Final Report on Municipal Contracting

May 2021

Planning & Economics Group

IMG Rebel

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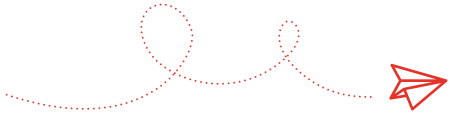

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1. Executive Summary

IMG Rebel and Planning & Economics Group (collectively the "Team") were engaged by the Citizens' Independent Transportation Trust (CITT) to review the transit service contracts of municipalities that receive County surtax funding. The objectives of this study were four-fold: 1) to understand current costs and contract terms for municipal trolley/shuttle services 2) to analyze cost differences and drivers of such differences between municipalities 3) to evaluate the cost of Freebee and differences in cost 4) to recommend possible next steps for municipalities and for the County on providing more cost-effective service. The analysis was performed between March and October 2020, with an update for South Miami's Freebee contract in May 2021.

The Team performed a desk review and analysis of these contracts and quarterly reporting to CITT, focusing on traditional trolley/shuttle services but reviewing contracts with the Freebee on-demand service as well. The Team also interviewed transit managers at a selected sample of municipalities, which were chosen based upon their hourly rates, system size, or other relevant attributes. These included Bay Harbor Islands, Coral Gables, Doral, Hialeah, Homestead, Miami Beach, Bal Harbour, and North Miami.

Out of the 34 municipalities in the County, 30 provide transit service, and 24 of them contract at least one type of transit service to a third party, with 17 municipalities plus the County itself procuring a traditional trolley or shuttle service and ten procuring Freebee either exclusively or alongside their trolley/shuttle service. Limousines of South Florida (LSF) is the most common provider of trolley/shuttle transit service, and three other vendors - MV Transportation, RTW Management, and Safeguard America (doing business as "Americas Transportation") - are also used.

While many municipalities opt for a full-service, "turnkey" contract, some municipalities continue to own their own vehicles, perform their own maintenance, or retain control over other specific activities. Those that choose to retain activities typically do so for cost or quality reasons, based on past experience with their contractor, or due to the lack of available facilities such as a maintenance or storage depot.

There is significant variation in the hourly rates municipalities obtain from their contractors, from $25.28 in Hialeah to $71.58 in Miami Beach[1], most of which is driven by the difference in scope of services procured, as full-service contracts cost more than contracts that only include staff, for instance. However, the Team's analysis demonstrates there may be opportunity to harmonize rates, especially where municipalities pay more for a narrower scope of services versus others that pay less for a broader scope.

To better understand the drivers of cost, the Team attempted to break down hourly rates into their constituent components, using information obtained from our conversations with municipalities but also through a review of contracts. The Team found that staffing cost, vehicle type, insurance requirements, fuel, maintenance and storage, and performance standards (i.e., penalties) are the major cost drivers, though other factors such as deadhead hours and equipment (e.g., automated passenger counters and Wi-Fi) may play a role as well.

[1] The hourly rates mentioned here for Hialeah and Miami Beach are averages of two rates, based on number of service hours for Hialeah and vehicle type for Miami Beach, as explained later in this report.

The Team finds that differences in standards and service requirements explain most of the variation in individual cost components. For instance, certain municipalities only require drivers, while other municipalities require dispatchers, supervisors, and, in one case, a program manager, all of which add cost but also presumably add to overall service quality. Similarly, many municipalities require "cutaways" that cost $50,000 to $60,000 per vehicle, whereas Coral Gables, Miami Beach, and Miami Gardens use low-floor trolleys as part of their fleet, which can cost up to $300,000 each. Such scope requirements are individual municipality decisions based upon specific context and needs.

However, some municipalities pay hourly rates that appear to be higher than expected when controlling for scope of services. For instance, while many cited insurance as a key driver of higher cost for their municipality, we found that insurance requirements are similar among Coral Gables, Doral, Hialeah, Miami, Miami Beach, and North Miami (municipalities with high ridership or low cost, in Hialeah's case). Yet Doral's hourly rate is nearly $16 per hour higher than Miami's, despite the only major difference in scope being that Miami pays for fuel separately whereas Doral's fuel is included in its rate. When combined with the data on fuel, which shows that Doral may pay $9.60 per hour for fuel versus $3.27 to $5.16 per hour in lower-cost municipalities, the data indicates there may be room for negotiation in future procurements.

Certain contracts also include performance penalties for failure to meet targets, and while these may add some cost, they do not appear to be a significant driver. Miami Beach and Doral both typically assess penalties totaling $1-2 per hour. Nevertheless, contractors may establish a buffer in their pricing to account for worst-case scenario performance penalties against them.

Competitive dynamics may help to explain how some municipalities obtain competitive pricing and continue to maintain it. For instance, Hialeah was the first market in South Florida for MV Transportation, and MV may continue to offer favorable pricing to Hialeah to preserve its foothold in this market. Bay Harbor Islands is also an example of a municipality that receives the same rate for its service today as three years ago despite contract expiration, showing that its contractor is willing to retain small yet stable business at a low rate instead of risking a competitive RFP process if it were to raise the rate.

The Team believes that certain best practices could be included in all municipal transit contracts, for instance operational performance standards with associated penalties for non-compliance, measurement of customer satisfaction, real-time location tracking for riders, minimum standards for drivers and safety, and ongoing reporting that includes metrics such as revenue hours, deadhead hours, and ridership.

Freebee is a relatively nascent service in the County, and it is generally well-liked by municipalities. Pricing is also relatively consistent across the municipalities served, and revenue from advertising that Freebee displays in-vehicle helps to offset some of its cost for most municipalities. This report did not go into detail on Freebee, given the limited history most municipalities have with the service thus far.

Based upon our analysis, the Team has four key recommendations. First, we recommend regularly collecting additional data such as revenue service hours to monitor and standardize transit contract costs. Second, we recommend that municipalities evaluate their insourcing/outsourcing decisions before awarding future contracts to determine whether there may be cost benefits to insourcing certain activities, such as maintenance, vehicle purchase, and fueling. Third, we recommend that municipalities and the County consider leveraging scale for joint transit contracts; while we were not able to fully analyze scale cost benefits, both contractors and municipalities would likely be able to amortize their fixed costs over greater revenue service hours by pooling service provision with other municipalities. Finally, we recommend measuring and

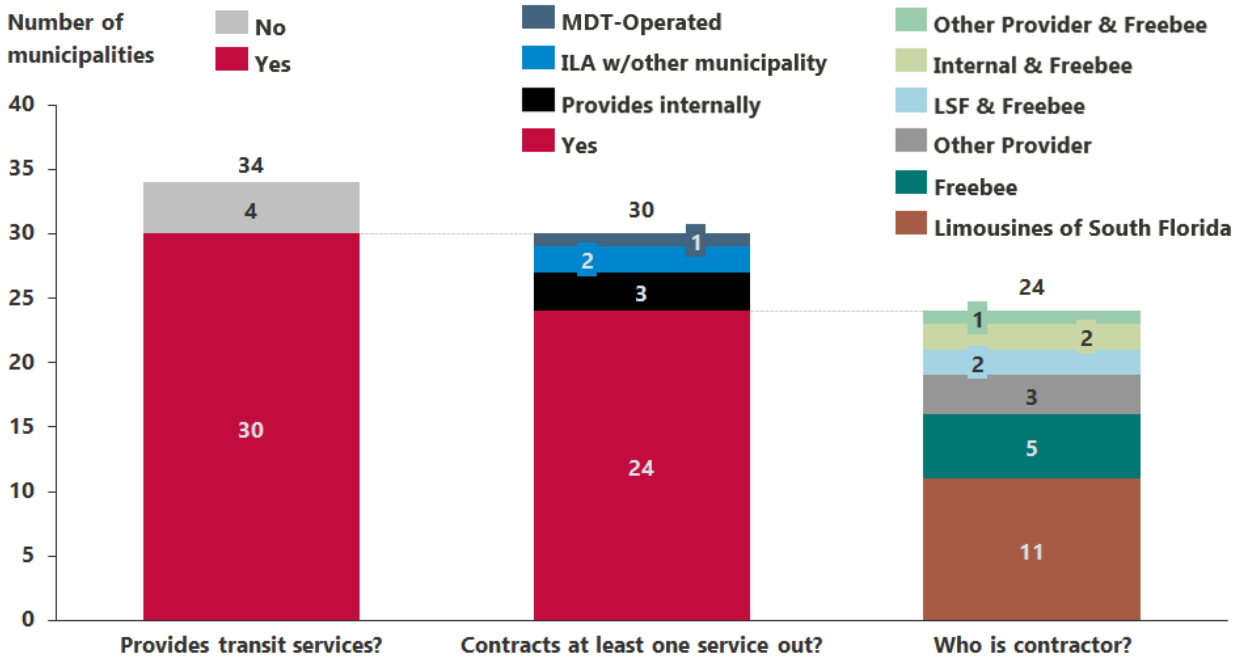
analyzing customer satisfaction scores to better determine whether higher-cost contracts that include higher "quality of service" characteristics such as better vehicles and penalties to incentivize performance actually lead to better outcomes as perceived by customers.

2. Municipalities and contracts within scope

The Team first performed a comprehensive review of transit service across all 34 municipalities within Miami-Dade County. To determine the scope of municipalities within our review, the Team identified the municipalities that provide transit service and further divided this group into those that provide in-house service versus using a third-party provider.

As displayed in Figure 1, there are 30 municipalities that provide transit service of some kind. Out of these, 24 outsource at least one transit service to a third-party provider, with the other 6 either providing the service using internal resources only or through interlocal agreements with the County or other municipalities.

Figure 1: Breakdown of County municipalities providing transit service



Note: MDT = Miami-Dade Transit; ILA = Interlocal Agreement; other providers apart from Limousines of South Florida (LSF) and Freebee include RTW Management, Safeguard America (dba Americas Transportation), and MV Transportation; analysis above excludes Miami-Dade County contract with LSF
Source: Municipal contracts; CITT e-mails; Municipality websites

Out of the 24 municipalities that use a third-party for at least one type of transit service, the majority of them contract for a trolley or shuttle service, though many also use Freebee, an electric urban vehicle and

electric van service that provides on-demand and point-to-point service (at least one municipality, Miami Lakes, is also using Freebee for a fixed route).

Limousines of South Florida (LSF) is the vendor most frequently used by municipalities in Miami-Dade County for transit service, though there are three other vendors - MV Transportation, Safeguard America, and RTW Management - also used by at least one municipality. Five municipalities provide both a trolley or shuttle service and Freebee on-demand service.

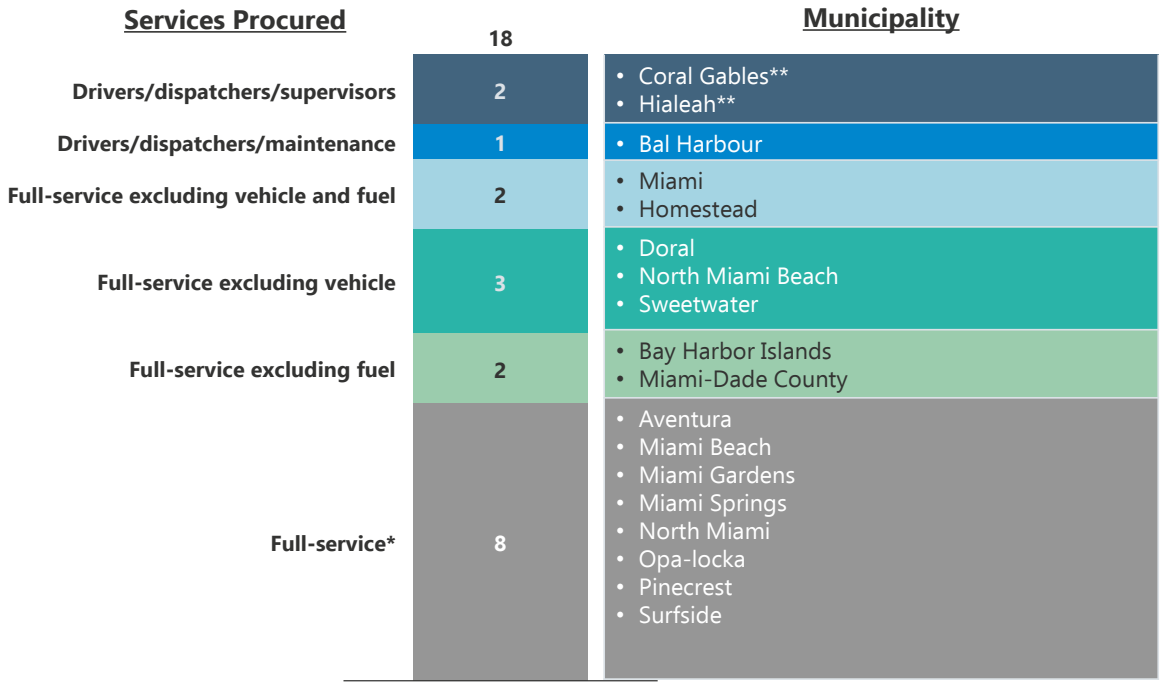
This analysis focuses primarily on the trolley and shuttle transit service contracts, with a brief comparison of Freebee services by municipality discussed at the end.

3. Transit scope of services comparison

Within the group of municipalities that provide a trolley/shuttle service and outsource it, there is significant variation in scope of services procured. Eight municipalities in this group contract for a "turnkey" service where the contractor provides all equipment and services for the transit operation, including vehicles, staff, fuel, maintenance, and insurance, among others.

However, many municipalities choose to keep certain responsibilities in-house. For instance, Coral Gables contracts for the labor required to operate its service, whereas it provides its own vehicles, fuel, and maintenance. Many municipalities contract for labor and other services but continue to keep vehicle ownership in-house. Figure 2 displays a breakdown of municipalities by the scope of services procured from the third-party provider/contractor.

Figure 2: Overview of scope of services procured



*Contracts do not universally discuss provision of dispatchers and supervisors for transit services
**Coral Gables and Hialeah own their vehicles, but contractor must insure them
Source: Municipal contracts; Municipality budgets; Conversations with municipalities

The Team heard varying explanations regarding the decision to contract all or only a subset of services. Some municipalities appreciate the convenience of turnkey contracts and may not have necessary facilities to perform maintenance or other functions in-house. Miami Beach indicated they do not currently have a City maintenance facility that is large enough to service trolleys, and they did not want to incur the upfront capital cost of vehicle purchase, which are two reasons behind their decision to use a full-service contract. Doral also indicated it does not have space in its existing police fleet maintenance facility and that it believes its contractor, LSF, would better maintain the vehicles if it owned them as opposed to the current situation where Doral owns them. As a result, Doral plans on procuring a full-service contract, where the contractor owns the vehicles, in the future. Finally, North Miami also indicated that it considers it best to contract for a full-service operation, presumably for the convenience of a turnkey contract.

On the other hand, other municipalities have had mixed experiences outsourcing the full scope of services. Coral Gables had previous experience with full-service contracts and felt the City was billed for unnecessary maintenance "extras" in such contracts; the City estimated it would save 60% of maintenance cost by in-sourcing this activity back into the City's own facility, which it did in its most recent RFP for trolley services. Hialeah similarly indicated that it felt its contractor could not obtain a better price on fuel than the City itself, and the City also felt it could better maintain its own vehicles versus the contractor; therefore, it does not outsource vehicle fueling nor maintenance.

The Team did not evaluate whether either full-service or partial-service contracts universally represent a better value for money to municipalities, given the numerous differences in circumstances and quality of service desired amongst municipalities. We make recommendations later in this report on possible considerations for opting for full-service versus another type of contract.

4. Hourly rate comparison

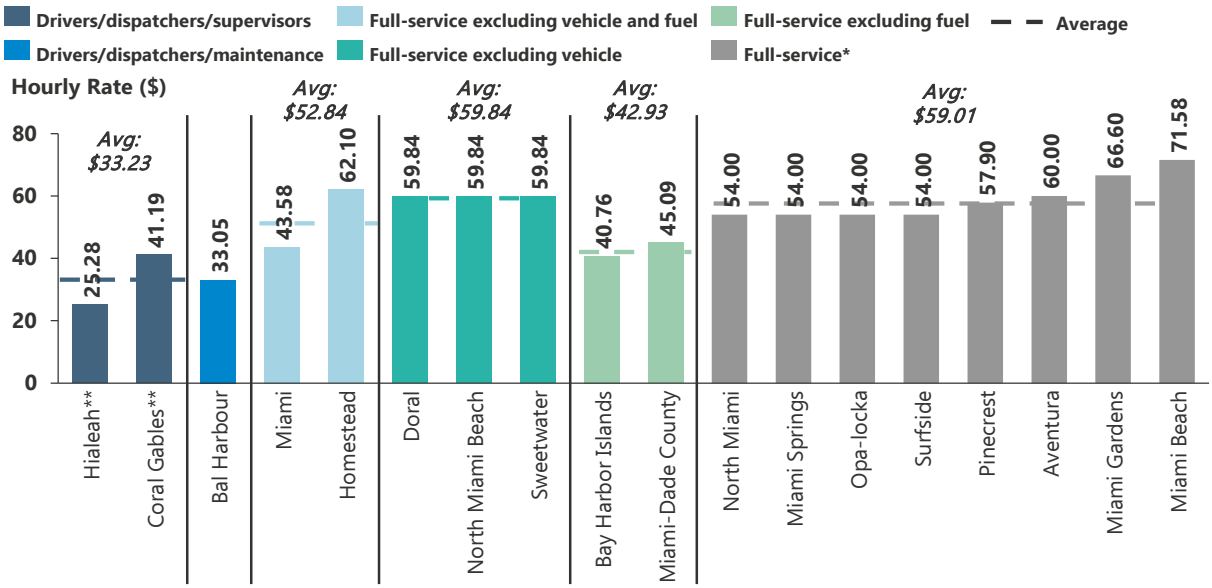
The Team was able to find or calculate hourly rates for all 17 municipalities that outsource trolley or shuttle-based transit service, plus the County's contract with LSF (through the City of Miami). This comparison is based upon our review of non-Freebee transit contracts, in addition to follow-up conversations with select municipalities and a review of certain municipality budgets. Figure 3 displays this comparison.

As the chart shows, there is significant variation in hourly rate across municipalities, mostly driven by the different scope of services procured. Hialeah has the lowest hourly rate, but it also contracts out one of the narrowest scopes, as it only uses its contract for labor and insurance, providing its own vehicles, fuel, and maintenance. On the other side, Miami Beach has the highest hourly rate of all municipalities, but it procures a full-service contract and requires a fleet composed of more expensive low-floor trolley vehicles.

Nevertheless, there appears to be some opportunity to harmonize rates. Certain municipalities procure a narrower scope of services yet pay higher rates for fewer services. For instance, North Miami, Miami Springs, Opa-locka, and Surfside use LSF and pay $54.00 an hour for a full-service contract that includes vehicles. However, Doral, North Miami Beach, and Sweetwater, also use LSF and pay $59.84 an hour for a contract that excludes vehicles, meaning they are a paying a higher rate despite providing their own vehicles.[2] Therefore, while we discuss reasons for higher cost in Doral later in this report, there may also be room to obtain more competitive pricing upon contract extension or re-bid, based upon the information collected for this comparison. Homestead also has a similar contract to Doral with LSF but pays a slightly higher hourly rate, despite paying for its own fuel versus Doral's fuel being included in its price, which indicates that Homestead may also be able to obtain a more competitive rate.

[2] The Team assumes that North Miami Beach and Sweetwater are providing their own vehicles, as they use the same contract as Doral, which does not include any provision of vehicles by the contractor.

Figure 3: Hourly Rates by Municipality



*Contracts do not universally discuss provision of dispatchers and supervisors for transit services
**Hialeah and Coral Gables own their vehicles, but contractor must insure them
Notes: **Hialeah** rate is weighted average of Tier I and Tier II hourly rates ($21.02 for first 31,000 hours per month and $66.74 for 3,184 hours); **Coral Gables** rate includes current living wage adjustment; **Pinecrest** rate is implied from 2019-2020 budget and LSF contract; **Miami Gardens** rate is weighted average of rates for two old and one new trolley; **Miami Beach** rate is average of high-floor and low-floor rates ($65.81 and $77.35 per hour)
Source: Municipal contracts; Municipality budgets; Conversations with municipalities

Overall, the hourly rate comparison is only one method of determining the value-for-money that municipalities are receiving in their transit service contracts. It must be combined with an understanding of additional contract provisions, such as vehicle type and insurance requirements, and the quality of service that each municipality is obtaining, which we discuss in our subsequent cost breakdown analysis.

5. Cost breakdown analysis

The Team has attempted to break down the hourly rates into the components that drive cost. While we did not speak directly with LSF or other contractors regarding their cost structure, our conversations with municipalities and data from Doral have helped us understand what drives cost within the contracts.

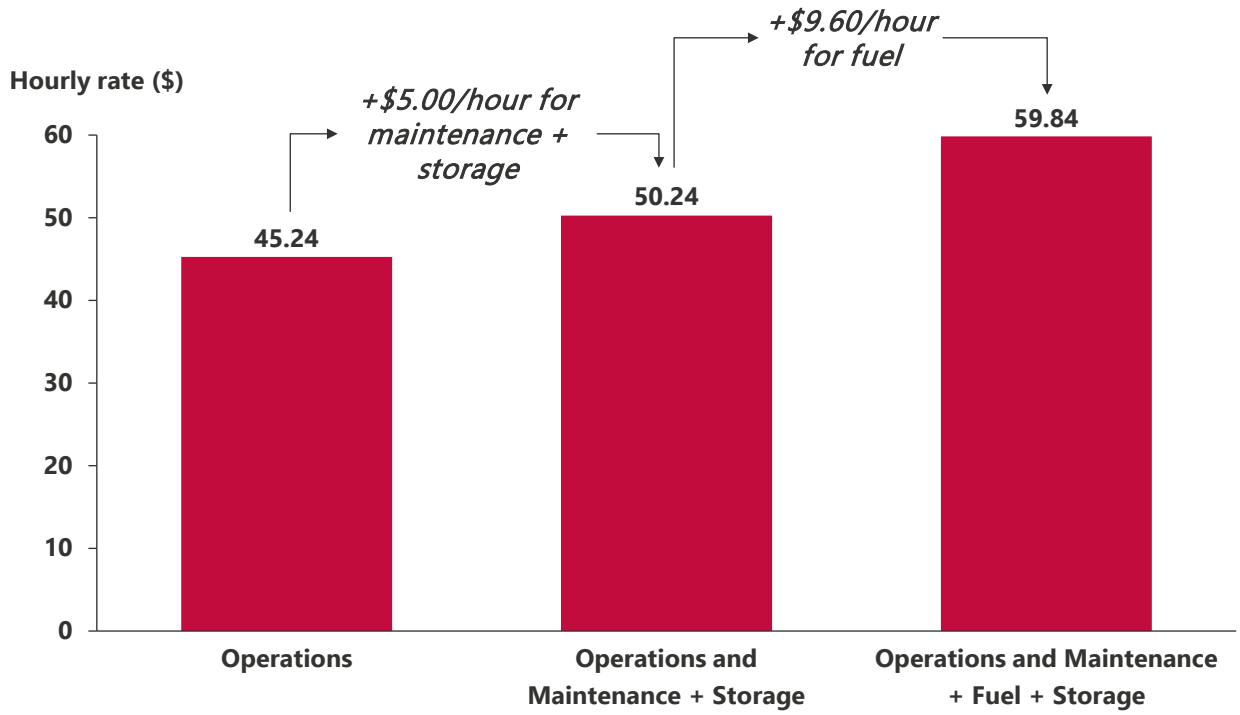
5.1 Doral RFP

One data point is the LSF proposal to Doral's 2014 RFP for its trolley system. LSF proposed a menu of scope of service options because of the possibility at the time that Doral would keep maintenance in-house. As

seen in Figure 4, LSF provided rates for operations only (i.e., labor), operations and maintenance (O&M) plus overnight storage of vehicles, and finally O&M with storage and fuel.[3]

The menu of rates allows us to calculate incremental cost of different services. The rates imply that LSF would charge an incremental $5.00 per hour for maintenance and storage of vehicles and an additional $9.60 per hour for fuel. The base rate for operations implies that the cost of drivers, dispatchers, supervisors, and overhead is $45.24 per hour. This is 10% above the rate in Coral Gables for a similar contract ($41.19 per hour) with MV Transportation, which also includes a living wage adjustment.

Figure 4: Doral hourly rates from 2014 LSF Proposal



Source: LSF Proposal to City of Doral for RFP#2014-09 (page 53 – Quoted Costs)

5.2 Findings from contract analysis and municipality stakeholder engagement

Our review of contracts, RFPs, and proposals and conversations with municipalities provided several additional data points to better understand components of cost. We concluded that staffing cost, vehicle type, insurance requirements, fuel cost, maintenance cost, and performance standards (with penalties) were some of the key drivers of hourly rate with contractors. We describe these drivers in further detail in the following analysis.

[3] LSF also provided one additional hourly rate for O&M plus fuel, excluding storage, but this rate was higher than $59.84 and therefore may have been an error.

5.2.1 Staffing cost

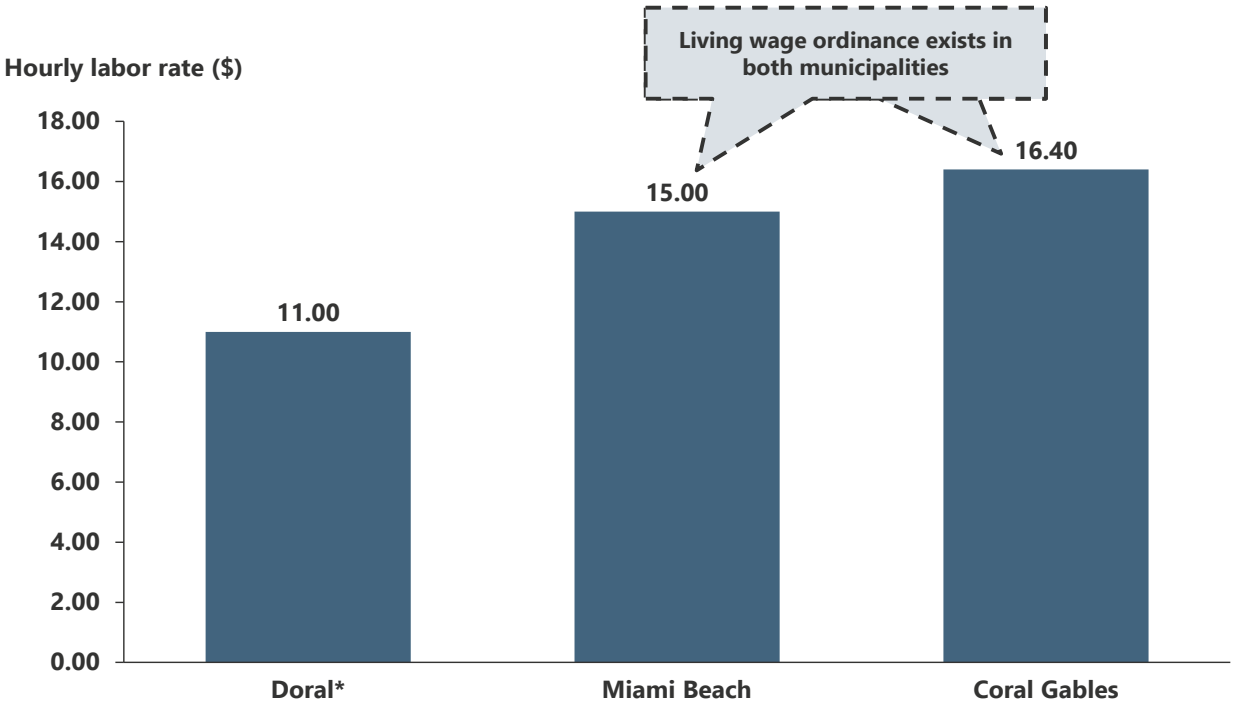
Staffing cost is perhaps the biggest component of hourly rate across municipalities, and the cost of staffing most likely varies based upon the level of staffing required in each contract.

Certain municipalities only require a driver, for instance smaller municipalities such as Bal Harbour and Surfside that may only operate one route with one vehicle. Many municipalities, however, do not mandate specific staffing requirements, though they require that any vehicle operators be properly licensed and comply with drug and alcohol testing.

As any given vehicle requires one operator at a time, the base labor cost per hour is the hourly wages and benefits that one vehicle driver receives. A comparison of hourly wage rates for drivers that we heard during our conversations is provided in Figure 5. Labor cost can also be influenced by whether a municipality has a living wage ordinance in place. Miami Beach and Coral Gables both have local living wage ordinances that their contractors must follow. Miami Beach pays an additional $1.88 per hour currently (included in its $15/hour rate) due to its living wage, while Coral Gables pays an all-in rate of $16.40 per hour (a breakdown of the living wage component was not available).

Miami Beach also indicates that its "ambassador-style" customer service requirement, in which drivers must be bilingual in English and Spanish and be knowledgeable about tourist attractions and transit connections (among other requirements), may require a higher labor rate to attract qualified individuals. However, Miami Beach's contract with LSF only mandates that drivers be paid according to the living wage requirements of the city.

Figure 5: Driver compensation rates



*Doral indicated that pay has been an ongoing issue and that the City wants to support drivers with a higher wage
Source: Conversations with municipalities; Municipal contracts

Other municipalities require a significant amount of staff in addition to vehicle drivers, including dedicated dispatchers and supervisors. Miami Beach also requires that LSF employ a dedicated program manager for its trolley system. This can add additional cost to the hourly rate. The Team estimates that Coral Gables spends an additional $8 per hour for the two dispatchers and on-site manager that it requires for its transit service.[4]

Despite labor cost most likely being the biggest component of hourly rate, it may not explain the *variation* in hourly rate between municipalities to the same extent as other cost characteristics, some of which we describe below.

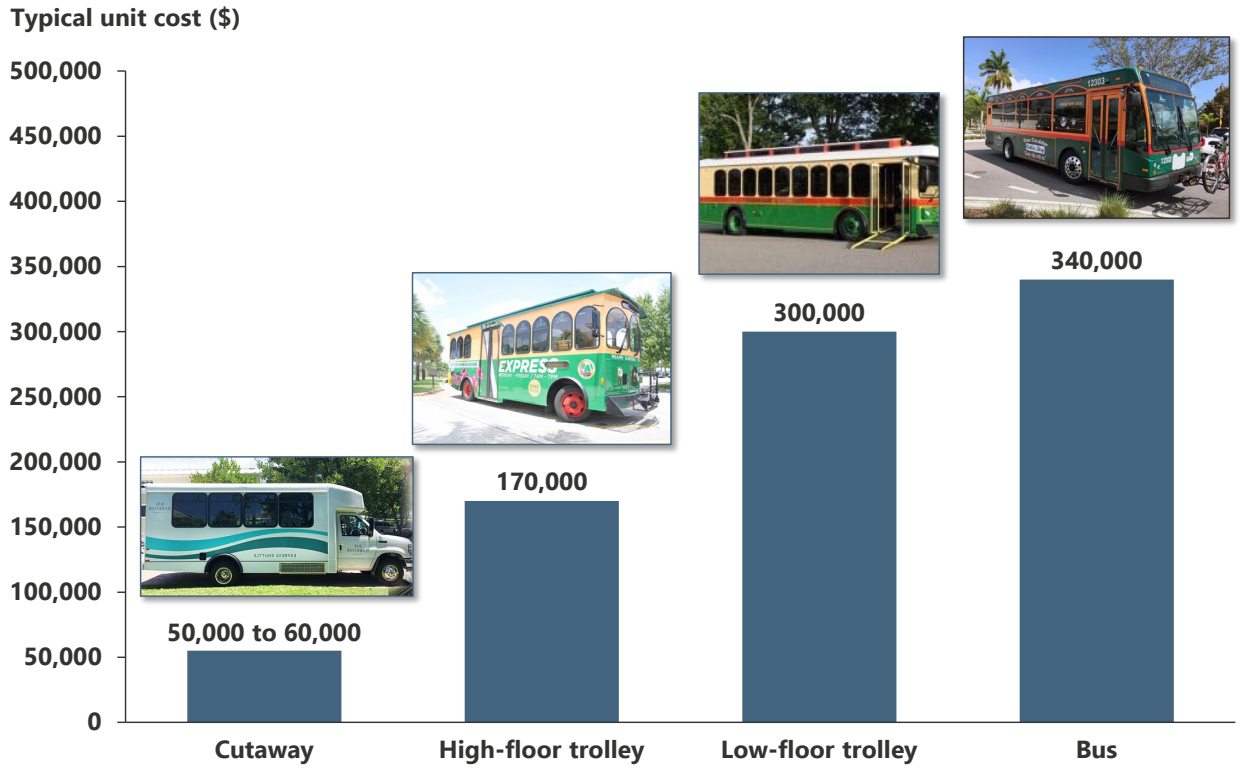
5.2.2 Vehicle type

One of the largest sources of variation in hourly rate, controlling for a similar scope of services procured, is the type of vehicle that municipalities require. Many of the municipalities use "cutaway" vehicles that seat 16-20 people and may cost $50,000 to $60,000 each. In contrast, Miami Beach, Coral Gables, and Miami Gardens use low-floor trolleys for at least a portion of their fleet, which can cost $300,000 per vehicle. Hialeah

[4] Coral Gables estimated that it may cost $200,000 in total for the three non-driver staff (two dispatchers and a manager); combined with the estimated 25,000 revenue service hours that its trolleys operate, this would translate into $8 per hour.

indicated that it is currently procuring new buses that will cost $340,000 per vehicle. Figure 6 displays unit cost estimates for different vehicle types.[5]

Figure 6: Cost of typical municipal transit vehicles



Source: Conversations with municipalities

The quality of service desired and the population served may drive the decision to use more expensive, low-floor trolleys. Coral Gables indicated that low-floor trolleys are better suited for an older population.[6] Low-floor vehicles are also better suited for quickly loading passengers, including those with ADA requirements (i.e., low-floor trolleys have a quickly deployable ramp for wheelchair users versus a slower lift in high-floor trolleys). Miami Beach also indicated that its status as a tourist destination, with 115,000 visitors each day, requires different vehicles from most municipalities; for instance, the Team understands that low-floor trolleys allow for higher capacity (up to 35 people).

Miami Beach has attempted to estimate how much vehicle amortization adds to its hourly rate. It estimates that low-floor trolleys cost $10 per hour and high-floor trolleys cost $6 per hour. Miami Beach runs its service 18 hours per day, meaning it is also able to amortize the cost of each vehicle across more revenue service hours per year.

[5] Hourly cost for all vehicle types is not available due to the need for additional data on vehicle service life and annual service hours.

[6] Coral Gables mentioned that it has had claims against it for incidents with elderly citizens tripping on steps on its high-floor trolleys.

Therefore, vehicle type can influence hourly rate to the extent that different vehicle types have significantly different unit costs and may be used for varying durations of service hours, as some municipalities run their services during typical working hours whereas others opt for extended hours for the convenience of tourists and residents. Ultimately, vehicle type must be an individual municipality decision based upon the quality of service desired and the needs of the municipality's context.

5.2.3 Insurance

Insurance requirements were frequently mentioned as a major source of variation in cost between municipalities. However, our review of contracts for the major municipalities that outsource transit shows that mandated insurance coverage limits are similar. Figure 7 displays insurance requirements for municipalities with the highest ridership in the County (Hialeah is displayed due to its lowest hourly rate).

Figure 7: Insurance requirements across major municipalities

Municipality	Contract Year	Commercial and General Liability	Automobile Liability	Worker's Compensation	Umbrella/ Excess
Coral Gables	2017	$1M per occurrence / $2M aggregate	$1M per occurrence	In compliance with state laws / $1M employer limit	$5M per occurrence / $5M aggregate
Doral	2014	$1M per occurrence / $2M aggregate	$1M per occurrence	In compliance with state laws / $1M employer limit	$5M per occurrence / $5M aggregate
Hialeah	2014	$5M per occurrence	$5M per occurrence	In compliance with state and federal laws	$1M minimum limit
Miami	2012	$1M per occurrence / $2M aggregate	$1M per occurrence	In compliance with state laws / $1M employer limit	$5M per occurrence / $5M aggregate
Miami Beach	2014	$1M per occurrence / $2M aggregate	$1M per occurrence	In compliance with state laws	$5M aggregate
North Miami	2014	$1M per occurrence	$1M per occurrence	In compliance with state laws / $1M employer limit	Not required

Source: Municipal contracts

As evident from the table, even though Hialeah has the lowest hourly rate of any municipality, its insurance requirements are similar to other municipalities reviewed. In fact, Hialeah has a more stringent requirement for commercial / general liability insurance and automobile liability insurance, both of which require minimum coverage of $5M.

The one major difference is the excess requirement, where Hialeah only requires $1M in the coverage limit whereas Coral Gables, Doral, Miami, and Miami Beach require $5M and North Miami does not have a requirement. However, Hialeah's requirement of $5M in coverage for the primary policy prevents the need for significant excess coverage. Furthermore, Coral Gables, Miami, and Miami Beach all share the same excess insurance requirement, and Miami's total hourly rate is $16 per hour lower than Doral's, despite both cities using LSF and the only difference in scope being that Miami pays for its own fuel whereas Doral does not; fuel should not add more than $9 per hour, as shown in the following section.

Therefore, while there are substantive differences in insurance requirements between municipalities, it does not appear as though insurance alone can explain the substantial variation in hourly rates for similar scopes of service.

5.2.4 Fuel

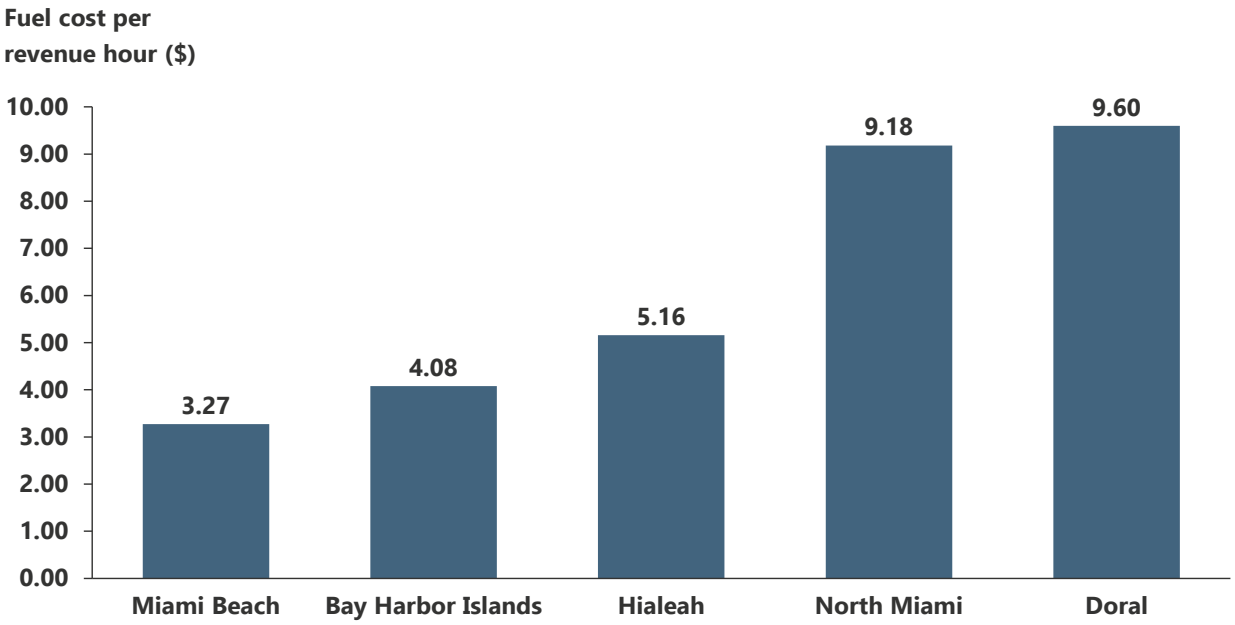
While fuel cost should intuitively be similar across municipalities, controlling for vehicle type, we found significant differences in the cost of fuel as a component of the hourly rate.

One of the first data points we received was from Doral's 2014 contract discussed earlier, which offered a menu of rates and appeared to indicate that fuel would cost an incremental $9.60 per hour. In comparison to other rates that we have either heard of or indirectly calculated, this appears to be high. Figure 8 displays estimated fuel cost per vehicle revenue hour for certain municipalities for which estimates were available.[7] As can be seen in the chart, Miami Beach estimates it pays $3.27 per hour for fuel whereas North Miami and Doral pay over $9.00 per hour, despite using vehicles (cutaways in North Miami, high-floor trolleys in Doral) that are unlikely to consume more fuel than the vehicles Miami Beach uses.

This indicates there may be significant opportunity to audit the cost for fuel that contractors are charging municipalities and to reduce this to rates that are in line with the market.

[7] Miami Beach estimated its hourly fuel cost, whereas the Team calculated it for Bay Harbor Islands (spends $8,000 on fuel versus an $80,000 annual budget for LSF at $40.76 per hour), Hialeah (spends $160,000 on fuel for roughly 31,000 revenue service hours), and North Miami (estimates that fuel cost is roughly 17% of its $54.00 per hour rate with LSF).

Figure 8: Fuel cost across select municipalities



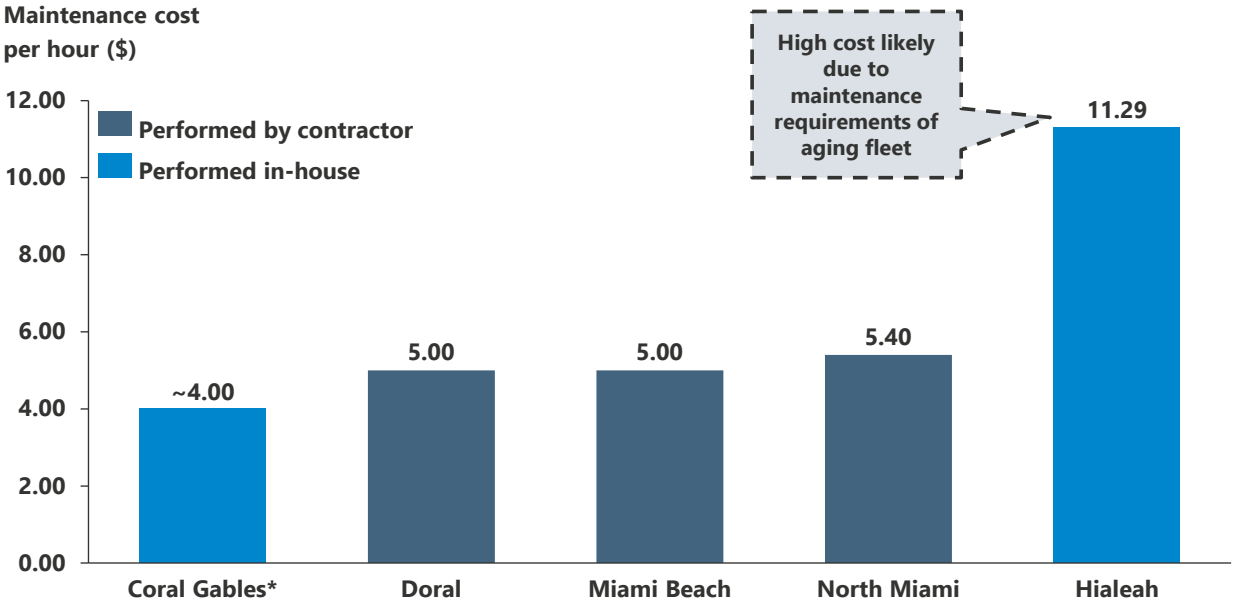
Notes: **Miami Beach** fuel cost per revenue hour was estimated by the City; **Bay Harbor Islands** estimates it spends $8,000 per year on fuel versus $80,000 contract cost with LSF (therefore fuel cost per revenue hour assumed to be 10% of LSF hourly rate of $40.76); **Hialeah** indicated it has a $160,000 annual fuel budget, which was divided by 31,000 Tier I revenue hours from their contract; **North Miami** indicated that fuel is 17% of their $54 hourly rate; **Doral** fuel cost is incremental cost quoted in LSF Proposal to Doral for RFP#2014-09 (page 53 – Quoted Costs).
Source: Municipal contracts; Conversations with municipalities

5.2.5 Maintenance

As earlier discussed, different municipalities had different philosophies and constraints on whether they perform vehicle maintenance in-house or outsource it as part of their transit contracts. While some municipalities, such as Doral and Miami Beach, have facility constraints and cannot in-source maintenance, others, such as Coral Gables and Hialeah, decided to bring maintenance back in-house after perceiving that they were either being charged too much or did not receive high-quality maintenance from their contractor.

Estimates for maintenance cost appear similar across municipalities profiled. Figure 9 displays the estimates obtained. Coral Gables appears to spend the least on maintenance per hour, consistent with their finding that they would save cost by in-sourcing maintenance. The estimate for Hialeah is also consistent with its observation that its older fleet requires more maintenance. However, it expects to significantly reduce this with a new fleet that it is currently procuring. Maintenance costs for Doral, Miami Beach, and North Miami do not appear to be significantly more expensive than what Coral Gables incurs for its internal maintenance, indicating that, at least for Miami Beach and North Miami, the maintenance cost component of their hourly rate is likely reasonable.

Figure 9: Maintenance cost estimates across select municipalities



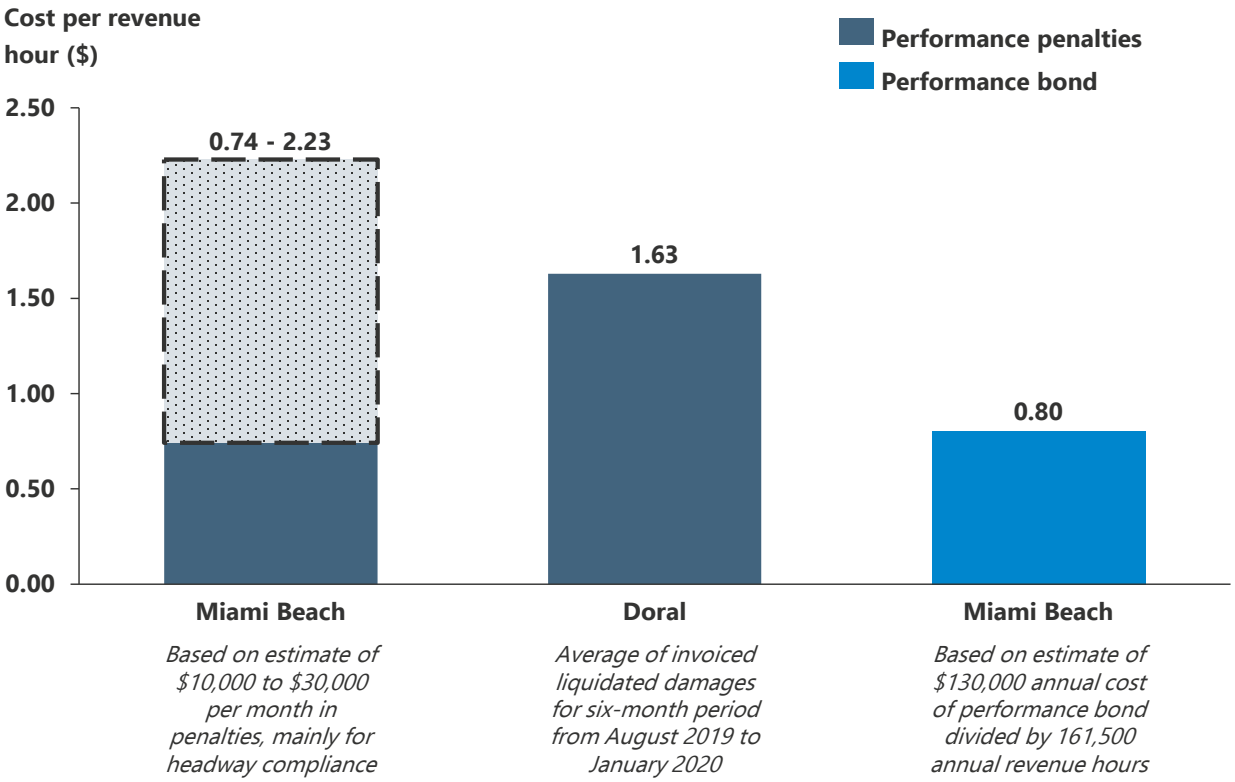
*Coral Gables spends $185,000 on maintenance and fuel together and operates for 25,000 annual service hours; this analysis assumes fuel cost is at least $3.27 per hour (Miami Beach estimate) and subtracts this from the $7.40 hourly cost estimate for maintenance and fuel combined
Note: Doral maintenance cost includes storage, as in LSF Proposal to Doral for RFP#2014-09 (page 53 – Quoted Costs)
Source: Municipal contracts; Conversations with municipalities

5.2.6 Performance standards

Some municipalities use performance standards and penalties in their contracts, but these are not universally included nor applied. Some performance measures include targets for on-time performance, headways, response time to equipment malfunction, safety, and other characteristics. In general, most municipalities also require reporting of customer complaints.

However, penalties for failure to meet performance standards do not appear to be a major cost driver. Figure 10 displays the estimated contribution of performance penalties and Miami Beach's performance bond requirement to hourly rate.

Figure 10: Performance standards and performance bond contribution to hourly rate



Source: Conversations and e-mails with municipalities

Among the municipalities whose contracts include performance penalties are Miami Gardens, Miami Beach, and Doral. In Miami Beach's case, it is enforcing penalties of approximately $10,000 to $30,000 per month, and this translates into roughly 1-3% of its hourly rate, or about $0.74-2.23 per hour. Similarly, as shown in Figure 10 and in more detail in Figure 11, Doral's liquidated damages for performance failures added $1.63 per hour, on average, between August 2019 and January 2020.

Figure 11: Performance penalties in Doral

Month	Total Service Hours	Gross invoice Amount	Liquidated Damages	Net invoice Amount	Calculated Invoiced Hourly Rate	Liquidated Damages per Hour
Aug-19	3,697.5	$221,261	$9,649	$211,612	$57.23	$2.61
Sep-19	3,197.7	$191,351	$6,915	$184,436	$57.68	$2.16
Oct-19	3,802.3	$227,532	$5,682	$221,850	$58.35	$1.49
Nov-19	3,388.7	$202,780	$4,139	$198,640	$58.62	$1.22
Dec-19	3,506.6	$209,832	$3,743	$206,089	$58.77	$1.07
Jan-20	3,647.9	$218,292	$4,482	$213,810	$58.61	$1.23

Source: City of Doral internal data

Therefore, while performance penalties do add cost for contractors, this does not appear to be a significant burden, though contractors may add additional buffer into their proposed hourly rates to account for a worst-case estimate of possible performance penalties.

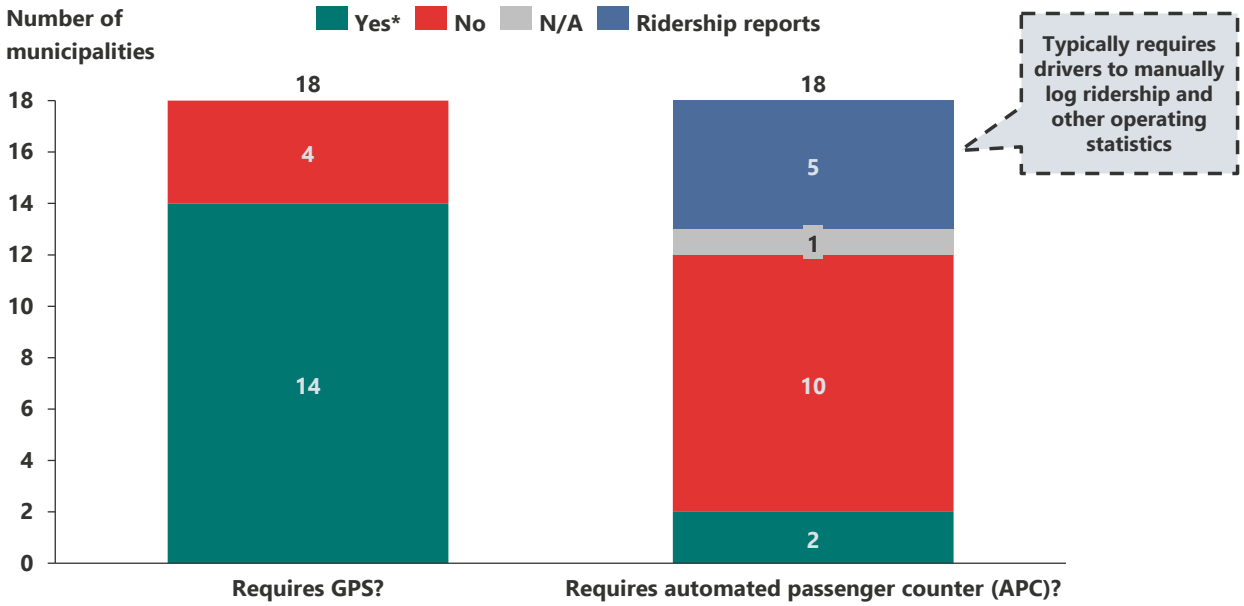
The Team also heard that performance bonds may contribute to overall cost, as some municipalities, such as Coral Gables, Doral, Miami Beach, and North Miami require a performance bond for 100% of the total annual contract amount. While cost data on such bonds was not available for most municipalities, Miami Beach indicated the bond costs $130,000 per year, which adds roughly $0.80 per hour and is therefore not a substantial part of the overall hourly rate.

6. Other contract terms

6.1 Technology requirements

Most municipalities have technology requirements in their contracts, with at minimum a requirement that vehicles be equipped with GPS sensors to allow for location tracking by the contractor, by the municipality, and/or by riders. However, not all municipalities have mobile-based tracking apps for riders to be able to see real-time location of the trolley or shuttle. Another requirement that may become more commonplace over time is the installation of automated passenger counters (APCs), which use sensors to count the number of riders that have boarded a vehicle. While our analysis indicates that only Miami and Miami Beach currently require the use of APCs on-board the contractor vehicles, Aventura required bidders to include the additional cost of APCs in its most recent transit services RFP, and Miami Gardens states in its current contract that it intends on installing APCs at a future date. Currently, a number of municipalities require drivers to manually log operational statistics such as ridership. Figure 12 displays a breakdown of contracts that require GPS and APCs or ridership reports.

Figure 12: Technology requirements in municipal trolley/shuttle contracts



*For GPS category, while 14 municipalities either mandate a GPS device in their vehicles or responded affirmatively to a question on GPS in the DTPW July 2020 survey, they do not all offer a real-time shuttle location tracking app for riders

Note: Aventura RFP requested option for APCs, but it is not known whether it exercised this option; Miami Gardens contract states that it intends on installing APCs at a future date

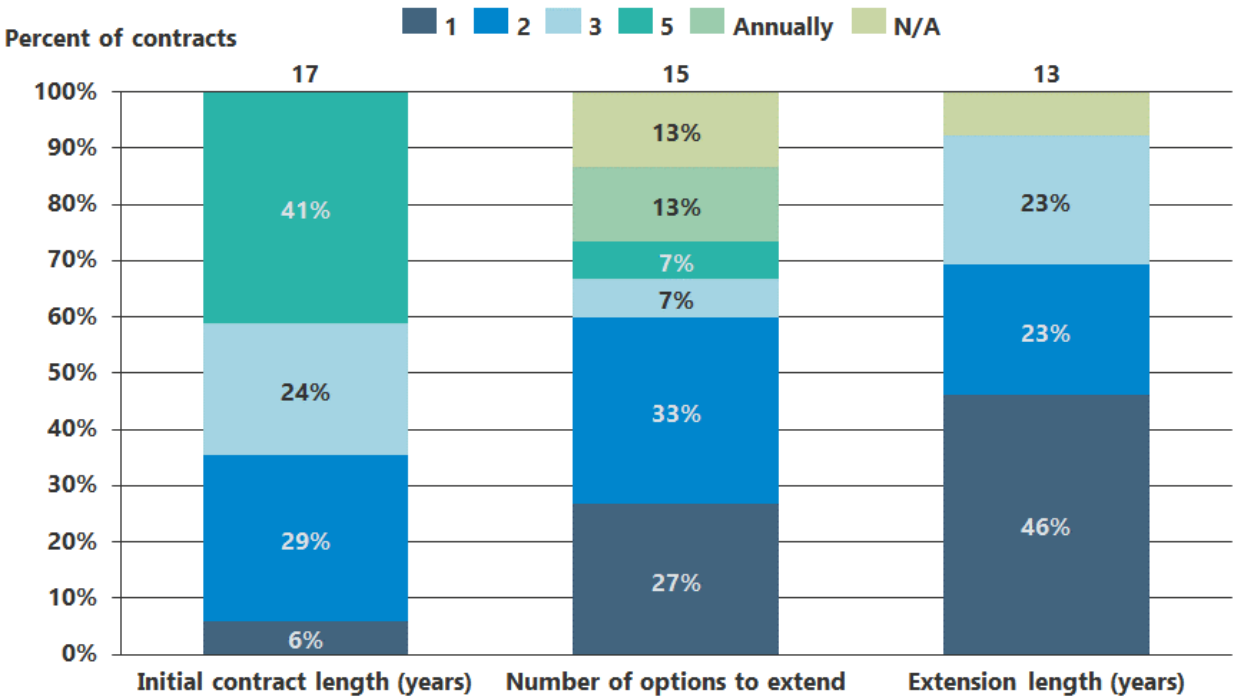
Source: Municipal contracts, RFPs, and DTPW municipal survey results from July 2020

6.2 Contract term length

Contract term length is another characteristic that varies by municipality. The typical contract length in the contracts reviewed by the Team is three years, though the Team also saw initial contract terms ranging from one year to five years. Most contracts also give the municipality the ability to extend the contract term at least once, though some grant a number of options (e.g., the City of Miami's contract with LSF grants it five options to extend by one year each). The typical length of an extension option is one year, with a range from one to three years. Figure 13 displays a breakdown of contract lengths and extensions.

It is important to note that many municipalities have extended contracts several times past the original expiration of the contract term (including extensions). One reason may be due to the favorable pricing that they have negotiated with their contractor. For instance, Hialeah's original contract term was for two years, beginning in October 2010, but it continues to use its same contract with MV Transportation today, extending the contract through periodic amendments in 2012, 2014, and 2016. Hialeah has done so because of the favorable hourly rate it continues to obtain from MV Transportation. Similarly, while Bay Harbor Island's original contract with LSF expired in 2017, it continues to pay the same hourly rate it did in 2017, and its contract is now on a month-to-month basis.

Figure 13: Breakdown of contract length and extension options for trolley/shuttle contracts



Note: Excludes Freebee contracts; municipal contracts do not universally have options to extend; certain terms, such as extensions or extension lengths, were not available; many municipalities have performed ad hoc extensions periodocally; length of County contract with LSF was not available
Source: Municipal contracts

6.3 Service characteristics

The Team observed that certain contracts have service characteristics that may improve overall service quality and safety. Figure 14 displays an overview of such requirements.

In particular, Miami Beach emphasized the "Ambassador Style" customer service guidelines which drivers must follow, including greeting and thanking passengers, helping passengers get in and out of the trolley, waiting for all passengers to be properly seated before moving, checking climate-controlled temperature of the vehicle every two hours, having knowledge of the city and major events, and a variety of others.

Other requirements the Team observed included bike rack requirements for vehicles in Miami Beach, Miami Gardens, and North Miami, automated announcements, and on-board Wi-Fi. Certain municipalities also attempt to observe customer satisfaction through supervisor and anonymous ride-alongs and check-ins with passengers. Many contracts also have security camera requirements; while the majority of these requirements relate to cameras on the inside of the vehicle, certain contracts or contractor proposals also included exterior cameras that assist and ensure that operators are driving safely.

Figure 14: Quality of service and safety attributes in contracts

Quality of service	Safety / Security
• **"Ambassador Style" customer service requirement** in Miami Beach contract • **Bike racks on vehicles** in Miami Beach, Miami Gardens, and North Miami contracts • **Automated Voice Information Systems (AVIS)** in Miami Beach and Miami Gardens • **On-board Wi-Fi** in Miami Beach and Miami Gardens • **Tools to measure customer satisfaction,** such as mystery rider program in Coral Gables and supervisor check-ins with passengers in Aventura	• **On-board security camera** to monitor interior of vehicle (both riders and operator) in a number of municipalities • **Exterior security camera** and other systems (e.g. Mobileye Collision Avoidance offered by MV Transportation to Coral Gables) to ensure safe driving by operator

Source: Municipal contracts, RFPs, and contractor proposals

7. Competitive dynamics

The Team also heard that certain municipalities believe they either initially obtained and/or continue to receive a low hourly rate due to competitive dynamics.

For instance, Hialeah began its contract with MV Transportation in 2010 at a time when MV Transportation did not have a major business presence in South Florida. Therefore, Hialeah's perception is that the contractor bid low to gain a foothold in the region, and one of the reasons Hialeah has continued to renew the contract with MV is due to the favorable pricing that it continues to receive. MV Transportation won contracts with West Palm Beach in 2014 and Coral Gables in 2017, presumably due in part to its existing presence in Hialeah. Nevertheless, MV Transportation bid $15 per hour higher versus LSF in Miami Beach's 2014 procurement of its North Beach Loop trolley service, meaning competitive dynamics alone may not explain the pricing that MV has been proposing.

Bay Harbor Islands, which has a very competitively priced hourly rate for the scope of services it procures, indicated that its contract is month-to-month and that LSF has never approached the town to sign a new agreement. While the town did not know why LSF continues to offer its low rate, this may be due to the town keeping up the pressure (Bay Harbor indicated to LSF it would re-evaluate the service in a year) and LSF's desire not to force a competitive re-bid for small yet stable business.

Lastly, Bal Harbour has the second-lowest hourly rate among municipalities and is also the only municipality to use Americas Transportation. Americas Transportation also provides shuttle service at Florida International University (FIU). It is possible that this contractor offered the lowest rate to Bal Harbour during their 2016 proposal process due to its lower profile as a vendor versus LSF and MV Transportation. However, the Team recognizes that there are a limited number of providers that can meet the requirements of larger municipal trolley systems, and municipalities cannot fully control which firms decide to submit bids during their RFP processes.

8. Best practices

Based upon the review of the municipal trolley/shuttle service contracts, the Team believes that there are certain best practices that may be worth including in more municipal transit contracts. These include the following:

1. **Performance standards and deductions**: Certain municipalities establish performance standards for on-time performance/minimum headway, equipment functionality (e.g., GPS, radio, surveillance cameras), cleanliness of vehicle, safety and traffic citations, etc. and assess fines if these standards are not met.
2. **Measurement of customer satisfaction:** While no municipalities currently measure customer satisfaction formally through surveys, certain municipalities have attempted to measure customer satisfaction through informal mechanisms as described in Section 6.3.
3. **Real-time location tracking for riders**: Most municipalities require GPS devices on-board vehicles, but many municipalities go further and provide real-time tracking through mobile-based apps, such as those provided by TSO Mobile and ETA Transit.
4. **Minimum standards for drivers:** While most municipalities have standards for drivers such as proper licensing, familiarity with route and municipality, etc., certain municipalities also include additional requirements, as described in Section 6.3.
5. **Ongoing reporting**: There is variation in reporting requirements across contracts and the extent to which municipalities appear to enforce such reporting requirements. The Team notes that certain municipalities were able to provide statistics such as contractor costs and revenue hours, in addition to ridership. Adequate reporting would assist municipalities and the County in evaluating service cost-effectiveness and service quality, as discussed further in Section 10.

9. Analysis of Freebee

As mentioned earlier, the Team did not perform a detailed analysis of Freebee, given it is not used widely and is in pilot stages in many of the municipalities that are currently using it. However, we present a brief analysis of the service here.

Freebee typically complements existing trolley/shuttle service or provides a transit service in municipalities that do not have existing trolley or shuttle routes. Freebee operates electric urban vehicles that typically seat

six people (five passengers + one driver) and only operate on roads with posted speeds of 25-30 miles per hour, as well as electric vans that seat nine people and can operate on any roads or highways. Figure 15 displays the two types of Freebee vehicles in use.

Figure 15: Types of Freebee vehicles

Electric Urban Vehicle (model: GEM E6)

Electric Van (model: Ford Transit 350HD)

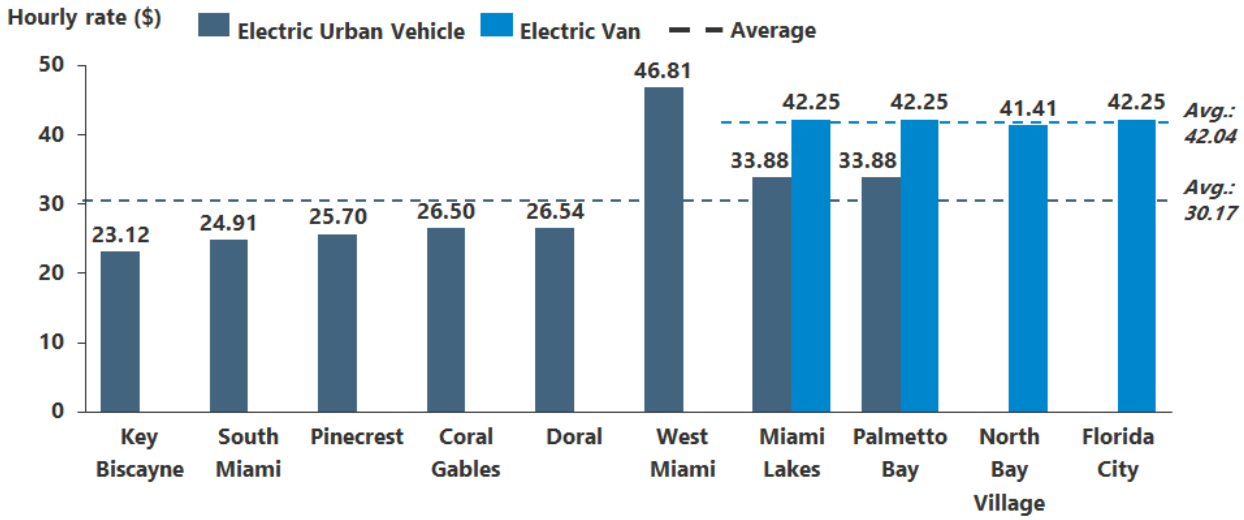
Key Biscayne, West Miami, Miami Lakes, Florida City, and South Miami have Freebee as their sole transit service option. Palmetto Bay and North Bay Village operate in-house shuttles but complement this with Freebee. Lastly, Pinecrest, Coral Gables, and Doral use third-party trolley/shuttle service providers in conjunction with Freebee.

The Team found that Freebee is generally thought of as a positive additional transit offering, given its on-demand nature and ability to provide "last-mile" service to a specific address, much like Uber or Lyft. It is still in nascent stages for many municipalities, as some are in the middle of pilots. Doral has been running a 6-month pilot that will end in November and has had positive reviews. Bay Harbor Islands has also been piloting Freebee, and the town indicated it appreciates the service's on-demand and emission-free nature. Coral Gables is in the middle of a three-year pilot with Freebee that is partially funded by FDOT as part of its implementation of the County SMART Plan. Miami Beach was about to run a 6-month pilot with Freebee before COVID-19 delayed plans. Similarly, North Miami and Homestead have indicated they are considering Freebee but have not yet made any decision on it.

In general, Freebee's rates appear to be similar across municipalities. Figure 16 displays Freebee rates across municipalities with available cost data. West Miami appears to be the one outlier, as it is charged a significantly higher rate for the electric urban vehicles when compared with other municipalities, and this may merit further review.

Advertising can help to offset Freebee's cost. For instance, Coral Gables recently received approximately $10,000 in advertising revenue per month for a six-month period from Freebee, which offsets 25% of its $40,302 cost per month for the Freebee service. Most of the Freebee contracts reviewed require an even split of all advertising revenue between Freebee and the municipality. Freebee also offers differential rates based upon whether advertising is included, as seen in the rates offered to Doral in Figure 17.

Figure 16: Freebee hourly rates across select municipalities



Note: **Pinecrest, Coral Gables, West Miami** hourly rates are calculated based upon annual operating cost divided by expected revenue hours; West Miami was operating 3-month pilot program through October 2020 and had two options to extend contract for three years.
Source: Municipal contracts

Figure 17: Freebee rates offered to Doral, with and without advertising

Freebee hourly rates	40 hours per week	70 hours per week
With advertising revenue	$25.37 per hour	$19.95 per hour
Without advertising revenue	$33.88 per hour	$26.54 per hour

Source: City of Doral

While Freebee is currently the only provider of its kind being used by municipalities in Miami-Dade County, some municipalities have recently determined that such a service should be competitively bid. Circuit is a similar service to Freebee offered in select municipalities of Broward and Palm Beach Counties, and it operates in seven other states in the US. Key Biscayne aimed to pursue a competitive procurement for a Freebee-like service in January 2020[8], though the Team is not aware of whether this procurement has gone forward.

10. Recommendations

Based upon the analysis of contracts and our discussions with select municipalities, we present four key recommendations below.

[8] http://www.islandernews.com/news/village-to-seek-competitive-bids-for-freebee/article_1c673f34-4352-11ea-8157-232ae7ab577d.html

10.1 Collection of additional data

First, we recommend collecting additional data on municipal transit services on a regular basis. For instance, revenue service hours may provide a useful metric with which to benchmark transit service cost. While select municipalities do publish this information, CITT could consider requesting this data point in the quarterly reporting that municipalities provide. Revenue service hours would enable comparison of "true" hourly costs of transit service between municipalities. As the above analysis indicates, the Team made assumptions to perform like-for-like analysis between municipalities, as most municipalities are familiar with how much they spend in aggregate on transit costs, but they may not calculate costs on an hourly basis. With access to cost information and revenue service hours, CITT may better monitor standardized hourly costs, including both third-party and internally provided transit service, across municipalities and thereby identify opportunities for cost reduction.

Municipalities could also collect additional data from their contractors. In our discussion with Miami Beach, the City indicated it can audit LSF costs through one of its contract provisions. While it has never exercised such a right, access to such data could allow municipalities and CITT to obtain a better understanding of what drives contractor costs and ways to minimize cost while maintaining service quality. Coral Gables, Doral, and Miami also require their contractor to maintain records as requested by the City and to make those available at any time. While some cost may be driven by the profit margins that contractors require, the Team believes that contractors may also work with municipalities to identify the areas that are driving cost. For instance, the administrative cost of managing invoicing and reporting to the 13 municipalities that LSF currently has contracts with could contribute to the labor cost that LSF includes in its hourly rates.

10.2 Consider insource/outsource decision

The decision to insource or outsource certain transit functions may allow municipalities to save cost in certain areas, though this must be considered in the context of service quality and the scale of the transit operation.

Our analysis indicates that maintenance and storage of vehicles may warrant further analysis, especially by municipalities that have facilities to perform their own vehicle maintenance. As Coral Gables discovered, it was significantly cheaper for it to perform its own maintenance instead of using its contractor. However, there may also be benefits to allocating responsibility for vehicle maintenance to the party that owns the vehicles. As Hialeah indicated in our discussion with them, it felt that municipalities may be able to achieve higher quality maintenance outcomes when they own their vehicles. Conversely, Doral felt contractors may have an incentive to preserve the value of their assets if they own the vehicles.

The decision on which party finances vehicle purchase may also merit further review. While certain municipalities expressed their desire to outsource the full scope of transit service due to its convenience and preventing the need to pay upfront for vehicles, contractors may not be able to finance asset purchases at terms that are as attractive as major municipalities. Certain municipalities may be able to obtain inexpensive debt due to their public finances or obtain state grant funding to finance such capital purchases. A contractor audit could shed further light on the financing costs that LSF and others incur in their vehicle purchases to help evaluate which party can finance vehicles more inexpensively.

Lastly, fuel costs varied considerably among the estimates that we made for certain municipalities, and some of them may find they are able to fuel their trolley/shuttle vehicles more cheaply than their contractor, as

Hialeah found. Therefore, before deciding to outsource this function, municipalities may find it advantageous to analyze potential alternative sources for fuel purchase.

10.3 Consider leveraging scale at County level

While there was not significant interest in a master services agreement or other framework contract at the County level, there may be scale benefits to combining the transit contracts or purchase decisions of certain municipalities, as they may be able to amortize fixed costs over more service hours in larger-scale transit systems. The County itself currently leverages the City of Miami's contract with LSF for certain Miami-Dade Transit (MDT) routes.

Fixed costs may include staff such as dispatchers, supervisors, and other managers that may be required for a system regardless of if it serves 300,000 riders, such as North Miami and Aventura, or over 5 million riders, such as Miami and Miami Beach. Fixed costs may also include the invoicing and reporting requirements mentioned earlier, which are necessary for any municipality regardless of the size of business it generates for a contractor.

The use of similar vehicle types may also present an opportunity for the County to assist municipalities in combining volumes to procure vehicles together. Cutaway vehicles, high-floor trolleys, and low-floor trolleys are each used by at least three municipalities, meaning there is already a "critical mass" of volume for each vehicle type, though municipalities may also need to adjust their vehicle purchasing lifecycles to align timing with others.

We cannot state that larger scale would definitively reduce cost per hour, as certain larger systems, such as Miami Beach, are also higher cost. However, as this report discusses, there are a variety of cost drivers that may explain higher cost of large systems, some of which are due to true differences in service quality, such as vehicle type. Investigating joint contracts may lead to identification of scale cost benefits, and some municipalities are already exploring this, such as Bal Harbour, Surfside, and Bay Harbor Islands, who are currently discussing a combined trolley service across all three municipalities.

10.4 Measure customer satisfaction scores

Finally, the Team recommends that municipalities measure customer satisfaction scores to better understand whether the performance and quality of service attributes that municipalities hypothesize customer value, such as the ease of access on low-floor trolleys and the convenience of shorter headways and higher on-time performance, are actually leading to higher satisfaction as perceived by customers. Certain municipalities may already collect such data, and CITT could consider requesting customer satisfaction data to better understand if higher-cost municipalities also have higher scores for their trolley and shuttle services.

Appendix 1 Municipalities Interviewed

Municipality	Date of Interview
1. Bay Harbor Islands	July 8th, 2020
2. Coral Gables	July 16th, 2020
3. Doral	July 7th, 2020
4. Hialeah	July 22nd, 2020
5. Homestead	August 7th, 2020
6. Miami Beach	July 22nd, 2020
7. North Miami	August 12th, 2020

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