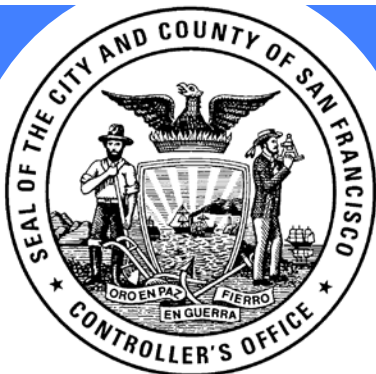


# San Francisco MUNI Reliability Working Group

Co-Chairs: Gwyneth Borden, Ed Harrington



**CITY & COUNTY OF SAN FRANCISCO**

Controller's Office and SFMTA

# Today's Agenda

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Time	Agenda Item
10:00	Welcome, Introductions, Chair Remarks
	Working Group review of draft recommendations
10:15	- Technical & Operations
10:45	- Workforce & Hiring
11:15	- Context & Regional
11:45	- Governance & Organizational
11:50	Roundtable – Other issues
11:55	Next Steps
12:00	Adjourn

- Welcome and thank you for joining this effort
- Reminder of our Summary Goals:
  - Review MUNI transit operations current improvement efforts and plans
  - Reach a shared understanding of where MUNI needs support
  - Recommend priority actions for policymakers, SFMTA and its new Director over the next 18-24 month period

- What resources and broader support are needed to:
  - Meet reliability and performance mandates
  - Meet customer expectations
  - Serve equity needs
  - Serve projected growth
- How can we improve subway performance?
- How can we optimize bus system performance?
- What can we do to address congestion?
- How can we most improve customer experience?

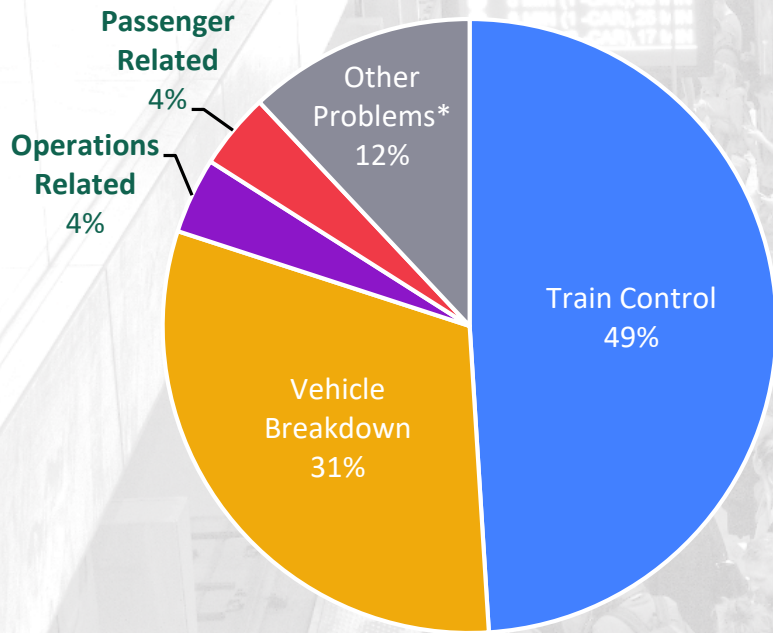
- Review of the draft recommendations was done by subcommittee meetings and individually in place of a November meeting.
- Are clarifications needed?
- Should any findings, recommendations or information be added?
- Should any findings, recommendations or information be deleted?
- Are the proposed exhibits and appendices useful?
- Other comments and feedback?

## TECHNICAL AND OPERATIONS

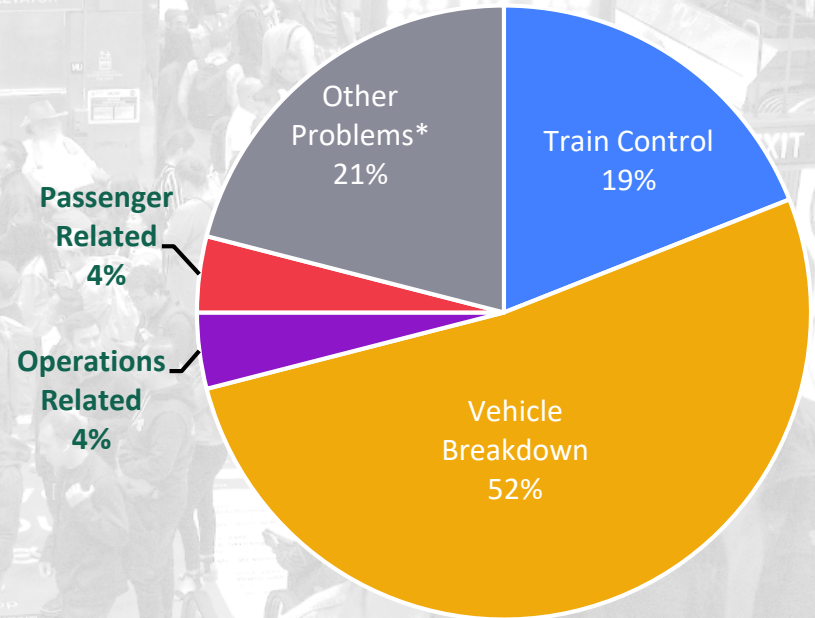
- Muni service faces system-design challenges (especially in the subway), as well as local and national trends (rise of Transportation Network Companies [TNCs], new mobility and historically low unemployment), which impact the ability to deliver reliable service.
- Subway reliability is impacted by an aging train-control system and frequent vehicle breakdowns. Daily subway service is also congested as a result of scheduling more trains than the current train control system can support.
- SFMTA has taken effective steps to address bus reliability through fleet replacement, an increased focus on preventive maintenance, staff training and a full midlife overhaul program.
- Addressing hiring and other work force issues will have the biggest impact on overall Muni service performance. Hiring should be complemented by investing in staff training and enhanced service design.
- Investments in delay reduction, captured by the Muni Forward program, have had a positive impact on the system but remain insufficient to address the dramatic increase in congestion over the past decade.

# Sources of Acute Subway Delays

## Delays by Quantity



## Delays by Impact (minutes)



Source: Muni Central Control Log  
January to December 2018

\*Other problems include wayside infrastructure failures plus delays that were uncategorized in the control log. These figures do not include delay due to congestion, only the acute delay associated with each incident.

## **1. Improve long-term subway performance by replacing the system's train control system.**

- a. Negotiate a service contract with the current Automatic Train Control System provider. Begin with a five-year term and include extension options. Contract requirements should include on-site personnel with guaranteed response times and incentives for minimizing failures and system slowdowns.
- b. Expedite plans to procure, fund, and implement a new communications based train control system. Issue a request for proposals by June 2020.
- c. A new train control system and contract should be structured to include maintenance/upgrade cycles spanning the full lifetime of the system.
- d. Tap peer agencies and experts to understand the best train control practices and optimum technologies for investment.

- 2. Finalize a package of interim subway service solutions by June 2020 to improve subway performance over the next two years.**
  - a. Complete a rapid review of operational and infrastructure requirements to reduce subway congestion. Consider service changes including longer trains, fewer trains entering the subway, and peak shuttles.
  - b. Schedule a quarterly extended maintenance window to address maintenance needs and infrastructure replacements such as new switch machines that require longer hours to complete.
  - c. Continue existing efforts to reduce subway delays including streamlining turnback operations at Embarcadero and assigning field personnel at key subway locations.
  - d. Increase line management training at Transportation Management Center with a focus on reducing bunching and proactively informing customers of service delays.
  - e. Identify and address surface bottlenecks that contribute to subway delays.

## **3. Increase service reliability with improved vehicle maintenance and replacement**

- a. Prioritize replacement of the Breda Light Rail Vehicles (LRV)s as quickly as possible.
- b. Once a sufficient number of replacement vehicles are in service, limit Breda LRV vehicle deployment to lines that present less risk of delays due to breakdowns. Position units to rapidly respond where Breda LRVs operate.
- c. Deploy the most reliable vehicles to prevent breakdowns, even if this results in fewer cars available on some lines. This may require schedule adjustments.
- d. Consider ways to streamline parts procurements and meaningfully incorporate lifecycle/sustainability and resilience factors into the evaluation process.
- e. Increase quality assurance resources for rail, with the goal of creating a more preventive vs corrective culture and greater standardization.

### **3. (CONTINUED) Increase service reliability through improved vehicle maintenance and replacement**

- f. Examine maintenance needs and challenges, including skills, education, training partnerships/apprenticeships, competitiveness of compensation, and vacancies/retirement projections. Identify opportunities to ramp up internally or to outsource training (see Workforce & Hiring section).
- g. Elevate maintenance and fleet staffing as a clear priority in annual budgeting, performance monitoring and progress reporting. Take corrective measures, as warranted (see Workforce & Hiring section).
- h. Revisit the 25K mean distance between failures goal for the Siemens fleet. Significant and steady progress is underway, but the goal may be overly optimistic in the short-term.

**MUNI**

TEST  
TRAIN

TEST  
TRAIN

[sfmta.com](http://sfmta.com)

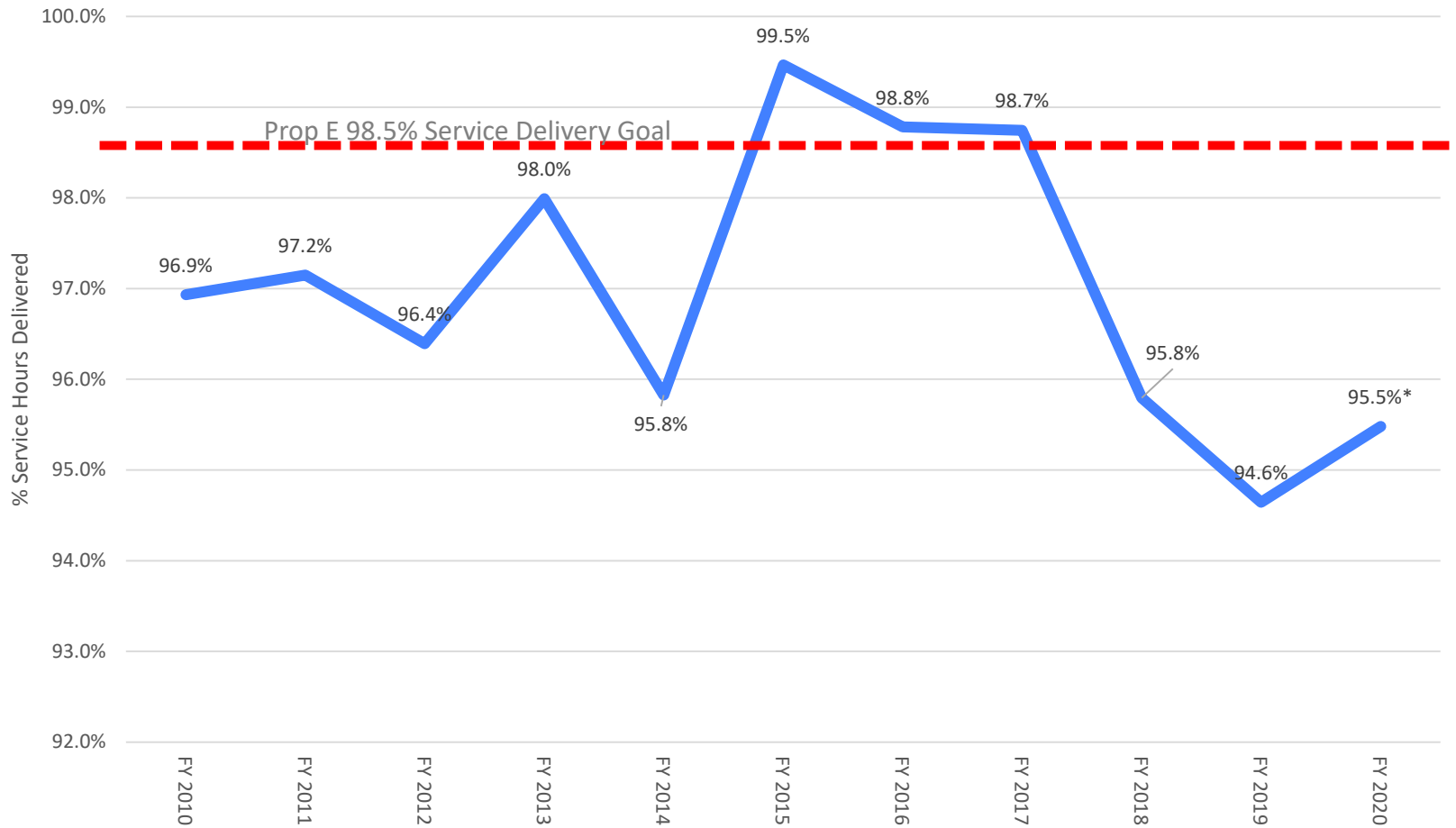
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## WORKFORCE AND HIRING

- The Transit Operator shortage has the single most critical effect on Muni reliability. The SFMTA, with support from other City agencies and leadership, must execute every element of the plan to hire, train and fill positions to close this gap.
- Given the high percentage of Operators with less than five years of driving experience, increased and sustained investment is needed in training and mentoring of current staff.
- Transit Supervisor and related classifications in the SFMTA have a current vacancy rates of up to 17% and existing positions are insufficient to address increasing system complexity and to deliver the full potential of service management technology.
- Maintenance classifications in the SFMTA have vacancy rates between 20% and 45% and the SFMTA has insufficient recruitment, apprenticeship and training programs.
- Skilled trade and engineering workers are in short supply throughout the Bay Area with many employers competing for a limited pool. Larger solutions are needed in this area.
- Security challenges impact safety and reliability throughout the system and affect the experience of Muni riders and staff. There is a need for enhanced staffing and other measures to improve security.

# Service Impacted by Operator Shortage



\* FY 20 Complete fiscal year not included. Service delivery calculated between 7/1/2019 and 10/15/2019

Placeholder for chart  
showing operator hiring plan  
meeting targeted levels by  
summer 2021

**4. Accelerate operator hiring and training so that Muni achieves its goal of stabilizing current service levels by Summer 2021. With attrition and training Muni must graduate approximately 525 new Transit Operators by that date.**

- a. Marshall citywide support to help SFMTA execute on its Transit Operator hiring plans. This includes assistance from the Human Resources Department (recruitment and testing), Real Estate Division (training facility needs), Public Health (medical clearances) and others.
- b. Continue and augment initiatives, such as CityDrive (the SFMTA's free, accelerated preparation to get a Class B commercial permit), to ensure a strong pipeline for new hires.
- c. Hire 25 trainers over current levels as authorized for FY20 and add 12 new trainers for FY21. Implement short term strategies in order to begin a new class every five weeks of 40-45 students beginning in February 2020.

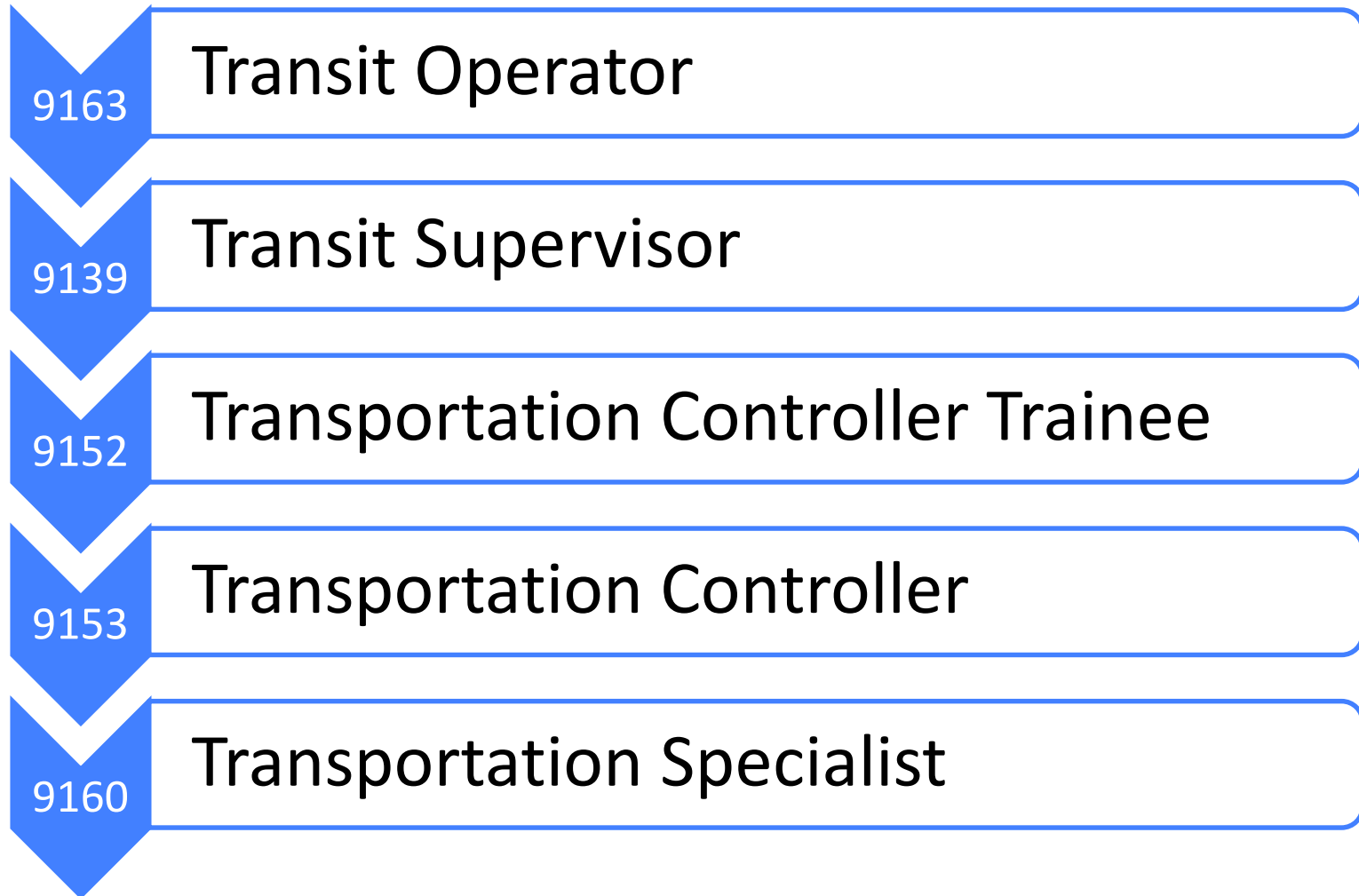
**4. (CONTINUED) Accelerate operator hiring and training so that Muni achieves its goal of stabilizing current service levels by Summer 2021. With attrition and training Muni must graduate approximately 525 new Transit Operators by that date.**

- d. As new trainers come on board, increase training focused on existing operators with less than five years of experience, including collision avoidance training and other refresher trainings.
- e. Institute a comprehensive effort to address the effects that the rate of operators on long-term leave have on the SFMTA's ability to manage service. Enhanced programs including return to work, wellness, modified duty, disability retirement and others are all needed in this area.
- f. Explore solutions used by other properties to benefit the Transit Operator workforce, including mentor programs, staffing policies and other options to minimize attrition and increase job satisfaction.

**5. Create an SFMTA and citywide effort by June 2020 to organize and right-size the transit supervision workforce and remove roadblocks to structuring the work and onboarding staff.**

- a. In FY20, the SFMTA must prioritize filling 50 current transit supervisor vacancies. The agency must complement increased hiring with enhanced training programs on service management and safety compliance.
- b. For FY21, the SFMTA Board should add 50 new transit supervisor positions and create an operations compliance group focused on quality assurance, standard operating procedure adherence and attendance management.
- c. Multiple expert studies have shown the need for new classifications and specialization reflecting the multiplicity of transit supervision functions. Marshall internal and citywide human resources expertise and leadership to establish appropriate classifications, training and career ladders for this workforce.

# Classification Promotive Pathway



## **6. Create an SFMTA and citywide program by June 2020 to reduce the significant vacancy rates in maintenance, crafts & engineering classes.**

- a. SFMTA and city human resources experts should team up to develop a plan with specific strategies for different maintenance, engineering and craft classifications with unique challenges. Given the varied issues, execution of the plan will require focus by both the SFMTA and Department of Human Resources.
- b. Increase SFMTA human resources positions focused on hiring, recruiting and civil service list development. Review existing procedures for opportunities to streamline and enhance process.
- c. Enlist city and labor leadership at multiple levels to problem-solve in trade groups that are not able to hire due to issues in training, labor force and workforce development issues.
- d. The SFMTA and DHR should identify classifications where SFMTA can recruit and test separately from the City, and begin to do so immediately.

## **7. Explore developing regional and industry coordination efforts for training, certification, apprenticeship and career ladders in the skilled trades that are needed by the SFMTA.**

- a. Consider developing additional community college programs for recruitment and certification of targeted job classifications.
- b. Consider successful external training programs and replicating them for SFMTA needed trades if appropriate. Examples to research include the Southern California Regional Transit Training Consortium (a group of public agencies, colleges and affiliates in a network organization dedicated to the public transit workforce) and the training programs used by the SFPUC in its water and wastewater enterprises.

## **8. Improve Operator communications and feedback loops related to service conditions.**

- a. In early 2020, conduct a series of Operator round tables with the new Director of Transportation and Union leadership modeled after the fall 2018 series.
- b. Increase use of the Operator web-portal to solicit staff input on schedules, traffic bottlenecks and safety concerns.
- c. Reduce response time for following up on Operator suggestions and communicate broadly when input is implemented. Promote small successes.
- d. Review procedures for processing Operator “miscellaneous form,” which is a catchall document where Operators often flag service and schedules problems. Ensure input goes to the appropriate divisions and that Operators hear back about how their concerns were addressed.

## **9. The SFMTA should make investments to improve safety for riders and employees and security for its facilities and fleet.**

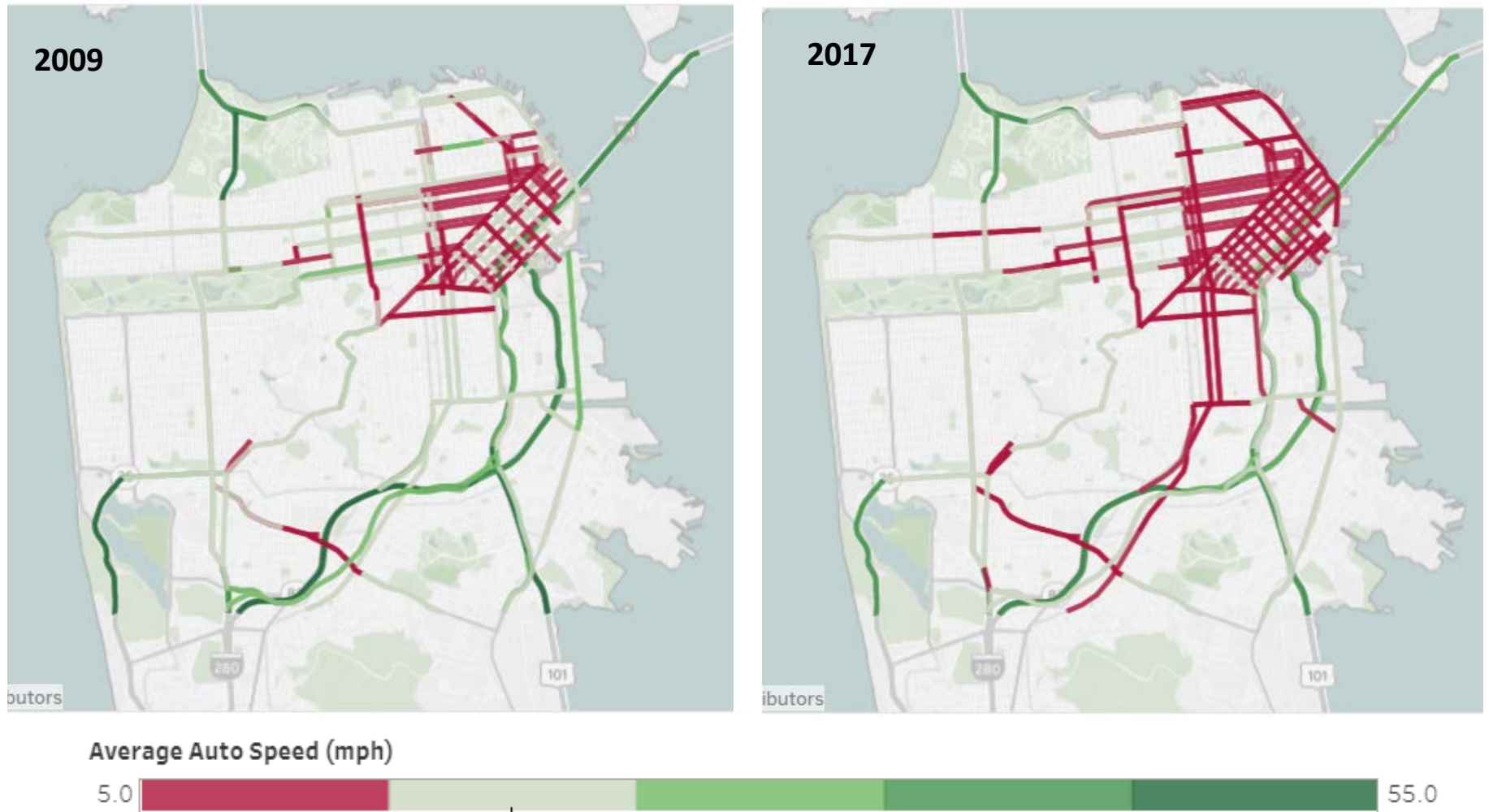
- a. The City's biennial citizen survey and other tests of opinion show declining perceptions of safety on the Muni system. The SFMTA should establish a goal and metrics for increasing citizen and rider feelings of safety and confidence in vehicles and stations.
- b. Fund and adopt shorter-term security enhancements in the FY21 SFMTA budget. These include; 1) the SFMTA's expansion of its existing security contract, 2) a planned program of capital investments to address gaps in facility and tunnel security, emergency power needs and related infrastructure, and, 3) non-police security resources that most improve rider experience and perception such as the Muni Transit Assistance Program.
- c. Develop long-term security initiatives for consideration in future year budgets. These options should include a potential staffing model and plan for an expansion of SFPD presence on Muni in discussion with the Police Chief, city leadership and stakeholders.



## CONTEXT AND REGIONAL

- Muni operates in a mixed street environment with transit, cars, pedestrians and other users competing for limited roadway space.
- Over the past 10 years increasing congestion has caused transit speed and reliability to drop. SFMTA investments and strategies have proven benefits but remain insufficient to address increases in demand.
- Investments in delay reduction, including 30 miles of Muni Forward transit priority streets (with 20 more miles legislated), have had a positive impact on the system. Muni Forward's Rapid Network has increased ridership and sped up trip time on these lines.
- Proactive policy, regulatory and engineering campaigns are urgently needed to reduce trip time, increase reliability and meet City "Transit-First" and related climate change goals.
- SFMTA must have a sustainable model for service expansion to meet demand and goals for mode share, equity and growth.
- The City must provide a consistent voice and regional leadership for integration and excellence in transit and mobility systems regionally and locally.

# Increasing Downtown Congestion



Citywide, auto speeds have declined 25 percent over the past decade. Transit speeds have also declined by six percent, but would have degraded more significantly without investments in delay reduction, such as the Muni Forward Program.

- 10. Support and accelerate planned redesign of streets, proactive street management and congestion management strategies to improve transit system performance.**
  - a. Create a pricing strategy focused on the downtown core with the goals of reducing congestion and improving transit travel time and reliability. Seeking state legislative authority in the coming legislative session is the next step in this process.
  - b. Seek state authorization to locally deploy automated traffic enforcement and fully regulate Transportation Network Company deployment.
  - c. Build on the SFMTA's efforts to manage emerging mobility services.
  - d. Build on the SFMTA's efforts to use curb management to structure street usage for the benefit of transit users, pedestrians and commercial loading.
  - e. Secure all needed citywide support for Muni Forward efforts – seamless local approvals, resources and a continuous pipeline of projects.

## **11. Engage with leadership and stakeholders to affirm and act on Transit First, Muni Forward and Vision Zero as the City's primary mandates in the street environment.**

- a. Provide active and consistent leadership support at all levels for proven delay reduction methods serving transit – examples include red lanes, transit preferential signals, and quick build designs.
- b. Clarify and standardize outreach, approval and implementation for Transit First, Muni Forward and Vision Zero efforts. Use lessons from past cases that were delayed or reversed through formal and/or informal processes.
- c. Create a quick-build program for transit priority investments that mirrors the Vision Zero quick-build program.
- d. Proactively communicate to the public the SFMTA's process of testing, analysis, iteration, and showing effectiveness of transit improvements

- 12. After current service is stabilized, develop and fund Muni service plans for growth. Service expansions are needed to address equity gaps, crowding and population dynamics in San Francisco and regionally.**
- a. Focus citywide resources on eliminating the operator shortage by summer 2021 and meeting service expectations (goal = 1% or less missed runs).
  - b. Develop expansion plans for each budget after service is stabilized in summer 2021. Focus expansion on addressing gaps in equity, crowding (goal = 15% or less crowded peak period service, ridership growth and connectivity gaps. Develop new revenue sources and strategies as needed.
  - c. As part of the SFMTA's 90-day improvement plans, work to reduce current equity and other service gaps with near term strategies such as staffing changes, service adjustments and safety programs.
  - d. Expand on SFMTA's equity analysis to look at broader mobility issues - addressing access to local and regional transit, new mobility options, and the full complement of transportation resources for all residents.

**13. Develop the City's ability to speak with one voice on regional issues and funding priorities. This requires new methods of coordination among the SFMTA, Board of Supervisors, Mayor's Office and other agencies**

- a. Institutionalize a director-level meeting to establish shared regional priorities across the SFMTA, SFCTA, and other City agencies.
- b. Adopt new methods to discuss and establish shared regional priorities between the SFMTA and Transportation Authority Boards, through joint meetings and formalized prioritization processes.
- c. Establish consistent professional staffing of City appointees to each regional body and hold an annual meeting to outline top priorities for regional representatives.
- d. With partners including local governments, transit operators and regional agencies, advocate for shared priorities and policies, such as fare integration and transportation demand management studies and requirements for private employers.

## **NEW – NOT YET REVIEWED**

**14. The SFMTA should explore new organizational structures and practices to grow and improve the Agency's customer experience functions. Communications with riders and stakeholders should be reviewed as part of this effort.**

- a. Research industry best practices for customer experience functions. Options include; formalizing design and testing of new systems and features for customer experience; procuring new customer information systems, and establishing standard operating procedures and training in this area.
- b. Conduct a high-level review of the SFMTA's communications function to identify areas of strength and areas for improvement.

## GOVERNANCE AND ORGANIZATIONAL

- The degree of functional consolidation at the SFMTA – specifically transit operations, parking control and management, and related right-of-way design and engineering - is unique. The majority of peers control some but not all of these responsibilities.
- The SFMTA has a lower level of autonomy over budgets, fares, service changes, than peer transit agencies, which are typically stand-alone, regional governments serving multiple cities or counties.
- Consolidation has improved Muni service with integrated management of factors affecting transit operations. Examples include; prioritization of double-parking and other enforcement efforts on transit routes, prioritization of transit needs in street redesign, and parking management to minimize private auto traffic.
- The working group discussed larger changes to the level of autonomy versus control of decision-making processes in the SFMTA (including budget adoption, service changes, and changes in right-of-way usage), but did not arrive at findings or recommendations in this area.

# Key SFMTA Organizational Measures

**Transit  
First**

**SFMTA  
Created**

**Reforms**

**Labor**

**Funding**

**1973**

**1999**

**2007**

**2010**

**2014**

Transit First  
Policy  
Developed

Proposition E:  
Parking &  
Traffic and  
Muni merged  
into a new  
agency.  
Baseline  
funding  
established  
plus enhanced  
budget process  
autonomy.  
Establishment  
of service  
standards.

Proposition A:  
Additional  
funding and  
enhance  
autonomy in  
hiring, contracting  
and budget  
adoption.

Proposition G:  
Eliminated  
charter  
requirements for  
operator wages;  
revised collective  
bargaining and  
arbitration  
processes

Proposition A:  
T2030 \$500  
million GO Bond  
  
Proposition B:  
Population Based  
General Fund

**15. Improve coordination and increase capacity between specific functional areas and divisions including street management and parking control, and capital planning and transit.**

- a. While the SFMTA has a high level of control and integration, improved coordination among some specific SFMTA functions would lead to further improvements. Examples include assignment of parking control officers to support transit management and greater Transit Division participation in capital and construction delivery.
- b. The SFMTA has struggled with delivering major construction projects. These issues are not unique to San Francisco - experience shows that the scale and complexity of transit systems and large street and highway construction projects is a challenge across the region and state. The City and the SFMTA should complete and expedited review of this function, including an assessment of the pros and cons of assigning this responsibility to another local or regional agency to perform on the SFMTA's behalf.

December 10<sup>th</sup> – Mayor briefing

December 13<sup>th</sup> - Final working group meeting

Date to be determined - SFMTA Board Discussion of Working Group recommendations

January 2020 – Working Group Report publication



# Thank you

## Questions and Feedback for Staff:

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