



**Massachusetts Bay
Transportation Authority**

GM Remarks

Fiscal and Management Control Board

June 5, 2017



Agenda

- **Student Pass Update**
- **Uber/ Lyft Pilot Update**
- **Bus Maintenance: Management actions to drive productivity**



Student Pass Update

Main Changes made by FMCB in March 2016

- Student Pass available on Fare Vending Machines for \$30
- Student CharlieCards valid for 12 months instead of 10 months

School Year Usage

During this school year, up to 29,000 students a month used a monthly pass

- In the busiest month approximately 1,600 student passes loaded at FVMs and 27,500 school purchased student passes per month

Students use the MBTA more often than the average rider

- Median of 42 unlinked trips compared to 36 for all monthly passes

Students also use their cards for stored value

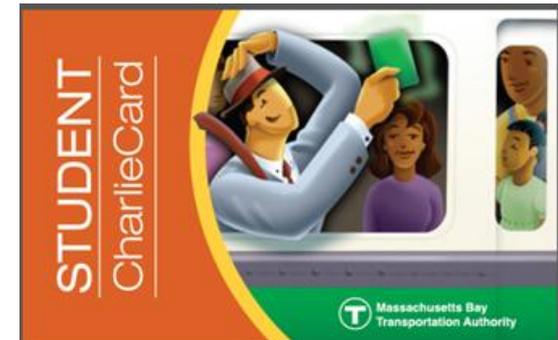
- Approximately 18,000 students used stored value between October and April



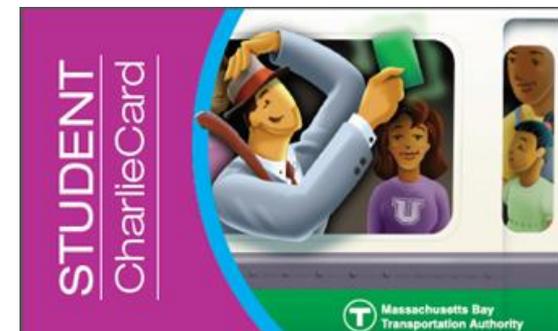
Summer Student CharlieCard

50,000 middle and high school student passengers will now have access to reduced fares over the summer

- Middle and High School Students should keep the Student CharlieCard provided by their school
- Lost cards can only be replaced by schools
- All students with a M7 CharlieCard can also use their card like a Student CharlieCard in July and August
- In July and August students can use these cards to purchase a monthly Linkpass for \$30 at a fare vending machine (instead of the regular price of \$84.50)
- Students can also use their Student CharlieCard for half priced fares on all modes
- All cards will expire on September 1st and students will received new cards at the start of the next school year



Student CharlieCard (S-Card)



Student Charlie Card with a School Purchase Monthly Pass (M7)



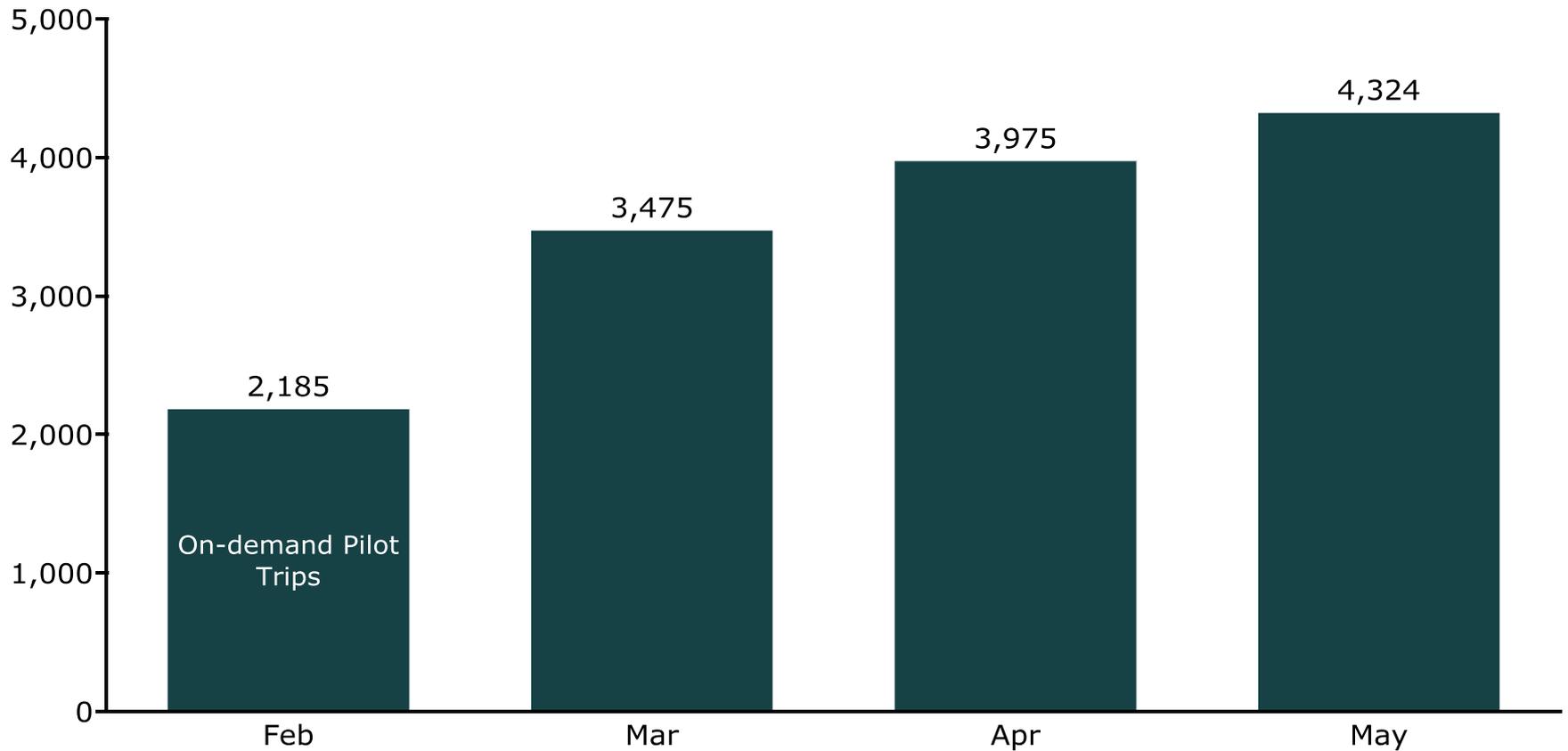
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**Uber/Lyft Pilot update – current run rate is 4,300 trips per month
At this rate, the Pilot will deliver 50,000+ trips in FY18**

On-Demand Trips by Month
(2017)



Draft for Discussion & Policy Purposes Only



Uber/Lyft Pilot

Customer segmentation has driven outreach across multiple channels

In-Person

- Holding events at **high-density locations** (at MGH on 6/13)
- Running **sign-up and help sessions** at 10 Park Plaza
- Speaking at **conferences and community meetings**

Direct Mail

- Sending **mailers to all customers** to drive awareness

Phone

- Utilizing **automated call-outs** to efficiently reach customers
- Helping customers **sign-up and answering questions**

E-mail

- Targeting **tech-savvy customers** with e-mails already on file
- Educating customers of **programmatic changes**
- Responding to customer **inquiries w/in 24 hours** or less

Internet

- Analyzing **website traffic data** to inform content decisions
- Updating **FAQs** to keep potential/existing customers informed

Other

- Developing **incentives and adjusting fares** to drive usage
- Integrating **booking features into TRAC** call center



Agenda

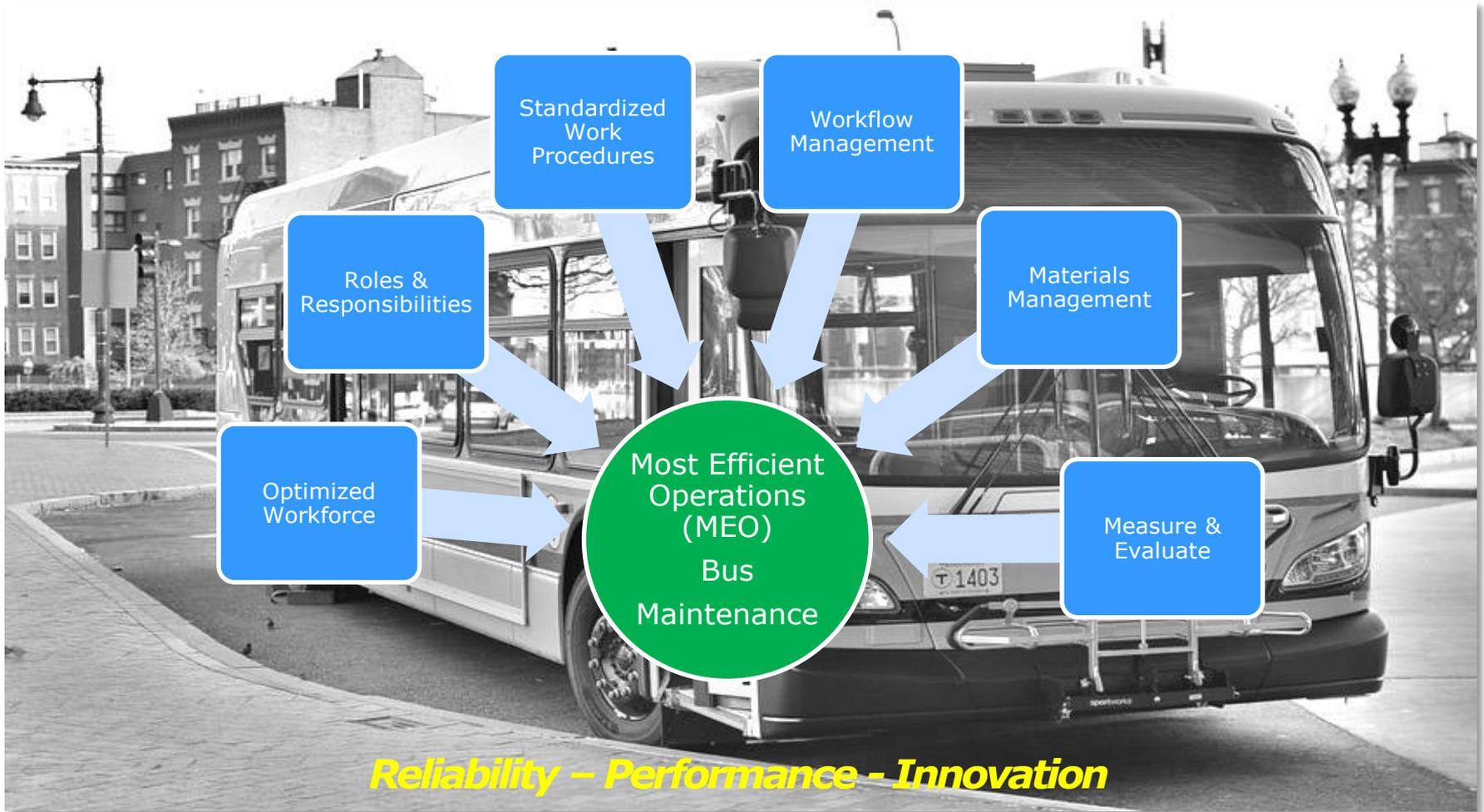
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- **Bus Maintenance: Management actions to drive productivity**



A Management actions (L264/Alliance garages)



A Management actions to drive productivity:
Applied to all L264/Alliance garages

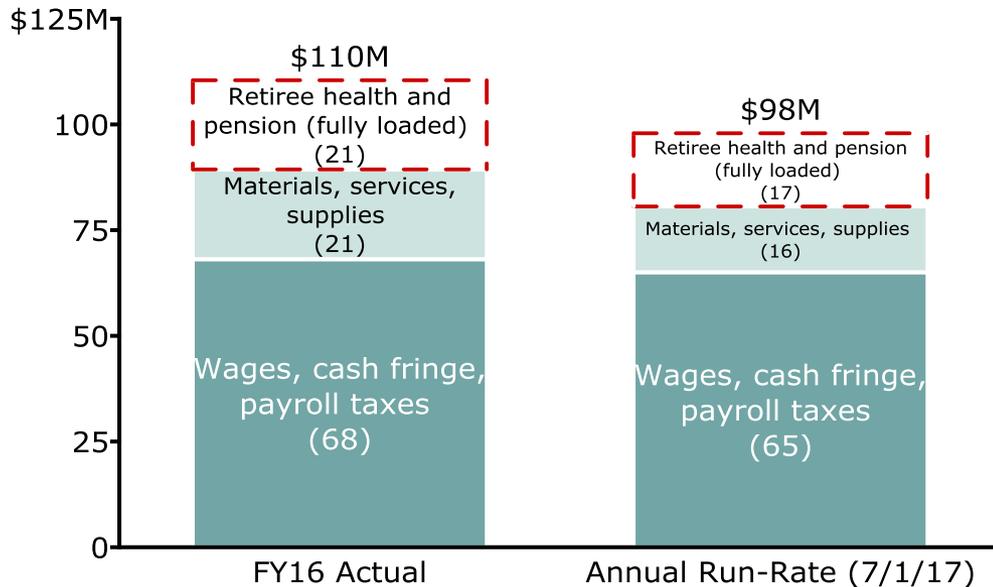




A Management actions to drive productivity:
\$12.5M savings (11% down from FY16 baseline)

MBTA Bus Maintenance Fully Loaded Cost (L264/Alliance Garages*)

Fully Loaded Savings	(\$12.5M)
Cash Savings	(\$8.8M)



MANAGEMENT ACTIONS



- ✓ Streamline workforce with new staffing model *Headcount down 13%*
- ✓ Overtime management *OT down 20%*
- ✓ Supply chain (materials) *Spend down 27%*

Headcount* 544 473

*Cost and headcount figures do not include areas without L264/Alliance presence (Admin. and No. Cambridge Carhouse); includes Everett Bus Shop and excludes both Non-Revenue Shops and fuel costs; Annual run-rate (7/1/17) figures also include wage costs associated with transfer of employees from capital to operating budget at Everett Bus Shop (\$3.2M regular wages, \$0.5M OT, \$1.8M cash fringe)
 Note: "Retiree health and pension (fully loaded)" reflects present value of OPEB/retiree health costs if fully funded, as well as funding pension using a 5.0% discount rate instead of actuarially derived pension fund liability calculation rate of 7.75%



**A Management actions to drive productivity:
Right-sizing workforce (effective 5/31/17)**

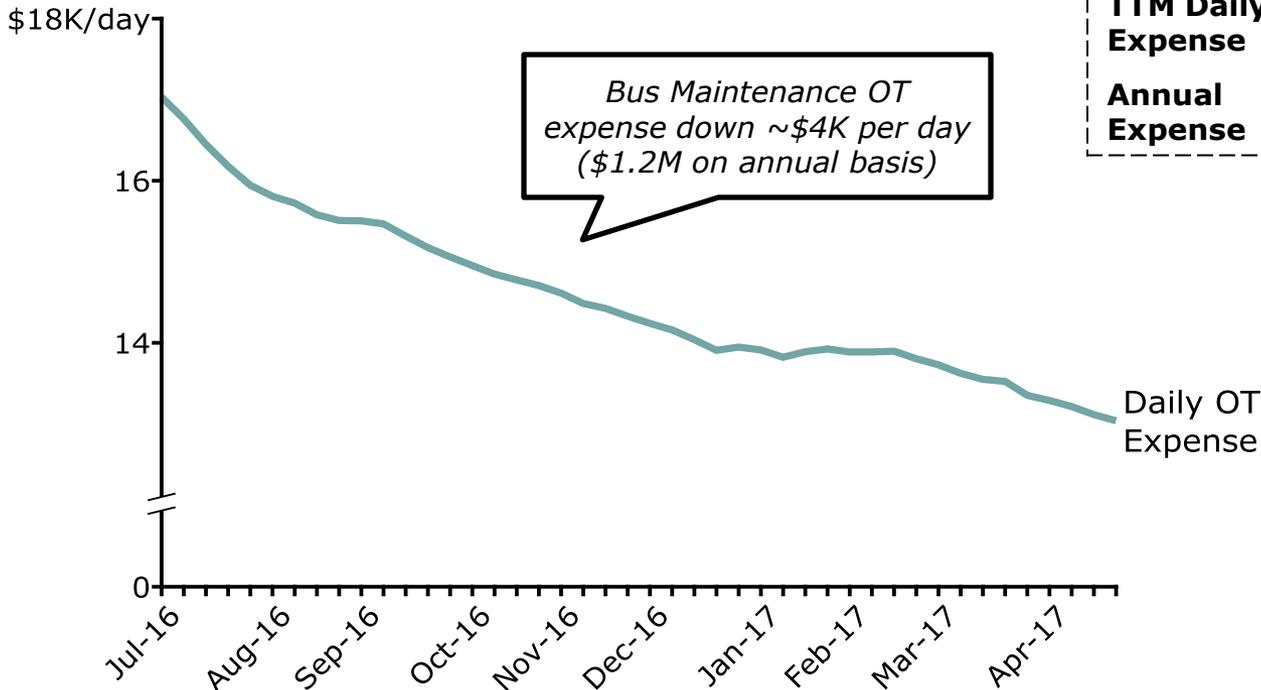
		BUS FACILITIES (LOCAL 264 / ALLIANCE)										
		CABOT	CHARLES-TOWN	ALBANY STREET	SOUTH-HAMPTON	ARBOR-WAY	QUINCY	FELLS-WAY	LYNN	EVERETT	TOTAL	
HEADCOUNT REDUCTION	JOB TITLE	UNION										
	Superintendent	TEA	0	(1)	0	0	0	(1)	0	0	0	(2)
	Supervisor	L453	(2)	1	0	(1)	(1)	0	0	1	0	(3)
	Foreperson	ALL	(1)	1	0	2	2	2	0	1	0	7
	Machinist	L264	(16)	(6)	(4)	(4)	(4)	(1)	(3)	(4)	0	(41)
	Fueler	L264	(6)	(3)	1	3	(1)	(0)	2	1	0	(4)
	Other	Other	(2)	(2)	1	(1)	(3)	(1)	(2)	(1)	0	(12)
	Everett Positions	BCT, ALL	0	0	0	0	0	0	0	0	(16)	(16)
NET CHANGE (FY16 AVG. VS. 4/28/17)			(27)	(11)	(2)	(1)	(7)	(2)	(3)	(2)	(16)	(71)

*Does not include overtime costs; includes cash fringe expenses, retiree health costs and pension costs if funded at 5.00% discount rate
 Note: headcount reduction based on baseline headcount as of 12/9/2016 versus proposed FY18 headcount
 Source: MBTA Internal Data



A Management actions to drive productivity: Managing overtime

Bus Maintenance Daily Operating Budget OT Expense (TTM*)



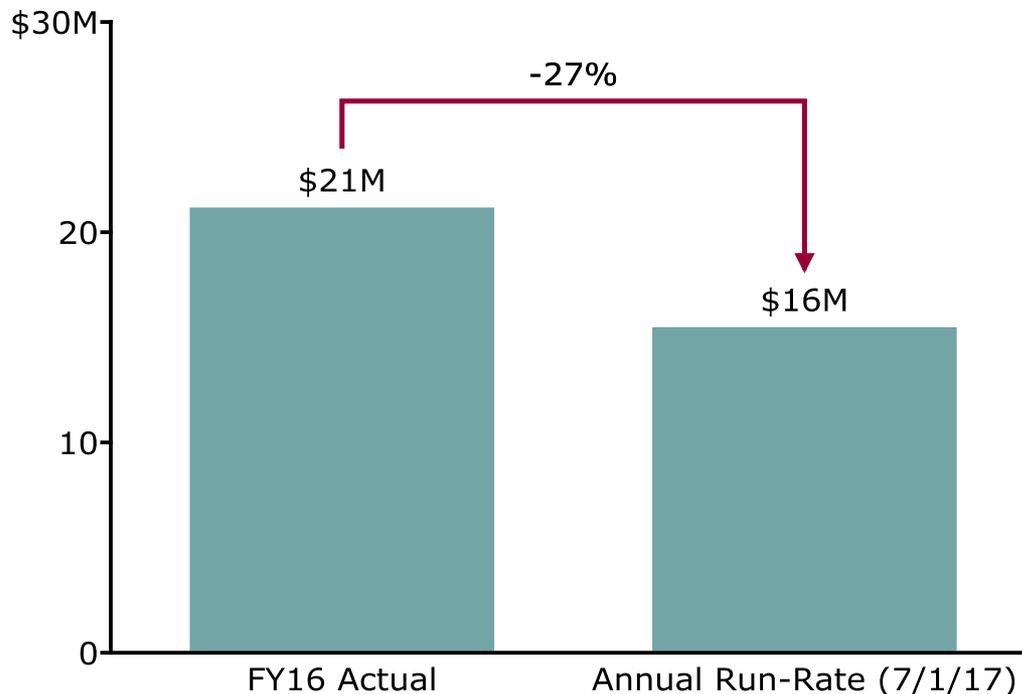
	FY16 Actual	Run-Rate (7/1/17)
TTM Daily Expense	\$17K	\$13K
Annual Expense	\$6.0M	\$4.8M

*Trailing twelve months (TTM) computes the average for the past year from a particular point in time
Note: "Bus Maintenance" includes 9 bus garages and Everett Bus Shop, but excludes Non-Revenue Shops
Source: MBTA Internal Data



A Management actions to drive productivity: Managing supply chain to lower materials and services costs

Bus Maintenance Materials, Services, and Supplies Cost* (Operating Budget)



SAVINGS DRIVERS

- New warehousing and logistics vendor (Mancon) managing inventory and parts delivery more efficiently and reducing waste
- 1/3 of MBTA bus fleet brand new and under warranty by August '17
- Electronic Purchase Order (P.O.) policy implemented at start of FY17 has eliminated unmonitored spending on cash vouchers

*Excludes fuel costs and subway vehicle cleaning costs

Note: "Bus Maintenance" includes 9 bus garages and Everett Bus Shop, but excludes Non-Revenue Shops

Source: MBTA Internal Data



A Management actions to drive productivity: Fellsway Garage – reorganized and efficient inventory management

Broken MBTA inventory system

- ✗ Disorganized storage
- ✗ No inventory management
- ✗ No standard stocking levels
- ✗ Lack of standard procedures

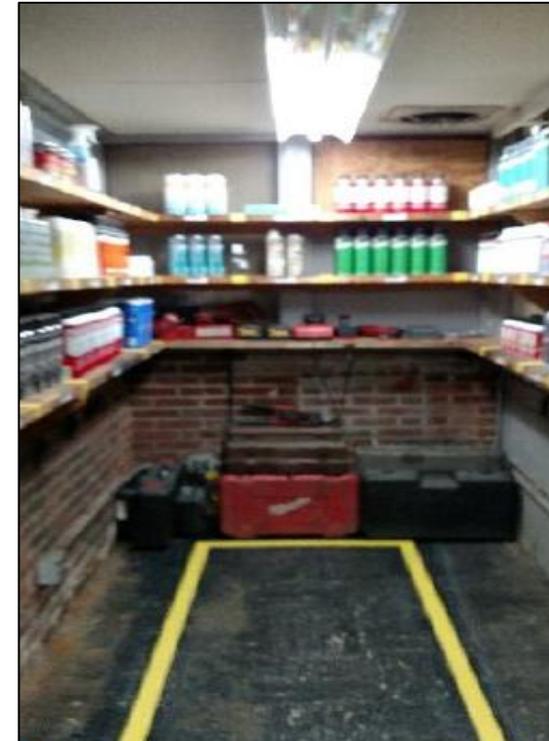
Mancon inventory system

- ✓ Organized storage
- ✓ Accurate inventory mgmt.
- ✓ Optimized stocking levels
- ✓ Standard procedures

Before



After



Improved inventory management improves part retrieval time and garage efficiency



A Management actions to drive productivity: Fellsway Garage – inventory accuracy now near 100%

Mancon performed physical inventory of parts in stockroom

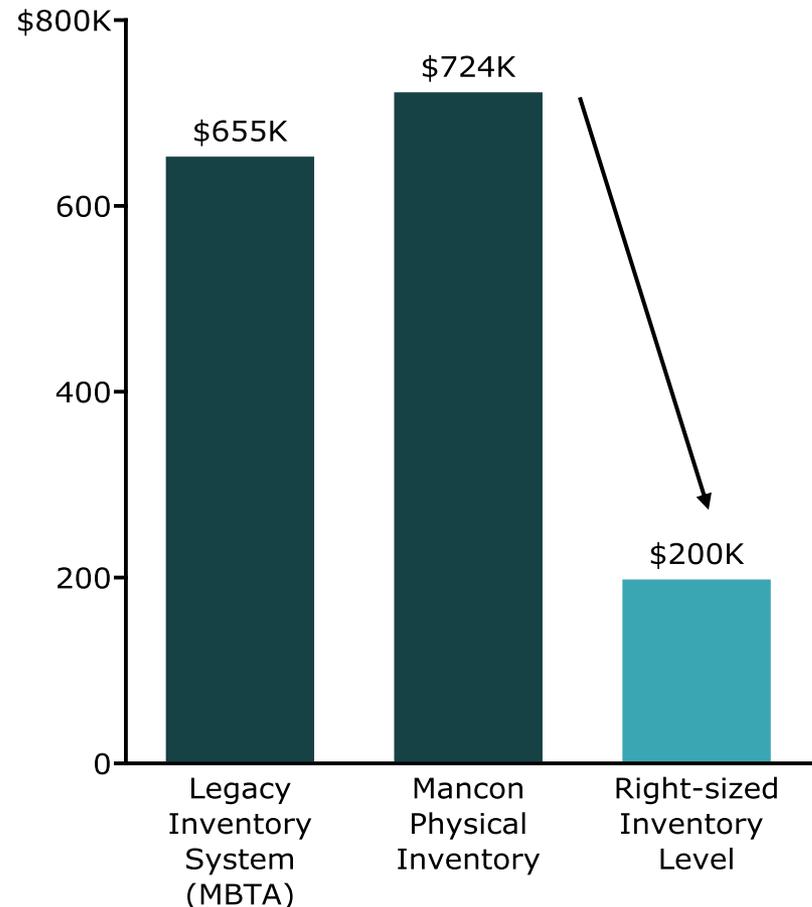
- Hand counted **4,473 parts**
- **21 days to catalogue** all parts and reconcile to MBTA system of record

Under MBTA, Fellsway inventory accuracy was just 31%

New system allows MBTA to:

- ✓ Improve mechanic efficiency by providing the correct parts quickly
- ✓ Optimize purchasing and stocking levels of critical parts
- ✓ More efficient use of working capital

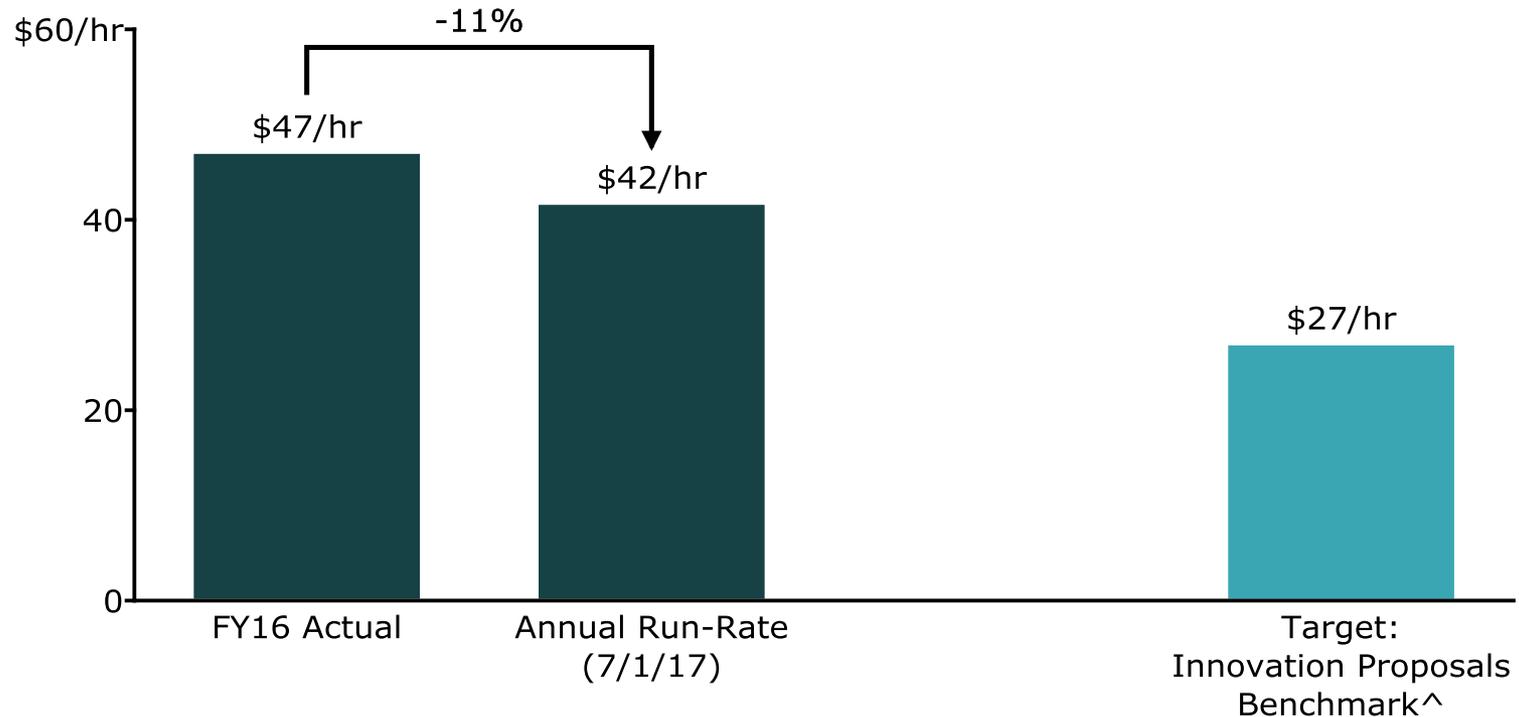
Fellsway Inventory Levels





A Bus maintenance cost per revenue hour after management actions is \$42

Bus Maintenance Fully Loaded Cost per Revenue Hour (L264/Alliance Garages*)



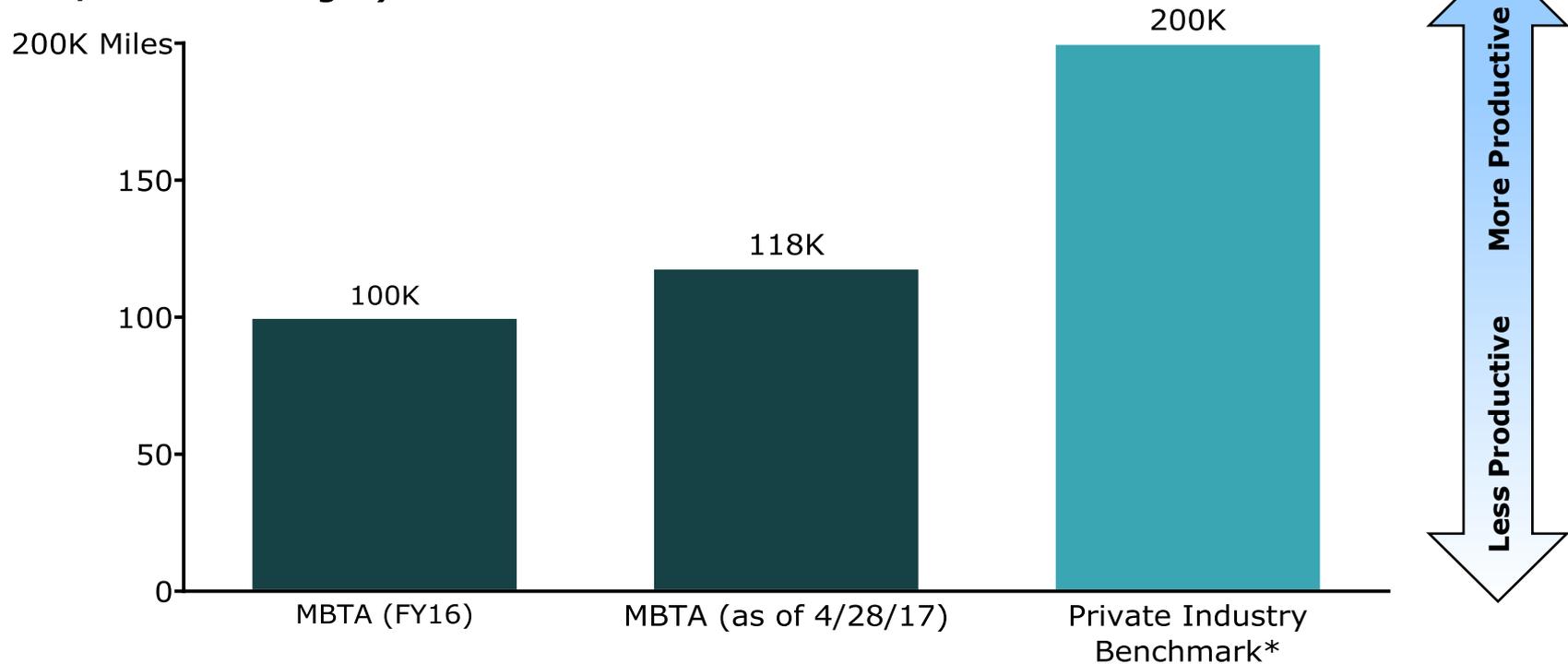
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^Based on average of innovation proposals received in March of 2017 from First Transit and TransDev to operate maintenance at Arborway and Quincy garages
Note: Includes fully loaded retiree health and pension costs



A After right-sizing, key productivity measure (miles per mechanic) is 118K in MBTA garages

Annual Bus Miles per Mechanic (L264/Alliance Garages)



Vehicle Miles 25.8M 25.8M

*First Transit’s innovation proposal (received March 2017) indicated a staffing model based on 200K miles per machinist
Note: “Mechanics” include machinists at bus garages (067400 and 067600) and does not include machinists at Everett Bus; headcount and mileage figures also do not include L589 rail repairers or the buses they maintain at North Cambridge and Southampton
Source: MBTA Internal Data



Antiquated work rules may impact productivity

LEGACY MBTA OPERATING MODEL

- No executive non-union managers staffed at the garage level
- Union supervisors (foremen) on the floor
- Work rules and workplace practices specifically prevent foremen and asst. foremen from performing machinist work
- ARTICLE XXXIV – BARGAINING UNIT WORK:
"A. It shall be Authority policy not to permit Foremen and Assistant Foremen to do [L264] bargaining unit work, except by way of assistance or instruction."

MODERNIZED OPERATING MODEL "WORKING SUPERVISORS"

- Executive non-union supervisors on the floor, driving workflow
- All supervisors are "working supervisors"
- Supervisors work alongside machinists to complete tasks / pitch in where needed
- Working supervisors model keeps supervisor skills sharp and helps to balance staffing needs
- Supervisors / machinists cross-trained in all tasks



Management Actions - Timeline

- **January 1, 2017:** Bill Griffiths hired to run MBTA bus maintenance
- **February 1, 2017:** MBTA signs contract with Mancon for warehousing and logistics
- **February 6, 2017:** Mancon begins overnight delivery of parts to bus garages
- **March 6, 2017:** MBTA receives innovation proposals from private companies indicating potential for 30-40% savings through partnership with industry
- **April 1, 2017:** Cabot garage reorganization effective
- **April 14, 2017:** FMCB approves FY18 budget including \$21M annualized bus maintenance savings
- **May 31, 2017:** Reorganization/right-sizing across rest of garages effective
- **September 1, 2017:** Target date to implement standard repair times and associated performance management for maintenance staff who don't meet standard

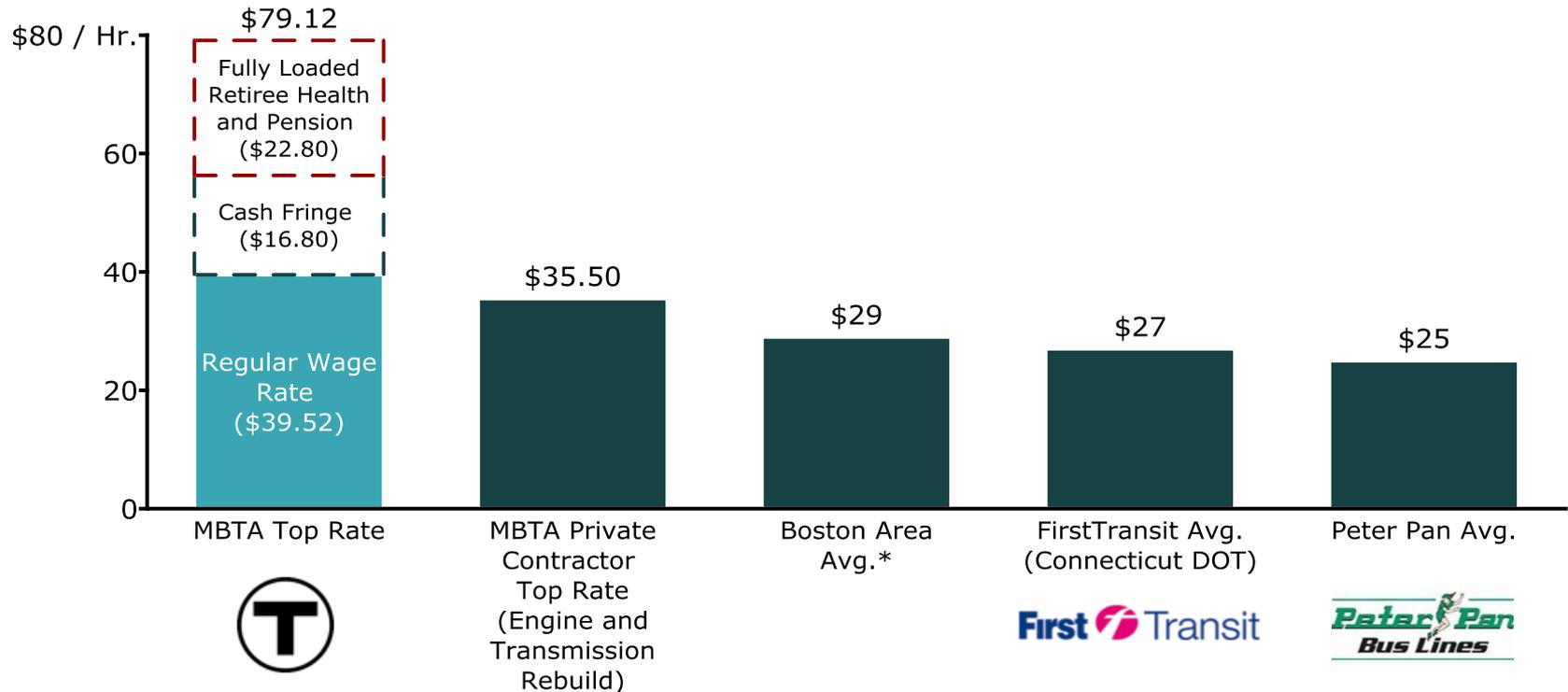


Backup



Public sector premium: MBTA bus mechanics compensation compared to market

Bus and Fleet Mechanics' Hourly Wage Rates (FY17)

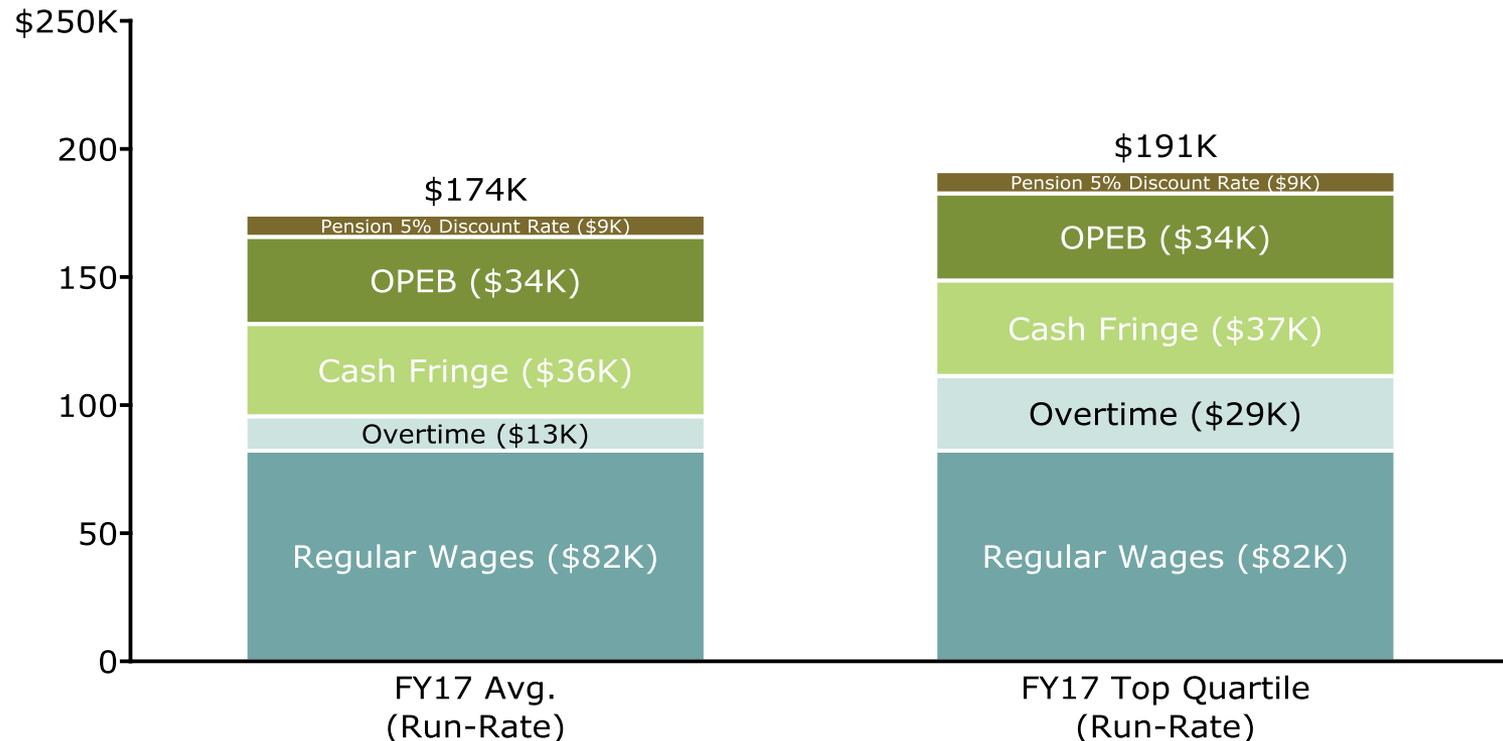


*Hourly mean wage of bus and truck mechanics and diesel engine specialists in Boston-Cambridge-Newton region in May 2015
Note: Peer systems (Chicago, NYC, and Washington D.C.) top wage rates are ~10% lower on average than the MBTA top rates
Source: MBTA Internal Data; Bureau of Labor Statistics; Interview with Peter Pan; CT Transit Salaries in CT from Indeed.com; Boston.gov



Average bus mechanic comp: \$174K; top quartile: \$191K

FY17 Compensation per Bus Machinist*

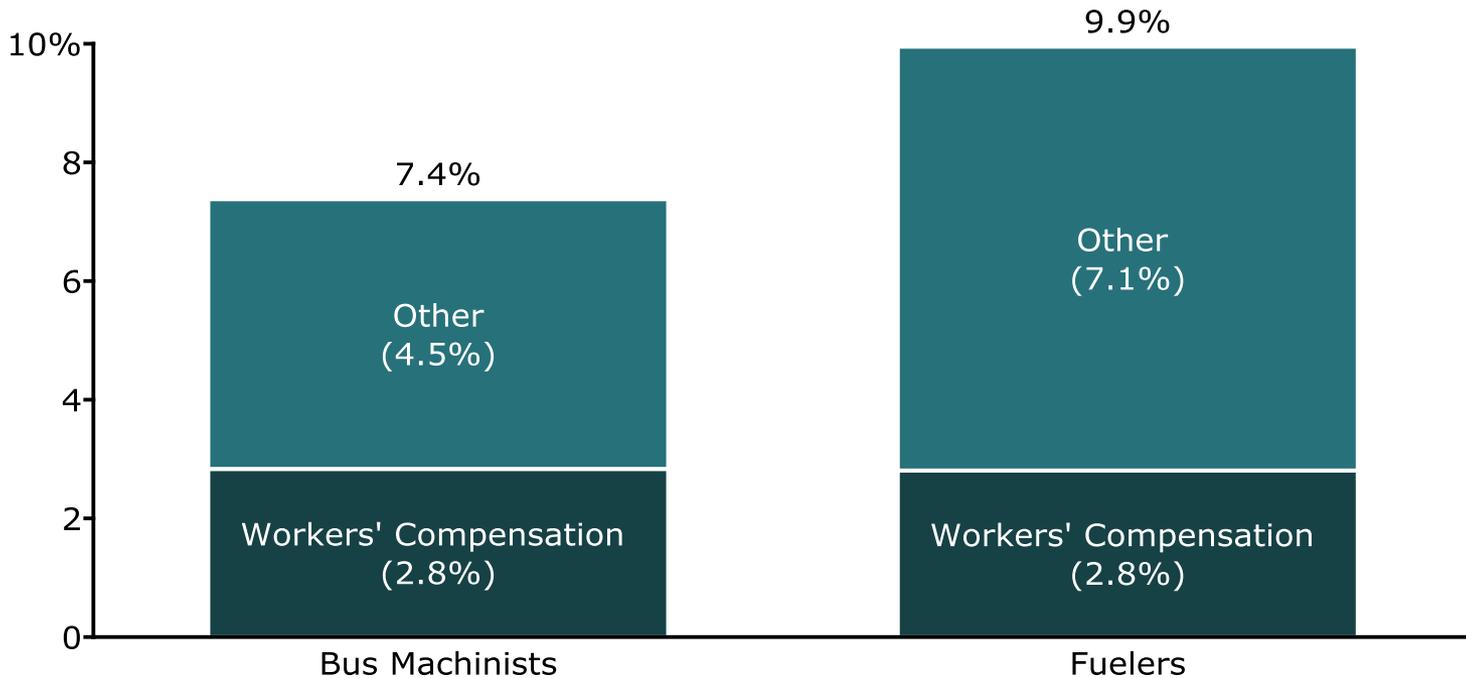


*Reflects compensation for MBTA bus garage machinists (067400); does not include Everett machinists or fuelers
Note: "Top Quartile" reflects the average annual compensation of machinists in the 75th-100th percentile of earnings
Source: MBTA Internal Data



Absenteeism may impact productivity

Unscheduled Absence Rate (CY 2017 - Q1)



Avg. Headcount

278

65

Note: "Bus Machinists" includes machinists at bus garages (067400 and 067600), as well as Everett Automotive Machinists (057100)
Source: MBTA Internal Data