

# DTPW and Peer Overtime Cost Analysis

Benchmarking, Root Causes, and Recommendations



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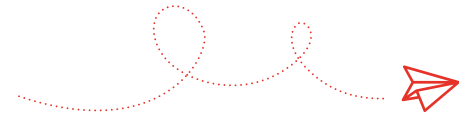
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## 1. Executive Summary

Rebel and Planning and Economics Group (hereafter referred to as the “Team”) were engaged by the Citizens’ Independent Transportation Trust (CITT) to perform a review of Miami-Dade County’s Department of Transportation and Public Works (DTPW) overtime budget and cost management practices. The Team benchmarked DTPW’s overtime cost overruns versus budget in comparison to peer transit agencies, including New York’s Metropolitan Transportation Authority (MTA), Metro Atlanta Rapid Transportation Authority (MARTA), and Washington Metropolitan Area Transit Authority (WMATA). The Team also benchmarked DTPW’s overtime cost levels on certain performance metrics to these peer transit agencies, to determine whether DTPW’s overtime costs are reasonable for the level of service it is providing. Lastly, the Team interviewed relevant stakeholders at DTPW, MARTA, and WMATA to learn about each agency’s overtime budgeting and cost management practices and any best practices that DTPW could consider adopting.

**The Team found that overtime budget overruns are common across transit agencies and across modes.** At 41%, DTPW had the second-highest average overtime cost overruns versus budget in FY15-19 among the four agencies reviewed compared to the peer average of 35%. It had the highest overruns of any transit agency reviewed for bus at 47%, compared to the peer average of 27%, while it performed substantially better than MARTA on rail overtime cost overruns at 42%, though still worse than MTA and WMATA at 34% and 5% respectively.

**Table 1: Average Overtime Overrun Percentage by mode, Rank within Peer Group by Mode**

Agency	Avg. Overtime Overrun (%) FY15-FY19   Rank within Peer Group		
	Agency	Bus	Rail
AVERAGE	35%	27%	83%
<b>DTPW</b>	<b>41%   2<sup>nd</sup> highest</b>	<b>47%   Highest</b>	<b>42%   2<sup>nd</sup> highest</b>
MARTA	75%   Highest	39%   2 <sup>nd</sup> highest	251%   Highest
MTA	19%   3 <sup>rd</sup> highest	15%   3 <sup>rd</sup> highest	34%   3 <sup>rd</sup> highest
WMATA	5%   Lowest	6%   Lowest	5%   Lowest

**On the performance benchmarks, DTPW spent the second most on overtime cost per revenue mile and per revenue hour between FY15 and FY19, at \$1.19 in overtime cost per revenue mile and \$16.18 per revenue hour on average.** This is roughly in line with the peer averages, but MTA skews this average, spending substantially more on overtime per revenue mile and revenue hour; cost of living differences between New York and the other relevant metropolitan areas may help to explain some of the

higher cost that MTA experiences. DTPW performs similarly on overtime cost per employee and per vehicle operated in maximum service, typically having lower cost than MTA but higher cost than MARTA and WMATA. Refer to Figure 1, Figure 2, and Figure 3.

Figure 1: Average Overtime Cost per Revenue Mile and Revenue Hour, 2015-2019

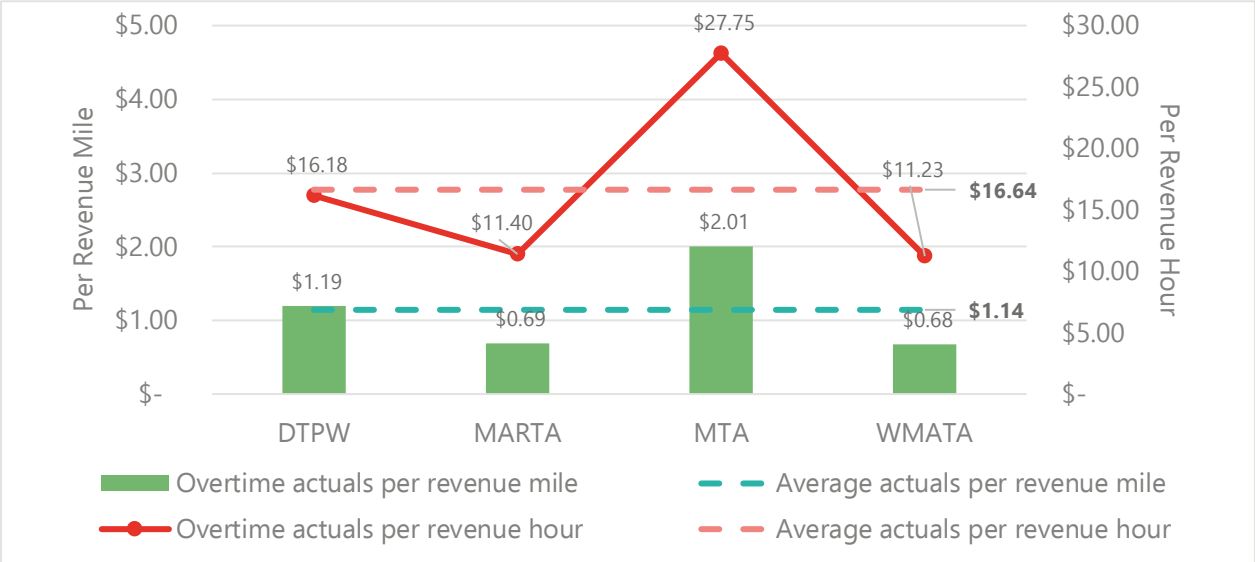
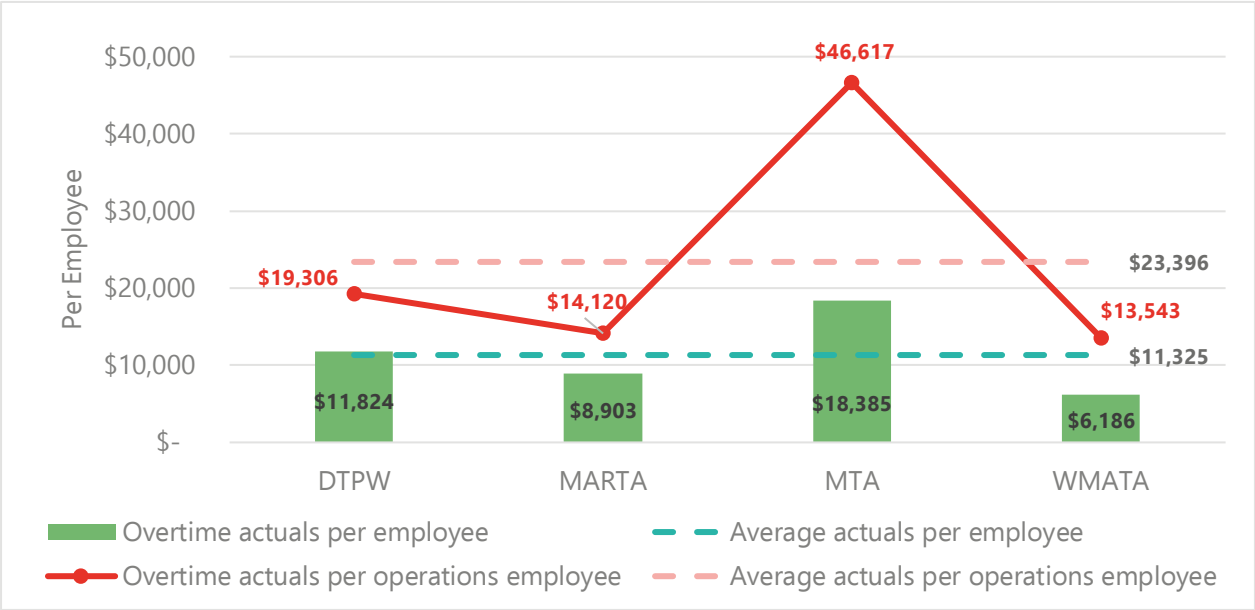
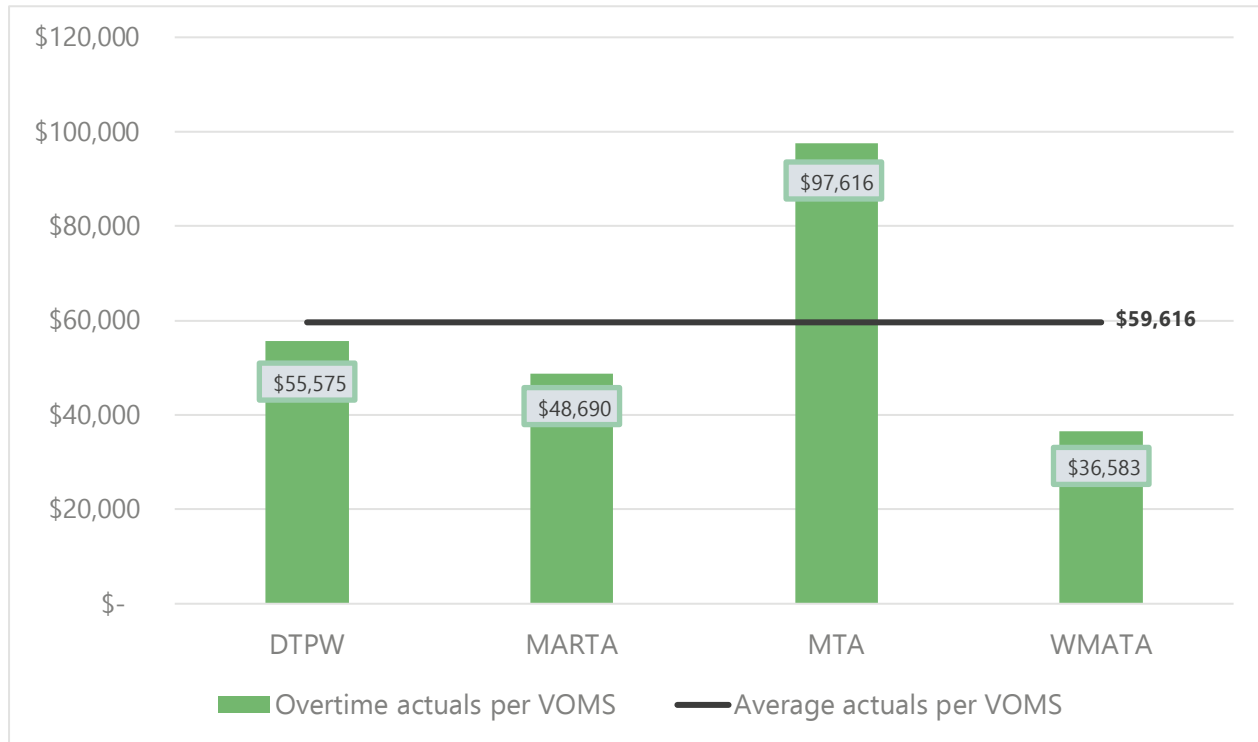


Figure 2: Average Overtime Cost per Employee and Vehicle Operations Employee, 2015-2019



**Figure 3: Average Overtime Cost per Vehicle Operated in Maximum Service (VOMS), 2015-2019**

The Team found that all transit agencies appear to purposely constrain overtime budget as a mechanism to discourage its use. Through interviews with various stakeholders at DTPW, MARTA, and WMATA, the team analyzed the root causes of overtime budget overruns and of overtime cost at those agencies, finding the following:

- **Willingness for some agencies to incur variances to budget vs providing additional overtime budget in subsequent years** – this was the case for DTPW and WMATA.
- **Scheduled overtime is a major driver** of overtime budget and cost across all agencies.
- However, **overtime is also driven by vacant positions and actual availability of staff in filled positions**. For instance, DTPW notes that it routinely does not have enough bus operators available to run scheduled service, because of vacancies and unavailability of existing staff—less than 80% of budgeted bus operators were available for service per DTPW's most recent bus operations manpower report.

**Labor agreements also play a role in driving overtime cost.** For instance, DTPW attempted to reduce scheduled overtime in previous years but was taken to arbitration by its union and later owed backpay for overtime. Fleet age has also driven overtime, given more frequent breakdowns with DTPW's older bus fleet; this fleet has now been replaced with new CNG buses and overtime use for bus should therefore decrease. Lastly, capital projects drive overtime cost and are not typically budgeted for, as capital projects are usually reimbursed by federal or other funding sources but overtime on such projects still get counted

as overtime cost until reclassification occurs; this should be resolved with DTPW's new Enterprise Resource Planning (ERP) system beginning in 2022.

**The Team identifies a few potential solutions and practices for DTPW to consider:**

1. Firstly, **tracking and approving overtime** could control its usage. MARTA had considerable success in reducing overtime by proactively tracking its root causes, instituting a survey sent to managers every month that asks them to classify their division's overtime by a set of 10 root causes, including scheduled overtime, vacancies, absenteeism, and others. WMATA also instituted a policy whereby managers must apply for additional overtime at least a week in advance, and all non-operator overtime hours must be requested in advance and approved to minimize overruns.
2. Second, DTPW proposes a variety of **adjustments to its labor agreement** that could reduce overtime, including renegotiating the rules that restrict it from removing overtime from "platform hours" for bus operators and allowing the external hire of rail technicians with minimum qualifications.
3. Lastly, **filling vacancies** could reduce dependence on overtime. MARTA made a concerted effort to hire more bus operators in FY19-20, in conjunction with its overtime tracking and categorization effort, and these efforts seem to have successfully limited overtime. DTPW also acknowledges that it must work to fill bus operator vacancies more quickly, though filling certain positions such as that of rail technician may require changes to labor agreements first.

## 2. Methodology

**The Team selected the benchmark peers of New York's Metropolitan Transportation Authority (MTA), the Metropolitan Atlanta Rapid Transit Authority (MARTA), and Washington Metropolitan Area Transit Authority (WMATA) primarily due to the availability of adequate publicly-available financial reports.** However, each peer also has substantial bus and rail operations, similar to DTPW. The Team used this data to determine overtime budgets and actuals by year and by mode.

**The Team also used National Transit Database (NTD) data to analyze DTPW's overtime cost levels on standardized metrics, to determine how its overtime costs compare to peer transit agencies, independent of budget.** The Team benchmarked overtime cost "per unit", such as cost per vehicle revenue mile, per vehicle revenue hour, per employee, and per vehicle operated in maximum service.

**The Team supplemented its data analysis with interviews conducted in April 2021 with members of DTPW's Finance team as well as with relevant finance and operations staff at MARTA and WMATA.** The Team used these interviews to understand the drivers of overtime usage as well as best practices for managing overtime cost.



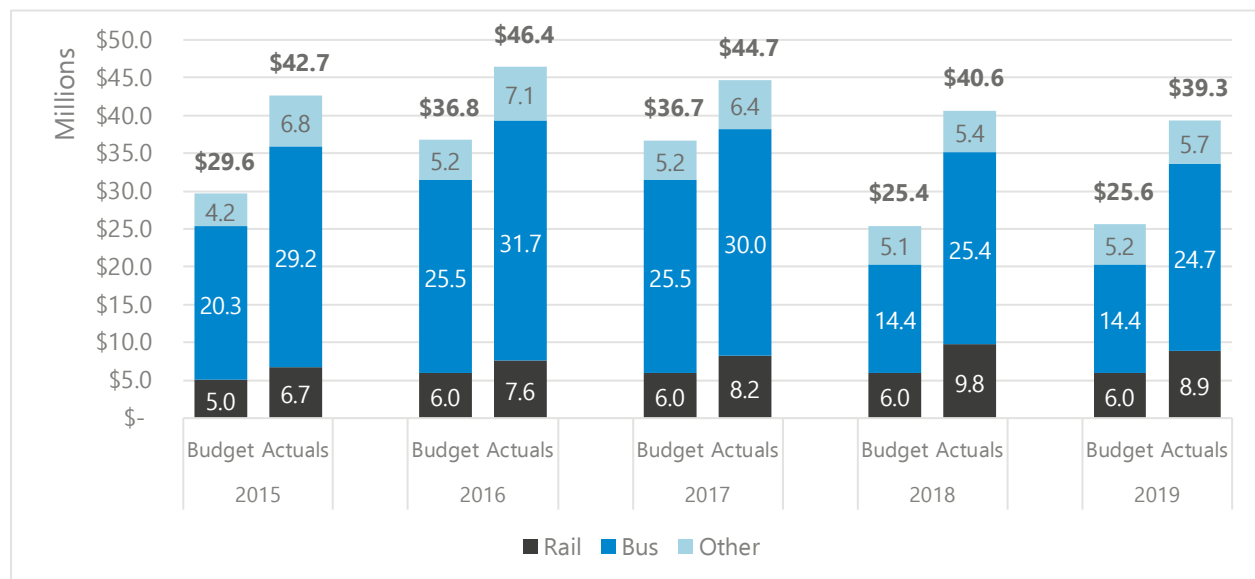
### 3. Benchmarking Analysis

#### 3.1 Overview of DTPW Overtime Budget and Actuals

DTPW's average annual overtime budget was roughly \$31 million between FY2015 and FY2019 but declined from a high of \$36.7 million in FY17 to \$25.6 million in FY19. Figure 4 displays DTPW's budget for overtime by mode for this period.

DTPW increased overtime budget in FY16 and FY17 to bring it to a more level realistic level for operational needs. However, it reduced overtime budget substantially for bus in FY18 and FY19 due to the assumption that a new CNG bus fleet would suffer fewer breakdowns and unplanned maintenance than the existing (older) fleet and thus reduce overtime usage.

Figure 4: DTPW Overtime Budget and Actuals, FY15-FY19



The agency went overbudget on overtime across all fiscal years, spending \$42.7 million per year, on average. However, as Figure 4 displays, DTPW's overall spending on overtime declined between FY15 and FY19. While actuals notably declined year-on-year in FY17, FY18, and FY19, DTPW conveyed that it believes the overtime cost overruns specifically in FY18 and FY19 were caused by a delay in accepting new CNG buses due to complications with the procurement of the new fleet. Furthermore, DTPW notes that its attempt to reduce scheduled overtime hours for bus operators resulted in arbitration with Transport Workers Union (TWU) Local 291, in which DTPW was found to owe backpay to bus operators for the overtime they were entitled to prior to the adjustment in schedule. This backpay was owed in a one-time settlement that was not budgeted for and was paid out in 2019-2020.

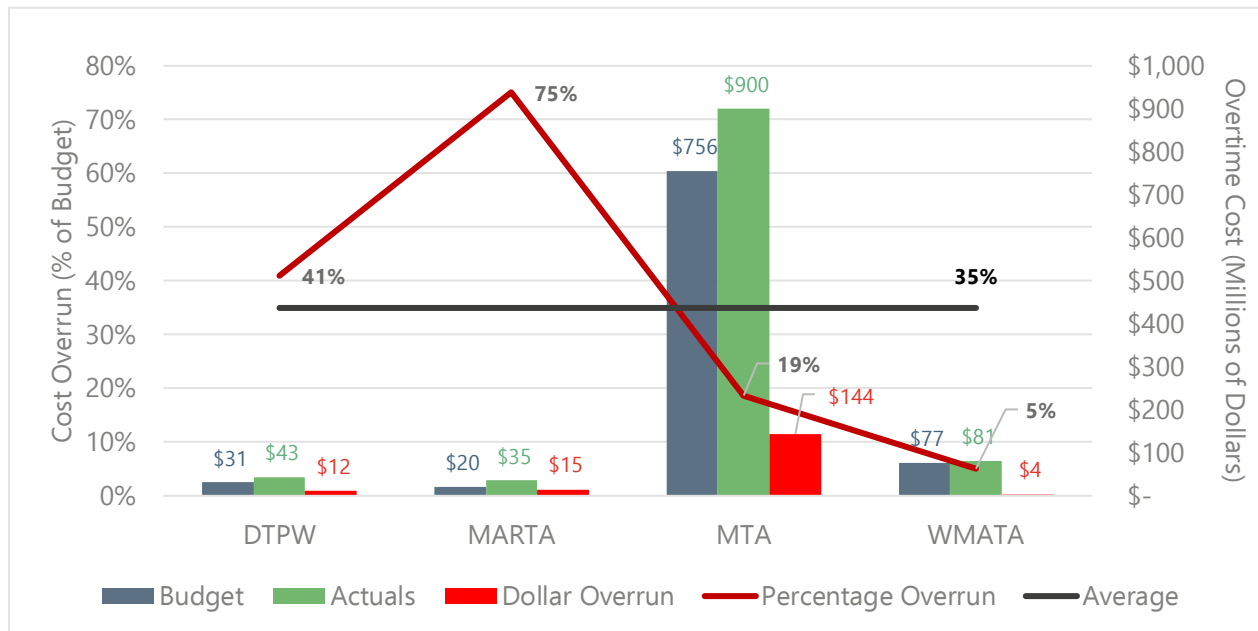
The Team also notes that rail also went overbudget on overtime across all five fiscal years. However, part of the overtime overruns in FY18 and FY19 for rail may relate to acceptance of the new Hitachi rail vehicles.

## 3.2 Overtime Cost Overruns versus Peers

### 3.2.1 Agency Level

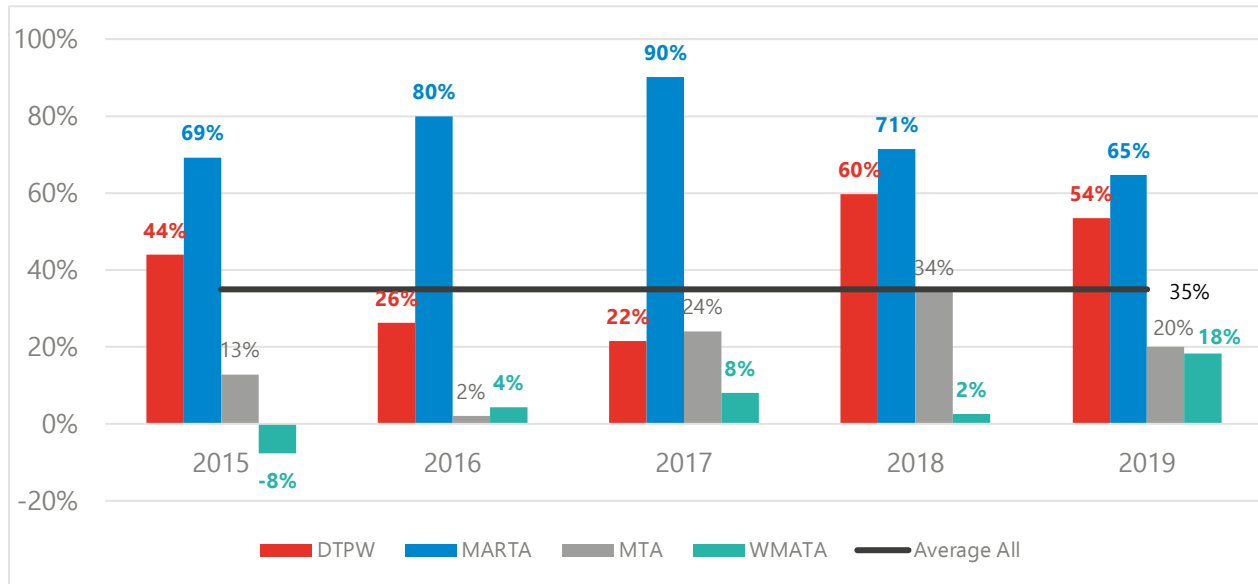
DTPW's average annual overtime cost overrun is 41% above budget, which is lower than MARTA's 75% but slightly higher than the peer group average of 35%. Figure 5 displays DTPW's average annual overtime cost overruns versus peer agencies, including MARTA, MTA, and WMATA. As the figure displays, overtime budgets and actuals vary significantly by size of agency, as MTA's average annual overtime budget is nearly 25x that of DTPW's. Therefore, percentage comparisons are more useful to standardize for the difference in agency sizes, and we prioritize those in the rest of the analysis.

**Figure 5: Average Annual Overtime Cost Overrun (Budget vs. Actuals), FY15-FY19**



As Figure 6 illustrates, DTPW did improve its overtime overrun performance between FY15 and FY17. The figure displays overtime cost overrun/underrun percentages by agency and by year to illustrate the year-to-year differences that may exist in budget overruns/underruns. However, overtime cost went 60% overbudget in 2018 and 54% overbudget in 2019, largely due to the reduction of \$11 million in bus overtime budget for those two years, while actuals did not decrease by as much as expected for reasons discussed earlier—delay in acceptance of new CNG bus fleet.

Like DTPW, other agencies have also experienced fluctuations in overtime cost overrun/underruns. MARTA experienced an overtime cost that was nearly double what it budgeted for in FY17. However, this overrun decreased in FY18-FY19. MTA and WMATA have consistently kept their overtime budget overrun to relatively low levels, with WMATA being the leader in doing so. We discuss MARTA's and WMATA's practices for managing overtime in Section 4.

**Figure 6: Total Overtime Cost Overrun/Underrun Percentage by Agency and Fiscal Year**

### 3.2.2 Bus and Rail

**DTPW had the highest overtime cost overruns, on average, for bus specifically as shown in Figure 7, which displays average annual overtime cost overruns by agency for bus.** This was driven, in large part, by the substantial increase in cost overruns in FY18 and FY19 due to the delays in acceptance of the new CNG bus fleet, as previously discussed. Figure 8 displays the bus overtime cost overruns by agency and by year. As with the overall agency level, MTA and WMATA lead in managing bus overtime cost overruns, with WMATA even going underbudget on bus overtime in FY15 and FY16, though this increased to a 30% cost overrun in FY19. Nevertheless, both agencies have consistently held overruns to below the peer average cost overrun.

Figure 7: Average Annual Bus Overtime Cost Overrun (Budget vs. Actuals), FY15-FY19

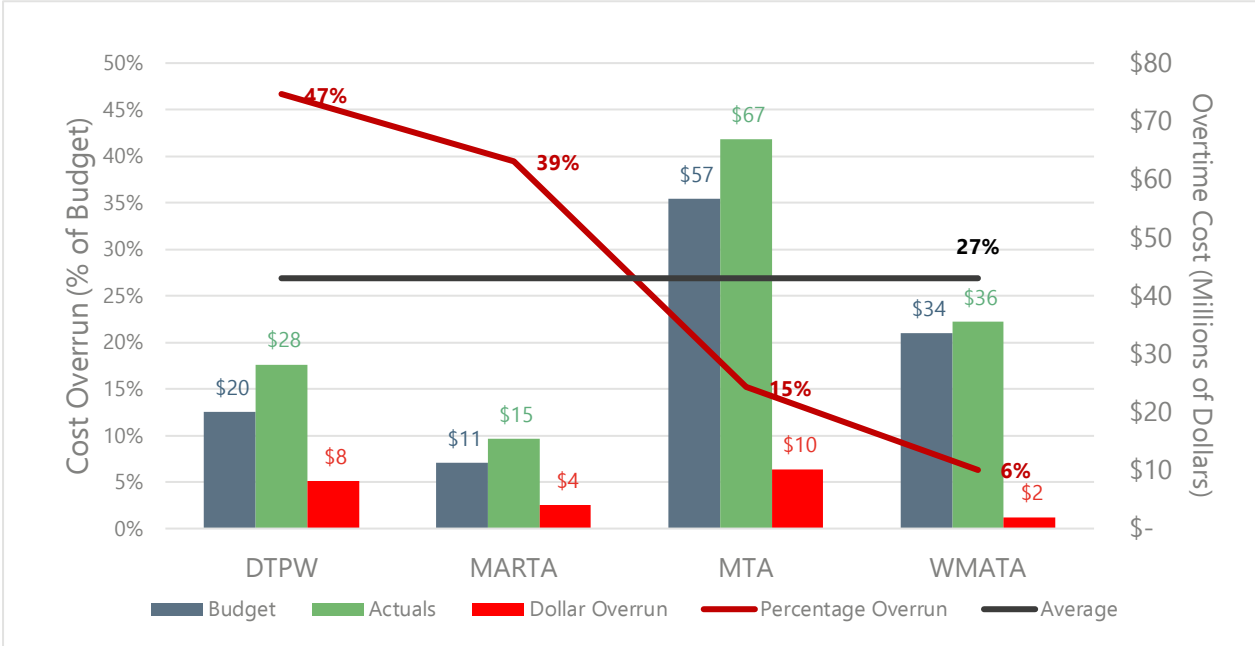
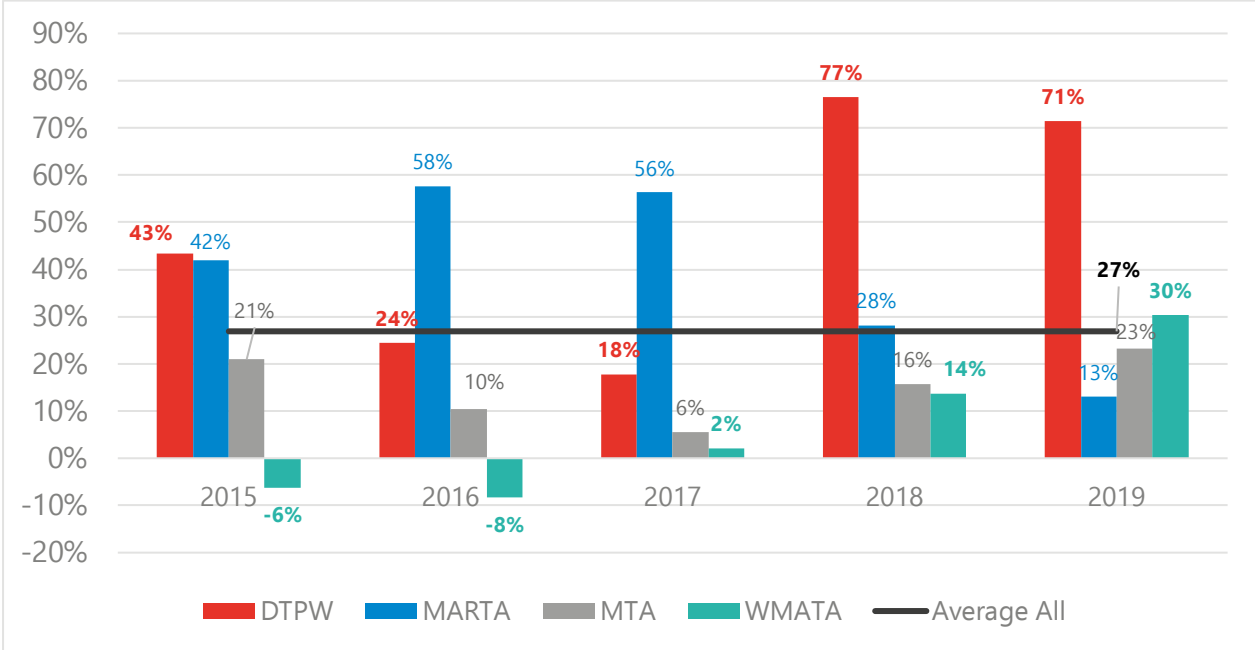


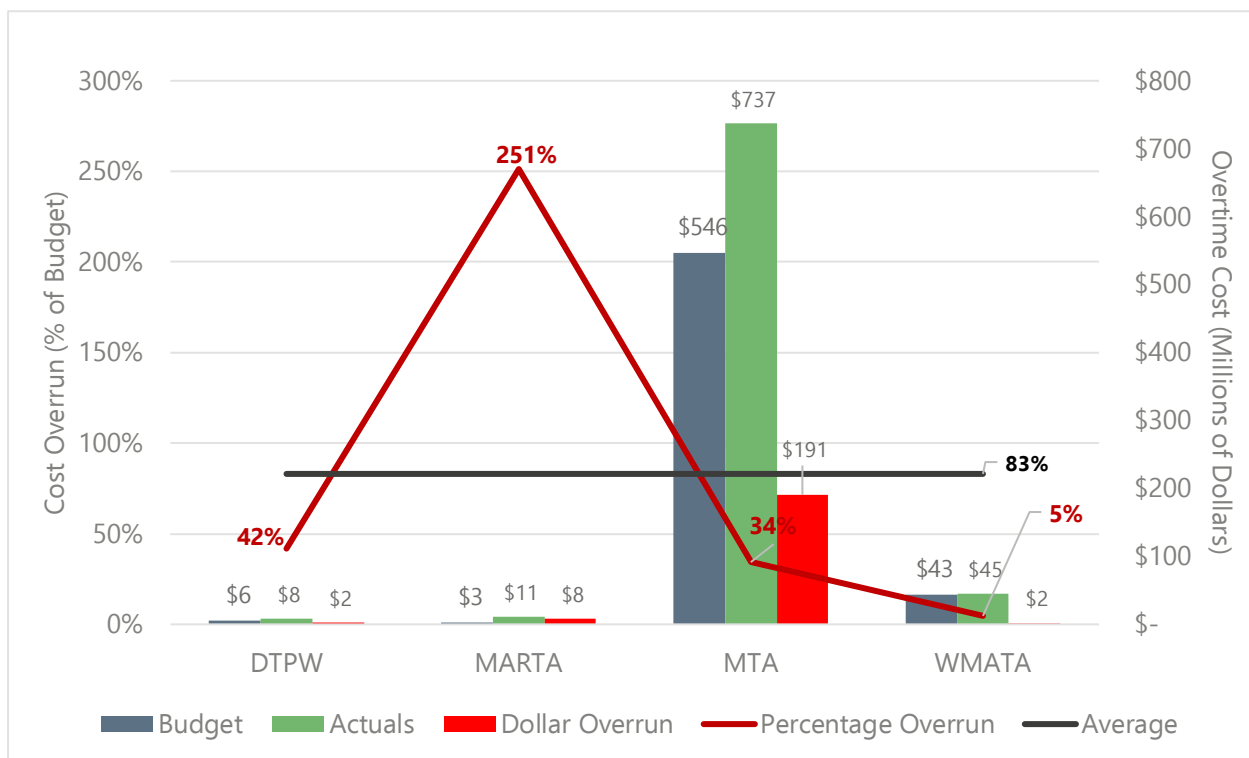
Figure 8: Bus Overtime Cost Overrun/Underrun Percentage by Fiscal Year and Agency



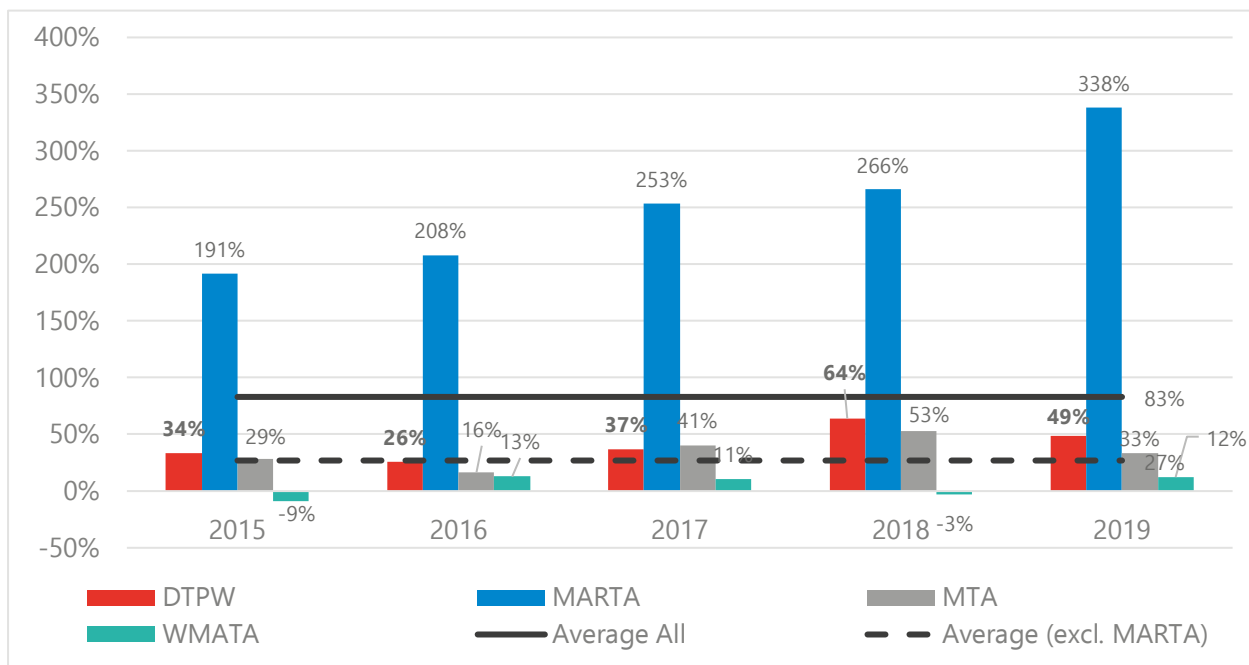
As Figure 9 displays, DTPW performs better on overtime cost overruns on rail versus bus, especially in comparison to MARTA. The latter experienced extreme cost overruns on overtime for rail across the review period of FY15-FY19, as illustrated in Figure 10. However, DTPW still lags MTA and WMATA in this category, when considering the average overrun of 27% when excluding MARTA from this average.



**Figure 9: Average Annual Rail Overtime Cost Overrun (Budget vs. Actuals), FY15-FY19**



**Figure 10: Rail Overtime Cost Overrun/Underrun Percentage by Fiscal Year and Agency**



### 3.3 Overtime Cost Performance Benchmarks

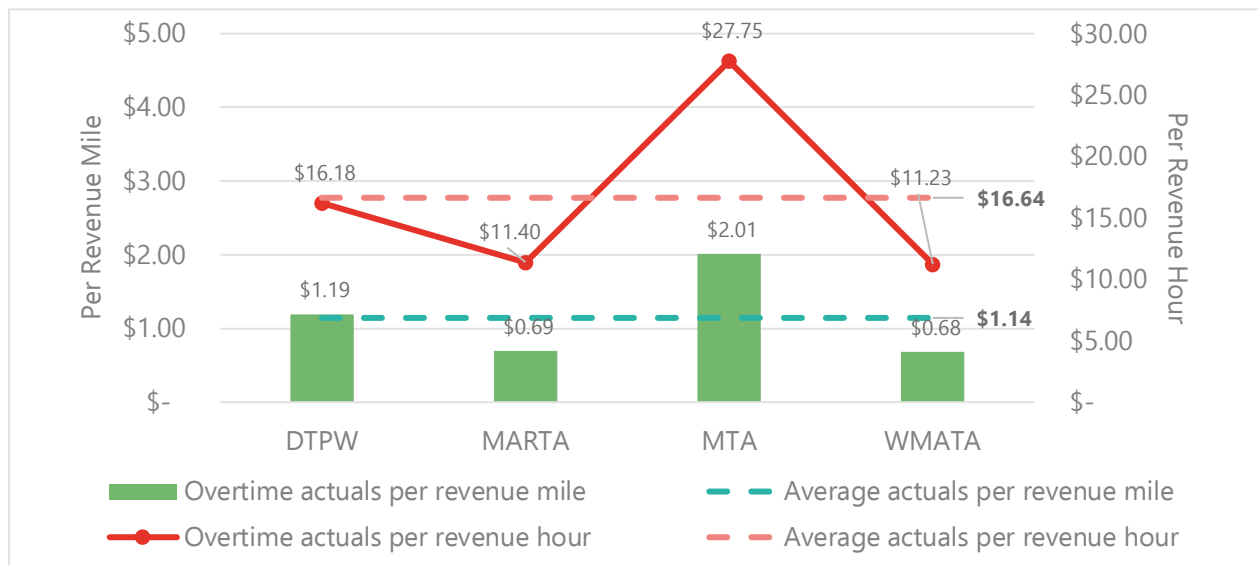
The Team also performed an analysis of how DTPW’s overtime cost compared to peer agencies on a “per unit” basis, meaning per revenue mile and revenue hour, per employee, and per vehicle. This helps to determine whether DTPW is spending the appropriate amount on overtime for its level of service, independent of overtime budget. The analysis presented here uses overtime cost as reported in each agency’s annual financial reports along with performance metrics, employee, and vehicle inventory data reported to NTD.

#### 3.3.1 Per Revenue Mile and Revenue Hour

DTPW spends more on overtime per revenue mile (\$1.19) and per revenue hour (\$16.18) than MARTA and WMATA, but it spends less on this basis than MTA. This is displayed in Figure 11 in terms of average overtime actuals per revenue mile and per revenue hour over the FY15-19 period by peer agency.

There appear to be other structural drivers of DTPW’s higher overtime cost per revenue mile and hour versus MTA. This analysis does not account for average wages at each agency, as the Team would expect that average hourly wages and overtime are higher in New York than in the other relevant geographies displayed.

**Figure 11: Average Overtime Cost per Revenue Mile and Revenue Hour, 2015-2019**



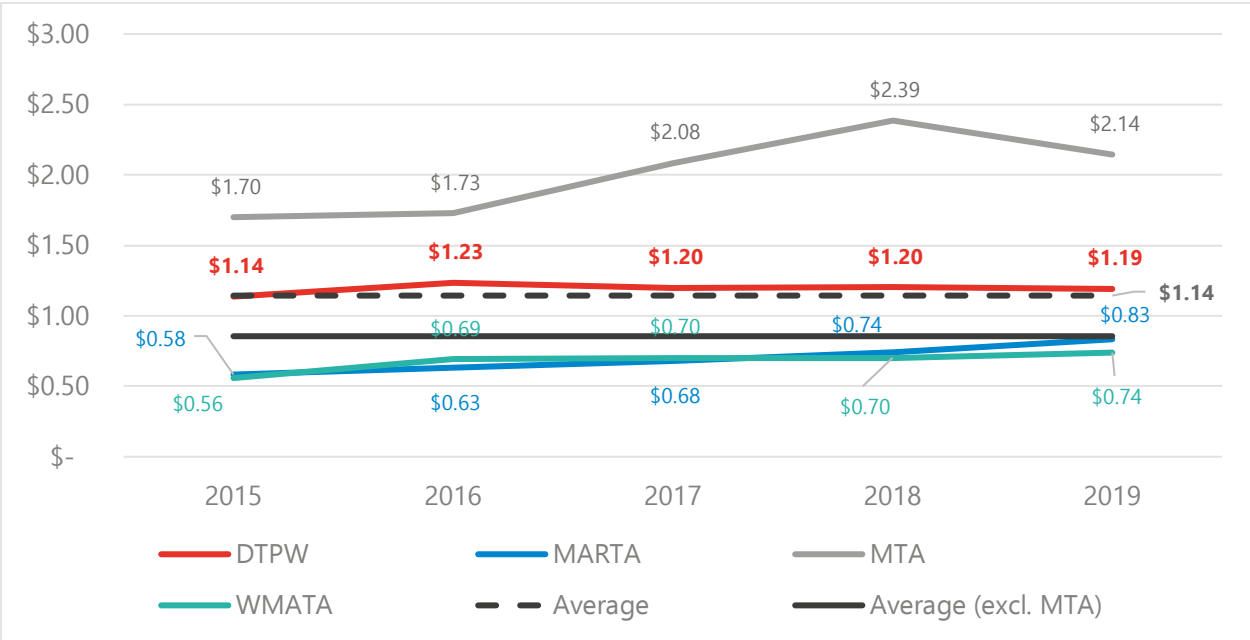
DTPW has kept overtime cost per revenue mile relatively steady over the review period, whereas cost per revenue hour increased dramatically, from \$14.83 per revenue hour in 2015 to \$18.33 per revenue hour in 2019. Figure 12 shows how overtime cost per revenue mile has varied over the FY15-19 period, and Figure 13 displays the same per revenue hour. This primarily indicates that DTPW reduced revenue hours relative to revenue miles, which is borne out by the data. DTPW ran approximately 37.5 million revenue miles in 2015 versus 33.0 million in 2019, a reduction of about 12%, whereas it ran

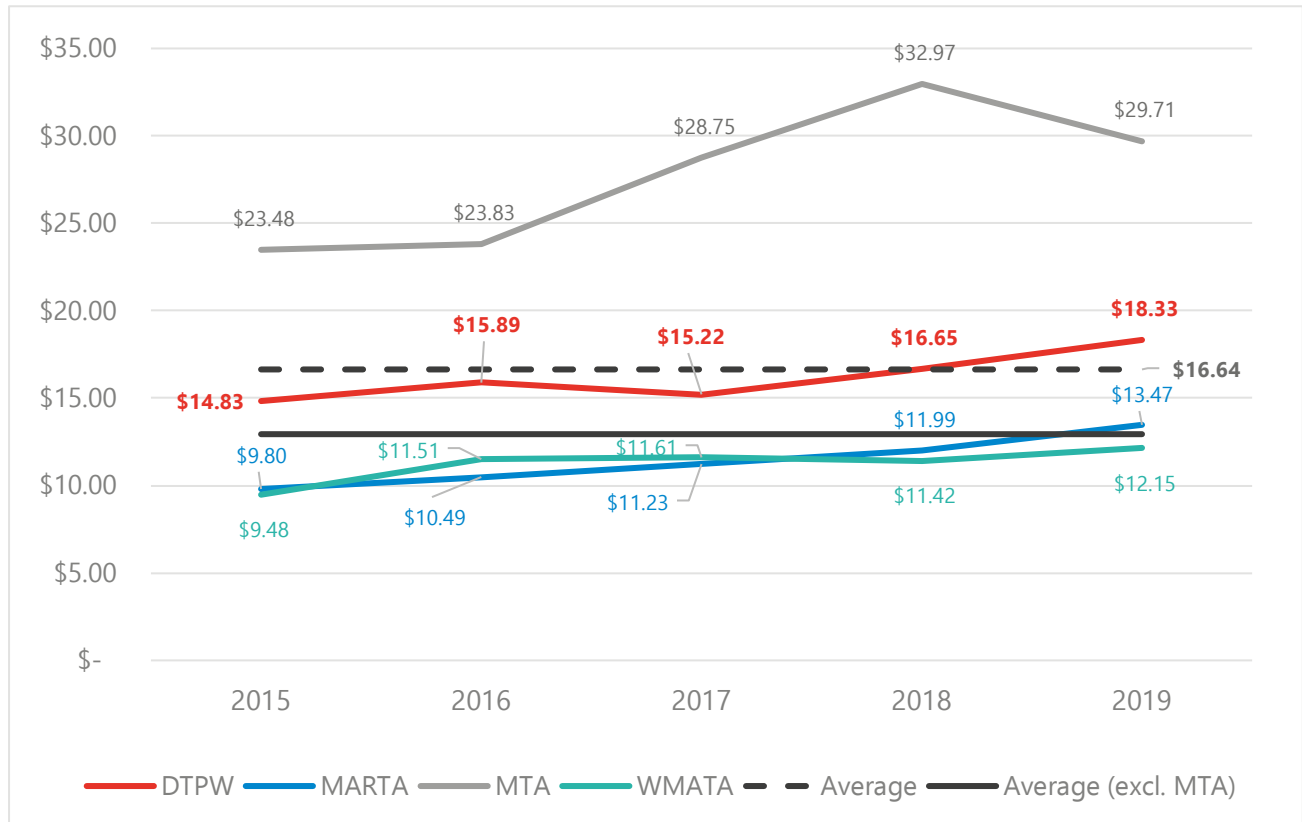


approximately 2.9 million revenue hours in 2015 versus 2.1 million revenue hours in 2019, a reduction of more than 25%.

**In both cases, DTPW consistently had the second highest overtime cost per revenue mile and per revenue hour among peers.** Both MARTA and WMATA have consistently held overtime cost levels below the peer average per revenue mile and per revenue hour, when excluding MTA.

**Figure 12: Overtime Cost per Revenue Mile, 2015-2019**



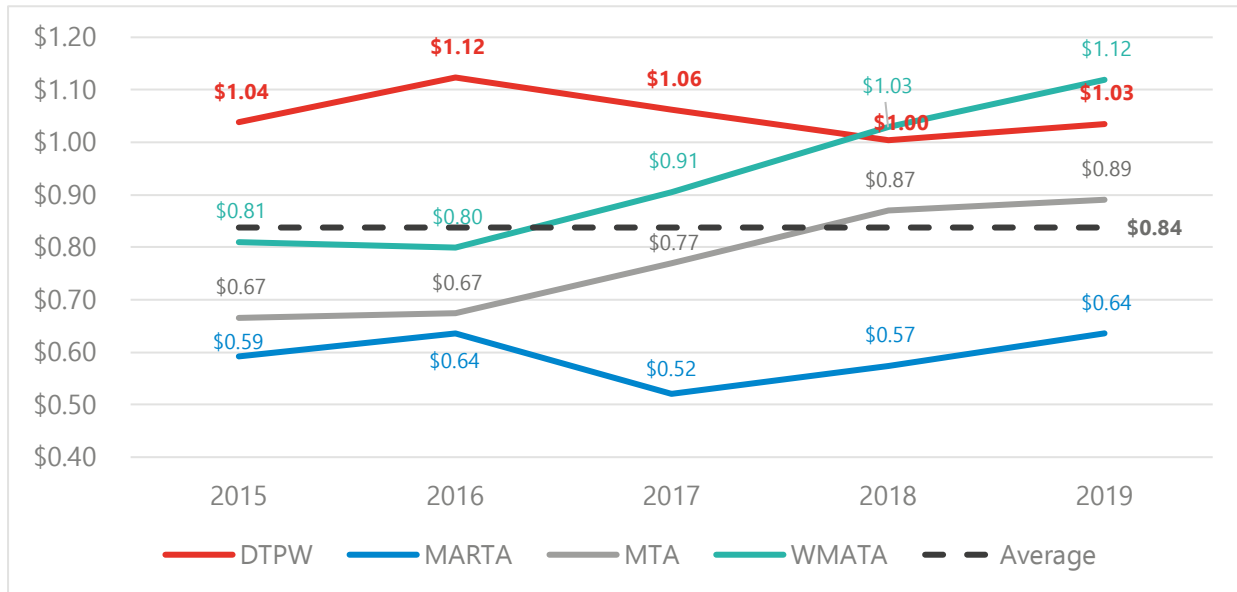
**Figure 13: Overtime Cost per Revenue Hour, 2015-2019**

**DTPW managed to hold overtime cost relatively constant over the review period when reviewing cost on a per revenue mile basis for bus.** Figure 14 displays overtime actuals per revenue mile for bus.

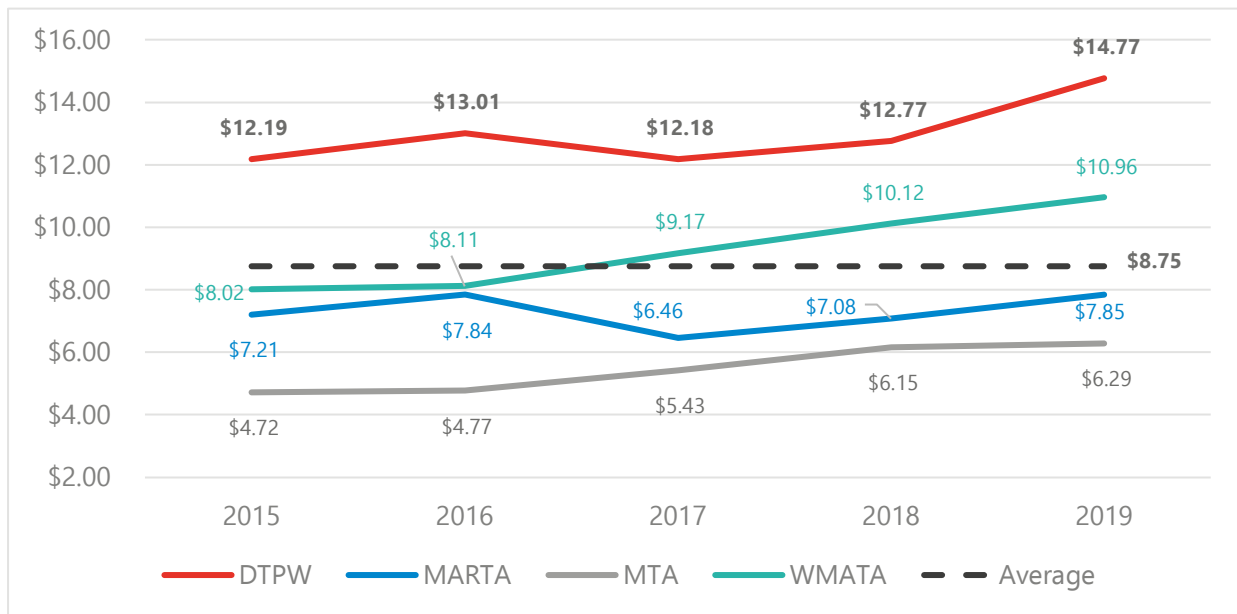
**However, DTPW bus has the highest overtime cost per revenue hour, as displayed in Figure 15.** This indicates that there may be room to reduce overtime cost for the average revenue hour in bus operations and maintenance. The Team understands that the new CNG bus fleet acceptance may be assisting with this effort.



**Figure 14: Bus Overtime Cost per Revenue Mile, 2015-2019**



**Figure 15: Bus Overtime Cost per Revenue Hour, 2015-2019**

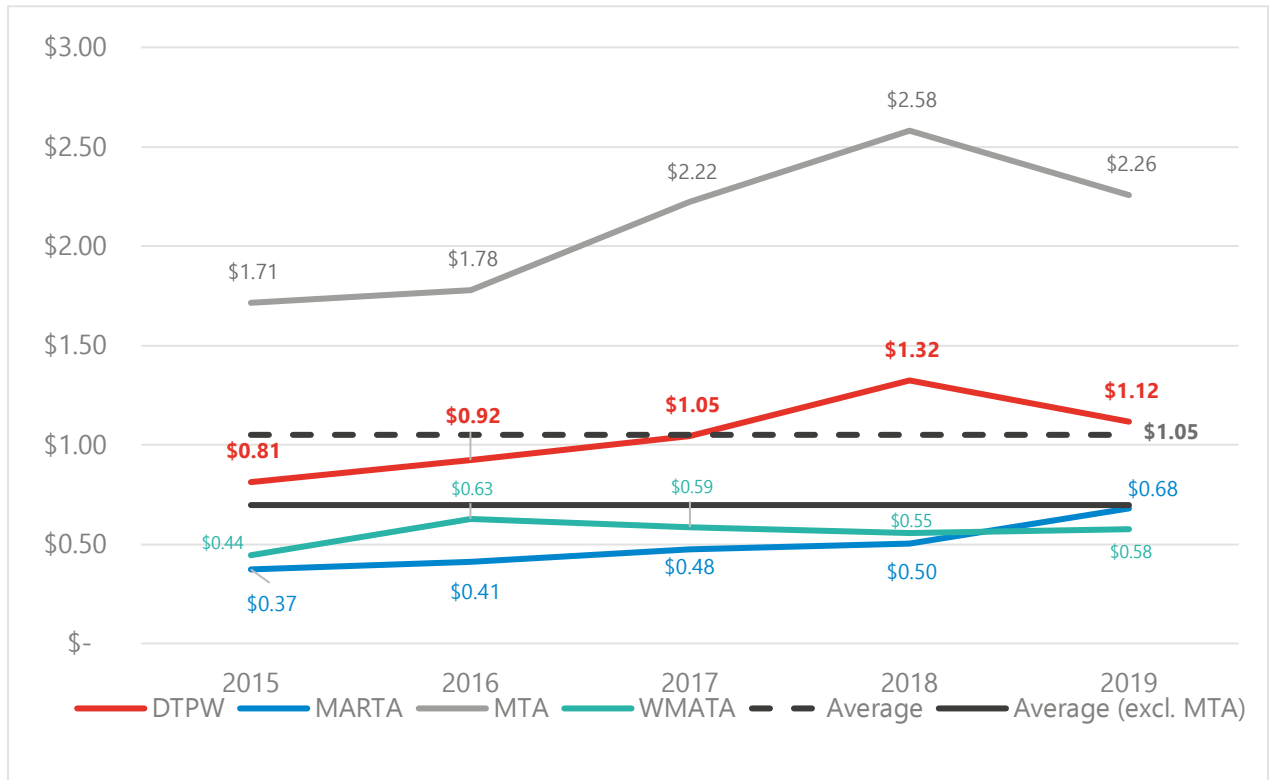


**In contrast to bus, DTPW’s overtime cost per revenue mile for rail has increased by 37%, given that revenue miles decreased by roughly 4% between 2015 and 2019 while overtime cost increased by 32% over the same period.** Figure 16 displays overtime actuals per revenue mile for rail.

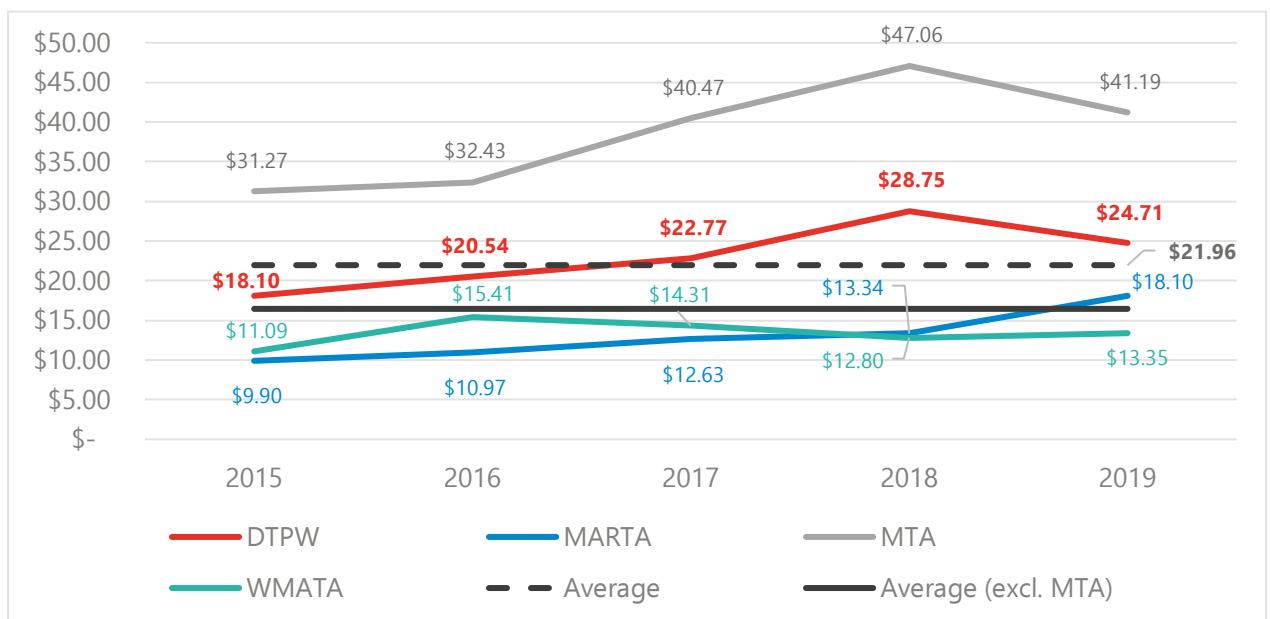
**Overtime cost per revenue hour also increased by 37% over the period, as displayed in Figure 17.** DTPW is second-highest among peers on rail overtime cost per revenue mile and per revenue hour, though significantly higher than MARTA and WMATA on both metrics.



**Figure 16: Rail Overtime Cost per Revenue Mile, 2015-2019**



**Figure 17: Rail Overtime Cost per Revenue Hour, 2015-2019**



### 3.3.2 Per Employee

As Figure 18 illustrates, DTPW is roughly average among peers when considering overtime cost per employee and below average per vehicle operations employee, though MTA skews the averages upward. The figure displays overtime cost per employee and per vehicle operations employee, as reported to NTD. When reviewing the trend between 2015-2019, Figure 19 shows that DTPW's overtime cost per employee declined and was comparable to MARTA's by 2019.

**Figure 18: Average Overtime Cost per Employee and Vehicle Operations Employee, 2015-2019**

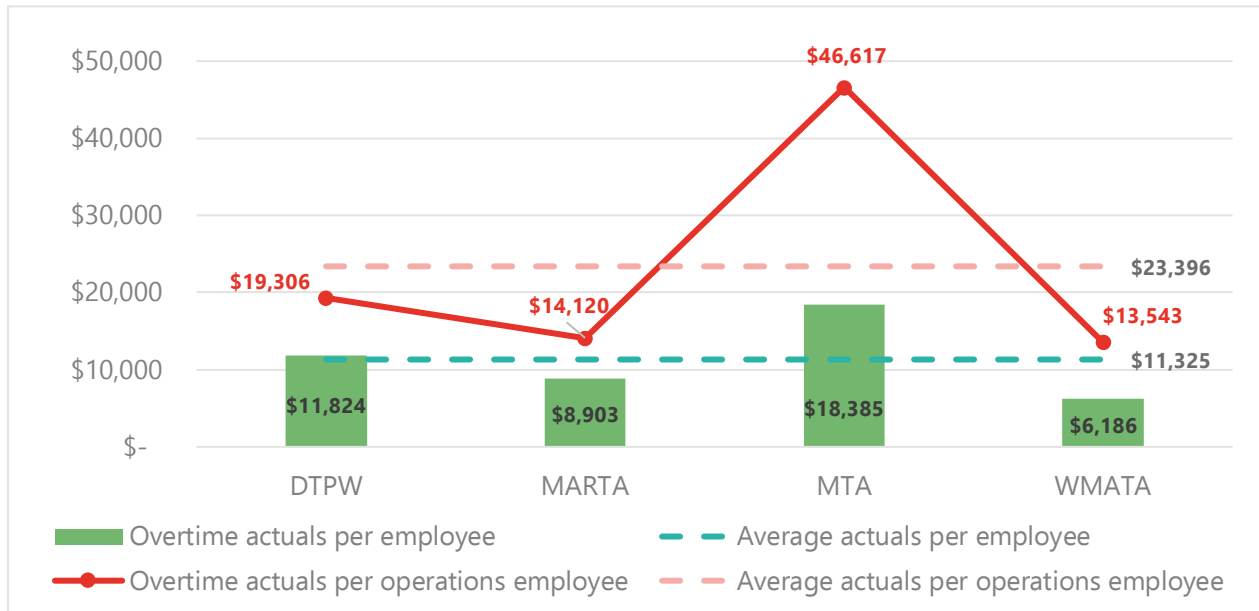
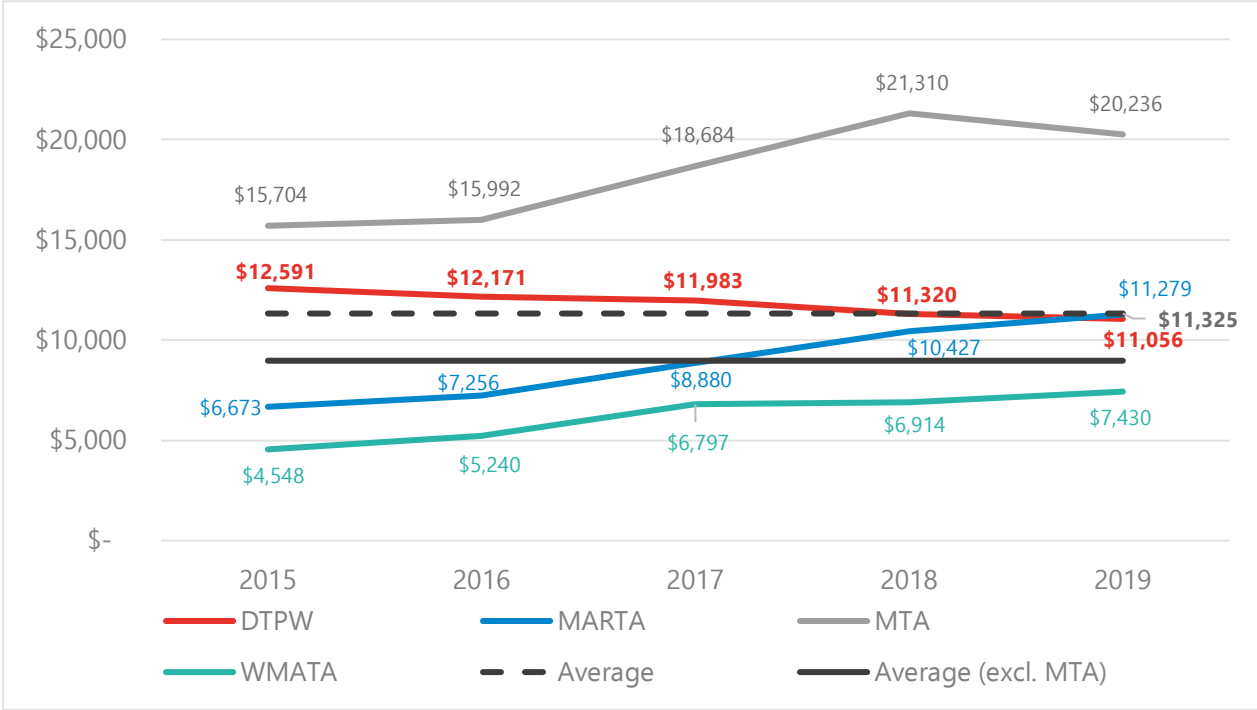
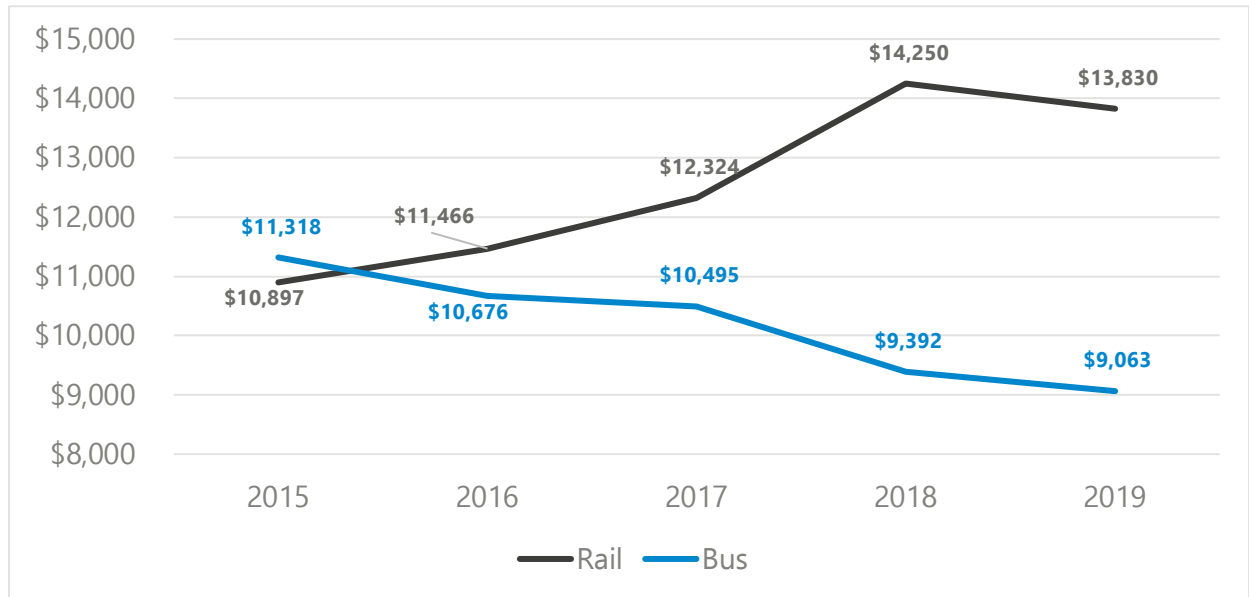


Figure 19: Overtime Cost per Employee, 2015-2019



The decline in overtime cost per employee was driven by a substantial reduction in overtime cost per employee in bus, as Figure 20 demonstrates. This was parallel to an overall reduction in overtime cost by bus from \$29.2 million in FY15 to \$24.7 million in FY19, whereas rail experienced an increase in overtime cost from \$6.7 million in FY15 to \$8.9 million in FY19.



**Figure 20: DTPW Overtime Actuals per Employee, 2015-2019**

### 3.3.3 Per Vehicle

**Finally, DTPW is roughly average in terms of average annual overtime cost per vehicle, though it is higher than both MARTA and WMATA.** As Figure 21 displays, the Team benchmarked overtime cost per vehicle operated in maximum service (VOMS).

**There is some difference between DTPW's performance versus peers on bus versus rail.** As Figure 22 demonstrates, DTPW's bus mode has the highest overtime cost among all peers per vehicle operated in maximum service, including MTA, but it has recently improved from its higher levels in 2015-2016. On rail, as displayed in Figure 23, DTPW's overtime cost per vehicle is lower than MTA, but it has increased substantially from its FY15 level, and it is substantially higher than both MARTA and WMATA. In general, as may be expected given the significantly lower number of vehicles, overtime cost is higher per vehicle on rail than on bus.

Figure 21: Average Overtime Cost per Vehicle Operated in Maximum Service (VOMS), 2015-2019

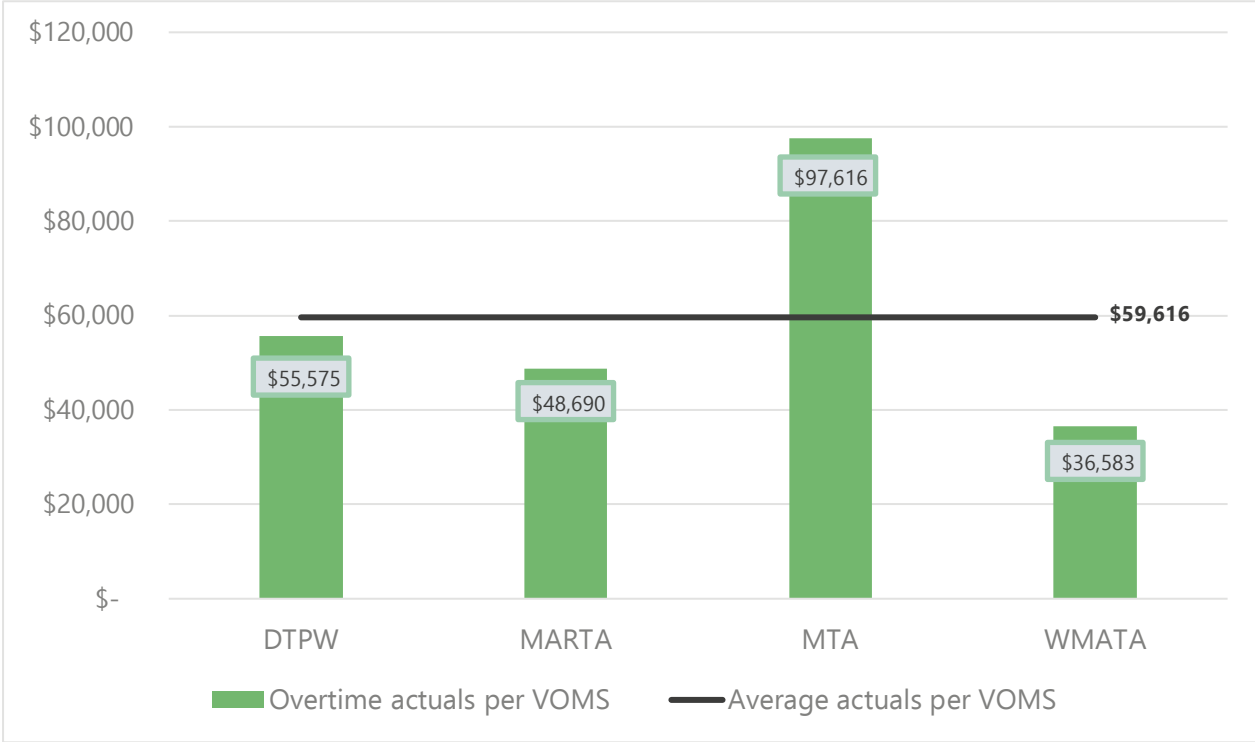


Figure 22: Bus Overtime Cost per Vehicle (VOMS), 2015-2019

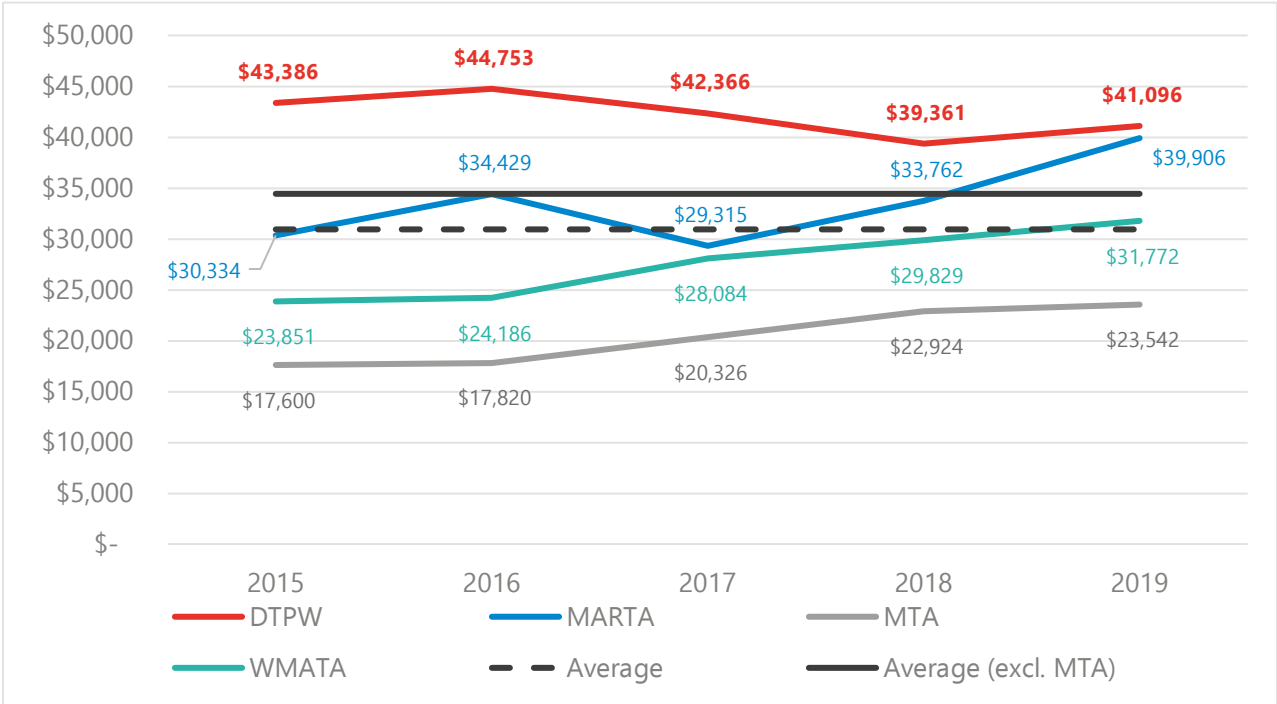
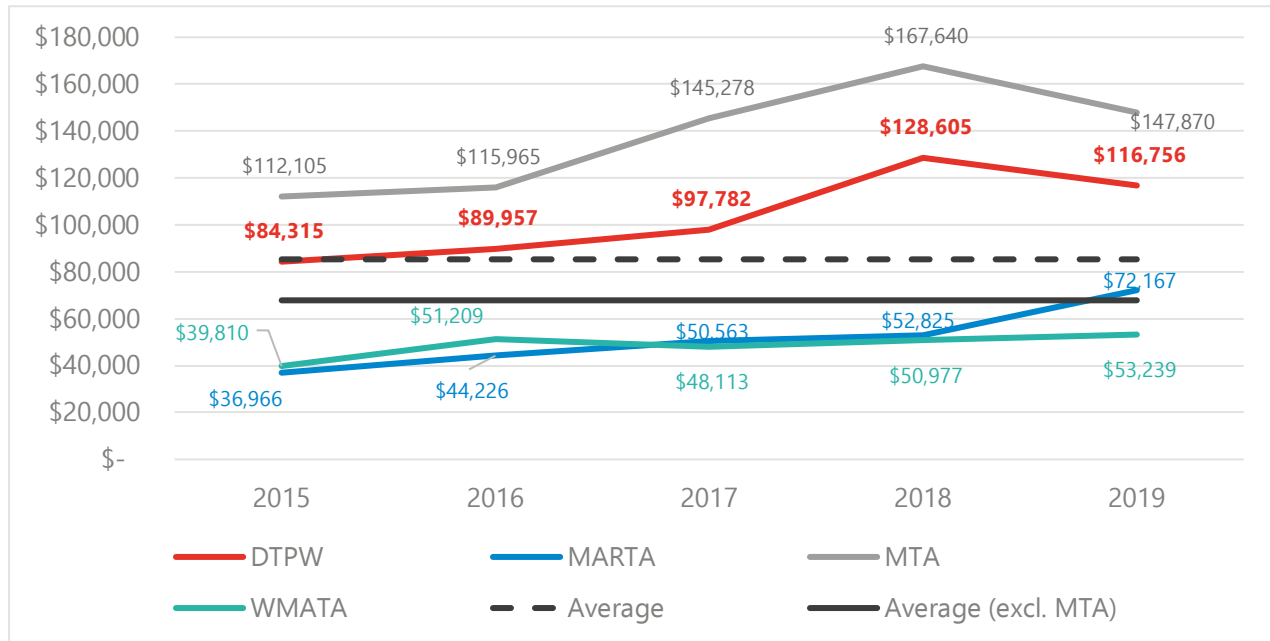


Figure 23: Rail Overtime Cost per Vehicle (VOMS), 2015-2019



### 3.4 Benchmarking Summary

**While DTPW has generally gone substantially overbudget on overtime cost, such a phenomenon is not uncommon across peers.** However, MTA and especially WMATA have performed markedly better than DTPW in budgeting appropriately between 2015-2019. This is evidenced by average cost overruns of 19% and 5% respectively, versus DTPW's average overtime cost overrun of 41% over the same period.

**There are a variety of drivers that may help to explain DTPW's overtime cost overruns, such as scheduled overtime, aging vehicle fleets, and restrictive collective bargaining agreements.** Some of these are discussed in the following section and may similarly affect peer transit agencies. Nevertheless, DTPW has also made progress in reducing overtime budget and cost on the bus side between FY15 and FY19, though overtime budget on rail has remained constant (at \$6 million between FY16 and FY19) while overtime actuals on rail have increased.

**On an overtime cost per vehicle revenue mile, per revenue hour, per employee, and per vehicle basis, DTPW almost universally performs better than MTA but worse than WMATA and MARTA.**

Cost of living may explain much of the difference in MTA's cost profile versus other peers.<sup>1</sup> Therefore, MARTA and WMATA may represent more comparable peers to DTPW, indicating that DTPW should consider benchmarking its overtime cost against these latter two transit agencies.

<sup>1</sup> The cost of living in New York is over 50% higher than Miami according to one index. <https://www.bestplaces.net/cost-of-living/miami-fl/new-york-ny/50000>.

## 4. Overtime Root Causes and Best Practices

The Team used its interviews with stakeholders at DTPW, MARTA, and WMATA to analyze the causes of overtime use and best practices in managing both overtime budget and actual costs.

### 4.1 Overtime Budgeting

**All three agencies that the Team spoke with, DTPW, WMATA, and MARTA, indicated that they purposely limit the growth in overtime budget as a way of discouraging its use.** This is likely one of the main drivers of repeated overtime cost overruns at all agencies, as it is by design.

**DTPW finance staff are attempting to incentivize the efficient use of overtime by limiting its budget.** DTPW staff mentioned that they are aware of the overtime cost overruns and that increasing budget could reduce the variances to budget; however, they are consciously choosing not to increase overtime budgets as there is a perception that operations and maintenance divisions would use up any overtime budget that is given to them (and more).

**The practice of constraining overtime budget growth and absorbing the cost overruns instead of raising the subsequent year's budget appears to be a common way of discouraging the use of overtime across transit agencies, even if it produces variances of actuals to budget.** WMATA also confirmed that it uses a similar practice to DTPW, where management does not fully budget for expected overtime cost, as a way of discouraging overtime use by managers. Lastly, MARTA indicated that it uses the prior year's budget as next year's base instead of using actuals from the prior year.

### 4.2 Scheduled Overtime

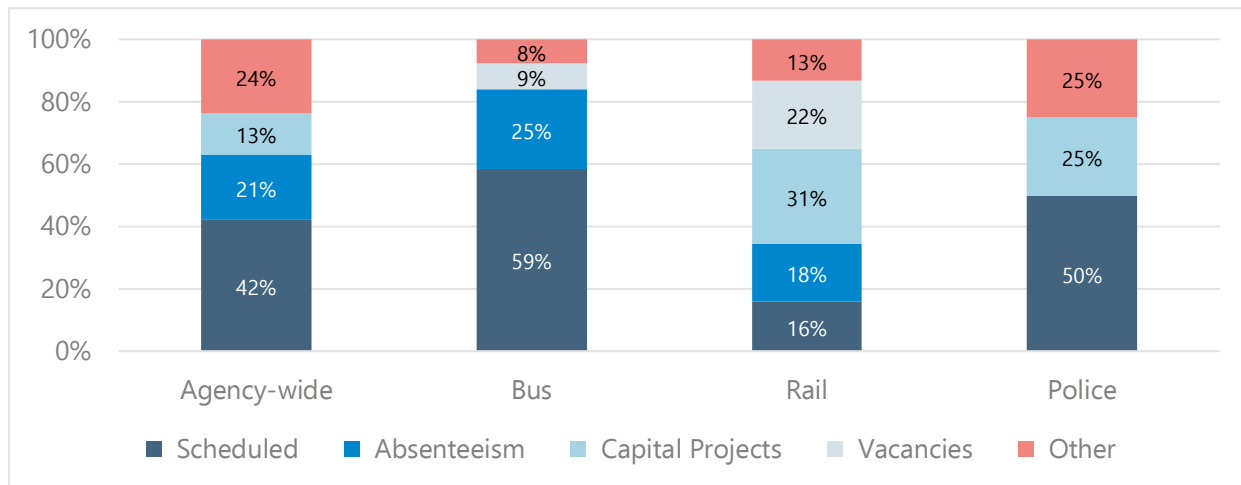
**The Team heard from all interviewed transit agencies that scheduled overtime represents a major driver of overtime budget and cost, and scheduled overtime is seen as a necessary use of overtime spending:**

- **At DTPW, bus operators have 43-hour workweeks, meaning that three hours of overtime is already built into the typical bus operator's schedule.** DTPW's extraboard pool also includes two hours of guaranteed overtime per operator.
- **At MARTA, the biggest single root cause of overtime use is scheduled overtime.** This is evidenced by a breakdown of overtime cost by major category. MARTA began performing an exercise to identify root causes of overtime use by surveying managers within each department, which is discussed in a subsequent section. Figure 24 displays the results of the root cause survey analysis for FY21 through mid-March. As displayed, scheduled overtime is estimated to represent 42% of total overtime cost, or \$11.5 million out of an estimated \$27.2 million annualized overtime cost for FY21.
- **At WMATA, the agency has a rough dollar "breakpoint" of \$80-90 million (WMATA's total FY19 overtime cost was \$89.9 million), above which the agency believes it would make sense to hire additional operators instead of using scheduled overtime.** While WMATA does not track the root causes of overtime use as MARTA does, WMATA does estimate its scheduled



overtime needs based upon its service requirement and manpower availability, which is in turn driven by historical absenteeism, staffing vacancies, and any efforts that are ongoing to reduce these two staff availability factors.

**Figure 24: MARTA Overtime Cost Breakdown by Root Cause\***



\*Based on surveys conducted with managers for pay periods ending on 7/3/20 through 3/12/21.

### 4.3 Vacant positions and availability of staff

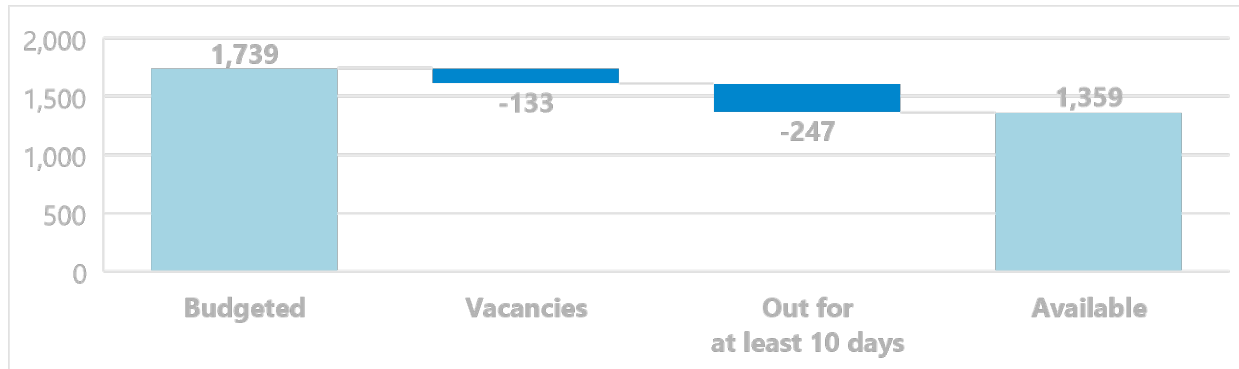
**Overtime is also driven by vacant positions and actual availability of staff in filled positions.** Figure 25 displays a breakdown from the monthly manpower report that DTPW Bus Operations produces. As the figure illustrates, less than 80% of the 1,739 budgeted bus operator positions were available for duty in April, requiring the use of overtime, either scheduled or otherwise, to meet service requirements. DTPW notes that the department routinely does not have enough bus operators to meet service needs.

**DTPW has also noted that a large number of rail technicians have retired and hiring outside technicians with minimum qualifications is hard due to constraints imposed by the County's 13(c) agreement.** The department finds that many internal candidates for the rail technician positions are former bus operators that either drop out of training after a number of months and/or do not develop the requisite skills to perform more complex technical tasks, thereby requiring the use of overtime from existing technicians.

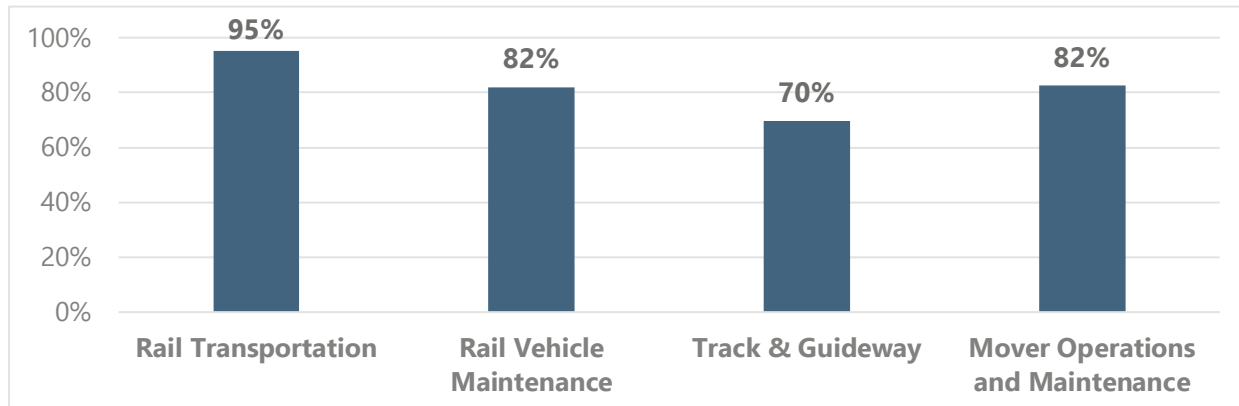
**DTPW's high vacancy rate in rail is reflected in Figure 26, which shows the percentage of budgeted positions that are filled in rail services, by division.** Track & Guideway has the highest vacancy rate, at 30%, while rail transportation (including train operators) has the lowest vacancy rate at 5%.

**Attrition drives vacancies to a certain extent as well.** For instance, at DTPW there were 32 attritions among bus operators in January through March 2021, while only 24 are currently in training, indicating that the division needs to work on recruiting and training enough operators to fill vacancies and reduce dependence on overtime from existing operators.

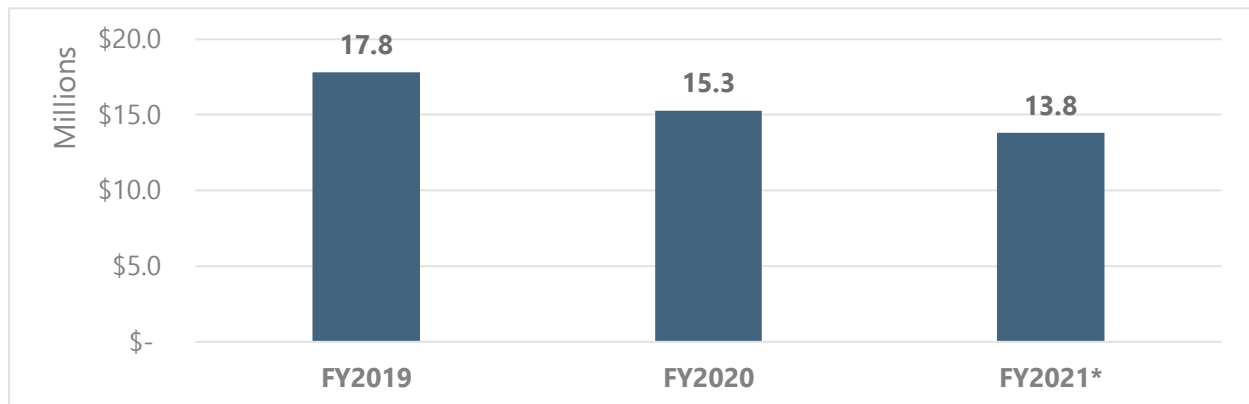
**Figure 25: DTPW April 2021 Bus Operations Manpower Availability Report – Operators**



**Figure 26: DTPW Rail Services April 2021 Manpower Vacancy Report – % Budgeted Positions Filled**



**Vacant positions and lack of available manpower were cited as reasons for high overtime use by MARTA as well.** MARTA indicated that it made dramatic increases in bus operator hiring in FY18-19, which reduced the need for overtime, as reflected in lower overages on overtime budget and lower overtime spending generally (see Figure 27). However, MARTA also notes that availability of existing staff (i.e. due to absenteeism) was also the second-biggest driver of overtime use agency-wide, after scheduled overtime.

**Figure 27: MARTA Annual Bus Operations Overtime Cost\***

\*Reflects projection based upon partial-year actuals through March 12<sup>th</sup>, 2021

**In general, all transit agencies acknowledged that vacancies could drive the need to use overtime; availability of staff due to absences appears to play a role as well.** As a result of high vacancies, MARTA's CFO decided to reallocate savings due to vacancies from the salary line item to the overtime budget, making budgets more accurate for both categories. WMATA also indicated that it expects any budget overruns on overtime cost to be made up through higher vacancy savings on the salary side. Therefore, the ability to hire sufficient staff to fill vacant positions and to hire qualified technicians for positions with minimum qualifications may drive future usage of overtime.

#### 4.4 Labor agreements

**Labor union agreements have also played a role in each transit agency's ability to manage overtime cost.** As mentioned earlier in the report, DTPW attempted to reduce the "platform hours" for many routes from 43 hours per week for bus operators to 40 hours. However, TWU Local 291 went to arbitration with DTPW over a previous agreement that purportedly guaranteed 43 hours and therefore three hours of overtime per week. DTPW was subsequently required to compensate bus operators for overtime backpay, which played a role in the overtime cost overruns in recent years. As discussed above, DTPW's 13(c) agreement has also hindered it from being able to fill technical positions with outside candidates, though the Team understands that it has recently had success in negotiating with the union to institute minimum qualifications for certain positions.

**WMATA has had more success in negotiations with its union over its labor agreement.** The agency negotiated contractual relief to address operator shortages, enabling the direct hire of rail operators and station managers from outside the agency; previously, WMATA could only hire bus operators that wanted to transfer into the rail division. This may have played a role in reducing overtime usage, given its ability to quickly fill operator and station manager vacancies.

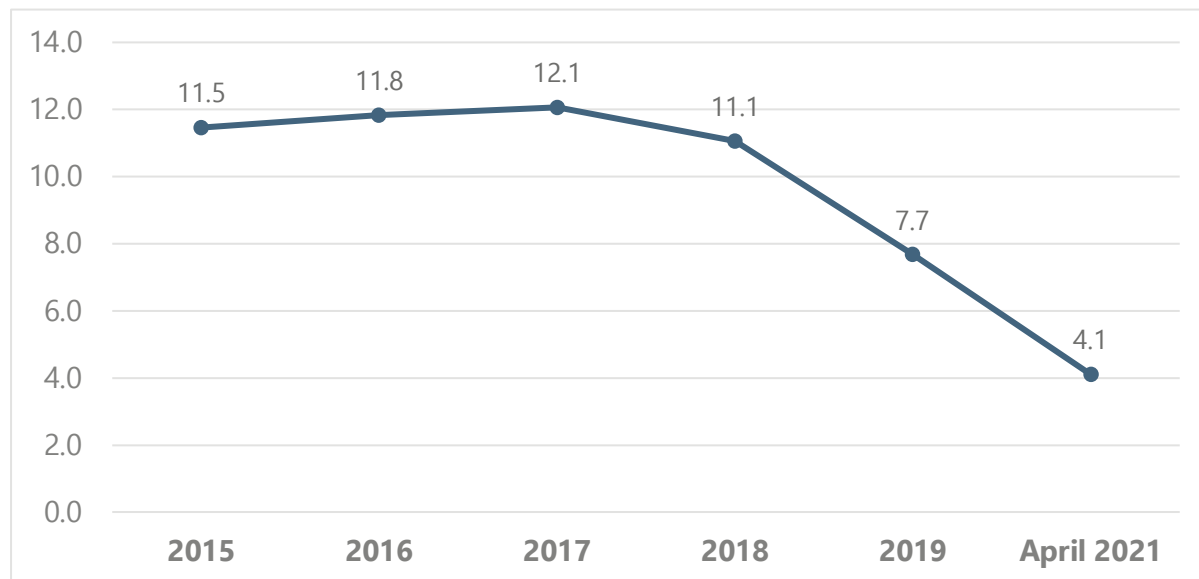
**MARTA indicates that there is no mandatory overtime in its bus and rail labor agreements.** However, its staff receive overtime shifts based upon seniority.

## 4.5 Fleet and infrastructure age

**DTPW states that the old age of its bus fleet was also a driver of overtime use in prior years.** The average bus was nearly 12 years old at the beginning of our review period (FY15-16), which led to more frequent breakdowns and maintenance requirements, causing overtime use in Bus Operations. For instance, bus operators are required to stay with their vehicle when it breaks down until a new one arrives with another operator; as a result, DTPW could be paying both operators overtime if they have gone over their allotted shift time. Bus Maintenance may have also been using more overtime to perform reactive maintenance.

**As mentioned earlier, DTPW expects that its new CNG bus fleet should mitigate the use of overtime because of fewer breakdowns and reactive maintenance requirements.** Nearly 70% of the active fleet now consists of the new CNG buses, and the average fleet age is now 4.1 years.<sup>2</sup> Figure 28 displays average bus fleet age between 2015 and 2021 for DTPW. DTPW also notes that the Metrorail track is over 35 years old, and DTPW is working to replace the entire system with new rail infrastructure. MARTA, however, indicated that fleet life is somewhat of an issue for the agency, but it is not considered a major one, and overtime causes such as mechanical failures were not cited as one of the major drivers of overtime in the overtime categorization surveys MARTA conducts with its managers.

**Figure 28: Average Bus Fleet Age, 2015 - 2021**



## 4.6 Capital projects

**The last major factor in managing overtime cost that the Team heard was in relation to the accounting process for labor costs associated with capital projects.** At DTPW, the arrival of new buses

<sup>2</sup> DTPW April 2021 Fleet, Facilities Report to CITT.

has led to more training and therefore more overtime. This charge is ultimately booked against capital projects, but it is logged as overtime and therefore appears as part of the overtime actuals that are reported. The same is true for acceptance of the new Hitachi rail vehicles. As with most transit agencies, DTPW expects that federal grants or other funding sources will reimburse the cost of overtime for capital project-related costs. The same is true for state-funded bus routes, which incur overtime costs that are later reimbursed by the state. DTPW's previous accounting system did not allow for netting out of the reimbursable overtime from the overtime cost line item. A new ERP and general ledger system is expected to solve for this issue beginning in January 2022.

**MARTA indicates that it faces a similar accounting challenge.** For instance, maintenance-of-way track work that is capitalized may be charged to overtime but not explicitly budgeted as such. The same is true for bus bridges that may be used during rail maintenance, which would be expensed as overtime but can later be allocated to capital projects.

**Therefore, a certain amount of overtime cost overrun may be expected due to capital projects, especially in years when significant capital work is performed that requires the use of overtime labor hours.** However, this cost is eventually correctly classified and should no longer pose an accounting challenge for DTPW beginning in 2022.

## 5. Recommendations

Below, the Team presents potential solutions to reducing overtime costs based upon the above analysis and interviews with the three relevant transit agencies.

### 5.1 Tracking and approving overtime usage

**The Team notes that MARTA has been able to reduce overtime cost significantly in recent years (for instance, as illustrated in Figure 27 for bus operations) by actively tracking the drivers of overtime usage.** MARTA launched a task force in 2019 to document the root causes of overtime and enhance visibility into these, through the publication of relevant data. One of the main initiatives was for MARTA's finance team to send data on overtime hours by cost center to each relevant manager, asking them to allocate these aggregate overtime hours to 10 root causes: scheduled overtime, absenteeism, vacancies, capital projects, training, mechanical failures, special events, productivity inefficiencies, regulatory compliance, unplanned incidents, and unexplained. While MARTA admits it is not an exact science, MARTA's finance team felt as though cost center managers would have a reasonable idea of how overtime was being used, especially if prompted to perform this allocation exercise routinely. MARTA has been administering an online web form to periodically perform this task for the last 12-18 months.

**MARTA also believes that the transparency regarding causes has enabled operational managers to work on mitigants to overtime usage, as there is now a culture of managing overtime according to the root causes.** The result of MARTA's effort is evident in Figure 24. MARTA's finance team observed that many managers were surprised by the results, as there was an earlier perception that vacancies and absenteeism were the main drivers of overtime, and prior efforts had focused on absenteeism in particular. The surveys demonstrated that scheduled overtime was a bigger driver than both others.

**Like MARTA, WMATA believes that active overtime monitoring—and focused management oversight—have been mostly successful practices, and intentional underbudgeting has forced department managers to use and justify overtime more carefully.** WMATA also recently introduced an “Overtime Management Standard Operating Procedure” to provide clear guidelines on fiscal responsibility and accountability for overtime utilization. The guidelines mandate, for instance, that non-operator overtime hours must be requested in advance, approved, reviewed, and audited according to the overtime policy to minimize overruns. All departments must apply a week ahead of time to ask for additional overtime.

## 5.2 Change in labor agreement policies

**DTPW suggested a variety of changes to its current labor agreement that could reduce overtime:**

- Among them are **renegotiating the overtime rules** so that overtime begins after 40 hours of work per week instead of eight hours per day, though the Team notes that WMATA also defines overtime as anything after eight hours of work in a day.
- Second, DTPW recommends that they **stop guaranteeing overtime** on the extraboard pool, as extraboard operators are currently guaranteed two hours of overtime per week even if not used.
- Third, DTPW recommends that the **department stop paying overtime on vacation and sick leave**; however, the Team notes that WMATA also follows this policy.<sup>3</sup>
- Lastly, DTPW recommends **renegotiating the 13(c) requirement that hinders it from using minimum qualifications to hire outside candidates for rail technician positions**. This may prevent the need to use overtime for existing technicians.

**WMATA also renegotiated with its union on policies regarding unexcused absences.** Given that absenteeism is considered one of the major drivers of overtime use, WMATA instituted a rule that if a staff member had three or more unexcused absences per year, this would count toward discipline and eventually termination.

## 5.3 Filling vacancies

**Lastly, as mentioned earlier, all transit agencies acknowledged that vacancies can drive the need to use overtime and filling them could reduce overtime dependence.** DTPW acknowledges that it must work to fill bus operator vacancies more quickly. MARTA made a concerted effort in FY19-20 to hire more bus operators, and it believes this hiring initiative had an impact on the need for overtime.

**As WMATA noted, there is a balance between hiring additional staff and using overtime, and it attempts to strike that balance by reinvesting vacancy savings into overtime budget.** Nevertheless, as DTPW notes, it frequently does not have enough bus operators to make service, indicating that vacancies, along with availability of operators, may be a major driver of overtime usage.

<sup>3</sup> WMATA noted that, to the extent scheduled overtime is included in an operator’s “runpay”, it is also paid out on vacations, holidays, and sick leave.

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