Fixed Route vs. Demand Response Service

The Question:

Should demand response services be pursued in lieu of fixed route services to expand geographical or span of day coverage?

Input from Public Forums:

<table>
<thead>
<tr>
<th>Prefer Advance Reservation</th>
<th>Prefer Fixed Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Surveys</td>
<td>24%</td>
</tr>
<tr>
<td>Current Riders</td>
<td>26%</td>
</tr>
<tr>
<td>Non-Riders</td>
<td>23%</td>
</tr>
</tbody>
</table>

Prefer Fixed Route: 76%
Prefer Advance Reservation: 24%
Those who currently use an advance reservation service such as ADA often stated they preferred this mode. However, the overwhelming response was that people would rather use a fixed route service. They expressed preference for the predictability and flexibility of using fixed route without having to call someone. When asked how far in advance it would be reasonable to call, 58% said the day before or more, and 42% said some variation within same day service. Some pointed out that if people wanted a higher level of advance reservation service, there are private industry options for this, but the goal of public transit should be something that is broadly useful, affordable, and services the most people possible. Many people expressed that no advance reservation service could move as many people for the cost that fixed route services can.

**Input from Surveys:**
**Fixed Route vs. Advance Reservation - Survey Results**

- **Prefer Fixed Route**
  - All Surveys: 82%
  - Current Riders: 87%
  - Non-Riders: 76%

- **Prefer Advance Reservation**
  - All Surveys: 18%
  - Current Riders: 13%
  - Non-Riders: 24%

**Likelihood of Using Advance Reservation Service if Offered - Survey Results**

- **Very Likely**
  - All Surveys: 23%
  - Current Riders: 28%
  - Non-Riders: 14%

- **Somewhat Likely**
  - All Surveys: 32%
  - Current Riders: 33%
  - Non-Riders: 32%

- **Not Likely**
  - All Surveys: 45%
  - Current Riders: 28%
  - Non-Riders: 14%

**COAST FY 18 Data**
Service between our two modes is generally too distinct for any side by side comparison of ridership to be meaningful. Cost and efficiency comparisons are below.

<table>
<thead>
<tr>
<th></th>
<th>Fixed Route</th>
<th>Demand Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per Revenue Hour (not including overhead)</td>
<td>$72</td>
<td>$42</td>
</tr>
<tr>
<td>Current Passengers per Hour</td>
<td>10.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Theoretical Passengers per Hour in Ideal Conditions</td>
<td>100 +</td>
<td>2.5*</td>
</tr>
</tbody>
</table>

*Advance Reservation efficiency is heavily affected by outside factors such as geography and road network. 2.5 is very good even in the most ideal conditions.*

In July 2018 COAST transitioned a fixed route (Route 7) with low ridership to an advance reservation service (Route 7 On Demand). Below is a chart showing ridership on that service before and after the transition.

**Summary:**

There was overwhelming preference for fixed route services over an advance reservation services, with only moderate to low likelihood that many would use advance reservation services if offered. Additionally, in the public forums we found significant understanding of the limitations of advance reservations services amongst current ridership.