
<td>32%</td>
</tr>
<tr>
<td>Driver’s License: No</td>
<td>57%</td>
<td>75%</td>
<td>68%</td>
</tr>
<tr>
<td>Vehicle available: Yes</td>
<td>5%</td>
<td>5%</td>
<td>18%</td>
</tr>
<tr>
<td>Vehicle available: No</td>
<td>95%</td>
<td>95%</td>
<td>82%</td>
</tr>
</tbody>
</table>

A higher proportion (43%) of Hmong riders reported having a valid driver’s license than Punjabi riders and overall FAX ridership. Vehicle availability was very low (5%) for both Hmong and Punjabi riders.

<table>
<thead>
<tr>
<th>Do you use Uber/Lyft?</th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>16%</td>
<td>8%</td>
<td>38%</td>
</tr>
<tr>
<td>No</td>
<td>84%</td>
<td>92%</td>
<td>62%</td>
</tr>
</tbody>
</table>

If yes, how many times per week?

<table>
<thead>
<tr>
<th></th>
<th>HMONG</th>
<th>PUNJABI</th>
<th>ONBOARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60%</td>
<td>48%</td>
<td>31%</td>
</tr>
<tr>
<td>2</td>
<td>40%</td>
<td>44%</td>
<td>21%</td>
</tr>
<tr>
<td>3</td>
<td>0%</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>4+</td>
<td>0%</td>
<td>0%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Hmong and Punjabi riders use Lyft and Uber at a much lower rate than FAX ridership overall. Only 16% of Hmong riders and 8% of Punjabi riders reported using Uber or Lyft in the past month. Of those that had, nearly all reported using the services only once or twice per week.
SERVICE RATINGS

Hmong and Punjabi (shown on the following page) riders tended to rate service aspects and FAX service overall lower than the onboard survey respondents. Hmong riders tended to give neutral ratings. These riders rated the proximity of bus stops to their origin/destination and the time required to make a trip the highest. Punjabi riders rated how often the bus is on time the highest.
Service Ratings - Punjabi

- The hours when the bus runs
- How frequently the bus runs
- The time required to make a trip
- Proximity of bus stops to your O/D
- How often is the bus on time

<table>
<thead>
<tr>
<th>Service</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAX Overall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often is the bus on time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximity of bus stops to your O/D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The time required to make a trip</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How frequently the bus runs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The hours when the bus runs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PUNJABI

<table>
<thead>
<tr>
<th>Service</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>The hours when the bus runs</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>How frequently the bus runs</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>The time required to make a trip</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Proximity of bus stops to your O/D</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>How often is the bus on time</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>FAX Overall</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Service Ratings - Punjabi
Punjabi riders chose “More frequent service on the route you ride most often” as their most important improvement. When asked which route this is, 37% chose route 9, 32% chose route 20, and 25% chose route 22. This improvement was a close second most popular among Hmong riders and they chose routes 22 (40%), 41 (20%), and 28 (17%).

The most popular choice for Hmong riders was realtime information displays at bus shelters. In contrast, this improvement ranked 5th or 6th among FAX riders overall. The second most popular choice among Punjabi riders was better sidewalk access to bus stops. Again, this improvement ranked 8th for FAX riders overall. The discrepancy in preference between Hmong/Punjabi and the onboard survey respondents does not seem to be a result of the difference in age, since riders 55 and older that responded to the onboard survey also ranked these two improvements as low priority.
### SERVICE IMPROVEMENT TRADEOFFS

<table>
<thead>
<tr>
<th></th>
<th>HMONG</th>
<th>PUNJABI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus runs every 15 min but stop is 1/2 mi away</td>
<td>81%</td>
<td>74%</td>
</tr>
<tr>
<td>Bus runs every 30 min but stop is 1/4 mi away</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>Bus runs every 30 min, service area expanded</td>
<td>46%</td>
<td>30%</td>
</tr>
<tr>
<td>Bus runs every 15 min, same service area</td>
<td>54%</td>
<td>70%</td>
</tr>
<tr>
<td>Buses run until 11 PM on most routes</td>
<td>35%</td>
<td>45%</td>
</tr>
<tr>
<td>Buses run until 1 AM only on most popular routes</td>
<td>65%</td>
<td>55%</td>
</tr>
<tr>
<td>More frequent service on weekends, during current service hours</td>
<td>58%</td>
<td>57%</td>
</tr>
<tr>
<td>Later service on weekends, ending at 10 PM</td>
<td>42%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Hmong and Punjabi riders mirrored the preference of all riders for more frequent service that is a \( \frac{1}{2} \) mile away. Punjabi riders showed more of a preference for more frequent service over an expanded service area, a tradeoff that FAX riders overall were split evenly on.

Hmong riders preferred that buses run until 1 AM only on most popular routes over buses running until 11 PM on most routes, which is also a tradeoff that FAX riders overall were split evenly on.

Both Hmong and Punjabi riders expressed a moderate preference for more frequent service on weekends during current service hours rather than later service on weekends, the opposite of FAX riders overall.
Tell Us How You Use This Bus System

1. In what year did you first start riding FAX?  
   2017 2016 2015 2014 2013 2012 2011 or before

2. During the past week (7 days), on how many days have you ridden the bus?  
   0 1 2 3 4 5 6 7

3. How many one-way trips will you make on the bus today? (A one-way trip is from your origin to your destination, even if it takes more than one bus.)  
   1 2 3 4 5 6 7

4. What is the main purpose of this bus trip today? (circle one)  
   Work, Elementary, Middle or High School, Shopping, College or Vocational School, Social services, Doctor or medical visit, Social or recreation, Other

Tell Us About Yourself

5. Do you have a valid driver’s license?  
   Yes  No

6. Was a vehicle available for you to drive for the trip you are currently making?  
   Yes  No

7. How old are you?  

8. Which of the following describe your employment status (circle all that apply)  
   Employed full time, Employed part time, College Student, Middle/HS Student, Not employed, Retired

9. What is the primary language you speak at home?  
   English, Spanish, Other

10. Which do you consider yourself? (circle all that apply)  
   African American/Black, Asian, Hispanic, White, Native American Indian, Other, Prefer not to disclose

11. What is your approximate annual household income?  
   Less than $10,000, $10,000 to $19,999, $20,000 to $24,999, $25,000 to $34,999, $35,000 to $49,999, $50,000 to $74,999, $75,000 to $100,000, More than $100,000, Don’t know or prefer not to say

Tell Us How you rate FAX service TODAY? (Circle your rating)  

1. How often the bus is on time  ……………… 7 6 5 4 3 2 1
2. How frequently the bus runs ……………… 7 6 5 4 3 2 1
3. The hours when the bus runs ……………… 7 6 5 4 3 2 1
4. How does bus stop service to the places you need to go ……………… 7 6 5 4 3 2 1
5. The time required to make a trip ……………… 7 6 5 4 3 2 1
6. How do you rate FAX OVERALL? ……………… 7 6 5 4 3 2 1

How important would each of these improvements be to YOU?  

Circle your rating  

7 = Very Impt., 1 = Not Impt.
18. Bike Share stations at major FAX bus stops ……………… 7 6 5 4 3 2 1
19. More frequent bus service on weekends ……………… 7 6 5 4 3 2 1
20. Better sidewalk access to bus stops ……………… 7 6 5 4 3 2 1
21. Realtime info displays at bus shelters ……………… 7 6 5 4 3 2 1
22. Extended service to new areas of Fresno ……………… 7 6 5 4 3 2 1
23. Bus shelters at more bus stops ……………… 7 6 5 4 3 2 1
24. Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price ……………… 7 6 5 4 3 2 1
25. More late night bus routes that run until 1 AM ……………… 7 6 5 4 3 2 1
26. More routes with 15 minute service from 6 AM to 6 PM ……………… 7 6 5 4 3 2 1
27. More frequent service on the route you ride most often ……………… 7 6 5 4 3 2 1
28. If FAX could make only one of these improvements, which would be most important to you personally?  
   18 19 20 21 22 23 24 25 26 27

Tell us which types of service you would prefer  

FAX has limited resources and must choose between service improvements. Following are some tradeoffs they might have to make. Check the box in front of the option you would prefer from each pair.

29. □ A bus that runs every 15 minutes, but the bus stop is 1/2 mile away.  
   OR  □ A bus that runs every 30 minutes.

30. □ Bus routes that run every 30 minutes and are expanded to serve areas of Fresno NOT currently served.  
   OR  □ Buses that run every 15 minutes but only operate in the current FAX service area.

31. □ Buses run until 11 PM on most routes.  
   OR  □ Buses run until 1 AM on most popular routes.

32. □ More frequent service on the weekends, so that the last buses depart the end of the route at 10 PM.  
   OR  □ Later service on weekends, so that the last buses depart the end of the route at 11 PM.

33. Have you used Uber or Lyft in the City of Fresno during the past month?  
   Yes  No

34. If yes, for what trip purpose(s) have you used Uber/Lyft?  
   Work, School, Shopping, Medical, Other

35. If yes to 33, about how many times do you use Uber or Lyft each week?  
   __________ riders per week

What one change would you most like FAX to make?

Please return the questionnaire to the surveyor on the bus, or to any FAX bus driver today. THANK YOU!
ENCUESTA DE PASAJEROS DE TRÁNSITO
Por favor marque, circule o escriba sus respuestas.

Cuéntanos cómo se utiliza este sistema de autobuses

1. ¿En qué año comenzaste a usar FAX por primera vez?
   - [ ] 2017
   - [ ] 2016
   - [ ] 2015
   - [ ] 2014
   - [ ] 2013
   - [ ] 2012
   - [ ] 2011 o antes

2. Durante la semana pasada (7 días), ¿cuántos días ha usado el autobús?
   - [ ] 7
   - [ ] 6
   - [ ] 5
   - [ ] 4
   - [ ] 3
   - [ ] 2
   - [ ] 1
   - [ ] No se aplica

3. ¿Cuántos viajes de un sentido hará en el autobús hoy? (Un viaje de un sentido es desde su origen hasta su destino, incluso si toma más de un autobús.)
   - [ ] 6 o más viajes de un sentido
   - [ ] 5
   - [ ] 4
   - [ ] 3
   - [ ] 2
   - [ ] 1
   - [ ] No se aplica

4. ¿Cuál es el obstáculo principal de este viaje en autobús hoy? (circule una)
   - [ ] Trabajo
   - [ ] Escuela primaria, media o secundaria
   - [ ] Compras
   - [ ] Tiempo de escuela vocacional
   - [ ] Servicios sociales
   - [ ] Visita médica o doctor
   - [ ] Social o recreación
   - [ ] Otra

Cuéntanos acerca de ti

5. ¿Tiene una licencia de conducir válida?
   - [ ] Sí
   - [ ] No

6. ¿Había un vehículo disponible para que manejara para el viaje que está realizando actualmente?
   - [ ] Sí
   - [ ] No

7. ¿Cuántos años tienes?

8. ¿Cuál es el idioma principal que hablas en casa?
   - [ ] Inglés
   - [ ] Español
   - [ ] Otro

9. ¿Cuál te consideras tú? (circule todos los que correspondan)
   - [ ] Afroamericano/Negro
   - [ ] Indígena
   - [ ] Hispánico
   - [ ]其他
   - [ ] Blanco
   - [ ] Indio Nativ Americano
   - [ ] Otra
   - [ ] Prefero no decir

10. ¿Cuál es su ingreso familiar anual aproximado?
    - [ ] Menos de $10,000
    - [ ] $10,000 a $14,999
    - [ ] $15,000 a $19,999
    - [ ] $20,000 a $24,999
    - [ ] $25,000 a $29,999
    - [ ] $30,000 a $39,999
    - [ ] $35,000 a $49,999
    - [ ] $50,000 a $74,999
    - [ ] $75,000 a $100,000
    - [ ] Menos de $10,000

¿Cúantanos cómo calificas el servicio de FAX hoy? (circule su calificación)

<table>
<thead>
<tr>
<th>Calificación</th>
<th>7 = Excelente</th>
<th>1 = Malo</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Frecuencia que el autobús está a tiempo</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>13. Frecuencia que corre el autobús</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>14. Llega al autobús corre a tiempo</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>15. Cercanía de las paradas de autobús a lugares que necesites ir</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>16. Tiempo requerido para hacer un viaje</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>17. ¿Cómo califica FAX en GENERAL?</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>

¿Qué tan importante sería para ti cada una de estas mejoras?

<table>
<thead>
<tr>
<th>Mejora</th>
<th>7 = Muy importante</th>
<th>1 = No importante</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Estaciones de Bike Share en las principales paradas de FAX</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>19. Servicio más frecuente los fines de semana</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>20. Mejor acceso a la acera a las paradas</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>21. Información RealTime en paradas techoadas</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>22. Servicio extendido a nuevas áreas de Fresno</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>23. Más paradas de autobús techoadas</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>24. Servicio coordinado de Uber/Lyft/Taxi para llegar a la parada de autobús FAX</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>25. Más rutas de autobús nocturno que corren hasta la 1 AM</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>26. Más rutas con 15 minutos de servicio a 6 AM a 6 PM</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>27. Servicio más frecuente en la ruta que viajas más a menudo</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>

¿Por qué razón?

¿Cómo es tu experiencia con FAX hoy?

¿Qué tipo de servicio preferiría?

FAX tiene recursos limitados y debe elegir entre las mejoras del servicio. A continuación hay algunas ventajas y desventajas que podrían tener que hacer. Marque la casilla en frente de la opción que prefiera de cada par.

29. [ ] Un autobús que sale cada 15 minutos, pero la parada está a 1/2 milla de distancia. O [ ] Un autobús que sale cada 30 minutos, pero la parada está a 1/4 de milla.

30. [ ] Rutas de autobuses que corren cada 30 minutos y se expanden para servir a las áreas de Fresno que actualmente no se sirven. O [ ] Rutas que funcionan cada 15 minutos pero solo operan en el área de servicio de FAX actual.

31. [ ] Rutas que funcionan hasta las 11 PM en la mayoría de las rutas. O [ ] Rutas que funcionan hasta las 1 AM en las rutas más populares.

32. [ ] Servicio más tarde los fines de semana, durante las horas que se sirven actualmente. O [ ] Servicio más tarde los fines de semana, durante las horas que se sirven actualmente.

¿Esto ha sido FAX en la ciudad de Fresno durante el último mes?

33. [ ] Sí
   - [ ] No

34. En caso de que sí, ¿para qué propósito(s) de viaje usó Uber/Lyft?
   - [ ] Trabajo
   - [ ] Escuela
   - [ ] Compras
   - [ ] Mtodo
   - [ ] Otra

35. ¿Si la respuesta es sí a 32, ¿aproximadamente cuántas veces usó Uber o Lyft cada semana? [ ] veces por semana

¿Quieres cambiar cualquier pregunta más que FAX hiciera?

36. [ ] Sí
   - [ ] No

Por favor dévuelva el cuestionario al encuestador en el autobús, o a cualquier conductor de autobús FAX el día de hoy. ¡GRACIAS!
Appendix E

Driver Survey Results
Driver Survey Results

A parallel survey of drivers was conducted by FAX, using selected questions from the on-board passengers, as well as questions to elicit drivers’ ideas for improving service in conjunction with the Route Restructuring. Nineteen drivers participated in the survey. Questions and tabulated summary of responses follow.

Tell us how you rate FAX service TODAY?

KEY: 7=Excellent 1=Poor

How often the bus is on time

![Bar chart showing frequency of on-time buses](chart1)

(19 Responses)

How frequently the bus runs

![Bar chart showing frequency of bus runs](chart2)

(19 Responses)
The hours when the bus runs

- 1: 0%  
- 2: 5%  
- 3: 11%  
- 4: 21%  
- 5: 47%  
- 6: 5%  
- 7: 11%

(19 Responses)

How close bus stops are to the places you need to go

- 1: 0%  
- 2: 6%  
- 3: 17%  
- 4: 22%  
- 5: 28%  
- 6: 11%  
- 7: 17%

(18 Responses)

The time required to make a trip

- 1: 11%  
- 2: 5%  
- 3: 16%  
- 4: 26%  
- 5: 21%  
- 6: 5%  
- 7: 16%

(19 Responses)
How do you rate FAX OVERALL?

(19 Responses)

How important would each of these improvement be to YOU?

7=Very Important  1=Not important

Bike Share stations at major FAX bus stops

(19 Responses)
**More frequent bus service on weekend**

(19 Responses)

**Better sidewalk access to bus stops**

(19 Responses)

**Realtime info displays at bus shelters**

(19 Responses)
Extended service to new areas of Fresno

(19 Responses)

Bus shelters at more bus stops

(19 Responses)

Coordinated Uber/Lyft/Taxi service to reach the nearest FAX bus stop at discounted price

(19 Responses)
More late night bus routes that run until 1 AM

(19 Responses)

More routes with 15 minute service from 6 AM to 6 PM

(19 Responses)

More frequent service on the route you ride most often. Which Route?

(18 Responses)
Routes as listed by respondents (13 responses):
- 34
- 9, 28, 32, 38, 41
- 32
- 45
- 32
- All
- 26
- 45
- 45, 39, 26, 41, 32
- 45, 26, 58
- 34
- 45
- 45

Route 45 listed 6x; 32, 4x; 34, 2x; 26, 2x; 41, 1x; 38, 1x; 28 1x; 9, 1x

More if FAX could make **only one** of these improvements, which would be most important to you personally?

1. Improvement #18
2. Improvement #19
3. Improvement #20
4. Improvement #21
5. Improvement #22
6. Improvement #23
7. Improvement #24
8. Improvement #25
9. Improvement #26
10. Improvement #27

(18 Responses)

More frequent service on the route you ride (drive) most often and extended service into new areas of Fresno were listed as the top improvement by 7 and 6 drivers respectively. Two drivers on time performance and more 15-minute service as top improvements. One listed real time info at stops.
Tell us which types of service you would prefer?

FAX has limited resources and must choose between service improvements. The following are some tradeoffs they might have to make. Check the box in front of the option you would prefer from each pair.

1) A bus that runs every 15 minutes, but the bus stop is ½ mile away

OR

2) A bus that runs every 30 minutes, but the bus stop is ¼ mile away

(17 Responses)

1) Bus routes that run every 30 minutes and are expanded to serve areas of Fresno not currently served

OR

2) Buses that runs every 15 minutes but only operate in the current FAX service area

(16 Responses)
1) Buses run until 11 PM on most routes

OR

2) Buses run until 1 AM only on most popular routes

(17 Responses)

1) More frequent service on the weekends, during the hours currently served

OR

2) Later service on weekends, so that the last buses depart the end of the route at 10 PM

(17 Responses)
**Have you used Uber of Lyft in the City of Fresno during the past month?**

1. Yes
2. No

(17 Responses)

**If yes, for what trip purpose(s) have you used Uber/Lyft?**

1. Work
2. School
3. Shopping
4. Medical
5. Other

(6 Responses)

**If yes to 33, about how many times do you use Uber or Lyft each week?**

_________rides per week

Number of rides per week listed by respondents (3 responses):

✔ 1 per week
✔ 3-4 per week
✔ 4+ per week
What one change would you most like FAX to make?

Changes listed by respondents (12 responses):
✓ There needs to be a certain level of odor control/cleanliness in detail inside the bus. We need more buses
✓ Fixed route times from point “A” to point “B” so buses are not running late all the time
✓ Allow the buses that cross to be closer together so I don’t have to wait so long to transfer
✓ Make Route 45 30 minute run
✓ Late service on weekends
✓ Make every route 15-20 minute service. Route 45 should be 30 minute service every day. Less stops on all routes. Also make a reloadable bus pass
✓ On time service
✓ Expand service areas
✓ Most routes 15 minute service
✓ On time buses
✓ More bus rule announcements. More officers on the buses so that passengers feel safer
✓ Start early on weekends