

Peer Benchmarking of DTPW Overtime Cost, 2015 - 2019

Comparison of DTPW versus MTA, WMATA, and MARTA
July 9th, 2021

Objectives and Methodology

Objectives

1. **Benchmark DTPW transit on overtime cost overruns** to determine how annual cost overruns versus budget compare to peer transit agencies.
2. **Benchmark DTPW transit on overtime cost levels** using NTD data to determine overtime cost levels per unit of service or other indicator, compared to peer agencies.
3. **Perform internal diagnostic of overtime cost drivers** at DTPW and at peer systems to determine overtime cost management practices and constraints across agencies.

Methodology

1. **Reviewed overtime budget and actual costs** for DTPW, MTA (New York City), WMATA (Washington, DC), and MARTA (Atlanta) and analyzed agency-level and mode-specific overruns for bus and rail; Metromover is presented on a standalone basis (without peer comparison) due to lack of data on comparable peers (e.g., Jacksonville, Detroit).
2. **Analyzed DTPW transit's performance versus peers** on overtime per revenue mile, revenue hour, employee, and vehicle to determine whether cost levels are appropriate.
3. **Interviewed staff at DTPW, MARTA, and WMATA** and obtained data from MARTA on overtime drivers to determine best practices and constraints on overtime management.
4. **Drafted recommendations** on overtime cost management for DTPW.

Agenda



1. Overtime Cost Trends at DTPW transit

2. Overtime Cost Overruns versus Peers

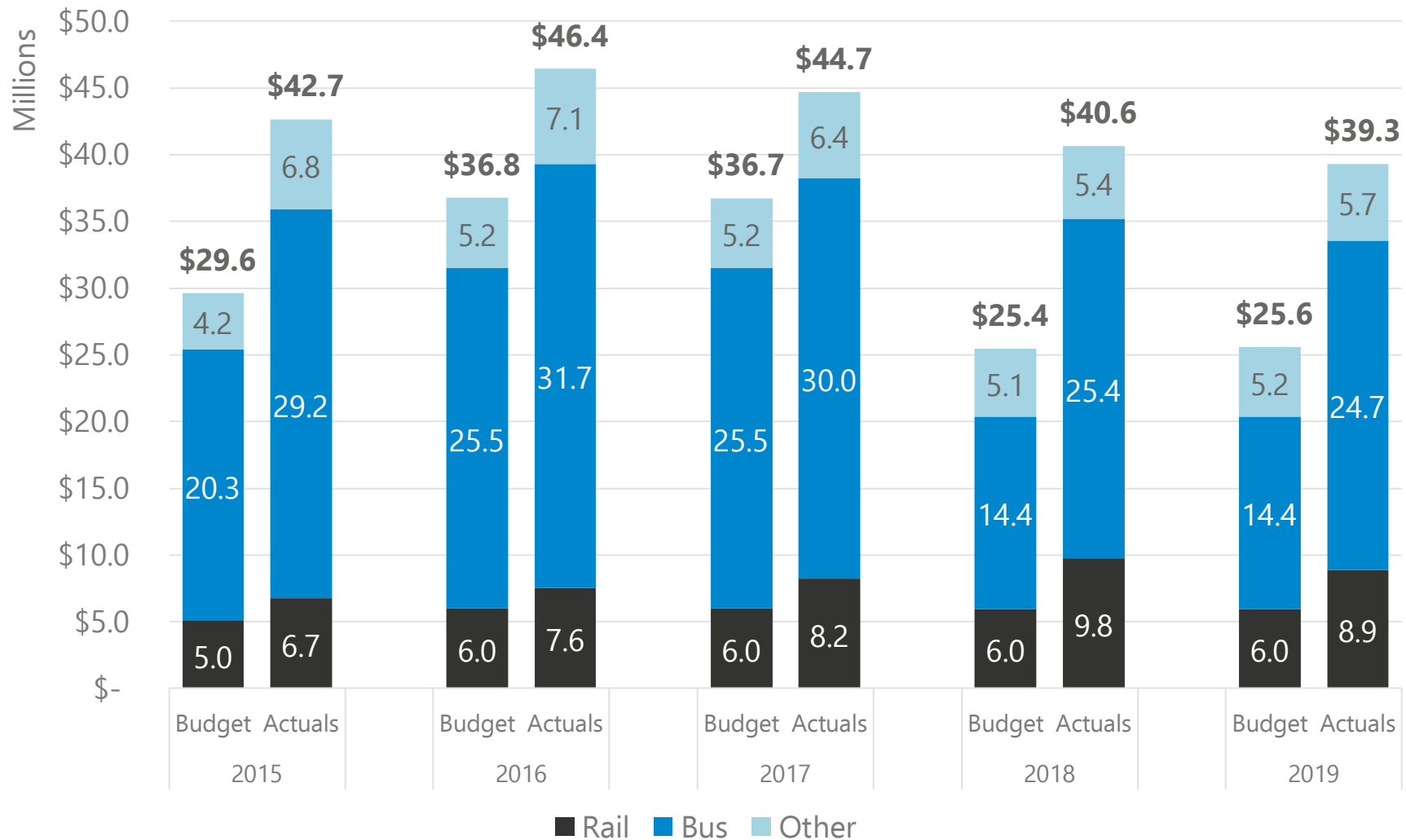
3. Overtime Cost Benchmarks versus Peers

4. Diagnostic of Overtime Cost Drivers

5. Recommendations

6. Appendix

DTPW transit's overtime budget and cost have both decreased from 2015 to 2019; however, rail overtime cost increased (\$6.7M to \$8.9M)



Source: DTPW reporting to CITT



Agenda



1. Overtime Cost Trends at DTPW

2. Overtime Cost Overruns versus Peers

3. Overtime Cost Benchmarks versus Peers

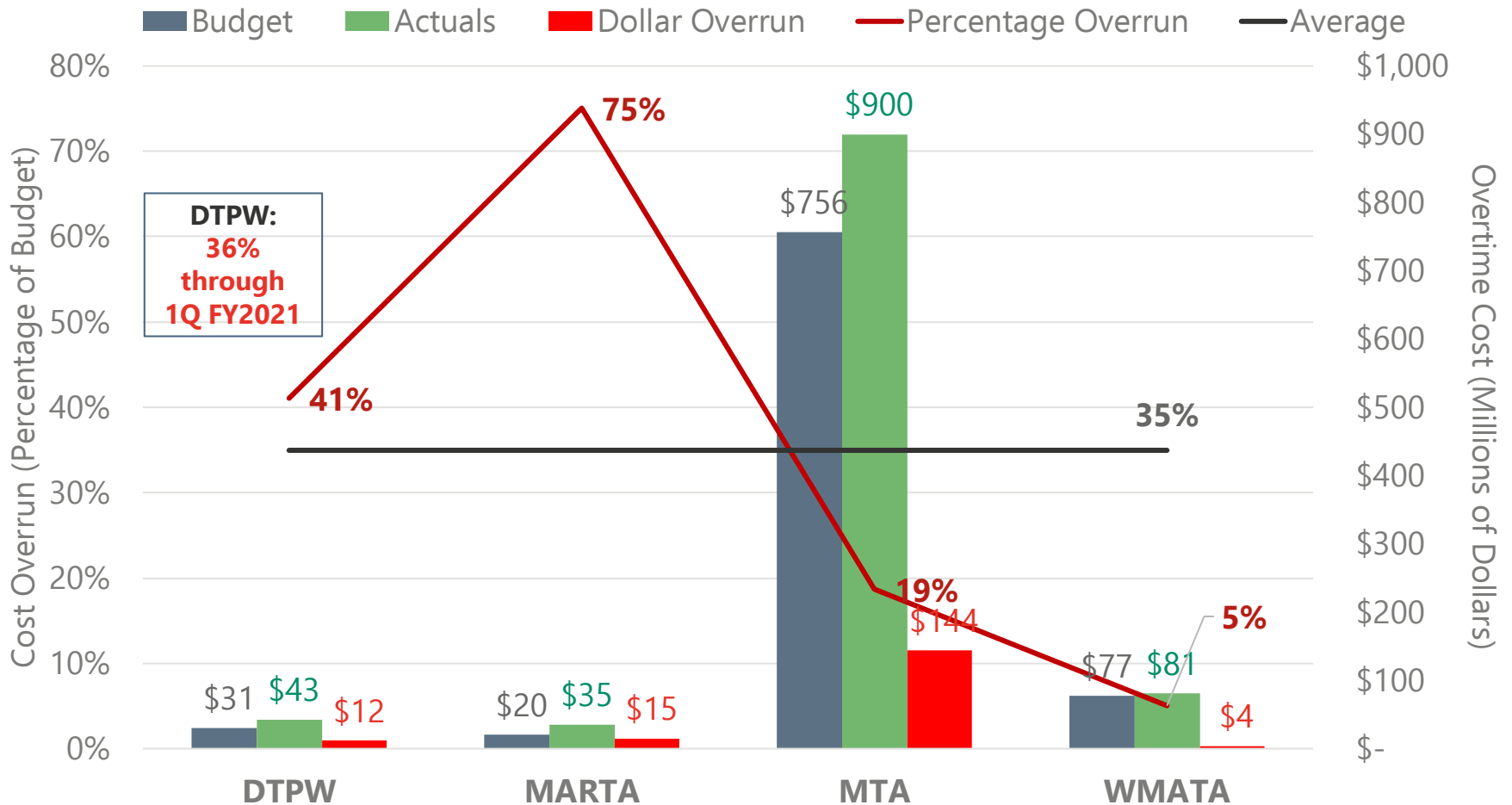
4. Diagnostic of Overtime Cost Drivers

5. Recommendations

6. Appendix

All agencies went overbudget on overtime, though DTPW's average overtime cost overrun of 41% is slightly higher than average of 35%

Average Annual Overtime Cost Overrun (Budget vs. Actuals), 2015-2019

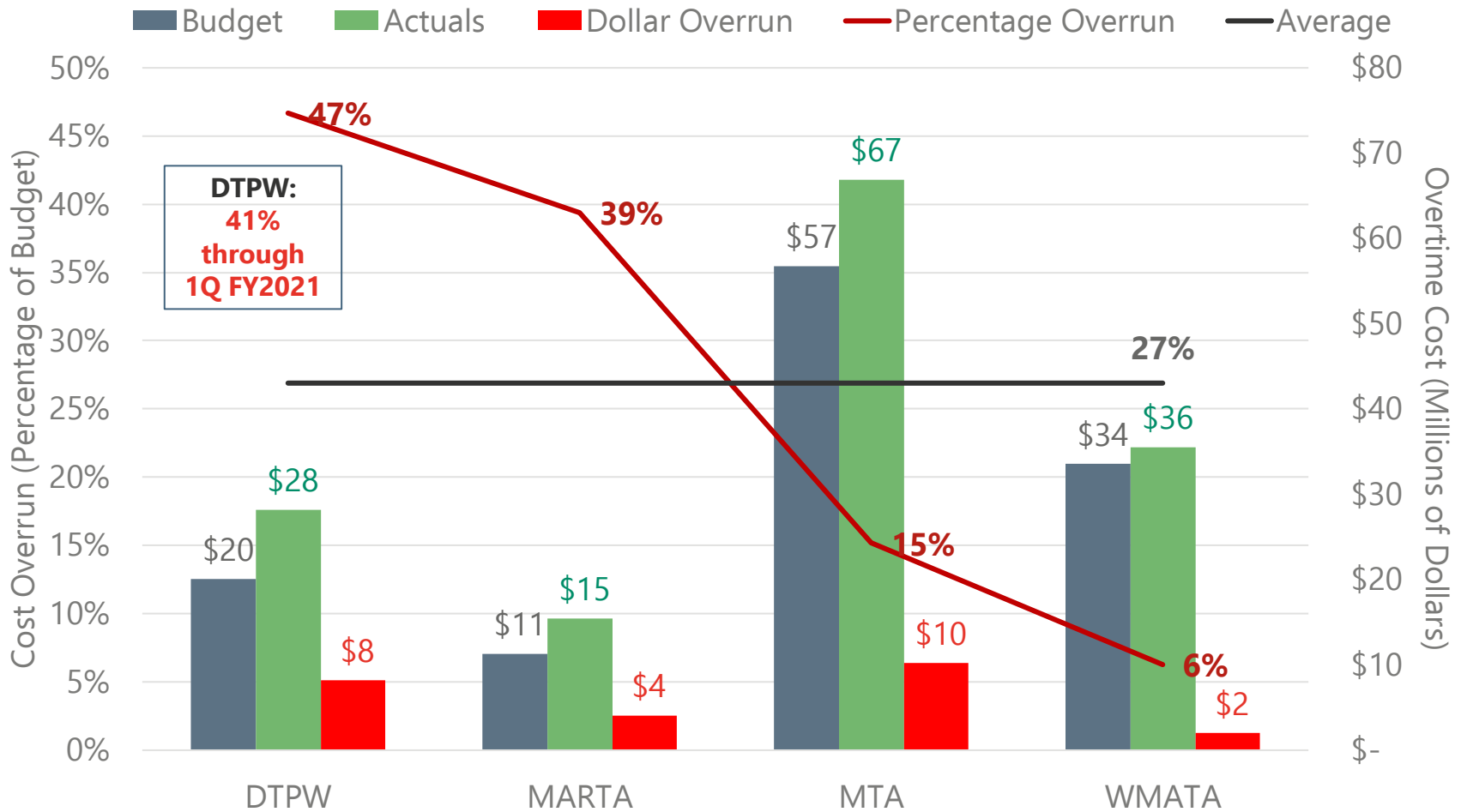


Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports



For bus, DTPW has the highest overtime cost overruns as a percentage of budget among all peer agencies benchmarked, including MARTA

Average Annual Bus Overtime Cost Overrun (Budget vs. Actuals), 2015-2019

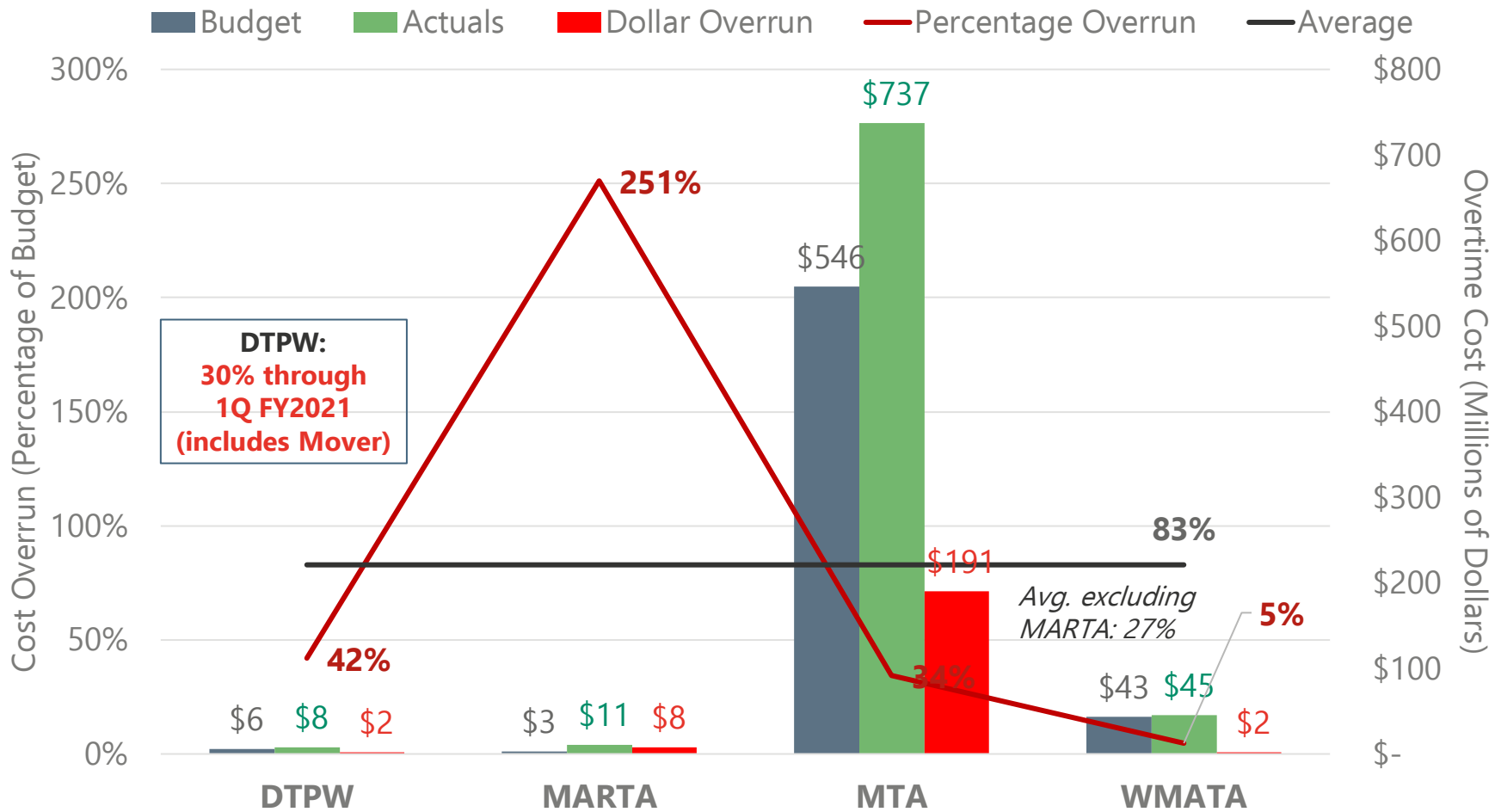


Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports



For rail, there are similar trends to agency-wide overtime cost; DTPW trails MTA and WMATA but has lower overruns versus MARTA

Average Annual Rail Overtime Cost Overrun (Budget vs. Actuals), 2015-2019



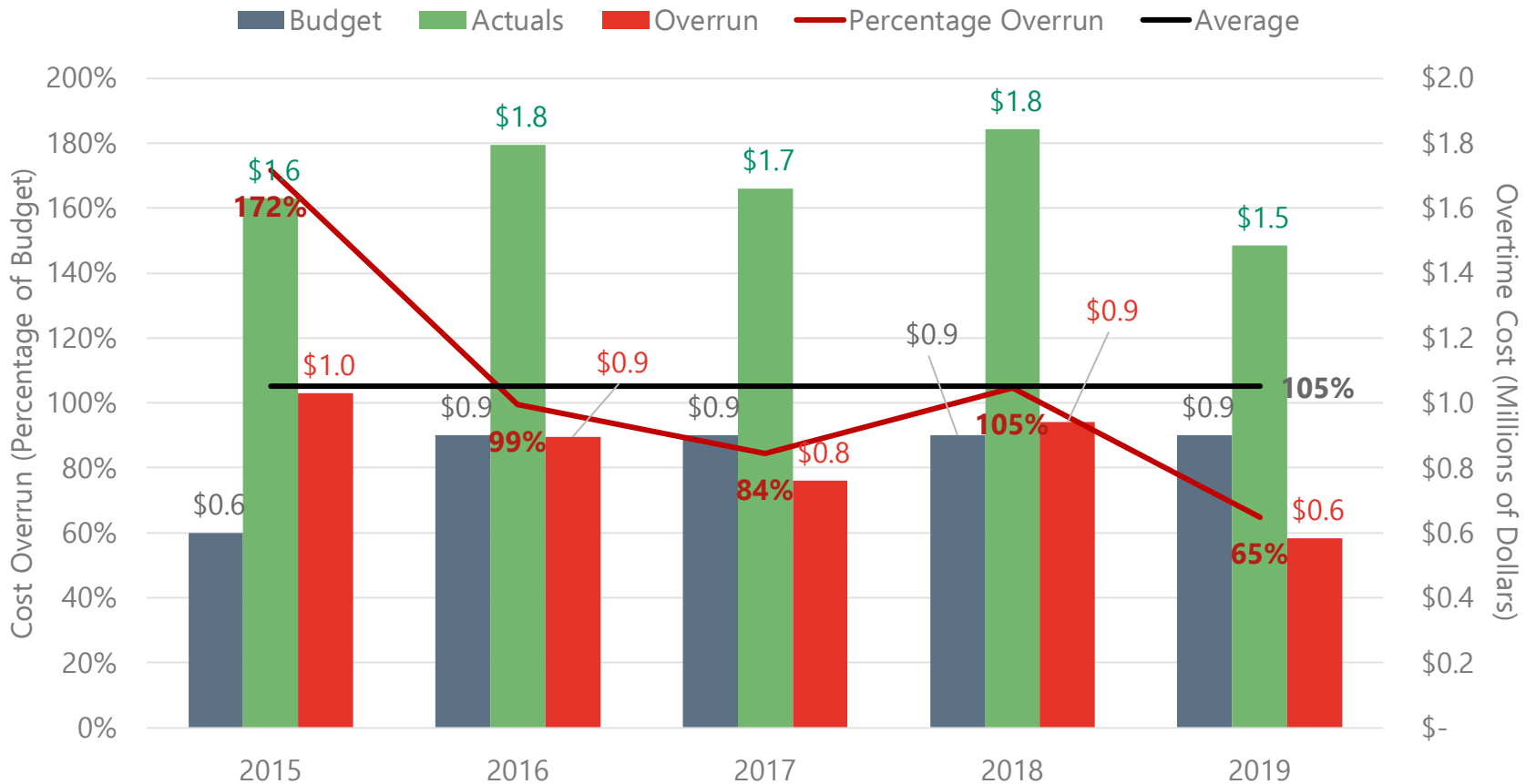
Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports



On Mover, DTPW has spent roughly double the amount that it budgeted for overtime each year, with some improvement in 2019

Comparable transit agencies, such as Las Vegas Monorail, Detroit People Mover, and Jacksonville Skyway, do not report sufficient data to make a comparison

Annual Mover Overtime Cost Overrun (Budget vs. Actuals), 2015-2019



Source: DTPW reporting to CITT

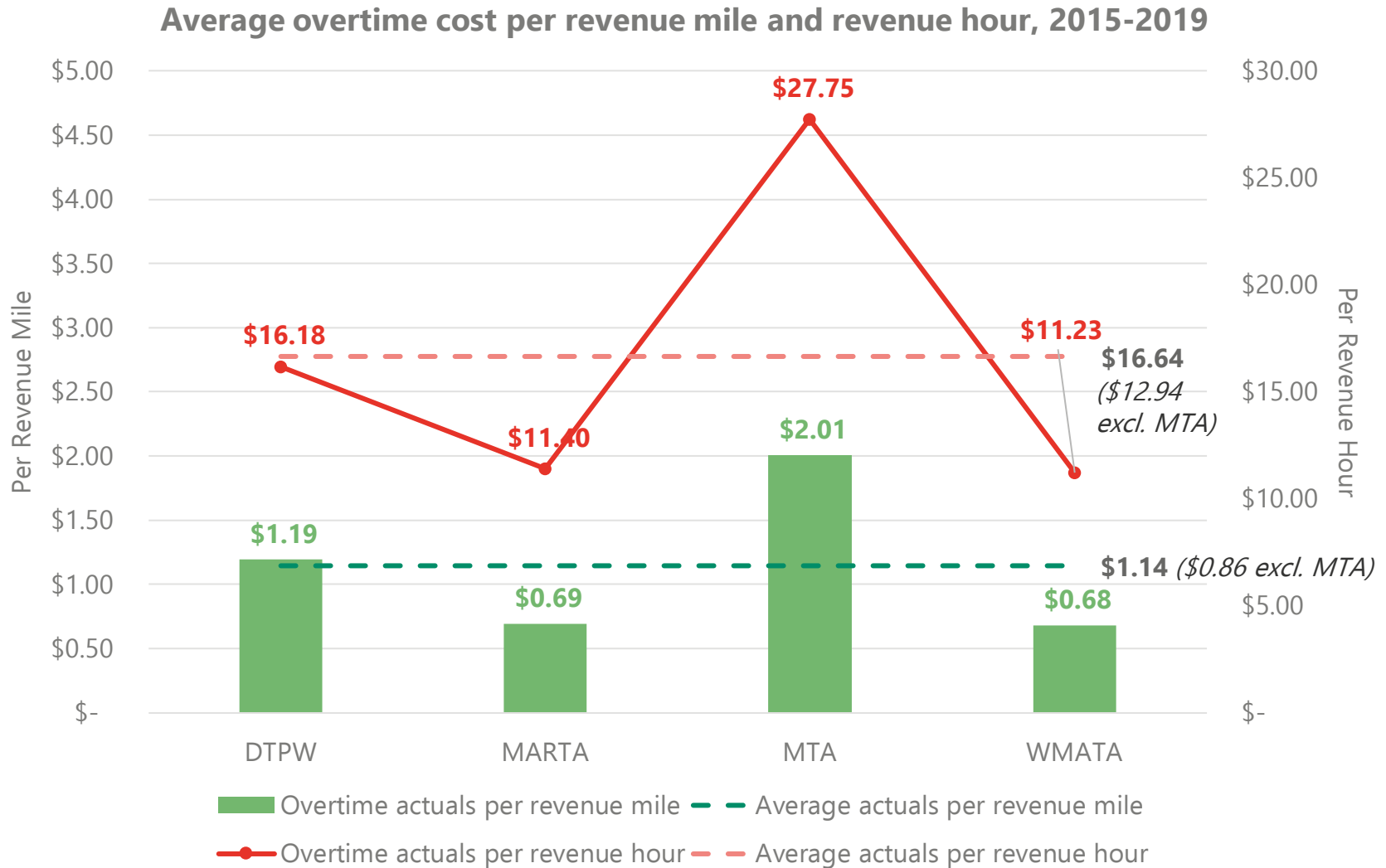


Agenda



1. Overtime Cost Trends at DTPW
2. Overtime Cost Overruns versus Peers
3. Overtime Cost Benchmarks versus Peers
4. Diagnostic of Overtime Cost Drivers
5. Recommendations
6. Appendix

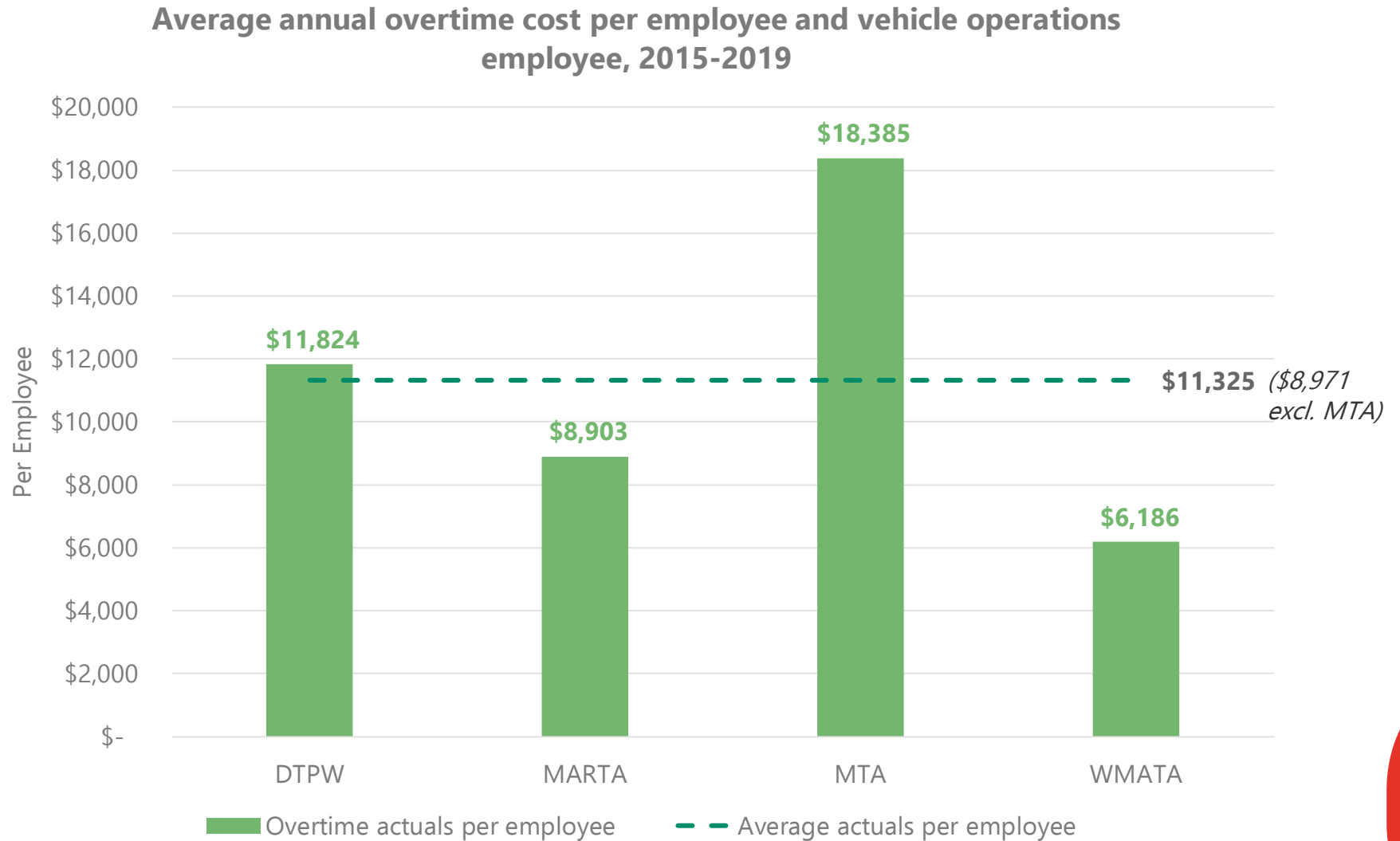
DTPW transit is average in overtime cost per revenue mile (\$1.19) and revenue hour (\$16.18), though above average if MTA is excluded



Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data
 Note: 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>. This may explain MTA's significantly higher cost, given figures are not adjusted for cost of living.



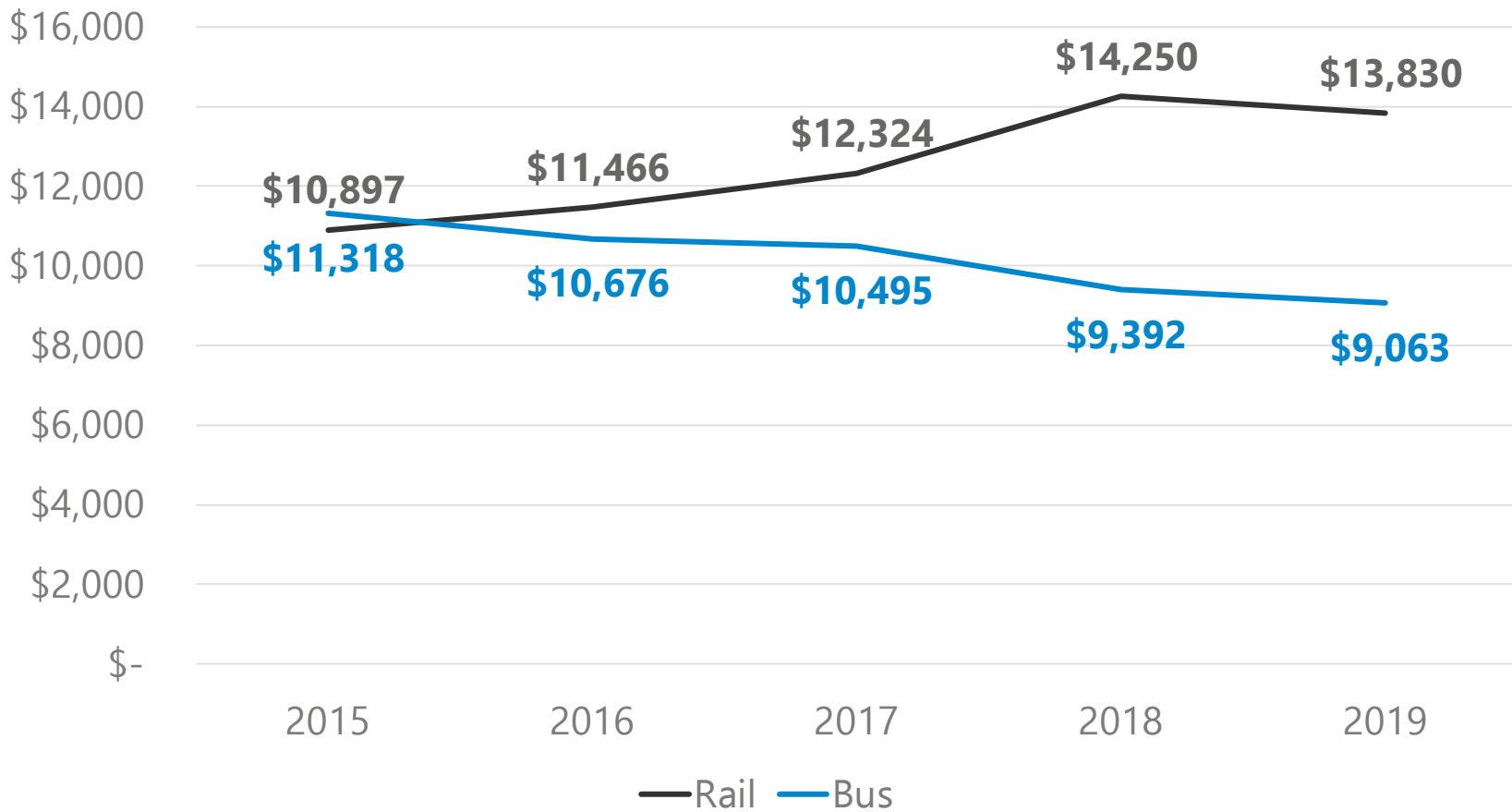
DTPW transit is average in overtime cost per employee, though it is above average if MTA is excluded



Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data

DTPW transit has improved overtime spend per employee, driven by bus, which has improved significantly at DTPW

DTPW overtime cost per employee, 2015-2019

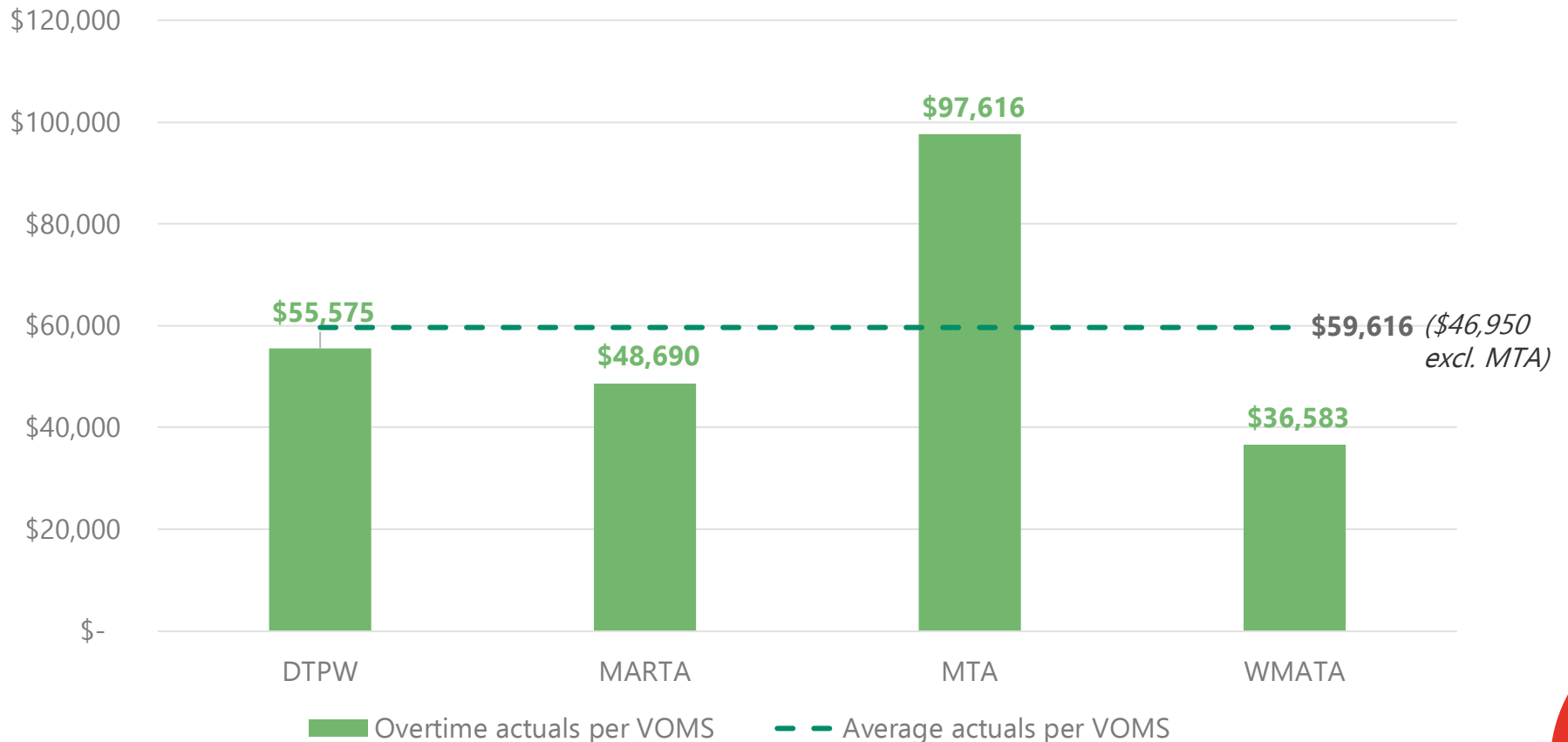


Source: DTPW reporting to CITT; NTD data



DTPW transit is roughly average in overtime cost per vehicle, though it is above average versus MARTA/WMATA (when MTA is excluded)

Average overtime cost per vehicle operated in maximum service (VOMS),
2015-2019



Note: Vehicles are defined as Vehicles Operated in Maximum Service (VOMS), as reported to NTD, given that agencies have differing practices on the number of vehicles held in inventory as spares, which may not be relevant for day-to-day operations

Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data

Conclusions from benchmarking analysis

- **DTPW transit's overtime cost** per unit of service, such as revenue mile, revenue hour, employee, and vehicle, **is roughly in line with the peer average** when considering overtime cost of MARTA, WMATA, and MTA
- However, **DTPW consistently spends more on overtime cost per unit than both MARTA and WMATA** both for rail and bus, which may be more comparable peers
- **Cost-of-living differences** between the Miami area and the New York metropolitan area **may explain much of MTA's higher cost versus DTPW**
- Nevertheless, **DTPW appears to have limited the growth in overtime cost per unit in recent years**, especially when considering bus, which saw overtime cost per employee decline from roughly \$11,300 in 2015 to about \$9,100 in 2019
- Overall, **DTPW may have room to reduce overtime cost** on a per unit basis to levels that are comparable to MARTA and WMATA
- This **must be further validated within DTPW** by further analysis of specific drivers of overtime cost versus peers; an initial diagnostic is performed in the following section

Agenda



1. Overtime Cost Trends at DTPW
2. Overtime Cost Overruns versus Peers
3. Overtime Cost Benchmarks versus Peers
4. Diagnostic of Overtime Cost Drivers
5. Recommendations
6. Appendix

There are five main drivers of overtime use, based upon interviews with DTPW, MARTA, and WMATA as well as supplementary data



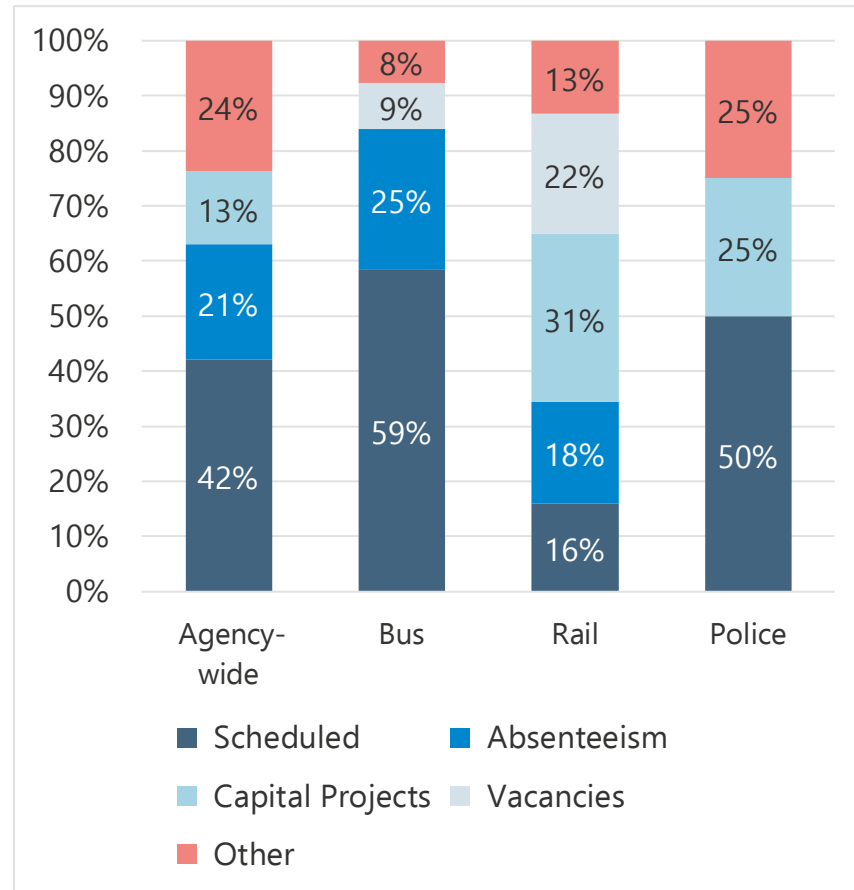
The above list is not exhaustive but attempts to cover the most significant root causes of overtime use

Scheduled overtime is the largest driver of overtime use; MARTA has run surveys with its managers to understand root causes of overtime

Major Observations

- At DTPW, bus operators have **43-hour workweeks**, meaning that **three hours of overtime is built into a bus operator's schedule** (two hours for extraboard operators)
- At MARTA, over **40% of all overtime hours are thought to result from scheduled overtime** usage (chart on right), based on surveys conducted by MARTA's Finance team with managers and directors every month
- WMATA believes in **using scheduled overtime up to a "breakpoint"** of \$80-90 million in total overtime spend, above which it seeks to hire additional operators

MARTA Overtime Root Causes



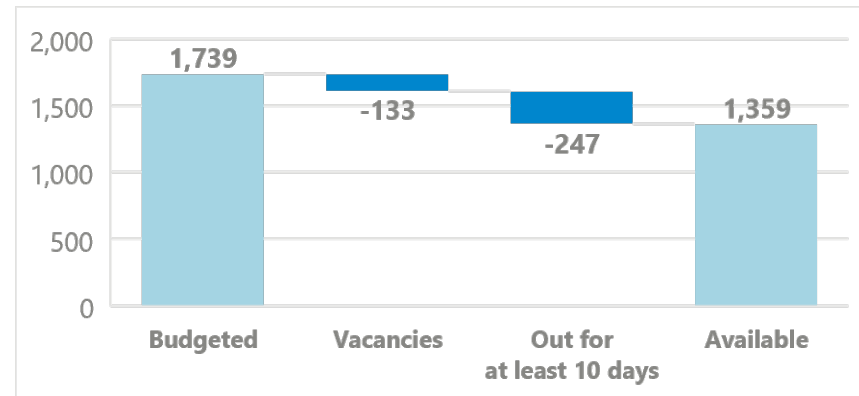
Source: Chart is based on MARTA surveys conducted with managers for pay periods ending on 7/3/20 through 3/12/21.

DTPW's overtime use is also driven by vacant positions and actual availability of staff in filled positions

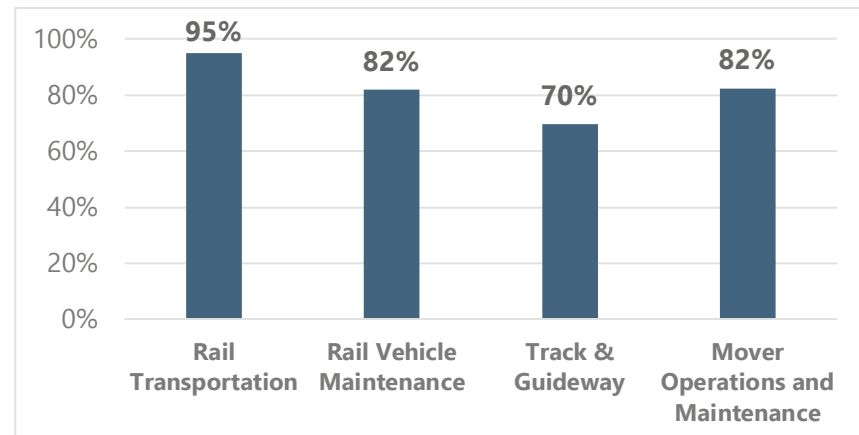
Major Observations

- At DTPW, **less than 80% of the 1,739 budgeted bus operator positions were available for duty in April** (chart on right)
- **There is a high vacancy rate for certain positions in rail** (e.g., 30% for track & guideway), partially because many rail technicians have retired, and outside hiring with minimum quals is difficult due to the County's 13(c) agreement
- **Attrition also drives vacancies**; there were 32 attritions among bus operators in January through March 2021, while only 24 are currently in training
- **MARTA also indicated that vacant positions and absenteeism drove high overtime**; it hired more bus operators in 2018-2019, which led to reduced bus overtime (\$17.8M in '19 to \$13.8M projected for '21)

Bus Operations April 2021 Manpower Availability (Staff)



Rail Services April 2021 Manpower Vacancy (% Budgeted Positions Filled)



Labor union agreements have also played a role in each transit agency's ability to manage overtime cost

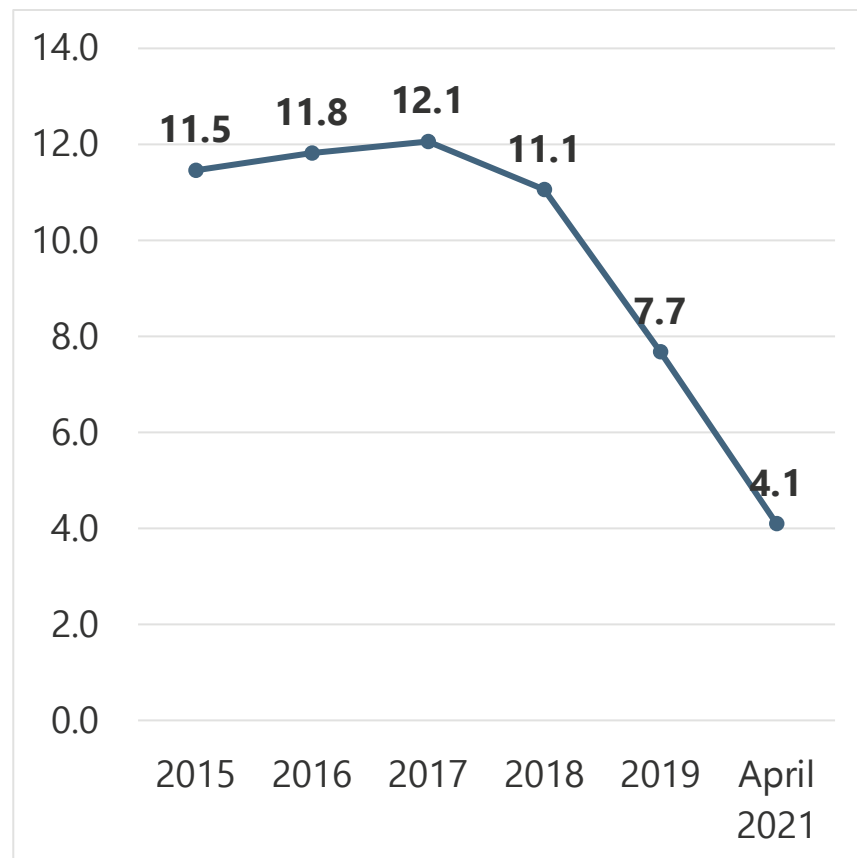
- DTPW attempted to **reduce the “platform hours”** for many routes from 43 hours per week for bus operators to 40 hours.
 - However, **TWU Local 291 went to arbitration** with DTPW over a previous agreement that purportedly guaranteed 43 hours
 - DTPW was subsequently required to **compensate bus operators for overtime backpay**
- **WMATA had more success in labor negotiations with its union;** it negotiated contractual relief to address operator shortages, enabling outside hire of rail operators and station managers (previously limited to hiring internally from bus operators)
- MARTA indicates that there is **no mandatory overtime in its bus and rail labor agreements;** its staff receive overtime shifts based upon seniority

DTPW believes old age of its bus fleet was also a driver of overtime use in prior years, though this should improve moving forward

Major Observations

- **Average bus was nearly 12 years old** at the beginning of our review period (FY15-16), leading to **more frequent breakdowns** and **reactive maintenance**, causing overtime use
- 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**
- DTPW also notes that the **Metrorail track is over 35 years old**, though DTPW is working to replace the entire system with new rail infrastructure

Average Bus Fleet Age (Years), 2015 - 2021



Overtime spent on capital projects booked against overtime cost, even if reimbursements offset this cost; new accounting system should fix

- **Reimbursable overtime costs are currently charged to overtime** in DTPW's general ledger but are not budgeted for in that bucket
 - Arrival of both **new CNG buses and Hitachi rail vehicles** has led to more training and therefore more overtime, which is not budgeted for in overtime, as it may ultimately be **reimbursed by federal/state grants** (current general ledger system does not allow for adjustment to overtime cost)
 - A **new ERP and general ledger system is expected to solve for this issue** beginning in January 2022
- **MARTA 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, and the same is true for bus bridges that may be used during rail capital projects

Most transit agencies appear to purposely limit overtime budget, creating large variances to budget but also constraining actual cost

- All three agencies interviewed (DTPW, MARTA, WMATA) indicated that they **purposely limit growth in overtime budget** as a method of discouraging its use among operations and maintenance managers.
- This may produce larger variances to budget, but there is a belief that **granting additional budget would lead to even more use of overtime** by year-end.
- Therefore, the large variances to budget may be a **rational way of minimizing actual overtime spend**, though **managing the drivers of overtime usage** could be a better long-term solution to constraining growth in overtime cost.

Agenda



1. Overtime Cost Trends at DTPW
2. Overtime Cost Overruns versus Peers
3. Overtime Cost Benchmarks versus Peers
4. Diagnostic of Overtime Cost Drivers
5. Recommendations
6. Appendix

Recommendations

1 **Actively track the drivers of overtime usage and approve its use**

- MARTA launched a task force in 2019 to document the root causes of overtime and enhance visibility into these; transparency regarding causes has corrected false assumptions (e.g., that absenteeism is the biggest driver of overtime) and enabled operational managers to work on mitigants to overtime usage
- WMATA now has an overtime management SOP and requires any non-operator overtime to be approved at least one week in advance

2 **Explore changes to DTPW's current labor agreements**

- Overtime work could begin after 40 hours per week instead of eight hours per day (though WMATA also follows the eight-hour policy)
- Consider not guaranteeing overtime on the extraboard pool
- Consider not paying overtime on vacation/sick leave (though WMATA also does this)
- Enable external hiring with minimum qualifications for rail technician positions

3 **Fill vacancies**

- 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
- DTPW must work to fill bus operator vacancies more quickly

4 **Consider reaching out to MARTA/WMATA to share overtime management policies**

- MARTA in particular expressed an openness to sharing practices with DTPW

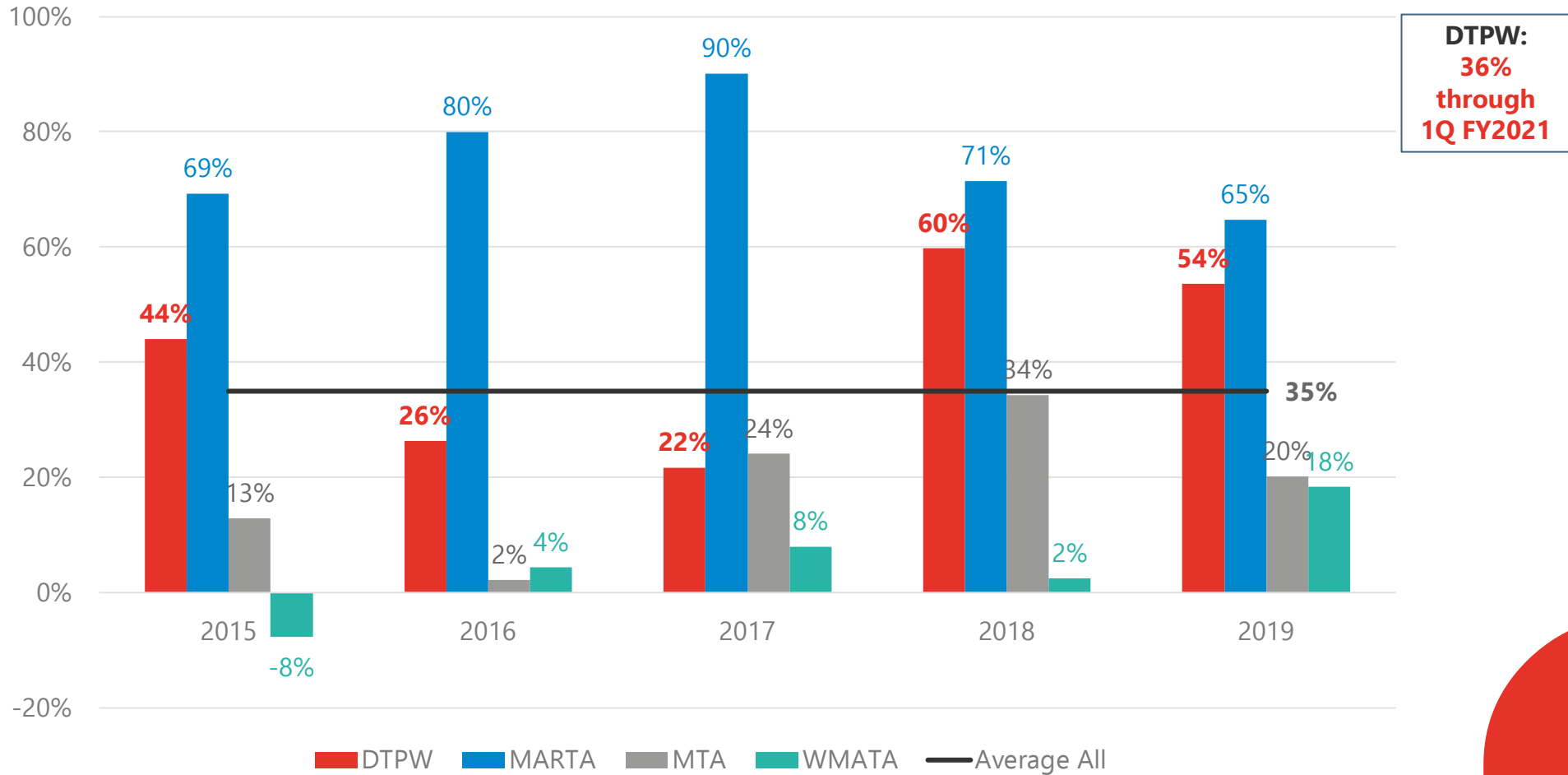
Agenda



1. Overtime Cost Trends at DTPW
2. Overtime Cost Overruns versus Peers
3. Overtime Cost Benchmarks versus Peers
4. Diagnostic of Overtime Cost Drivers
5. Recommendations
6. Appendix

In percentage terms, MTA and WMATA have consistently achieved lower overtime cost overruns versus DTPW and MARTA

Total Overtime Cost Overrun/Underrun Percentage by Agency and Year

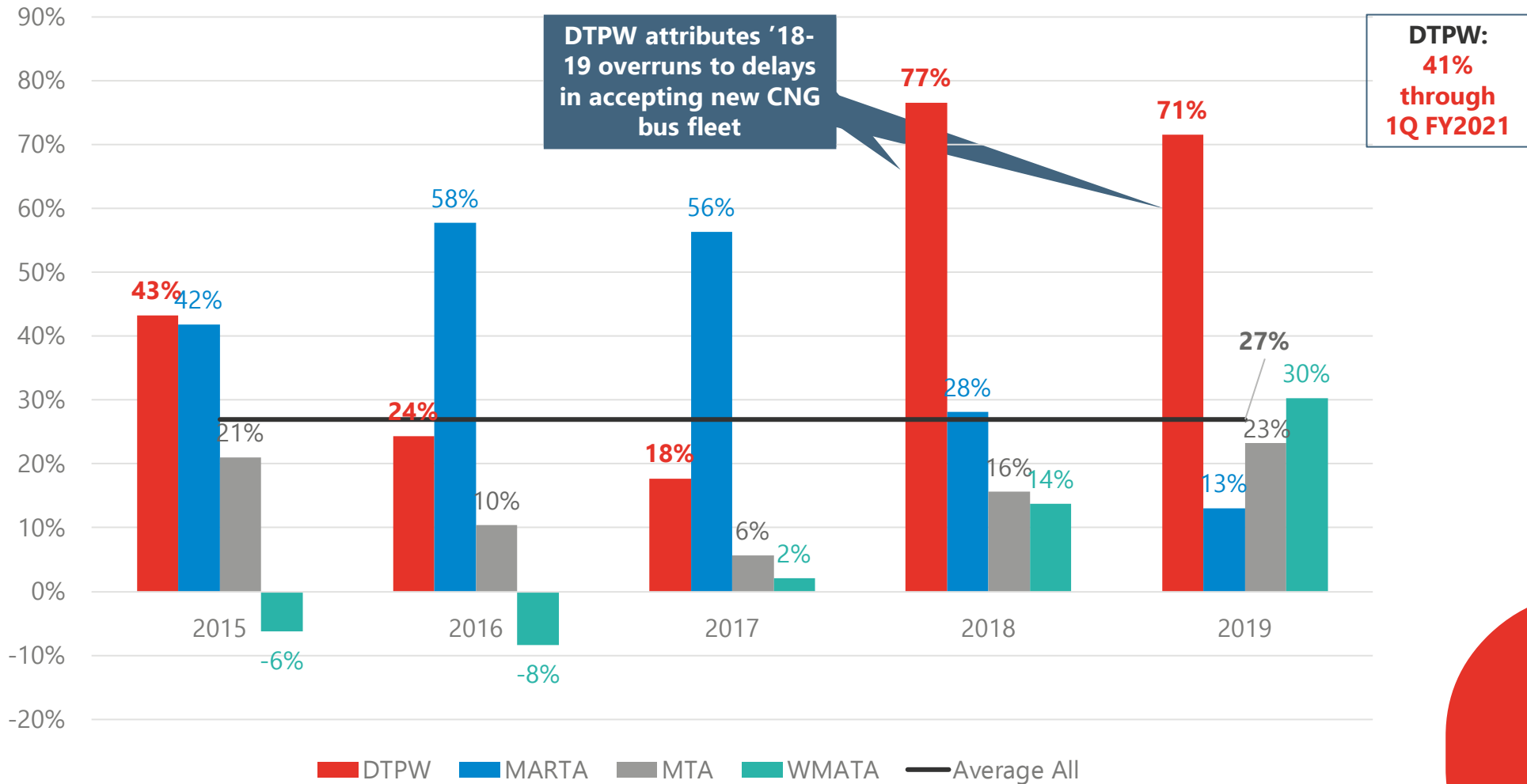


Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports



DTPW bus overtime cost overrun as a percentage of budget was particularly high in '18-'19, especially versus peer average of 27%

Bus Overtime Cost Overrun/Underrun Percentage by Year and Agency

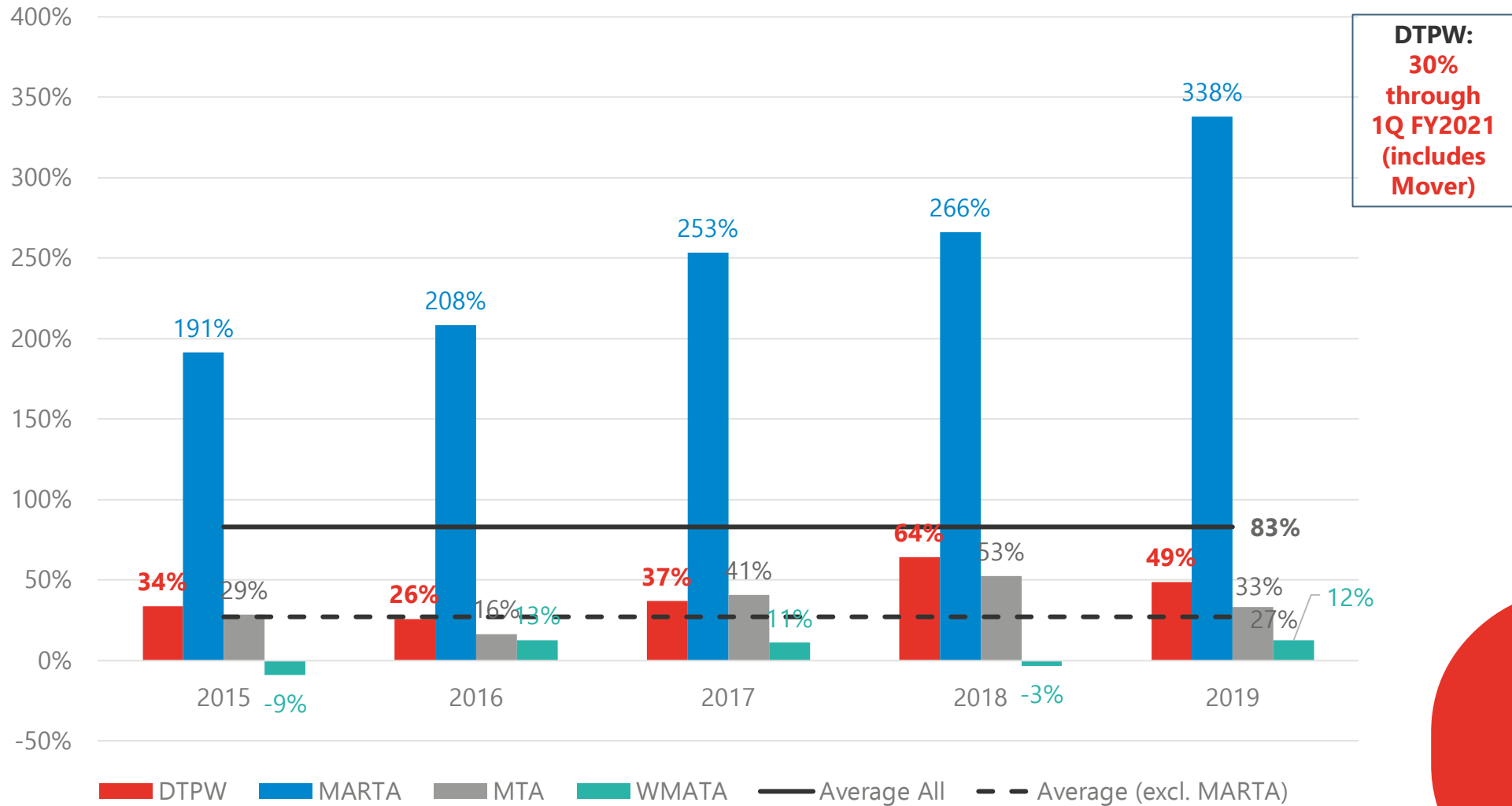


Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports



As with agency-wide percentages, MTA and particularly WMATA have consistently lower overruns for rail, versus DTPW and MARTA

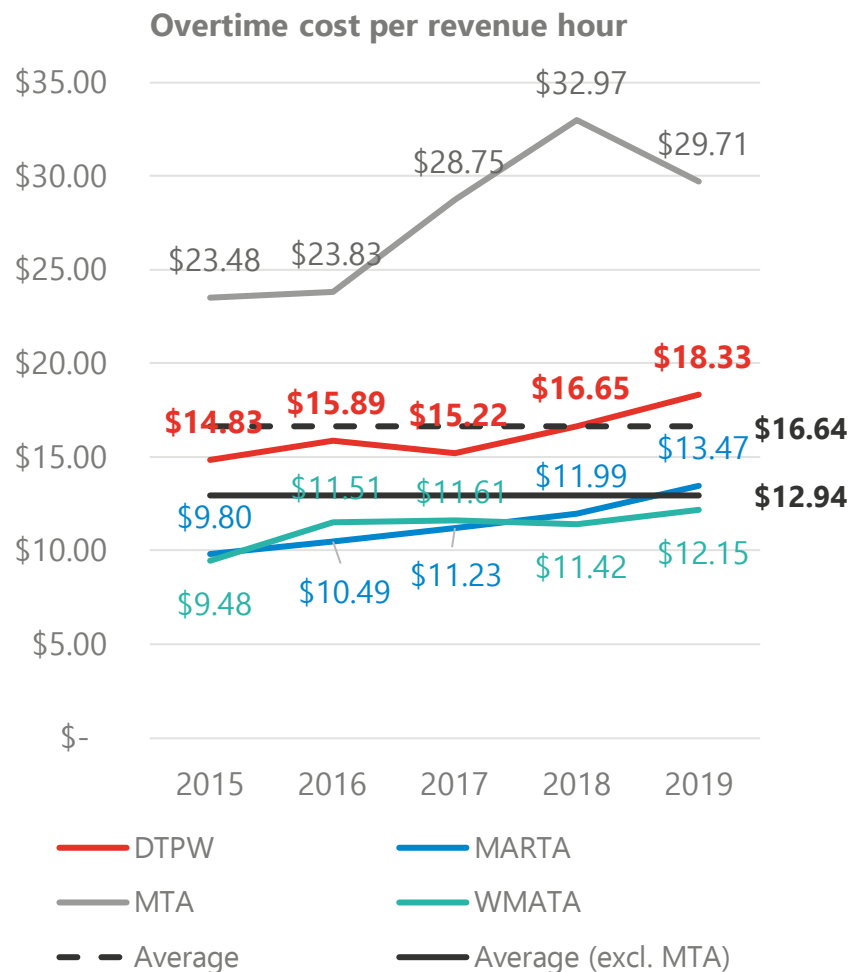
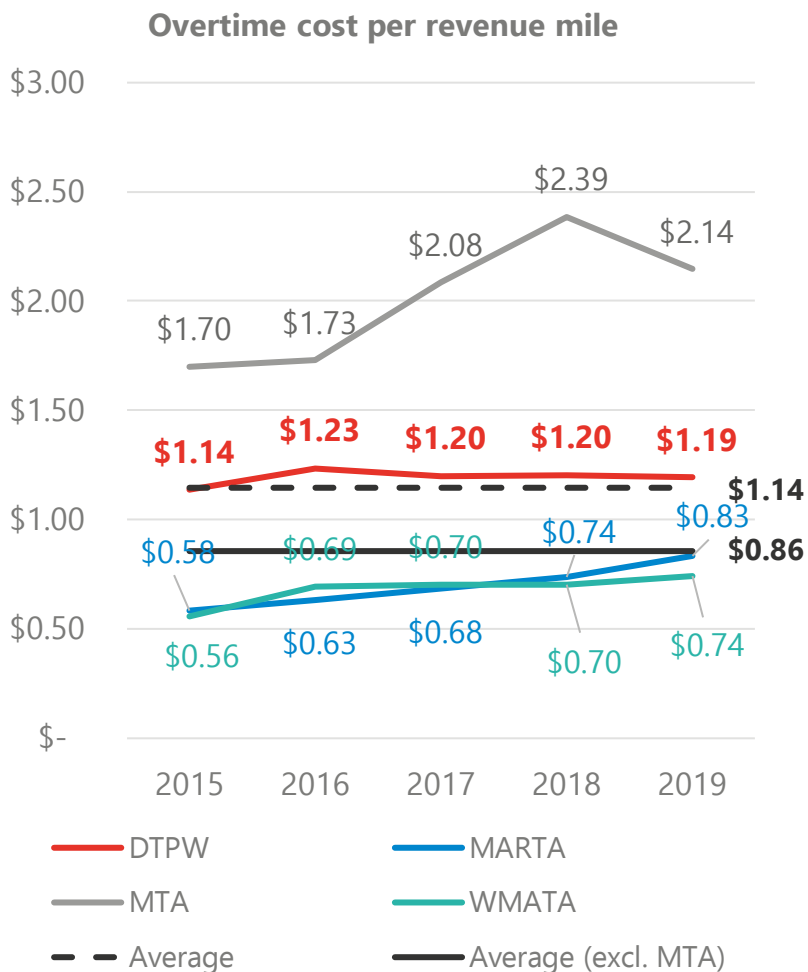
Rail Overtime Cost Overrun/Underrun Percentage by Year and Agency



Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports



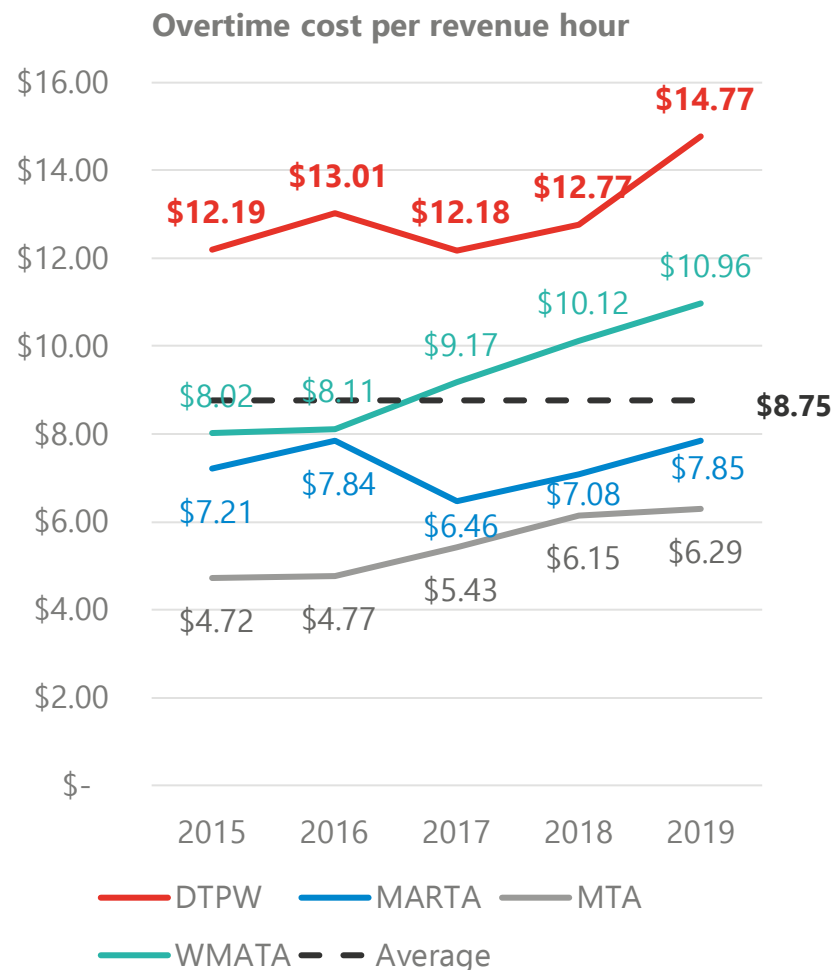
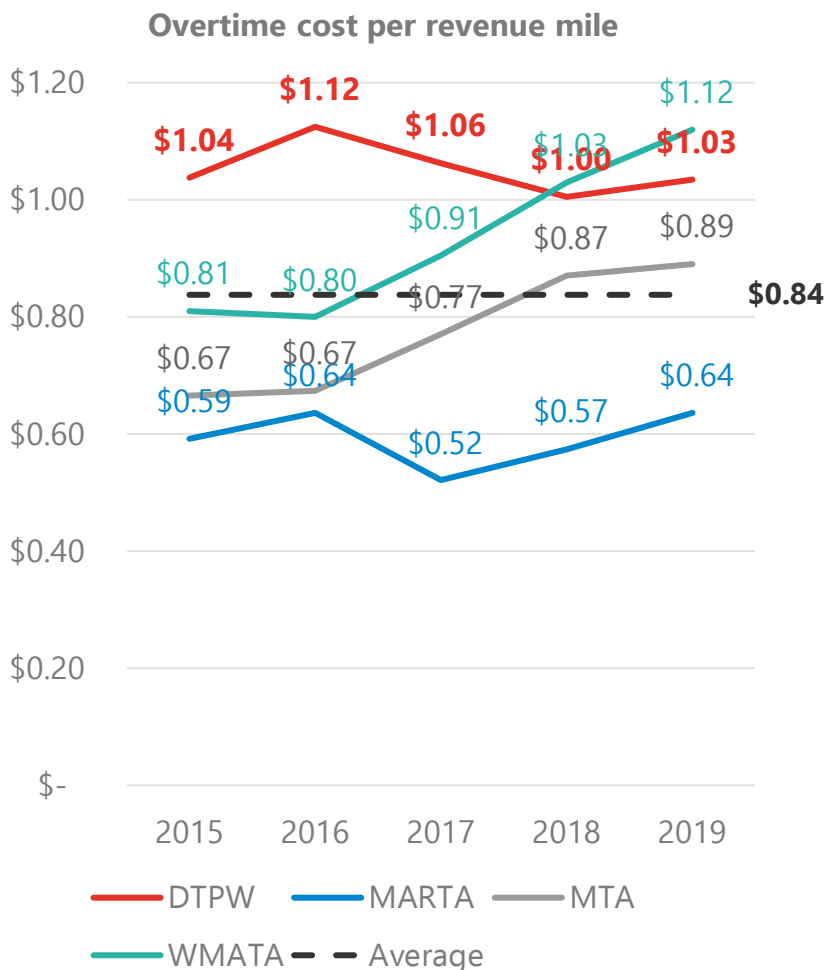
DTPW has held overtime cost per revenue mile steady, while cost per revenue hour increased; DTPW is higher-cost vs. MARTA/WMATA



Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data



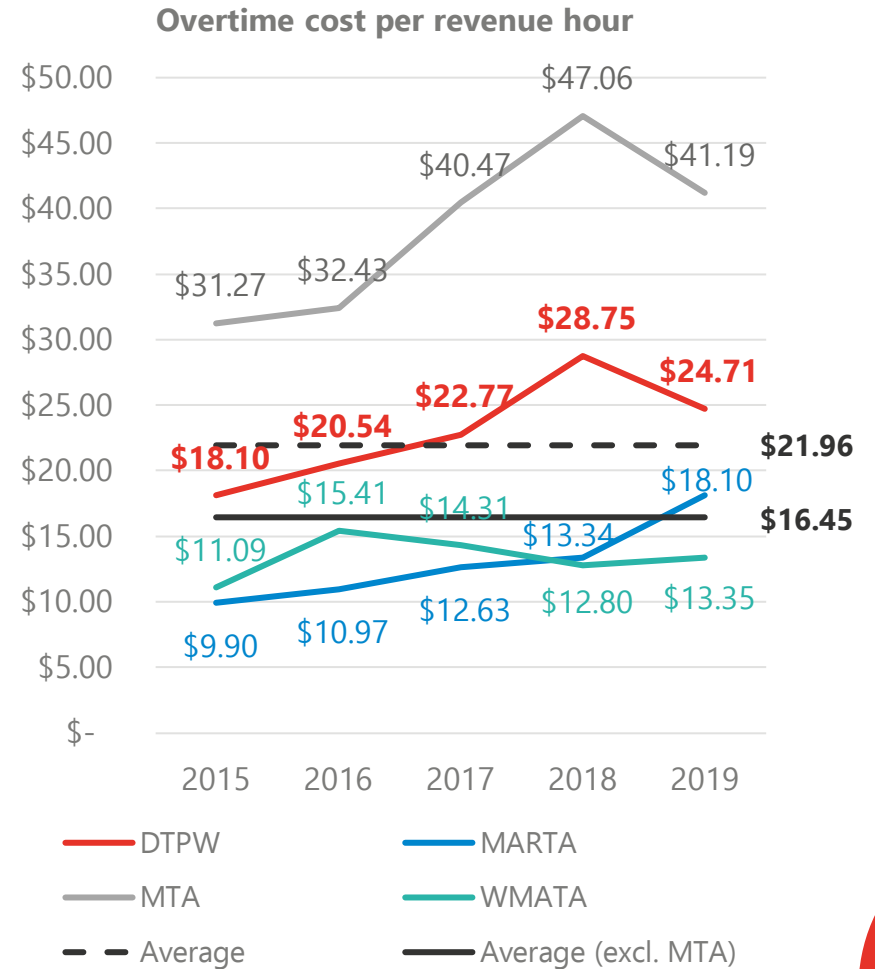
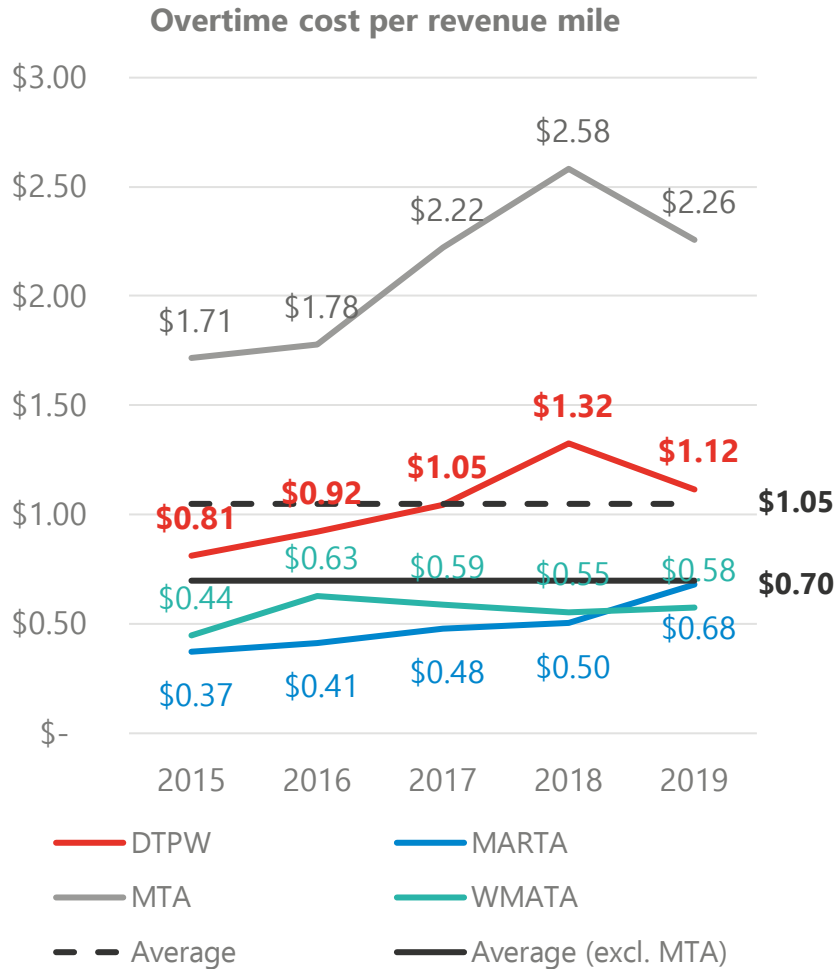
For bus, DTPW is also higher-cost on overtime per revenue mile and revenue hour in comparison to most peers



Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data



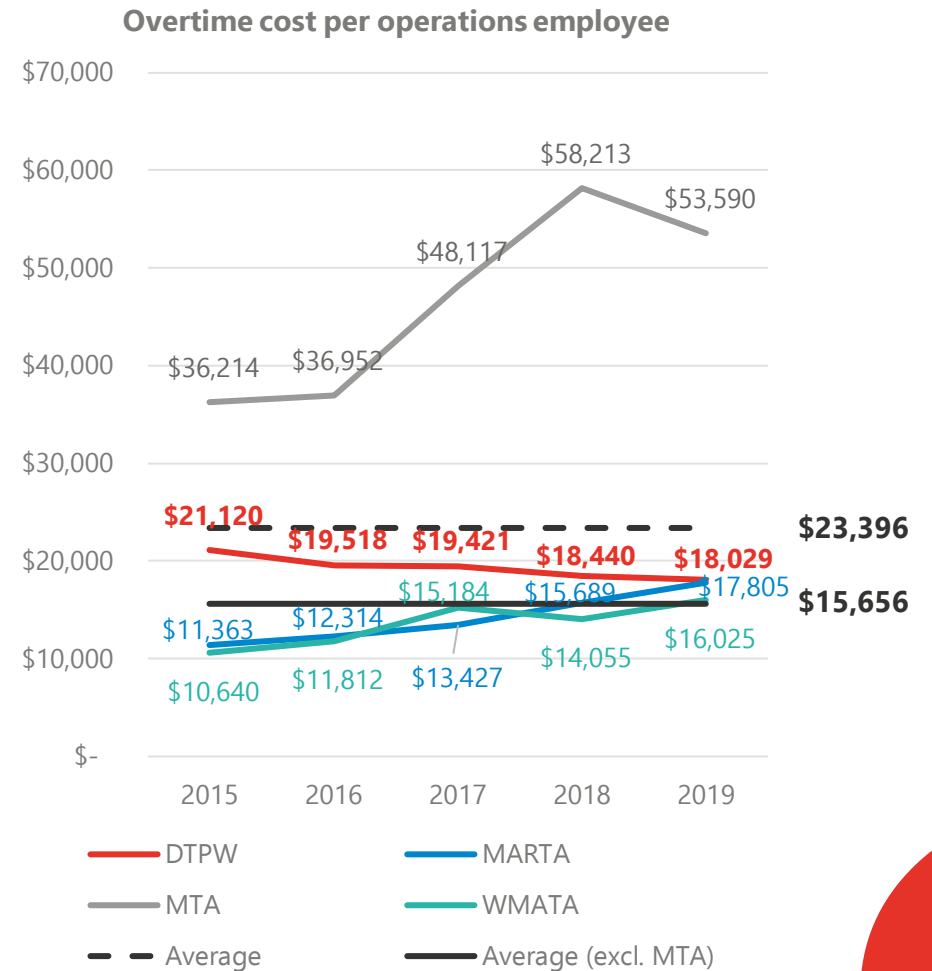
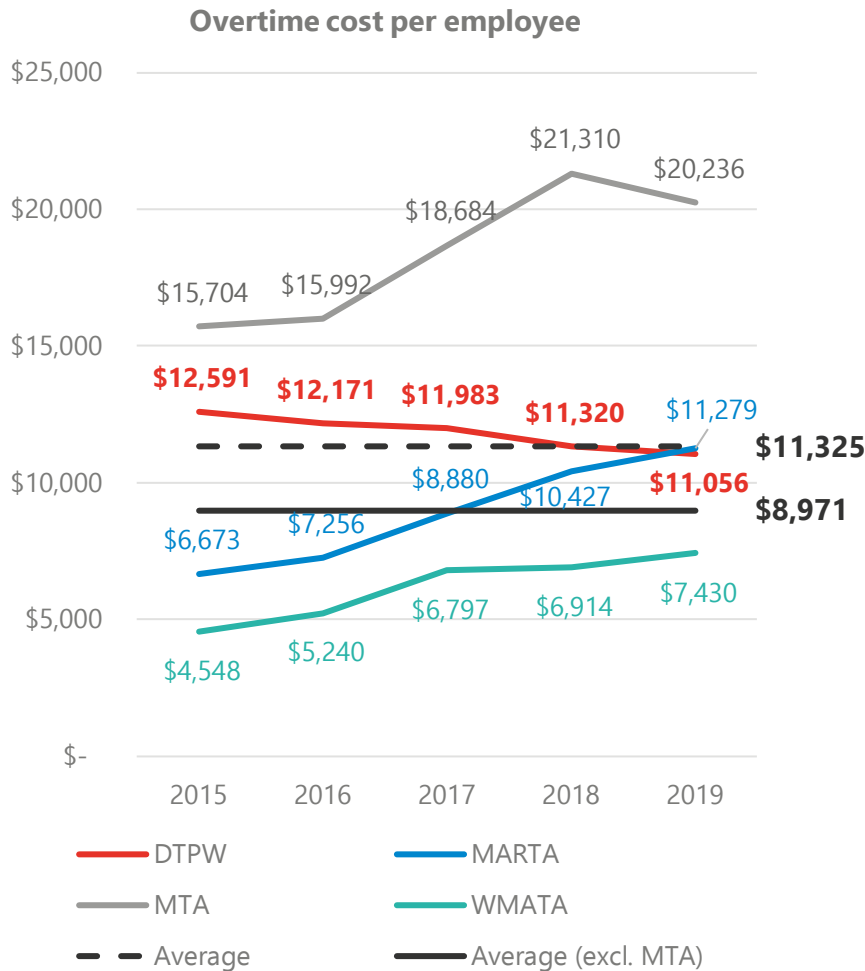
For rail, DTPW's overtime cost per revenue mile/hour has increased, and it is higher than MARTA/WMATA as well as the peer averages



Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data



However, DTPW has improved overtime spend per employee and operations employee over the years, becoming comparable to MARTA

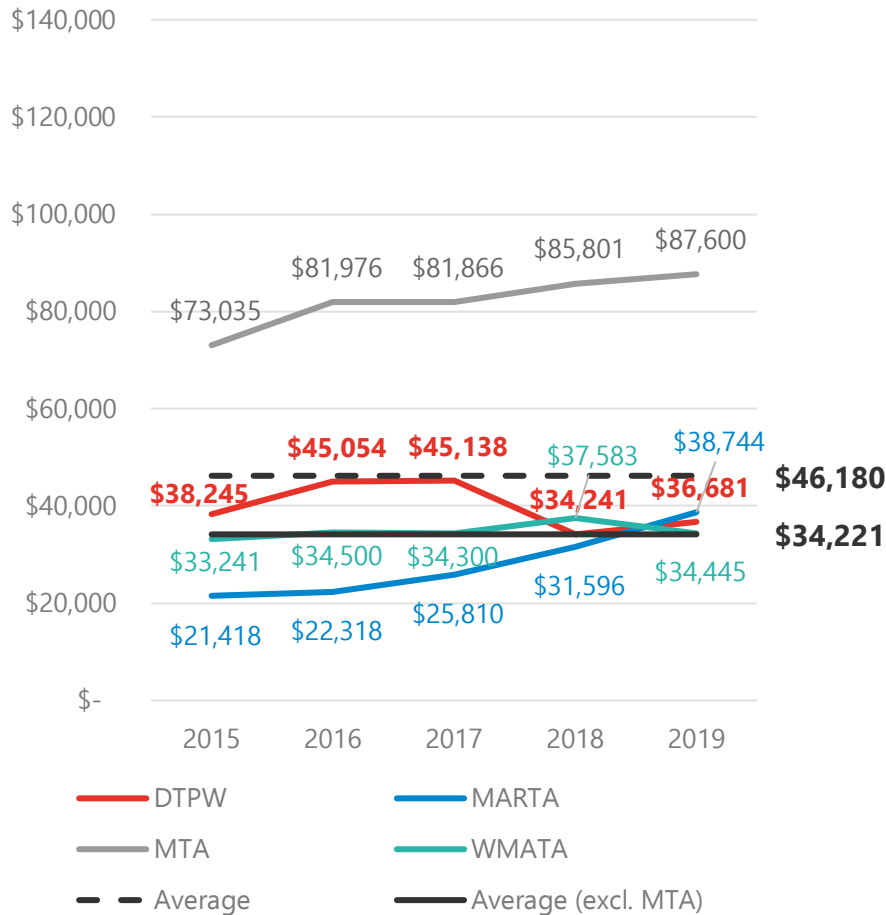


Note: Prior to 2018, vehicle operations employees were not reported separately as "operator" and "non-operator" to NTD; therefore, for the purposes of comparability, both operators and non-operators working for "vehicle operations" are included
 Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data

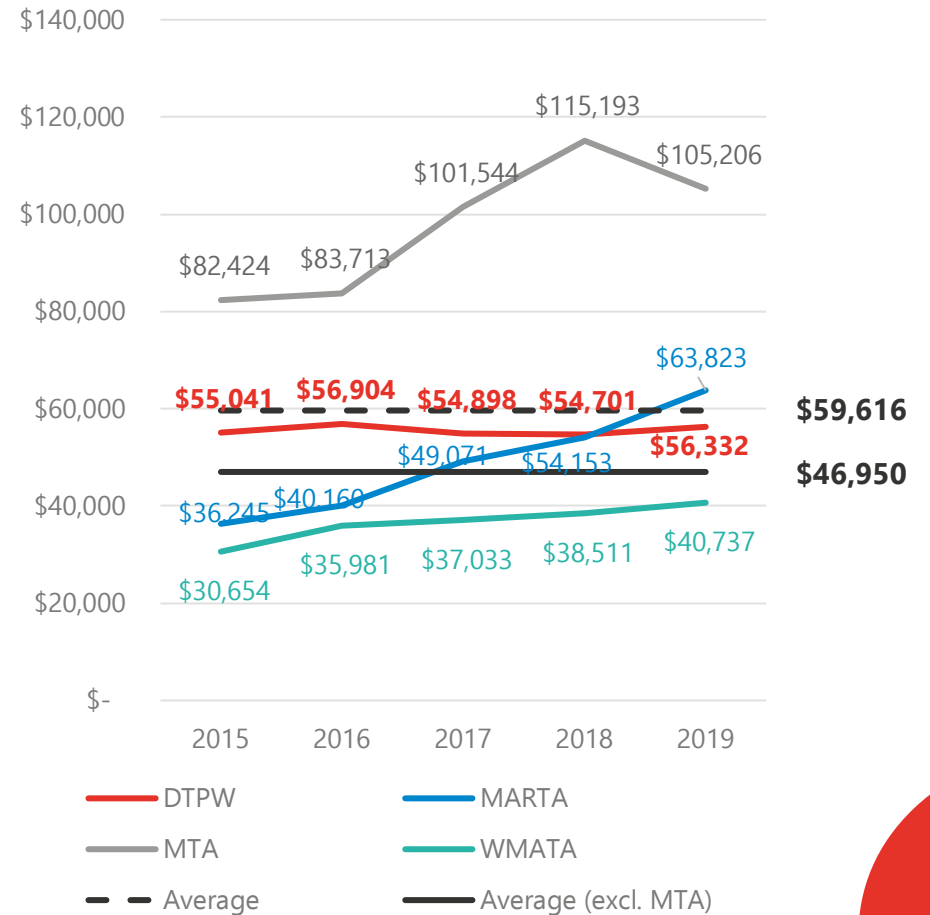


On a per vehicle basis, DTPW typically has higher overtime budget and cost vs. MARTA and WMATA, though it has held relatively steady

Overtime budget per vehicle (VOMS)



Overtime cost per vehicle (VOMS)



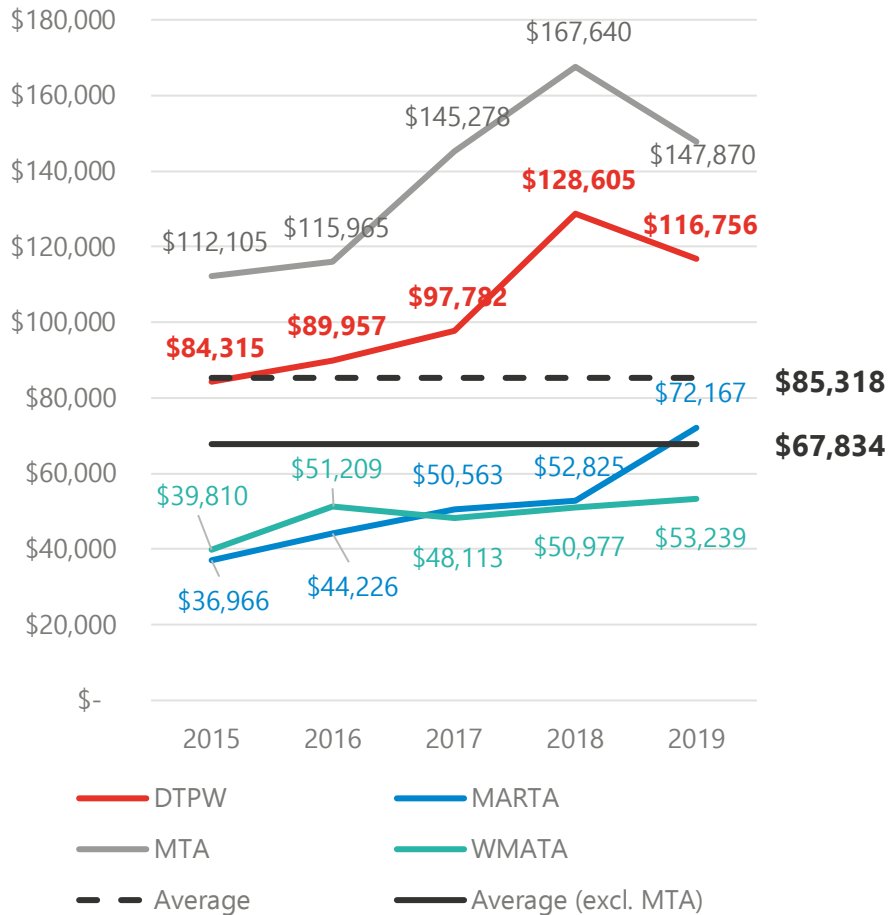
Note: Vehicles are defined as Vehicles Operated in Maximum Service (VOMS), as reported to NTD, given that agencies have differing practices on the number of vehicles held in inventory as spares, which may not be relevant for day-to-day operations

Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data

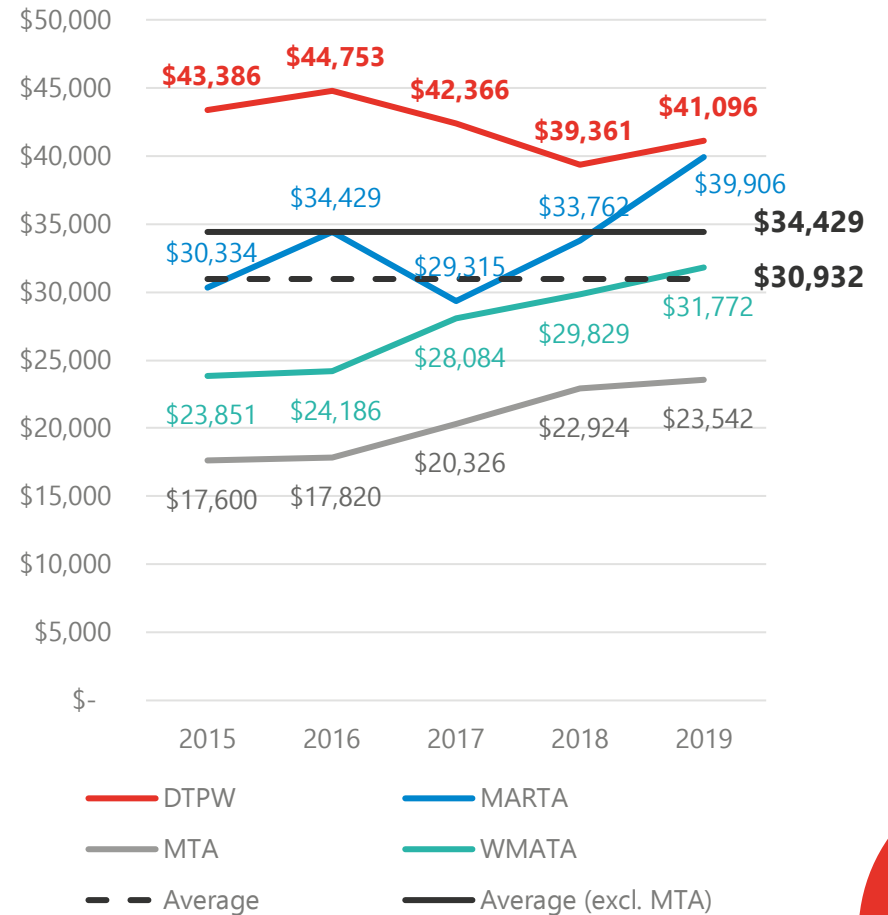


However, rail overtime cost per vehicle has increased significantly during this period; bus is highest among peers but has improved

Rail overtime cost per vehicle (VOMS)



Bus overtime cost per vehicle (VOMS)



Note: Vehicles are defined as Vehicles Operated in Maximum Service (VOMS), as reported to NTD
 Source: DTPW reporting to CITT; MARTA, MTA, and WMATA financial reports; NTD data

