

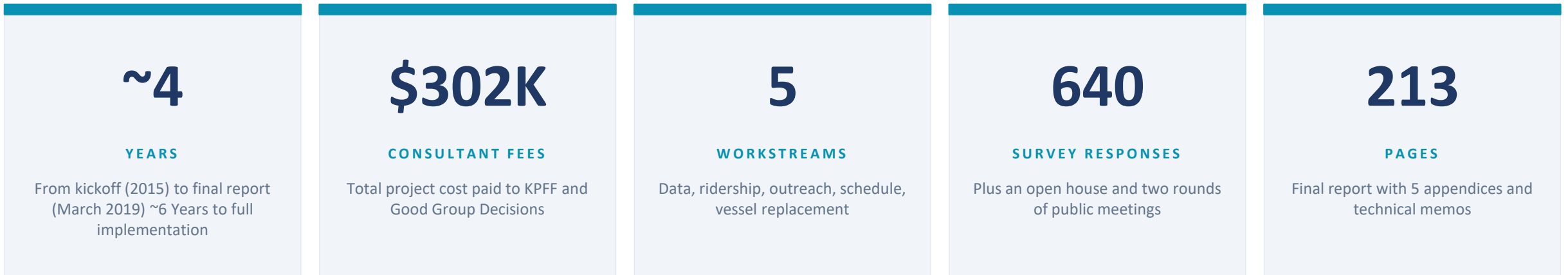


CASCO BAY LINES

# Schedule & Fleet Analysis

What the 2015-2019 KPFF study involved, what it recommended, what CBL did with it, and what the Board needs to decide for the next schedule review

# A four-year, \$302K, multi-workstream effort



## TIMELINE



**FIVE WORKSTREAMS:** Data Collection • Ridership Forecasting • Public Outreach • Schedule Alternatives • *Vessel Replacement (already implemented; would not need to be repeated)*

# Five goals, five guardrails

## FIVE GOALS

### Improve transportation options

For residents, tourists, and other visitors.

### Present schedules clearly

User-friendly format, on paper and online.

### Improve operational efficiencies

Vessel usage, crew scheduling, fuel, maintenance.

### Document the process

Establish a repeatable method for future schedule changes.

### Avoid an immediate fare increase

Cost savings should come from operations, not from riders.

## FIVE GUARDRAILS

### The Board's guardrails

- ✓ Respect Collective Bargaining Agreements
- ✓ Work within existing fleet composition
- ✓ Work within existing terminal and dock facilities
- ✓ Preserve all major lines of service
- ✓ Include robust public participation

# Four categories of recommendations, each tied to a Board goal

## SCHEDULE CHANGES

### Timing shifts and new sailings

*GOAL: Improve transportation options*

- Shift 5:05am → 5:00am, 2:45pm → 3:00pm
- Add 8:00am and 1:00pm Down Bay trip (year-round)
- Add Diamond Cove to noon trip

*See slides 6-12 for what was implemented*

## SCHEDULE STRUCTURE

### Simplification and uniformity

*GOAL: Document the process / present clearly*

- Reduce Down Bay seasonal schedules to three (summer/winter/shoulder)
- Reduce Peaks seasonal schedules to two
- Eliminate duplicate Portland departure times
- Establish departure-time uniformity

*Schedule structure largely held through FY25*

## OPERATIONAL CHANGES

### Crew and vessel reallocation

*GOAL: Improve operational efficiencies*

- Eliminate all short and extended crew shifts
- Reduce Maquoit operating hours by ~40%
- Increase Wabanaki and Aucocisco hours
- Restructure crew labor (-\$80K projected)

*Savings depend entirely on these changes*

## VESSEL REPLACEMENT

### Replace aging fleet

*GOAL: Improve operational efficiencies*

- Replace and retire Machigonne II as soon as possible
- Replace and retire Maquoit II in the near future
- Retain Bay Mist as spare vessel (deck layout suits backup role)

*Battery Steele will replace Machigonne II in 2026*

# More service, slightly lower cost

## WHAT KPFF RECOMMENDED

### Two extra weekday sailings

One Inner Bay and one Down the Bay trip

### One extra weekend sailing

One additional Inner Bay trip

### Daily freight increased to three

8:00am, 12:00pm, and 4:00pm

### Reduced to three seasonal schedules

Summer, winter, and shoulder

## WHAT KPFF PROJECTED

**+8%**      **-\$54K**

### SERVICE HOURS

~1,200 hrs added  
system-wide

### ANNUAL COST

~\$54,000/yr savings  
vs. existing baseline

*System-wide projection. Down Bay carried the savings;  
Peaks barely changed.*

## CONDITIONAL ON THESE CHANGES

- Eliminate all short and extended crew shifts
- Reduce Maquoit operating hours by ~40%
- Increase Wabanaki and Aucocisco hours
- Restructure crew labor allocation (-\$80K projected)

## ROUTE-LEVEL SERVICE HOURS AND OPERATING COST CHANGE

| ROUTE              | SERVICE HOURS | CREW LABOR            | VESSEL MAINT.         | NET OPERATING COST    |
|--------------------|---------------|-----------------------|-----------------------|-----------------------|
| Peaks Island       | +0.3%         | -\$10K (-1.8%)        | +\$2K (+0.2%)         | -\$7K (-0.5%)         |
| Down Bay           | +13.2%        | -\$79K (-6.2%)        | +\$15K (+2.0%)        | -\$47K (-2.0%)        |
| <b>System-wide</b> | <b>+8%</b>    | <b>-\$89K (-4.8%)</b> | <b>+\$17K (+1.1%)</b> | <b>-\$54K (-1.4%)</b> |

All figures in 2017 dollars. Source: KPFF Consulting Engineers, Casco Bay Lines Schedule and Fleet Analysis Final Report (March 25, 2019), Table 4.

# KPFF recommendations vs. what was actually implemented

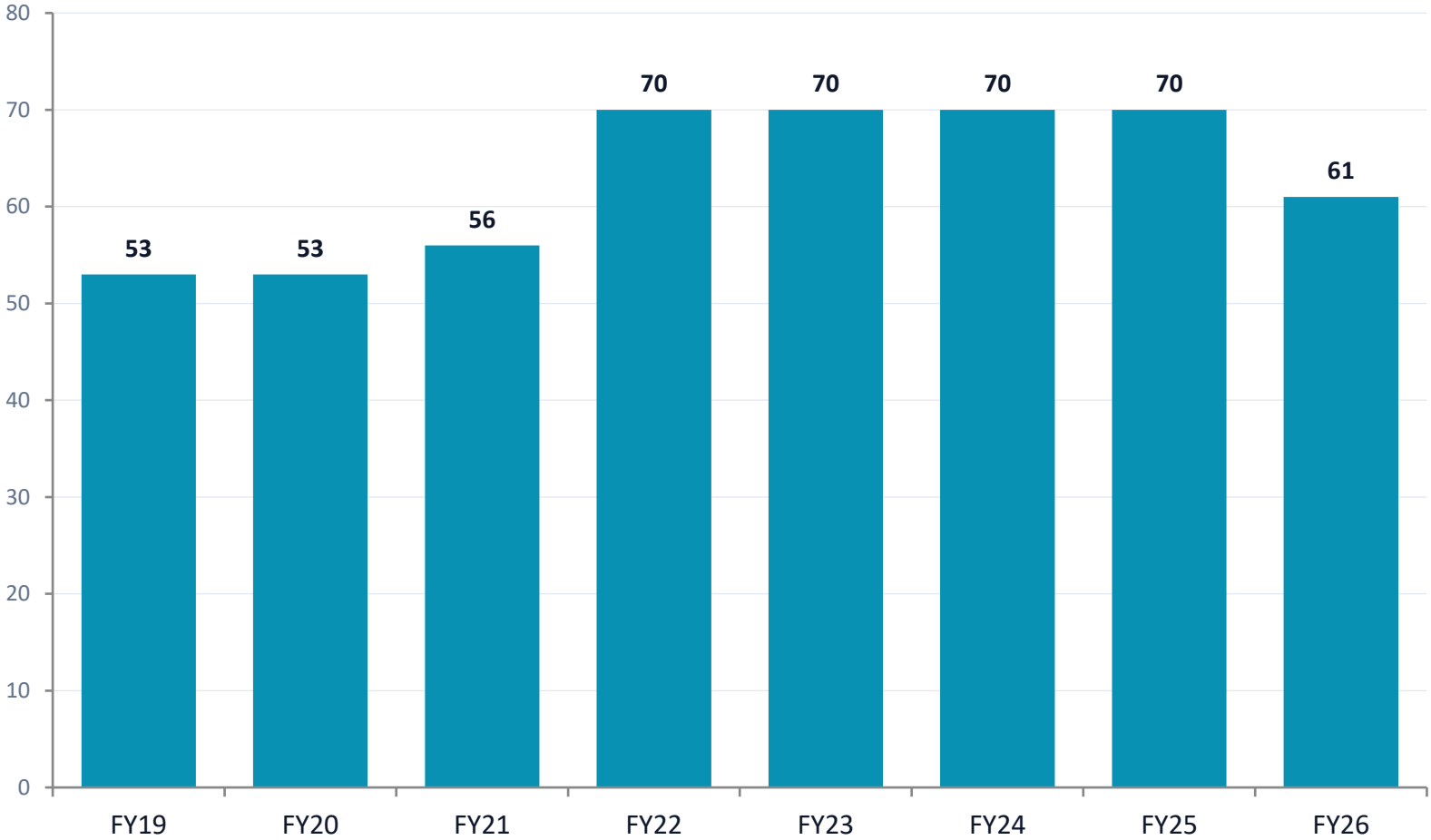
Most weekday changes track KPFF closely. Four implementation choices went beyond what the report recommended.

| Schedule change                             | In KPFF? | Implemented? | Note        |
|---|----------|--------------|-------------|
| Shift 5:05am to 5:00am                      | Yes      | Yes          |             |
| New 8:00am freight trip (full route)        | Yes      | Yes          |             |
| Add Diamond Cove stop to noon trip          | Yes      | Yes          |             |
| New 1:00pm trip (LD-GD-DC-Long)             | Yes      | Yes          |             |
| Shift 2:45pm to 3:00pm                      | Yes      | Yes          |             |
| Shift 3:00pm to 3:15pm (FY26)               | No       | Yes          | Beyond KPFF |
| Extend 8:30pm trip to Cheb and Cliff        | No       | Yes          | Beyond KPFF |
| Add 5:00am and 8:00am to Saturdays          | No       | Yes          | Beyond KPFF |
| Add 5:00am, 7:45am, 8:00am, noon to Sundays | No       | Yes          | Beyond KPFF |

**Service additions went beyond what KPFF recommended.**

# Down Bay weekly trips, FY19 to FY26

Regularly scheduled trips, mid-October to mid-April winter window



## WHAT TO NOTICE

### FY19 - FY20 Baseline schedule

53 weekly trips. Schedule unchanged through early March 2020 when COVID emergency reduction began.

### FY21 Weekend equalization

+3 trips/week. Saturday and Sunday morning service added to bring weekends closer to weekday levels.

### FY22 Morning and afternoon trips

+14 trips/week. New 8:00am and 1:00pm trips daily; 8:30pm extended to Chebeague and Cliff.

### FY26 Partial reduction

-9 trips/week. The 1:00pm trip eliminated daily; 8:00am eliminated on weekends. Still +8 vs FY19.

Source: CBITD Ridership database. Schedule analysis covers Oct 15 to Apr 15 winter window. FY26 reflects post-October 2025 stable schedule.

# The expansion happened in two distinct steps, both during COVID

Pre-COVID winter 2019-20 was identical to FY19. The 70-trip schedule was assembled across two consecutive winters.

## STARTING POINT

### FY19 baseline

Maintained through pre-COVID FY20

# 53

weekly trips

#### Mon-Fri

8 trips/day

#### Saturday

7 trips/day (no early commuter)

#### Sunday

6 trips/day (lightest day)

## ROUND 1 | WINTER 2020-21

### Weekend equalization

Saturday and Sunday brought closer to weekday level

# +3

trips/week added (53 to 56)

#### Saturday

Added 5:00am early boat

#### Sunday

Added 7:45am and noon trips

#### Time shifts (no net change)

5:05am to 5:00am; 2:45pm to 3:00pm

## ROUND 2 | WINTER 2021-22

### Mid-day expansion

Trips added across all seven days of the week

# +14

trips/week added (56 to 70)

#### New 8:00am full-loop trip

Daily, including Cheb and Cliff

#### New 1:00pm trip

Daily, LD-GD-DC-Long route

#### 8:30pm extended

Now serves Cheb and Cliff (was Long only)

The 70-trip schedule then held flat through FY25 before the FY26 partial reduction.

# Weekly stops by island, FY19 / FY25 / FY26

How service expansion and the FY26 reduction landed at each Down Bay community

| Island             | FY19       | FY25       | FY26       | FY25 vs FY19       | FY26 vs FY19      |
|--------------------|------------|------------|------------|--------------------|-------------------|
| Little Diamond     | 53         | 70         | 61         | +17 (+32%)         | +8 (+15%)         |
| Great Diamond      | 53         | 70         | 61         | +17 (+32%)         | +8 (+15%)         |
| Diamond Cove       | 20         | 42         | 33         | +22 (+110%)        | +13 (+65%)        |
| Long Island        | 53         | 70         | 61         | +17 (+32%)         | +8 (+15%)         |
| Chebeague          | 34         | 49         | 47         | +15 (+44%)         | +13 (+38%)        |
| Cliff              | 34         | 49         | 47         | +15 (+44%)         | +13 (+38%)        |
| <b>TOTAL stops</b> | <b>247</b> | <b>350</b> | <b>310</b> | <b>+103 (+42%)</b> | <b>+63 (+26%)</b> |

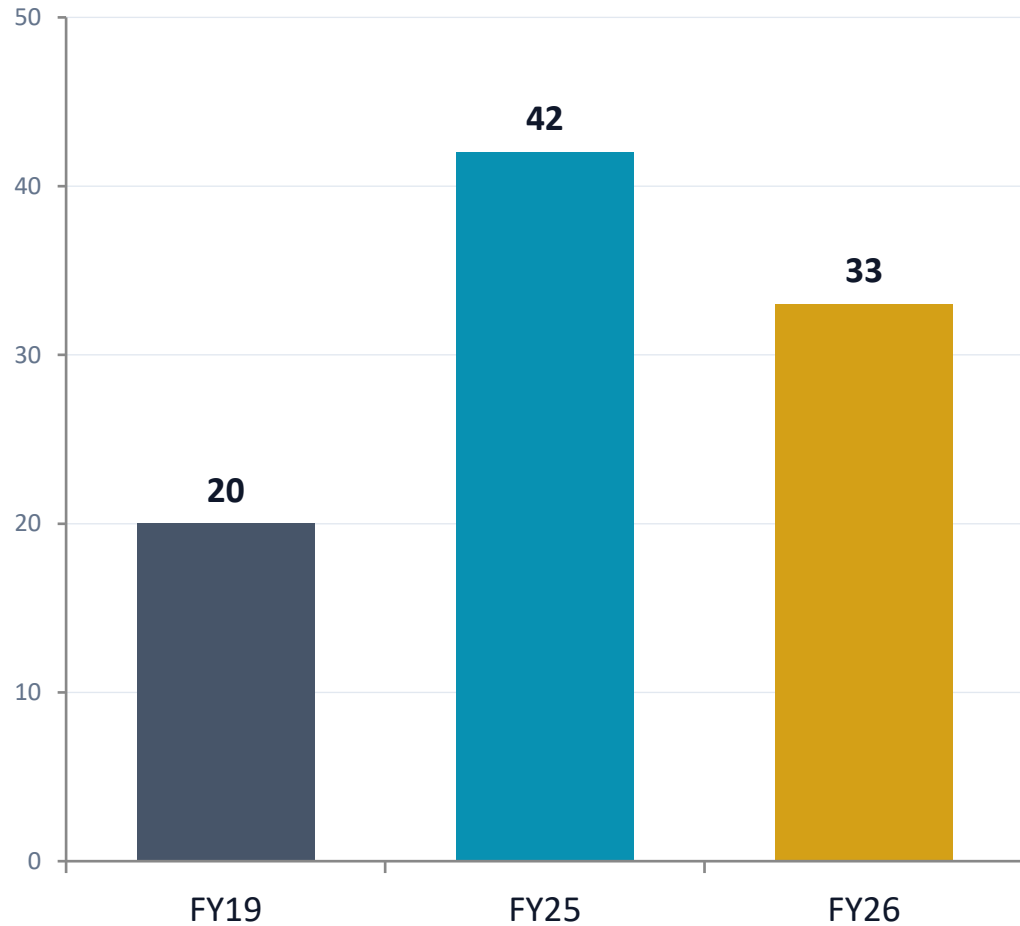
**Even after the FY26 reductions, every Down Bay island still receives more service than in FY19.**

*Diamond Cove +65% over FY19 | Chebeague and Cliff +38% | LD, GD, Long +15%*

Source: CBITD Ridership database. FY19 baseline, FY25 peak, FY26 post-October 2025 stable schedule.

# Diamond Cove – Winter

The largest service expansion of any Down Bay community



FY19

20

weekly stops

FY25 (PEAK)

42

weekly stops

FY26 (CURRENT)

33

weekly stops

## Service more than doubled, then partially scaled back

From 20 weekly stops in FY19 to 42 in FY25 (+110%). After FY26 cuts, still 33 weekly stops, +65% above the FY19 baseline.

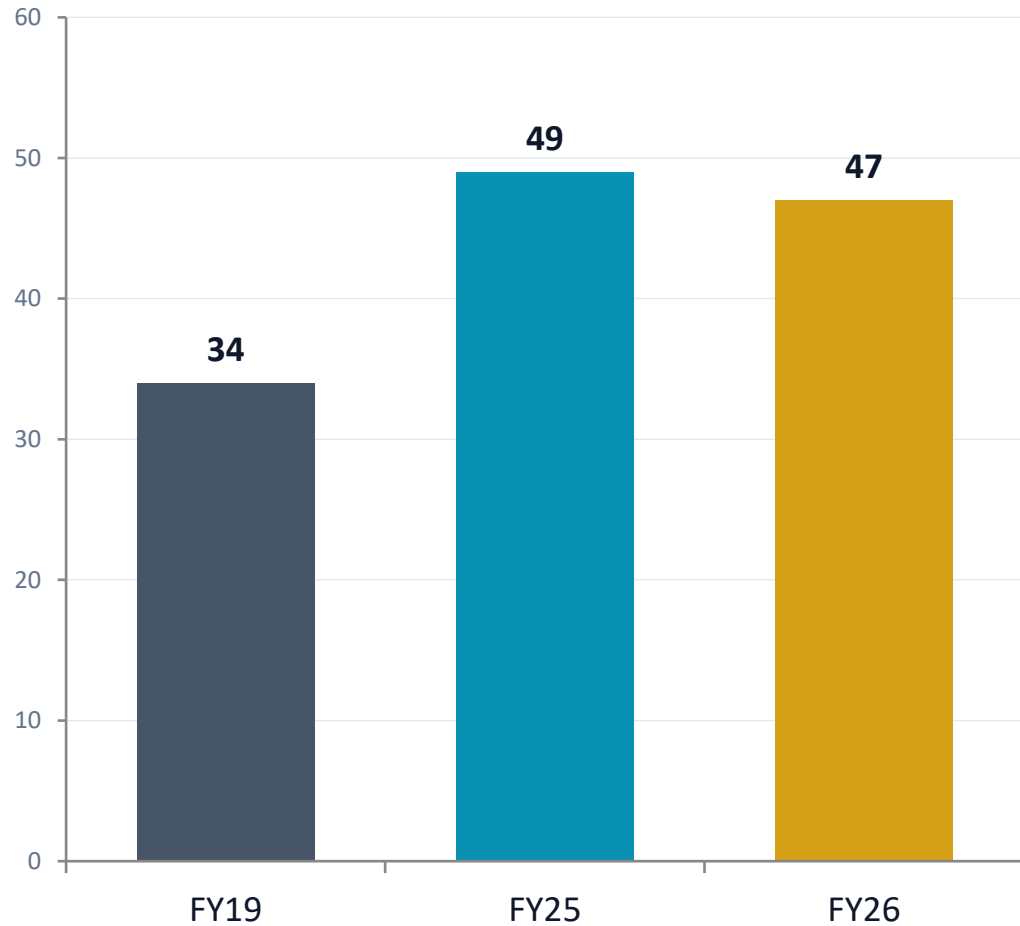
### WHAT CHANGED

- FY22 added the noon trip's Diamond Cove stop, daily 8:00am, and daily 1:00pm trips (+21)
- 7:45am now stops on weekends (+2)
- 6:30am Saturday trip was eliminated (-1)
- FY26 cut eliminated the daily 1:00pm trip, (-7)
- FY26 also dropped the weekend 8:00am trip (-2)

Source: CBITD Ridership database. Weekly stops counted across regularly scheduled Down Bay trips, mid-Oct to mid-Apr.

# Chebeague and Cliff – Winter

Outer-island service expanded substantially, with minimal FY26 impact



FY19

34

weekly stops

FY25 (PEAK)

49

weekly stops

FY26 (CURRENT)

47

weekly stops

## Service expanded 44%, mostly preserved through FY26

From 34 weekly stops in FY19 to 49 in FY25. FY26 cuts removed only 2 weekly stops, leaving these islands at +38% over baseline.

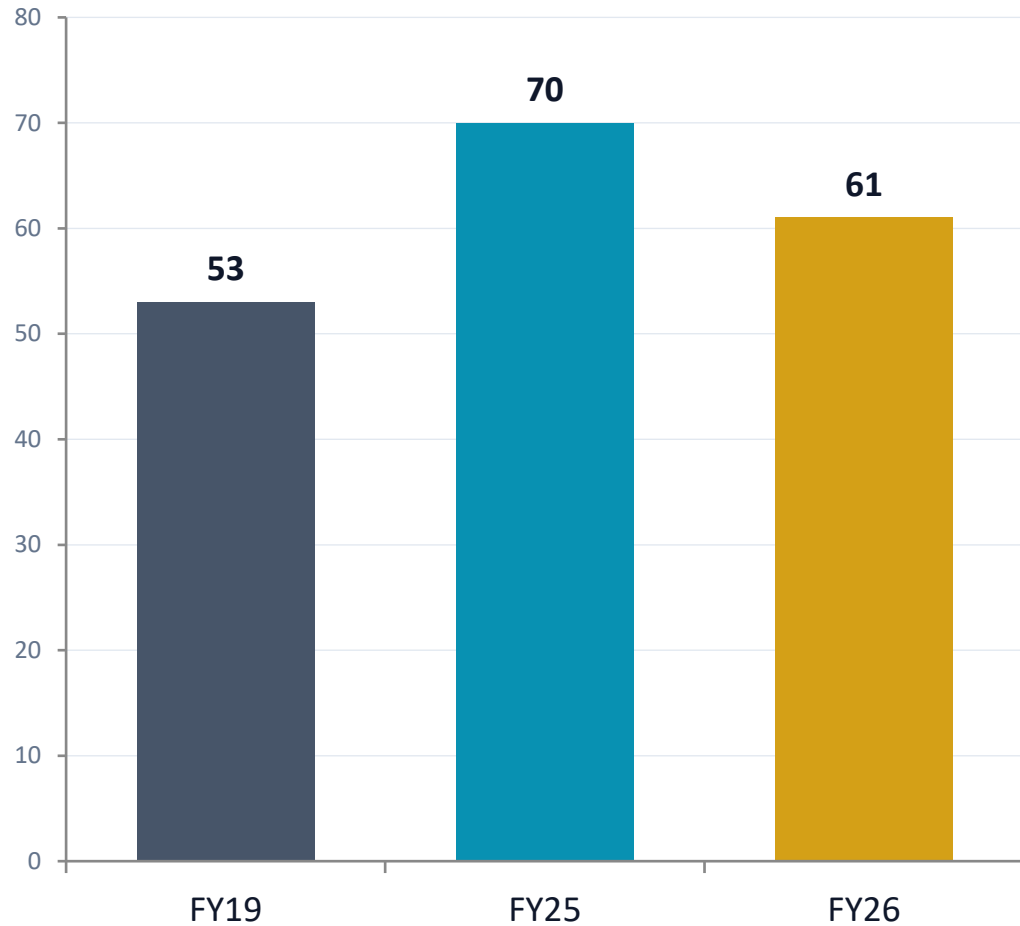
### WHAT CHANGED

- FY21 added 7:45am and noon Sunday trips serving Cheb/Cliff (+2)
- FY22 added the daily 8:00am trip (KPFF-recommended) (+7)
- FY22 also extended the 8:30pm trip to Cheb/Cliff (+7) (NOT in KPFF)
- 6:30am Saturday trip was eliminated (-1)
- FY26 cut weekend 8:00am only; weekday 8:00am (-1), all other trips retained

Source: CBITD Ridership database. Weekly stops counted across regularly scheduled Down Bay trips, mid-Oct to mid-Apr.

# Little Diamond, Great Diamond, and Long Island – Winter

Stops on every Down Bay trip; tracks the overall schedule trajectory



FY19

53

weekly stops

FY25 (PEAK)

70

weekly stops

FY26 (CURRENT)

61

weekly stops

## Weekly stops grew 32%, scaled back to +15% over FY19

These three islands are stops on every regular Down Bay trip, so their service totals exactly track the overall schedule. Each grew from 53 to 70, then back to 61.

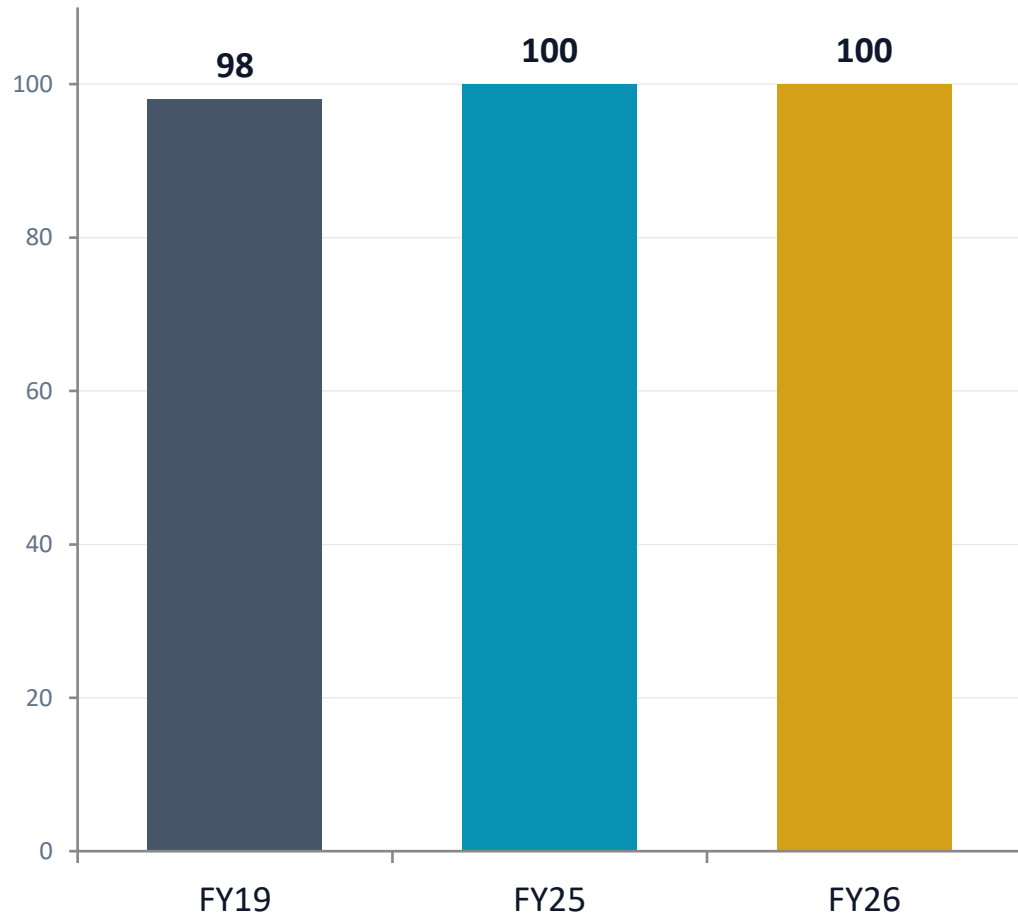
### WHAT CHANGED

- Mornings gained an additional commuter option (8:00am) (+7)
- Middays gained the 1:00pm trip (+7)
- 5:00am and 7:45am expanded to weekends (+4)
- 6:30am weekend boat eliminated (-2)
- Noon trip extended to Sundays (+1)
- FY26 eliminated weekend 8:00am (-2), and daily 1:00pm (-7)

Source: CBITD Ridership database. Weekly stops counted across regularly scheduled Down Bay trips, mid-Oct to mid-Apr.

# Peaks Island – Winter (schedule remained essentially unchanged)

For context: how the separate Peaks route fared during the same period



FY19

98

weekly trips

FY25

100

weekly trips

FY26

100

weekly trips

## Two trips added on Sundays; nothing else changed

FY25 added a 5:45am and a 10:30pm trip on Sundays. Mon-Saturday schedule is identical across FY19, FY25, and FY26. FY26 made no Peaks adjustments.

### WHAT CHANGED

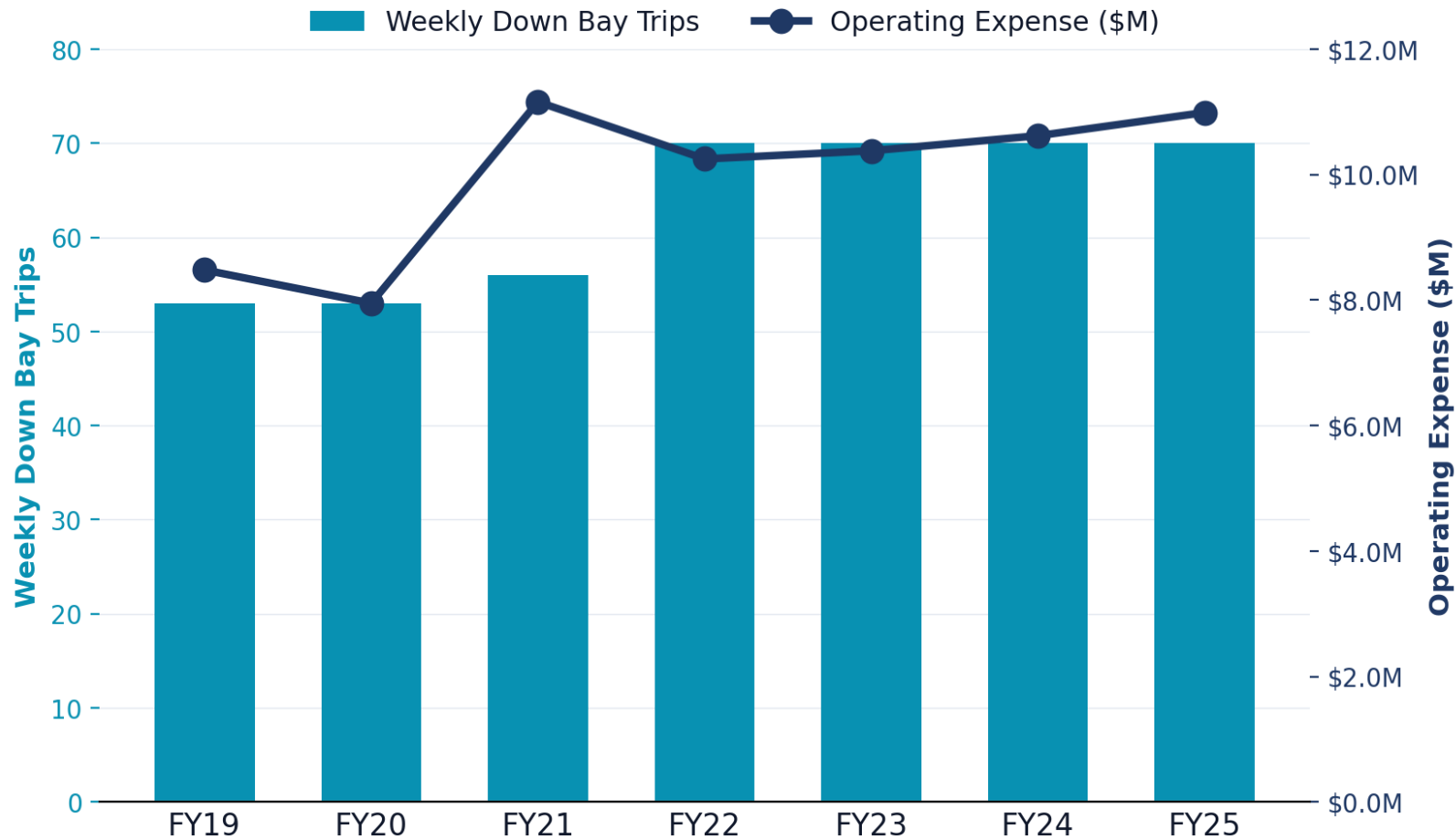
- Sunday added 5:45am early commuter (was Mon-Sat only)
- Sunday added 10:30pm late boat (was Mon-Sat only)
- All Mon-Sat departure times unchanged
- FY26 partial reductions did not affect Peaks

For context: Down Bay weekly trips grew 32% during this same period (53 to 70). Peaks grew 2% (98 to 100).

Source: CBITD Ridership database. Peaks Island weekly regularly scheduled trips, mid-Oct to mid-Apr winter window.

# Operating expenses and Down Bay service levels, FY19 to FY25

Total operating expense vs. weekly regularly scheduled Down Bay trips



## KEY OBSERVATIONS

### Two-step schedule expansion

Weekend equalization in FY21 (+3 trips/wk); morning and afternoon trips added in FY22 (+14 trips/wk).

### Expenses up \$2.5M since FY19

FY19 \$8.48M to FY25 \$11M (+30% nominal). Inflation-adjusted FY19 ≈ \$10.5M in FY25 dollars.

### FY20-FY21 COVID period

FY21 expense spike includes pandemic-era operational costs alongside the schedule expansion.

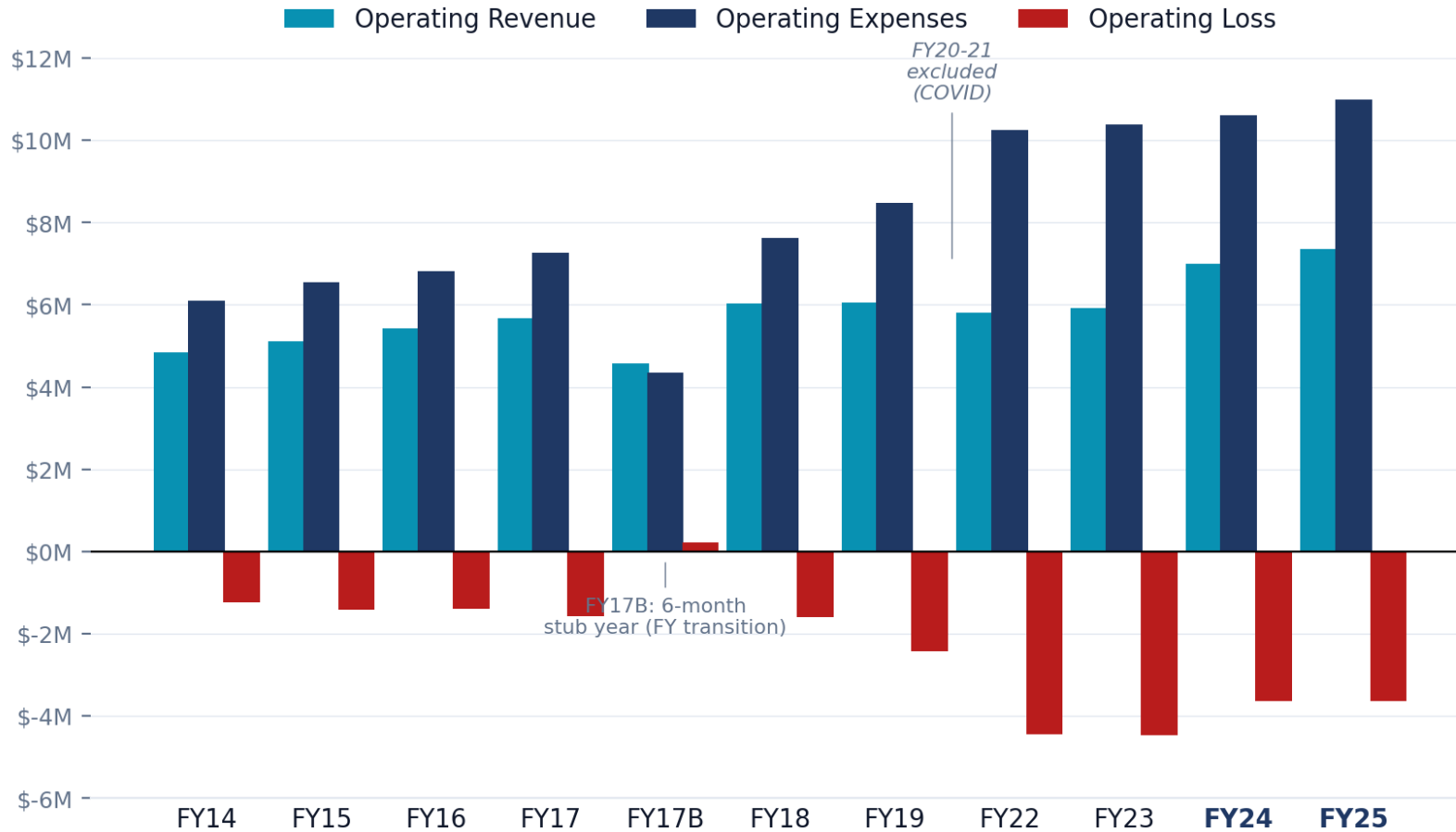
### FY22-FY25 stable plateau

Schedule held flat at 70 trips/wk for four years; expenses grew \$740K over the same period.

Average fuel usage increased from 273K gallons (2018) to 323K gallons (2023) or **50K gallons or 18%**, average vessel hours increased from 16.7K to 19.8K **3100 hours or 19%**. **Note:** 2011 to 2013 average fuel burn was 237K gallons (86K gallons less than 2023).

Sources: CBITD Operating Surplus/Loss Summary FY09-FY25; CBITD Ridership database (FY19-FY25), CBITD Fuel Logs.

# Service increased; cost savings did not materialize



**~\$3.6M**  
**FY2025 Operating Loss**  
 Revenue grew +\$373K; expenses kept pace. Deficit held essentially flat vs FY2024.

**~\$2.8M**  
**FY2026 Operating Loss (projected)**  
 Based on Approved Budget. Includes ~\$460K of new passenger fare revenue.

**Federal Grant Reliance**  
 Grants have historically offset operating losses. Commitments are secured through FY2026, but evolving federal priorities make revenue self-sufficiency an urgent long-term priority.

Source: CBITD audited financial statements. FY17B is a 6-month stub year (Mar 31 → Sep 30 FY transition). FY20-21 excluded due to COVID-19 impact distortions.

# Down Bay: What each trip costs to operate

Per-trip operating costs vary by vessel and route length



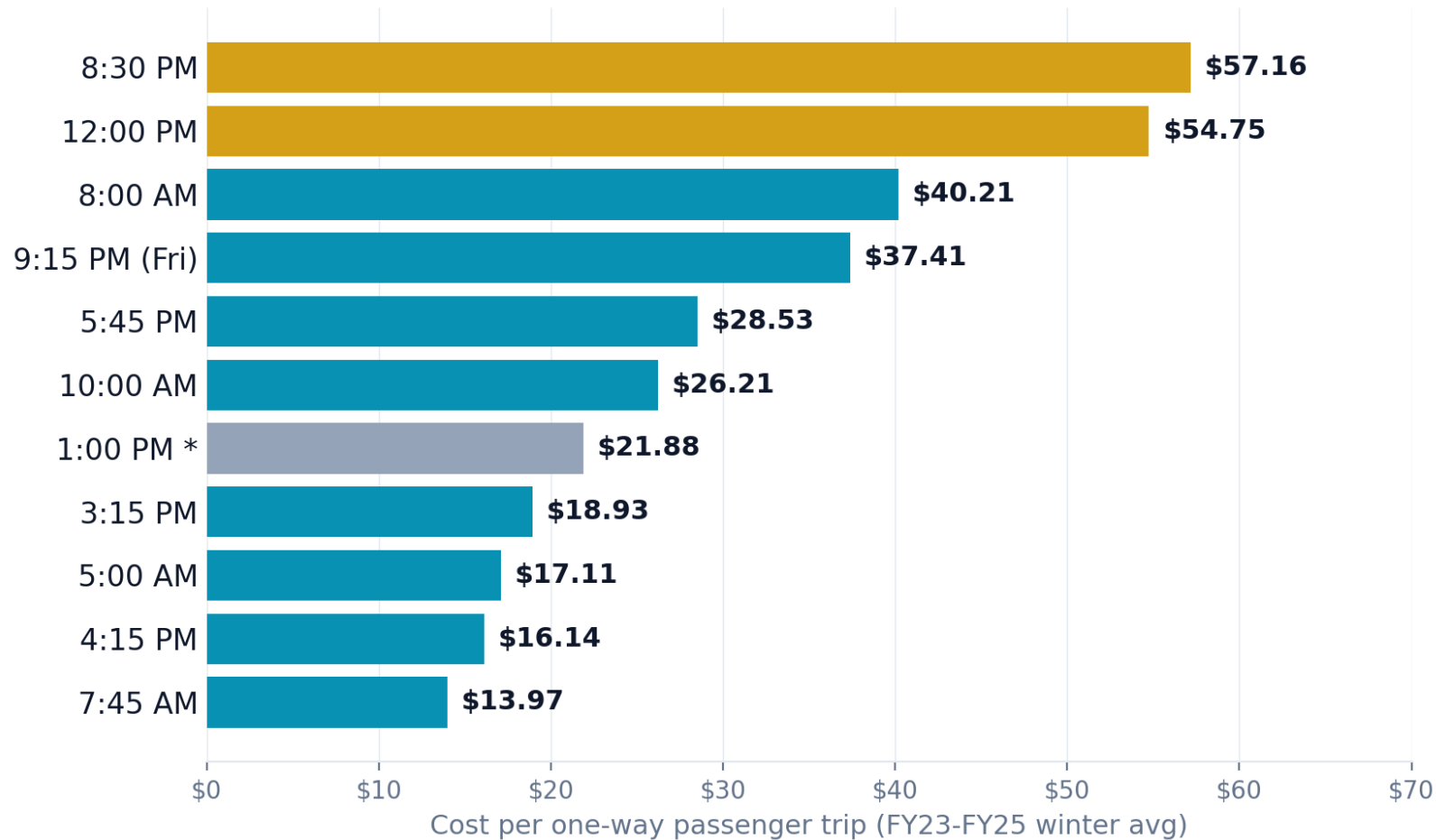
## Trip cost ≠ trip value

These are operating costs only. The next slide divides by passengers carried to find the most efficient and least efficient trips.

Source: CBITD vessel cost-per-trip analysis (FY26). Costs apply uniformly to weekday and weekend trips with the same vessel and route.

# Down Bay: Average cost per one-way passenger trip, **weekday**

Mon-Fri trip cost divided by total passengers (inbound + outbound), FY23-FY25 winter average



## WHAT TO NOTICE

**Highest: 8:30 PM and 12:00 PM**

8:00am and 12:00pm cost per passenger does not account for additional freight service revenue.

**Lowest: 7:45 AM and 4:15 PM**

Heavy commuter loads (50 and 40 pax/trip) keep these the most efficient at \$13.97 and \$16.14.

**1:00 PM cut:**

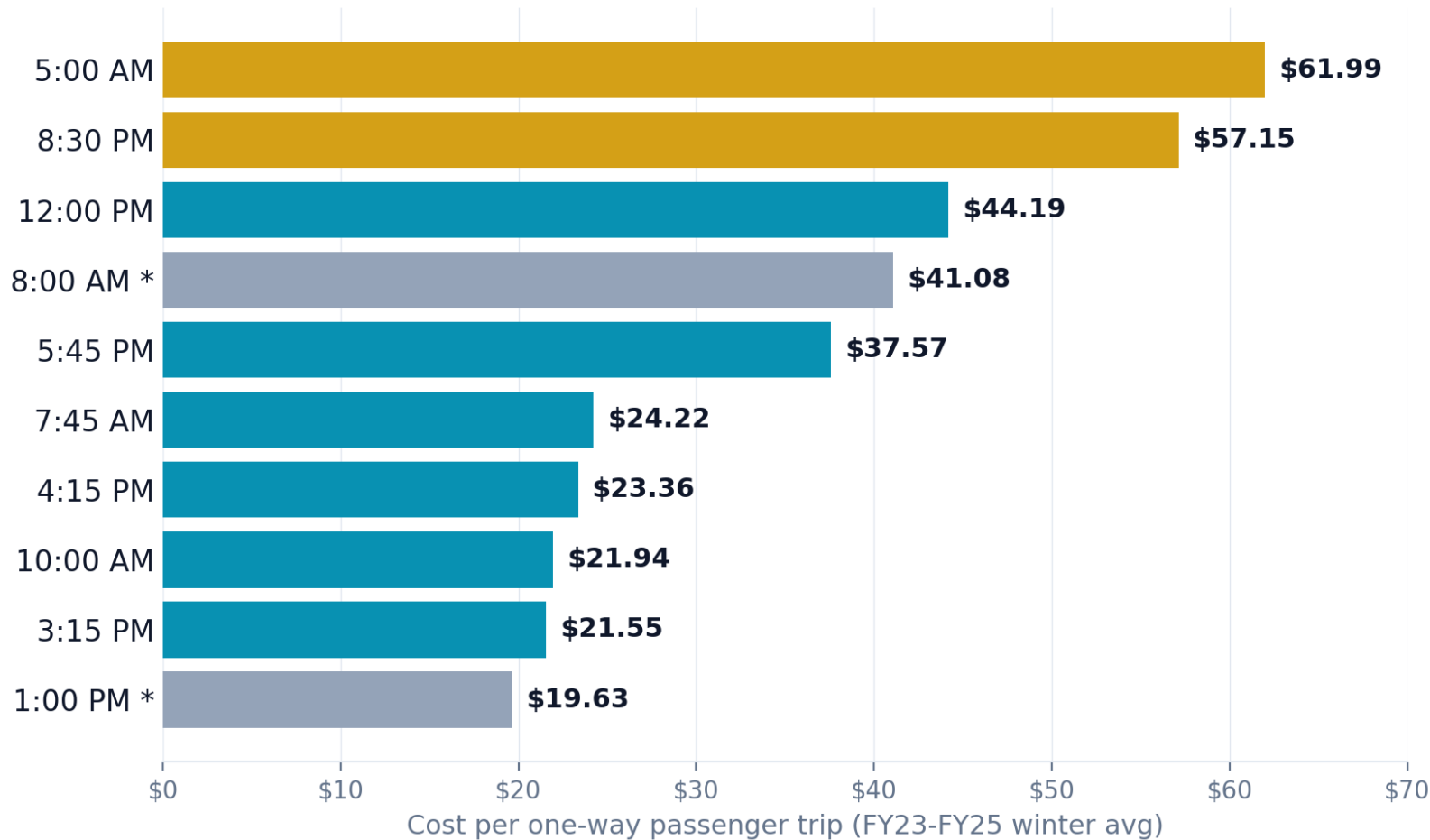
Relatively low cost per passenger.

\* The 1:00 PM trip was discontinued in FY26.

Source: CBITD Ridership database (FY23-FY25 winter avg, Mon-Fri only); FY26 vessel cost-per-trip applied uniformly. Figures represent one-way passenger trips: a round-trip rider counts as two. Cost-per-passenger is one efficiency lens; service equity, freight, and accessibility warrant separate consideration.

# Down Bay: Average cost per one-way passenger trip, **weekend**

Sat-Sun trip cost divided by total passengers (inbound + outbound), FY23-FY25 winter average



## WHAT TO NOTICE

### Highest: 5:00 AM and 8:30 PM

Both carry only ~16 passengers per trip on weekends. The early-morning boat is now the most expensive trip.

### Weekend ridership patterns differ

The weekday-efficient 7:45 AM and 4:15 PM stay relatively efficient, but at higher unit cost than on weekdays. The 5:00am trip is the most expensive on weekends, but one of the least expensive (per passenger) during the weekday.

### FY26 weekend cuts:

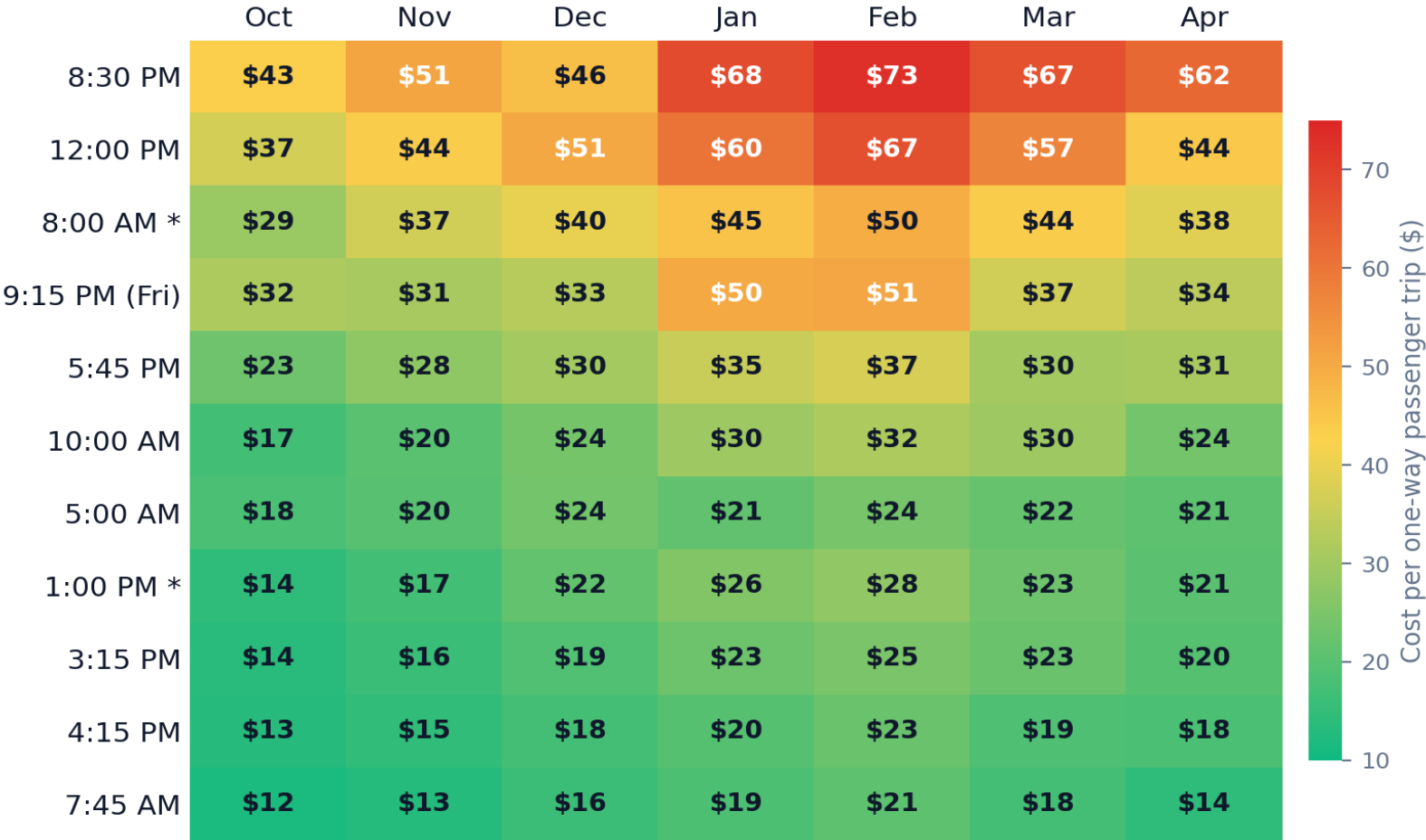
1:00pm was cut even though it had the lowest average cost per passenger.

\* The weekend 8:00 AM and the 1:00 PM trips were discontinued in FY26.

Source: CBITD Ridership database (FY23-FY25 winter avg, Sat-Sun only); FY26 vessel cost-per-trip applied uniformly. Figures represent one-way passenger trips: a round-trip rider counts as two. The 9:15 PM Friday trip is weekday-only and not shown here.

# Down Bay: Cost per one-way passenger trip, by trip and month

Where seasonal ridership and trip selection produce the highest unit costs



### WHAT TO NOTICE

**Feb is the most expensive month**

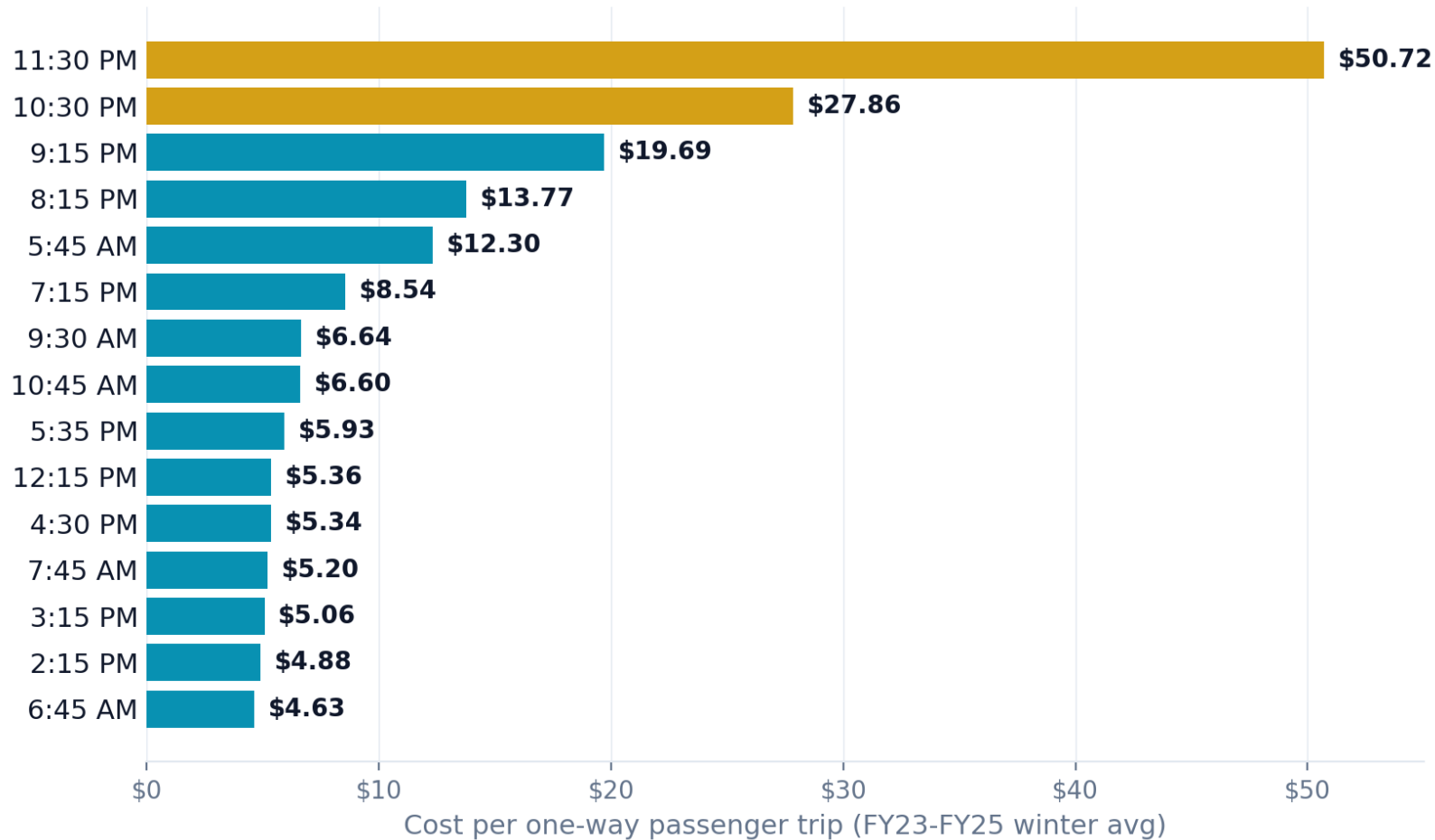
Across nearly every trip, ridership bottoms out and per-passenger costs peak. Jan and Mar follow.

\* The 1:00 PM trip was discontinued daily in FY26; the 8:00 AM trip was discontinued on weekends only.

Source: CBITD Ridership database (FY23-FY25 winter avg, all days combined); FY26 vessel cost-per-trip applied uniformly. Figures represent one-way passenger trips: a round-trip rider counts as two.

# Peaks Island: Average cost per one-way passenger trip, **weekday**

Mon-Fri trip cost divided by total passengers (inbound + outbound), FY23-FY25 winter average



## WHAT TO NOTICE

### 11:30 PM Friday late boat

\$50.72 per passenger on the Friday-only late trip. About 11 combined passengers per trip.

### Most Peaks trips are highly efficient

Mid-day and commuter trips run \$5-7 per passenger. Far below Down Bay's most efficient trips.

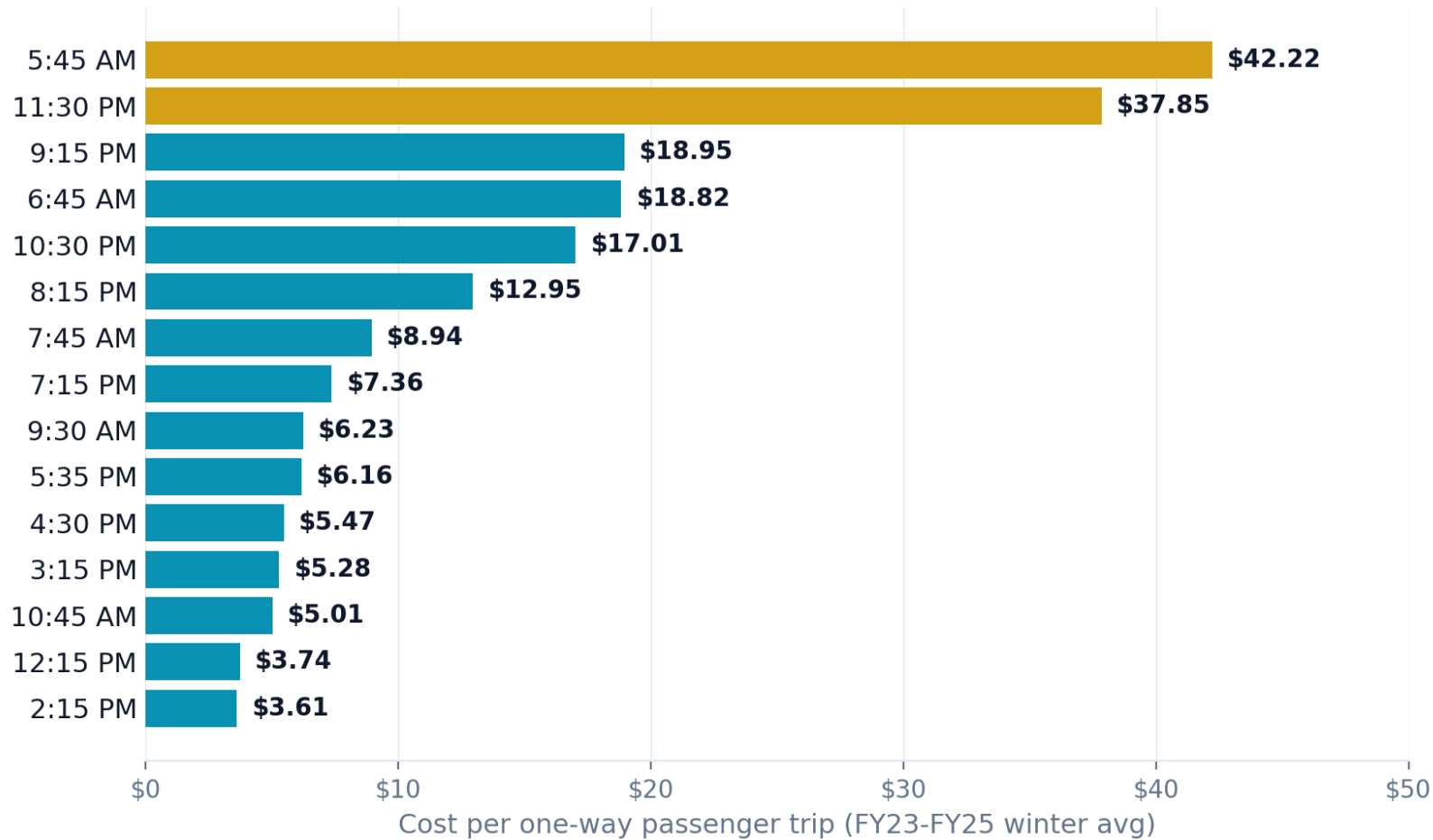
### Higher ridership offsets cost

Peaks weekday trips average 80-110 passengers per trip versus 30-50 on Down Bay.

Source: CBITD Ridership database (FY23-FY25 winter avg, Mon-Fri only); FY26 vessel cost-per-trip applied uniformly. Figures represent one-way passenger trips: a round-trip rider counts as two. Friday late trips cost more than Mon-Thu equivalents.

# Peaks Island: Average cost per one-way passenger trip, **weekend**

Sat-Sun trip cost divided by total passengers (inbound + outbound), FY23-FY25 winter average



## WHAT TO NOTICE

### Highest: 5:45 AM and 11:30 PM

Both carry only ~11-13 passengers per trip on weekends. Same pattern as Down Bay's underused weekend boats.

### Mid-day weekend trips are remarkably efficient

12:15 PM and 2:15 PM run \$3.61-\$3.74 per passenger, the most efficient trips in the entire system.

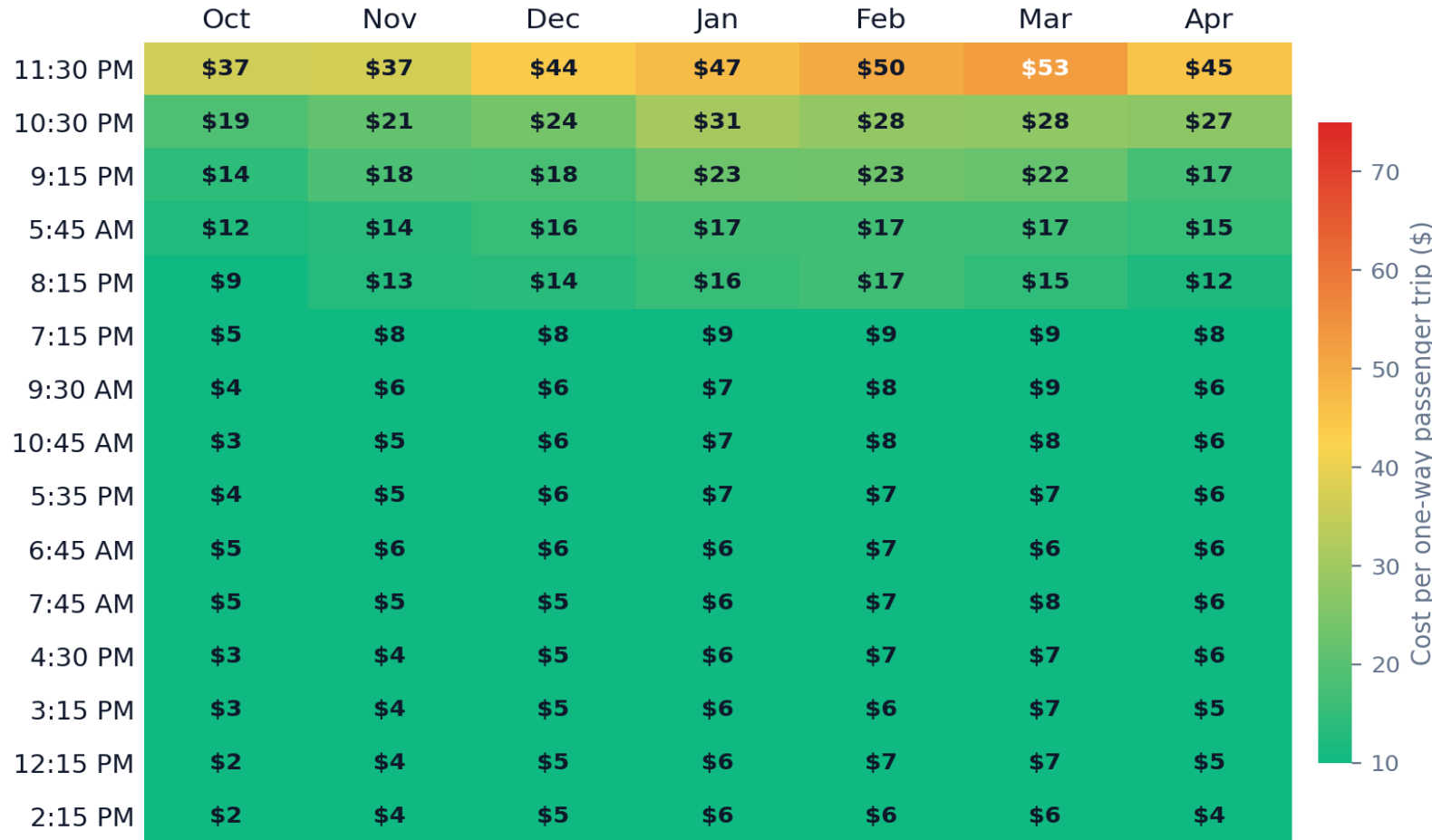
### Saturday late boat 11:30 PM

Saturday's 11:30 PM trip costs \$390 but carries only 10 passengers, producing the Peak's second-most-expensive weekend trip.

Source: CBITD Ridership database (FY23-FY25 winter avg, Sat-Sun only); FY26 vessel cost-per-trip applied uniformly. Figures represent one-way passenger trips: a round-trip rider counts as two. Sunday has no 11:30 PM trip.

# Peaks Island: Cost per one-way passenger trip, by trip and month

Same color scale as the Down Bay heatmap, allowing direct visual comparison



## WHAT TO NOTICE

### 11:30 PM late boat is the standout

Friday and Saturday late boats run \$37-\$53 per passenger across the winter; never below \$30.

### Most of the schedule stays green

The bulk of Peaks trips run \$5-9 per passenger even in February. Service density and ridership keep unit costs low.

### Compare to Down Bay heatmap (slide 19)

Same color scale. Peaks shows almost entirely green; Down Bay shows extensive yellow and red. Different operational economics.

Source: CBITD Ridership database (FY23-FY25 winter avg, all days combined); FY26 vessel cost-per-trip applied uniformly. Figures represent one-way passenger trips: a round-trip rider counts as two. Color scale 10-75 matches Down Bay heatmap.

# What a comparable future study will require

## Multi-year timeline

A similar study would take roughly 18 to 36 months from kickoff to a final report. Some data and context from the original analysis could be used, but a fresh look is more responsible.

## Multiple firms and a committee

A lead consultant, a public-outreach sub-consultant, and a standing advisory committee of Board members, staff, and islanders. The last effort cost about \$302,000 in consulting fees (2017 dollars). ~\$400,000 today.

## Robust public engagement

A full survey, an open house, and two rounds of public meetings — at minimum. Island communities expect to be asked, and the final product is stronger when they are.

## Clear direction from the Board

The most important ingredient is not data or consultants — it is Board agreement, up front, on what the study is meant to achieve and what is off-limits.