

**Reducing Off-Season Crossings, Adjusting Fares,  
and Using Partnerships Can Improve Ferry Division  
Efficiency**



**Final Report to the Joint Legislative  
Program Evaluation Oversight Committee**

**Report Number 2017-09**

**October 1, 2017**



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**NORTH CAROLINA GENERAL ASSEMBLY**  
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*John W. Turcotte*  
Director

October 1, 2017

Members of the Joint Legislative Program Evaluation Oversight Committee

North Carolina General Assembly  
Legislative Building  
16 West Jones Street  
Raleigh, NC 27601

Honorable Members:

The Joint Legislative Program Evaluation Oversight Committee's 2015–17 Work Plan directed the Program Evaluation Division to review the ferry system with a focus on operations, savings, and fee structure optimization.

I am pleased to report that the Department of Transportation cooperated with us fully and was at all times courteous to our evaluators during the evaluation.

Sincerely,

A handwritten signature in black ink, appearing to read "John W. Turcotte".

John W. Turcotte  
Director



# PROGRAM EVALUATION DIVISION

## NORTH CAROLINA GENERAL ASSEMBLY

October 2017

Report No. 2017-09

## Reducing Off-Season Crossings, Adjusting Fares, and Using Partnerships Can Improve Ferry Division Efficiency

### Summary

The North Carolina Department of Transportation's (DOT's) Ferry Division is responsible for providing safe, cost-effective, and dependable service for local residents and visitors. The Joint Legislative Program Evaluation Oversight Committee's 2015–17 Work Plan directed the Program Evaluation Division to review the ferry system with a focus on operations, savings, and fee structure optimization.

**The Ferry Division can save over \$1.5 million annually by reducing the number of crossings on routes during periods of lower use.** Tourist routes represent good candidates for reductions because they have greater variability in ridership than commuter routes.

**Annual fare collections on currently tolled routes can be increased by \$1.7 million without adversely affecting area commuters.** Vehicle fare increases would not adversely affect area residents who use ferry services to commute to and from work and school because of the availability of an annual commuter pass.

**Using partnerships with other government entities and the private sector can reduce state funding requirements and improve the effectiveness of the ferry system.** The current passenger-only initiative for the Hatteras-Ocracoke ferry route is an example of a partnership with a local government entity.

**Development of a long-range plan provides an opportunity to take a systematic approach to identifying the most cost-effective contribution of ferry transportation services toward achievement of the mission of DOT and state strategic transportation goals.** The plan should be based on a long-range forecast of the region's transportation needs and an assessment of future funding availability.

**To address these findings, the General Assembly should amend state law to direct DOT to:**

- produce a long-range plan for the ferry transportation system to include consideration of alternative pricing structures to achieve appropriate levels of operating cost recovery from vehicle and passenger fares;
- apply for a grant from the Golden LEAF Foundation for necessary support services; and
- evaluate the schedule of crossings for each ferry route to ensure services cost-effectively meet the needs of both area residents and tourists.

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## Purpose and Scope

The Joint Legislative Program Evaluation Oversight Committee's 2015–17 Work Plan directed the Program Evaluation Division to review the ferry system with a focus on operations, savings, and fee structure optimization. Four central research questions guided the study:

1. Are Ferry Division activities and operations performed efficiently and effectively?
2. What is the most appropriate governance structure for the Ferry Division?
3. Does the current funding structure ensure the Ferry Division is cost-effectively using available resources?
4. How can the Ferry Division increase its contribution to the achievement of DOT's strategic goals?

The Program Evaluation Division collected data from several sources, including

- a review of laws and policies guiding the Ferry Division,
- interviews and queries of Ferry Division managers,
- information regarding sources and uses of funding for the Ferry Division,
- workshops with Ferry Division stakeholders,
- available performance measures for Ferry Division activities, and
- comparable performance measures (if available) of other publicly-owned ferry systems in North America.

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## Background

The mission of the North Carolina Department of Transportation (DOT) is to connect people, products, and places safely and efficiently with customer focus, accountability, and environmental sensitivity to enhance the economy and vitality of North Carolina. To achieve this mission, DOT has established the following strategic goals:

- **Increase transportation safety.** Make transportation safer by reducing fatalities, severe injuries, and crashes across the entire transportation network.
- **Provide great customer service.** Provide efficient options to access information and services, educate employees and the public about the department, and improve the delivery of all services.
- **Cost-effectively deliver and maintain the transportation infrastructure.** Improve program and project delivery across all transportation modes, optimize use of available resources to strengthen infrastructure, and strategically improve infrastructure to meet existing and future needs.
- **Improve reliability and connectivity of the transportation system.** Operate dependable connections among major hubs and destinations across the state and improve connectivity within and between all modes of transportation.
- **Promote economic growth.** Improve the reliability of all modes of the transportation network, increase access to key infrastructure (such as interstates, airports, rail, ports, etc.), and reduce business costs (for transportation purposes).

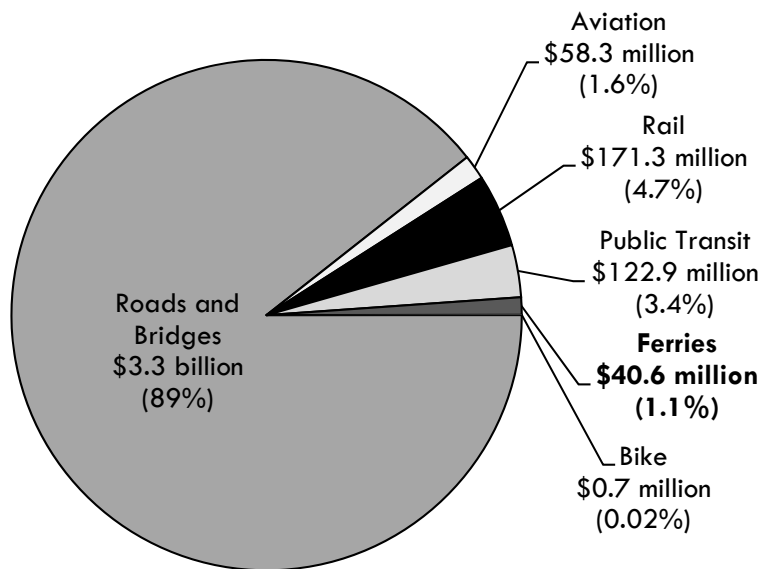
- **Make the organization a great place to work.** Provide fair compensation, prevent employee injuries, and improve employee satisfaction and engagement.

**In Fiscal Year 2015–16, DOT allocated \$40.6 million for the ferry transportation system, which represented approximately 1% of total funding used to directly support the State’s transportation network.** Of the \$4.4 billion appropriated to DOT in Fiscal Year 2015–16, approximately \$3.7 billion (83%) was used to directly support state transportation systems.<sup>1</sup>

As shown in Exhibit 1, nearly 90% of this \$3.7 billion was used to build and maintain roads and bridges. The next largest transportation systems are the State’s rail and public transportation systems, with Fiscal Year 2015–16 appropriations of \$171.3 million and \$122.9 million, respectively. The \$40.6 million appropriated for the ferry system represents 1.1% of the funding that directly supported transportation. Funding to build and maintain the State’s transportation system comes from several sources. In Fiscal Year 2015–16, approximately \$3.2 billion (73%) of transportation funding came from state revenues with the remaining \$1.2 billion (27%) coming from federal funds.<sup>2</sup>

**Exhibit 1**

DOT Appropriations to the Ferry Transportation System in Fiscal Year 2015–16 (\$40.6 Million) Represented Approximately 1% of Total Funding for the State’s Transportation Network



Source: Program Evaluation Division based on information provided by the Ferry Division.

The Ferry Division contributes to the achievement of DOT’s strategic goals by providing safe, cost-effective, and dependable ferry service for local

<sup>1</sup> The \$736 million in appropriated funding not directly attributable to providing transportation services was designated for transfers to the State Ports Authority (\$35 million), other agencies (\$12.3 million), and municipal aid (\$147.5 million) as well as for debt service (\$197.6 million) and administrative services and other expenses (\$344 million). Appropriations for each of the identified transportation services, as well as the appropriated funding not directly attributable to providing transportation services, excludes receipt-supported funding of \$100 million.

<sup>2</sup> State funding source categories were Motor Fuel Tax (\$1.8 billion), Highway Use Tax (\$659.8 million), DMV registrations (\$468.5 million), Licenses (\$127.1 million), and Title Fees and Other (\$194 million). Federal funding sources include federal grants and ARRA funds (\$215.9 million).

residents and visitors. The services provided by the Ferry Division are used for a variety of reasons. Many coastal residents use the ferry as public transportation for their daily commute to and from work or school, both for themselves and their vehicles. Both visitors and local residents use the system for travel to and from vacation destinations. The ferries also serve important community service and public safety roles by providing emergency services and a means of emergency evacuation to residents and visitors. For some residents of islands on the Outer Banks such as Ocracoke Island, the ferry system provides the only system for public transportation on and off the islands.

North Carolina's Ferry Division operates one of the largest publicly-owned ferry systems in North America. As shown in Exhibit 2, the Ferry Division employs 13 terminals and 21 ferry boats to provide services for 7 routes across eastern North Carolina.<sup>3</sup> In Fiscal Year 2015–16, the Ferry Division used these routes to transport 801,256 vehicles and 1.9 million passengers. Appendix A provides a detailed description of each of these seven ferry routes.

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<sup>3</sup> During Fiscal Year 2015–16, the Sound Class ferry boat, Pamlico, was sold, reducing the fleet of ferry boats from 22 to 21.

Exhibit 2: In Fiscal Year 2015–16, the Ferry System Operated Seven Scheduled Routes



Source: Program Evaluation Division based on information provided by the Ferry Division.

**The Ferry Division also operates support vessels—three tugs, four barges, and a dredge.** These support vessels are responsible for maintaining the state navigation channels at the 13 ferry terminals as well as maintaining the terminal and shipyard pilings and docks and assisting disabled ferries. Each of the three tugs (Albemarle, Buxton Jr., and Dare) as well as three of the four barges (NC-1, NC-2, and NC-3) are more than 35 years old. The Ferry Division reported most of these vessels require replacement or extensive refurbishment. Exceptions include the dredge Manteo, which replaced dredge Carolina and was commissioned in April 2016 at a cost of \$7.7 million, and the Skyco barge, which was built in 2008. Exhibit 3 illustrates the physical assets operated by the Ferry Division.



### Exhibit 3: Physical Assets Operated by the Ferry Division

Asset		Count
<p><b>Ferries</b></p>		<p><b>21</b></p>
<p><b>Terminals</b></p>		<p><b>13</b></p>
<p><b>Tugs</b></p>		<p><b>3</b></p>
<p><b>Barges</b></p>		<p><b>4</b></p>
<p><b>Dredge</b></p>		<p><b>1</b></p>

Source: Program Evaluation Division based on information provided by the Ferry Division. Ferry photo provided by Ocracoke Civic & Business Association.

In addition, the Ferry Division is responsible for the North Carolina State Shipyard. The shipyard, which is located on 17.2 acres in Manns Harbor, is the largest state-owned and state-operated shipyard in the United States. All 21 ferries as well as the support vessels are repaired at this facility. The shipyard has its own electrical generating power plant and water system and can function around the clock in any weather conditions. The shipyard is also capable of conducting all maintenance, from basic dry docking to making any repairs required to meet United States Coast Guard regulations. In addition, a vessel can be painted from top to bottom at the facility.

In Fiscal Year 2015–16, the Ferry Division spent \$40.9 million and was authorized 464 full-time equivalent positions. These resources were all derived from the Highway Fund.

In summary, the Ferry Division of the Department of Transportation operates and maintains one of the largest ferry systems in North America. In addition to having responsibility for safe and effective operation of seven routes spanning the North Carolina seaboard, the Ferry Division is responsible for managing the largest state-owned and state-operated shipyard in the United States. The Joint Legislative Program Evaluation Oversight Committee tasked the Program Evaluation Division with determining what actions the Ferry Division could take to more efficiently and effectively provide its services.

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## Findings

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### **Finding 1. The Ferry Division can save more than \$1.5 million annually by reducing the number of crossings on routes during periods with lower use.**

In Fiscal Year 2015–16, the Ferry Division used separate schedules for each route in order to most cost-effectively meet the needs of both visitors and area residents. Visitors to the region generally use ferry services to get to and from vacation destinations. Consequently, visitors using a ferry route can be expected to use this service only a few times per year.

Conversely, area residents use ferry services for a variety of reasons. For example, the Aurora-Bayview ferry route is primarily used for commuting, whereas the Currituck-Knotts Island route is extensively used both for commuting and recreation. Frequency of patronage by area residents depends on their reasons for using the ferry service and can vary from near-daily commuting to only a handful of usages per year for discretionary reasons such as recreational travel.

To help ensure the cost-effective use of state funds, the Ferry Division uses varying schedules to accommodate changes in seasonal demand. For example, the Hatteras-Ocracoke ferry route typically experiences pronounced seasonal ridership variations as a consequence of heavy summer tourist use. In response, the schedule for this route varies in terms of the number of crossings, ranging from 36 crossings during winter to 72 crossings during the peak season of summer. For some routes, the Ferry Division also includes a “transitional” schedule to accommodate additional ferry demand during holidays such as Easter weekend when tourists have historically visited coastal areas in large numbers.

**The Ferry Division lacks adequate activity cost information to assess whether the State is using its resources efficiently and effectively.**

Specifically, the performance measures used by the Department of Transportation in Fiscal Year 2015–16 did not include costs to perform operational activities. An effective performance management system that includes the cost and number of outputs produced by each applicable activity can provide useful information for assessing whether the State is using its resources efficiently and effectively. The Governor, legislators, and the public can use performance information to help determine whether each state agency-administered program is improving its efficiency over time, compare the effectiveness of similar services among agencies and private providers, and make decisions regarding the most cost-effective use of available resources to accomplish statewide goals and objectives.

The Program Evaluation Division used data provided by the Ferry Division to determine the cost of each of the four identified activities associated with the operation and maintenance of each ferry route in Fiscal Year 2015–16. These four activities were

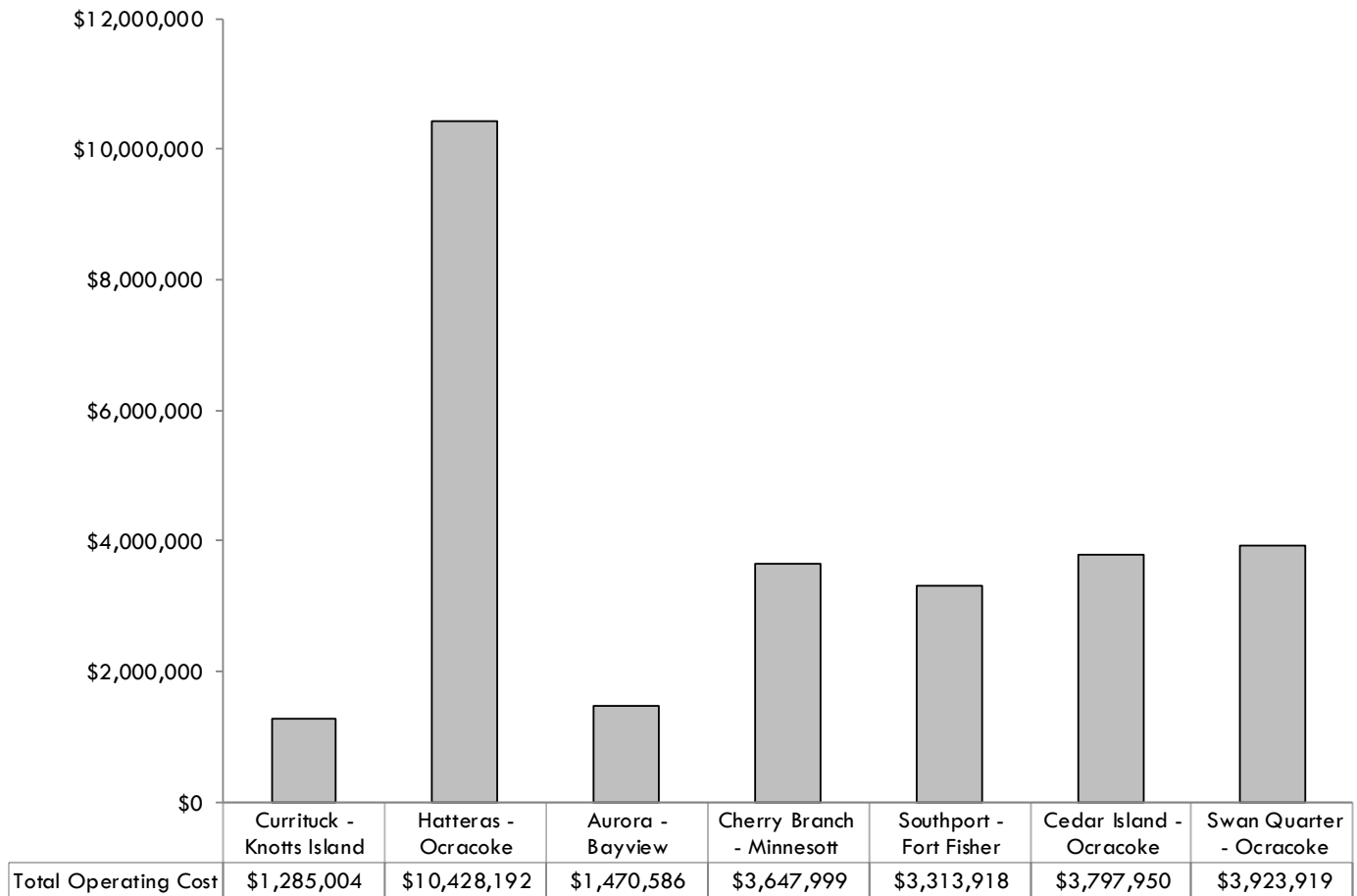
- **Ferry boat operations.** This activity captures ferry boat use for transporting vehicles and passengers on each of the seven scheduled routes. In addition to the cost of fuel and crew labor, ferry boat operations include costs associated with the maintenance and repair of each boat.
- **Terminal operations.** Each ferry route has a terminal at each end of the route.<sup>4</sup> Operating costs include the cost of the personnel assigned to each of the 13 ferry terminals as well as associated maintenance and material costs.
- **Dock maintenance and repair.** This operational activity is responsible for ensuring the docks and associated equipment provide for the safe operation of each route. Operating costs include labor and material costs to maintain dock and pilings.
- **Dredging operations.** The dredging operation activity contributes to the State's transportation goals by helping ensure that the waterway channels are deep and wide enough for safe operation. This responsibility is currently shared between DOT and the Army Corps of Engineers. Costs are only associated with the dredging conducted by the Ferry Division for each of the support vessels.

**In Fiscal Year 2015–16, costs to operate each of the seven scheduled ferry routes varied with the Hatteras-Ocracoke route requiring the greatest cost.** Variations in operating costs are associated with the number of daily crossings and the length of routes. For example, as shown in Exhibit 4, the Hatteras-Ocracoke route had the highest annual operating cost of the seven scheduled routes in Fiscal Year 2015–16. During peak demand periods, the Ferry Division assigned up to eight ferry boats to the route. This concentration of resources, coupled with the recent requirement to use a longer route with a one-hour transit time, resulted in operating costs for Hatteras-Ocracoke that were more than twice as large as operating costs of any of the other routes.

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<sup>4</sup> The Swan Quarter-Ocracoke and Cedar Island-Ocracoke ferry routes both use the Silver Lake terminal at the Ocracoke end of their routes.

### Exhibit 4: Operating Costs for the Hatteras-Ocracoke Route Were More Than Twice as Large as Those of Any Other Route in Fiscal Year 2015–16

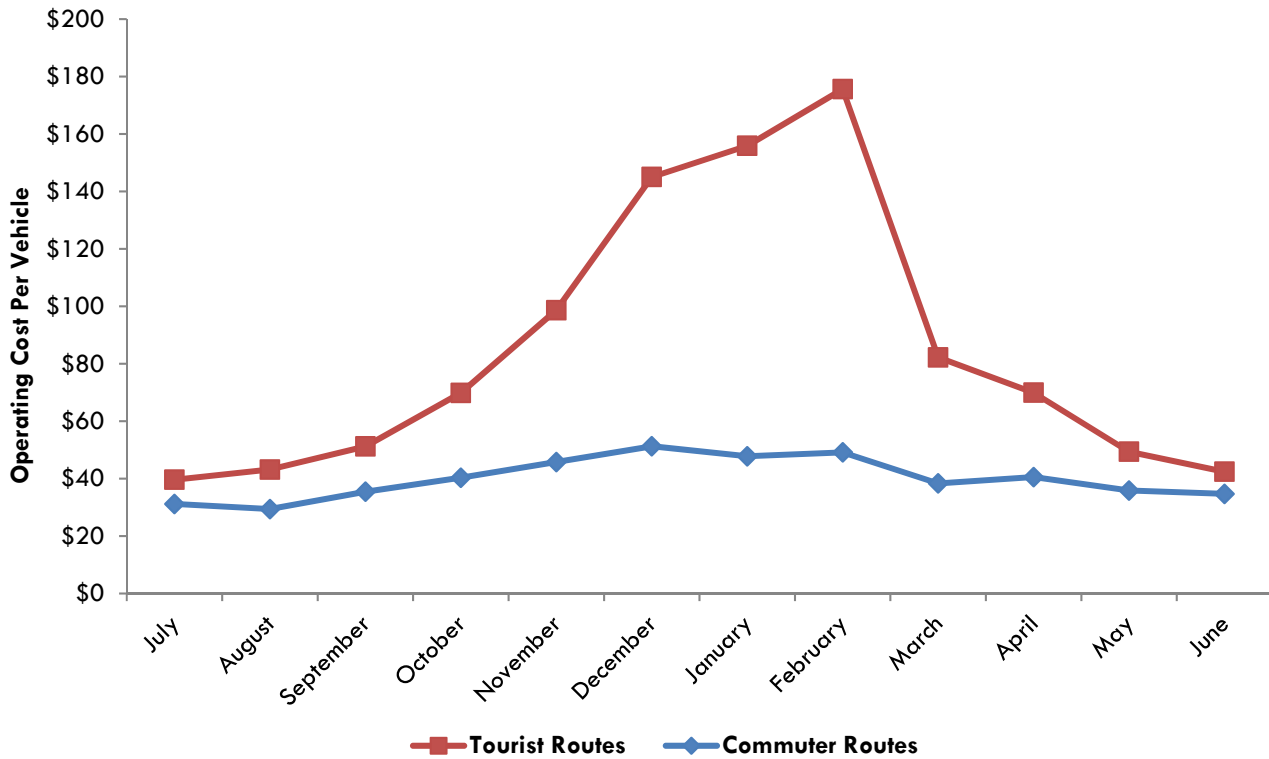


Note: Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging. Costs related to system executive management and system-wide administrative activities were not included.

Source: Program Evaluation Division based on information provided by the Ferry Division.

**Seasonal use differences contributed to variations in average per vehicle operating costs.** Average operating cost per vehicle is dependent on the number of vehicles transported during each crossing. As shown in Exhibit 5, tourist-oriented routes—the three routes serving Ocracoke Island and the Southport-Fort Fisher route—had more variation in use than the other three routes. Because both Ocracoke Island and the area around the Southpoint-Fort Fisher route serve as summer vacation destinations, these routes experienced wider fluctuations in demand. Consequently, periods of low demand in the winter have contributed to an overall higher average cost per vehicle for these routes. Appendix A depicts the variation in utilization rates for each of the seven ferry routes in Fiscal Year 2015–16.

### Exhibit 5: Routes Primarily Serving Tourists Had the Highest Variation in Operating Cost Per Vehicle Transported in Fiscal Year 2015–16



Note: Tourist Routes are all Ocracoke routes (Cedar Island, Swan Quarter, and Hatteras) and the Southport-Fort Fisher route due to its relatively high increase in summer ridership. Commuter Routes are Currituck-Knotts Island, Aurora-Bayview, and Cherry Branch-Minnesott.

Source: Program Evaluation Division based on information provided by the Ferry Division.

**The Ferry Division can save more than \$1.5 million annually by reducing the number of crossings on routes during months with lower use.** The Program Evaluation Division (PED) determined that operating costs can be reduced on routes with periods of lower use without adversely affecting area visitation or the ability of the Ferry Division to meet the needs of area residents.

As shown in Exhibit 6, PED identified the monthly vehicle utilization rate for each of the seven scheduled routes during Fiscal Year 2015–16. The vehicle utilization rate was calculated by dividing the number of vehicles transported on the route by the total capacity of all route crossings conducted during the month.

To demonstrate the potential efficiencies that can be achieved, PED identified low monthly utilization rates as occurring when the number of vehicles using the route was less than or equal to 45% of the monthly route capacity. For these months, PED then identified the number of crossings that could be reduced while continuing to meet the estimated demand for services. In no instance was the number of crossings reduced by more than 33% of the original number of crossings scheduled for the applicable month in Fiscal Year 2015–16.

## Exhibit 6: The Ferry Division Can Realize Over \$1.5 Million in Annual Cost Savings by Reducing the Number of Crossings on Routes During Periods With Lower Use

Route	Number of Months With Low Average Utilization Rate (45% Or Less)	Number of Scheduled Daily Crossings (FY 2015–16)	Example Reduction in Daily Crossings – Low Utilization Months Only	Total Estimated Annual Savings
Currituck - Knotts Island	12	10-12	4	\$ 44,617
Hatteras - Ocracoke	6	36	12	953,419
Aurora - Bayview	0	14	0	0
Cherry Branch - Minnesott	9	54	18	182,508
Southport - Fort Fisher	3	28	9	91,314
Cedar Island - Ocracoke	5	6	2	123,863
Swan Quarter - Ocracoke	6	6	2	167,078
<b>Total Savings (All Routes)</b>				<b>\$1,518,799</b>

Note: Total annual savings for each route are calculated by adding monthly savings for each month with low utilization. The number of months of low utilization varies among routes. Monthly savings vary due to differences in the number of days in calendar months.

Source: Program Evaluation Division based on information provided by the Ferry Division.

PED calculated annual savings by multiplying the variable cost associated with each applicable crossing, which only included prorated fuel and maintenance costs, by the number of proposed crossing reductions in the month. In addition, for the Hatteras-Ocracoke route, which has eight assigned ferry boats, PED included savings associated with the ability to remove ferry boats from service while meeting proposed crossing requirements. Savings associated with the temporary removal of ferry boats from service includes reductions in labor costs to operate those boats.

The Ferry Division uses temporary or part-time positions to more efficiently meet the increased peak-season crossing requirements of affected ferry routes. In Fiscal Year 2015–16, there were 467 positions designated to a scheduled ferry route. These positions included 298 full-time positions with another 169 positions designated as temporary or part-time. As a result, the Ferry Division is better equipped to achieve reductions in labor costs by reducing the number of assigned ferry routes during periods of lower use.

This analysis demonstrates the potential cost savings gained from a more cost-effective use of available resources. However, due to a lack of available information, it does not include all necessary factors that should be considered. For example, because usage rates for each daily crossing were not provided, PED was unable to consider which daily crossing(s) should be eliminated or the associated impact on the public. Consequently, further analysis should be conducted prior to implementing any changes to the number of scheduled crossings for each applicable route.

In summary, the cost to operate and maintain each ferry route varies. Variation in operating cost is due in part to the length of the crossing and the number of scheduled crossings for each route. In addition, the average cost per vehicle varies among ferry routes, with routes providing service to vacation destinations having greater monthly variability. The Ferry Division

can reduce its system-wide operating costs by reducing the number of crossings for certain routes during periods of low utilization.

**Finding 2. The Ferry Division can increase revenue from annual fare collections by \$1.7 million on its currently tolled routes without adversely impacting area commuters.**

In Fiscal Year 2015–16 the Ferry Division collected fares from three tolled ferry routes. These routes were

- Southpoint-Fort Fisher
- Cedar Island-Ocracoke, and
- Swan Quarter-Ocracoke.

In Fiscal Year 2015–16, fares ranged from \$1 to \$45 per crossing depending on the route and passenger/vehicle characteristics. For example, the fare for a vehicle of less than 20 feet was \$15 for both the Cedar Island-Ocracoke and Swan Quarter-Ocracoke ferry routes, whereas the fare for this type of vehicle was \$5 for the Southpoint-Fort Fisher route.<sup>5</sup>

In addition, the Ferry Division fare structure for Fiscal Year 2015–16 included an annual commuter pass that costs \$150 for most vehicles and allows for unlimited use of all three of the tolled ferries for the designated vehicle.<sup>6</sup> As shown in Exhibit 7, based on this fare structure the Ferry Division collected \$2.3 million from tolled ferry routes in Fiscal Year 2015–16. These revenues included fares generated from the sale of 799 annual commuter passes.

**Exhibit 7**

In Fiscal Year 2015–16, DOT Collected \$2.3 Million in Fares From Its Three Tolled Ferry Routes

Route	Fare Collections
Southport-Fort Fisher	\$ 843,889
Cedar Island-Ocracoke	728,439
Swan Quarter-Ocracoke	632,333
System-Wide Commuter Passes	126,950
<b>Total</b>	<b>\$2,331,611</b>

Source: Program Evaluation Division based on information provided by the Ferry Division.

**In Fiscal Year 2015–16, receipts from fares supported only 6% of Ferry Division expenditures.** Farebox recovery ratio represents the ratio of fare revenue to operating expenditures. It measures the extent to which users provide revenue to support services they use. Farebox recovery should be considered separately for privately-owned and publicly-owned ferry systems due to their different purposes. Whereas the main purpose of

<sup>5</sup> For the Cedar Island-Ocracoke and Swan Quarter-Ocracoke routes, one-way fares are \$30 for a vehicle and/or combination that is 20 to 40 feet in length and \$45 for a vehicle and/or combination that is 40 to 65 feet in length. For the Southport-Fort Fisher route, one-way fares are \$10 for a vehicle and/or combination 20 to 40 feet in length and \$15 for a vehicle and/or combination 40 to 65 feet in length.

<sup>6</sup> The price for an annual commuter pass is \$150 for a vehicle and/or combination up to 20 feet in length; \$200 for a vehicle and/or combination that is 20 to 40 feet in length; and \$250 for a vehicle and/or combination that is 40 to 65 feet in length.

private systems is to generate revenue, publicly-owned systems also operate as a public good as part of the transportation network.

As shown in Exhibit 8, based on the results of a study conducted by the Washington State Department of Transportation, in Fiscal Year 2012–13 the Ferry Division had one of the lowest percentages of operating expenditures covered by fare revenue of any major publicly-owned ferry system in North America.<sup>7</sup> Specifically, with the exception of the Staten Island Ferry System, which is a free passenger-only ferry service connecting Staten Island and Manhattan, the Ferry Division is the only major publicly-owned ferry system with a farebox recovery ratio of less than 25%.<sup>8</sup>

Fares charged on each of North Carolina's tolled ferry routes have not been revised since 2003.<sup>9</sup> As a result, the farebox recovery ratio for the Ferry Division has most likely decreased because fare charges have not reflected associated changes in inflation and corresponding increases in operating expenses. Increases in the farebox recovery ratio can be achieved through fare increases or by reducing operating expenses.

Currently, there is no established farebox recovery target. Establishment of a farebox recovery target ratio could help address the ferry system's long-range funding needs. For example, a Joint Legislative Task Force on Ferries in the state of Washington recommended that the farebox recovery ratio be increased from approximately 60% to 80% over six years as part of a long-range plan for that state's ferry system.

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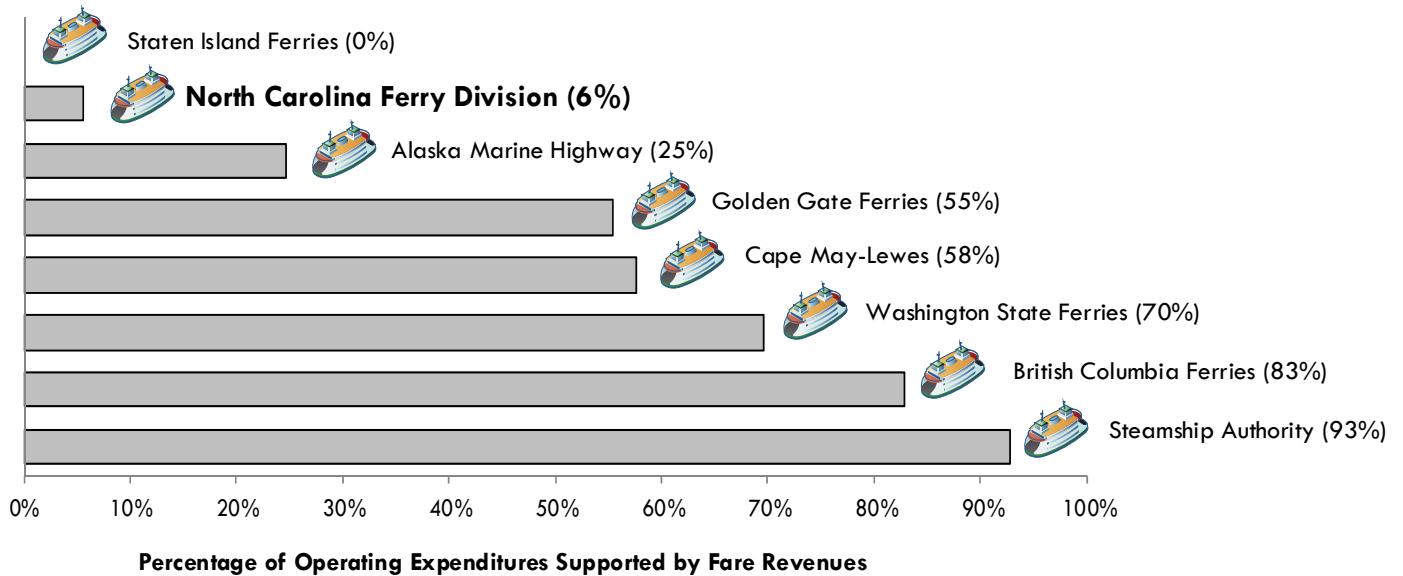
<sup>7</sup> Lester, J. (2015). *A 2015 comparison of operational performance: Washington state ferries to ferry operators worldwide*. Report prepared for the State of Washington, Department of Transportation.

<sup>8</sup> Appendix B provides a listing of other characteristics of each of these North American ferry systems.

<sup>9</sup> The fare is \$1 for pedestrians on each of the tolled routes. For the Cedar Island and Swan Quarter routes, the fare is \$3 for a bicycle and \$10 for a motorcycle, scooter, golf cart, all-terrain vehicle (ATV), or three-wheel motorcycle. For the Southport-Fort Fisher ferry routes the fare is \$2 for a bicycle and \$3 for a motorcycle, scooter golf cart, ATV, or three-wheel motorcycle.



**Exhibit 8: In FY 2012–13, the Ferry System Had One of the Lowest Percentages of Operating Expenditures Supported by Fare Revenues of Any Major Publicly-Owned Ferry System in North America**



Note: Appendix B provides a listing of other characteristics of each of these North American ferry systems.

Source: Program Evaluation Division based on *A 2015 Comparison of Operational Performance: Washington State Ferries to Ferry Operators Worldwide*.

The mission of the ferry system is to cost-effectively contribute to each of the goals of the State’s transportation system. Consequently, focusing exclusively on maximizing the farebox recovery ratio could adversely affect achievement of some of these objectives. For example, two of the goals of the Department of Transportation are to promote economic growth and improve the reliability and connectivity of the State’s transportation system. To ensure the ferry system effectively contributes to these goals, it may be appropriate to solely use state funds to operate the system as opposed to focusing on boosting the farebox recovery ratio through fare increases or reductions in operating expenditures. Exclusively using state funds can help increase the impact of the Ferry Division on the region’s economic growth and correspondingly increase the amount of state and local tax receipts.

On the other hand, improving the farebox recovery ratio can positively affect the contribution of the ferry system to other goals of the State’s transportation system. For example, other strategic goals of DOT are to cost-effectively deliver and maintain the transportation infrastructure and to provide great customer service. Increasing the percentage of operating expenditures recovered by fare revenue assists in the achievement of these goals.

**A recent initiative to raise additional revenue from fares was unsuccessful.** In 2011, the General Assembly enacted legislation directing DOT and the Board of Transportation to establish tolls for all ferry routes except the Hatteras-Ocracoke and Currituck-Knotts Island routes in order to increase annual revenue collected by the Ferry Division to \$5 million by

2014.<sup>10</sup> In anticipation of this legislation, DOT contracted for a study that included alternatives to achieve the legislative mandate.<sup>11</sup> Subsequently, a fiscal note was prepared by DOT that used the fare pricing alternatives identified in the department-funded study and concluded that the proposal would increase costs to North Carolina citizens by more than the revenue realized from the additional fares. These additional costs included an increase in ferry tolls paid and expenditures on motor fuels associated with decisions to use existing roads instead of the ferry due to increased cost. In response to these studies, as well as concerns expressed by area residents, the Governor issued an executive order placing a moratorium on any fare increases unless lifted by act of the General Assembly.<sup>12</sup>

**Fare increases are generally not supported by area residents, who often rely on ferries to commute to and from work or school.**

The Ferry Division provides services to both area residents and visitors. Area residents use scheduled ferry routes for a variety of reasons including work and school commutes. Due to their frequent patronage of the system, any increase in fares would have a disproportionate impact on these commuters. As a result, area residents have resisted prior initiatives to increase fares.

*In Pamlico County, Highway 306 and its ferries are part of the daily working highway corridor structure for small businesses and contractors, school and community college students, school systems, Emergency Management, vendors, military bases, regional workforce, working families, government workers, doctor visits, and the daily working life of Eastern North Carolina tax-paying citizens. It is the same scenario for many of our ferry-dependent neighbors."*

- Director of Planning and Economic Development for Pamlico County

Local government entities also have expressed concerns regarding any increase in the fares paid by area residents for ferry services. For example, in March 2013, the Carteret County Board of Commissioners approved a resolution opposing any increases to the Cedar Island-Ocracoke ferry linking Carteret County to the Outer Banks. The board stated in its resolution that it also opposes the collection of any new tolls for the Cherry Branch-Minnesott ferry in neighboring Craven County.

However, the Cape Fear Rural Planning Organization Advisory Committee and Wilmington Metropolitan Planning Organization adopted a resolution in May 2016 supporting a fare increase from \$5 to \$7 for vehicles under 20 feet for the Southport-Fort Fisher ferry route. The resolution stipulated that this increase be contingent on there being no change in the price of a commuter pass, thereby protecting regular users from increased costs.

**The Ferry Division can increase annual fare collections on its currently tolled routes by over \$1.7 million without adversely affecting area commuters.** The Program Evaluation Division analyzed the current fare

<sup>10</sup> N.C. Sess. Law 2011-145.

<sup>11</sup> CM Smith. (2012). *North Carolina ferry system revenue study*. Report prepared for North Carolina Department of Transportation, Ferry Division.

<sup>12</sup> N.C. Executive Order 116, February 29, 2012.

structure to identify opportunities to increase receipts from fares without adversely affecting area residents who use ferry services to commute to and from work and school. This analysis determined that fares should continue to remain free to the public for the four currently non-tolled routes. Three of these currently non-tolled routes—Currituck-Knotts Island, Aurora-Bayview, and Cherry Branch-Minnesott Beach—serve a high concentration of commuters. Consequently, charging a fare on these routes would produce a disproportionately adverse impact on area residents.

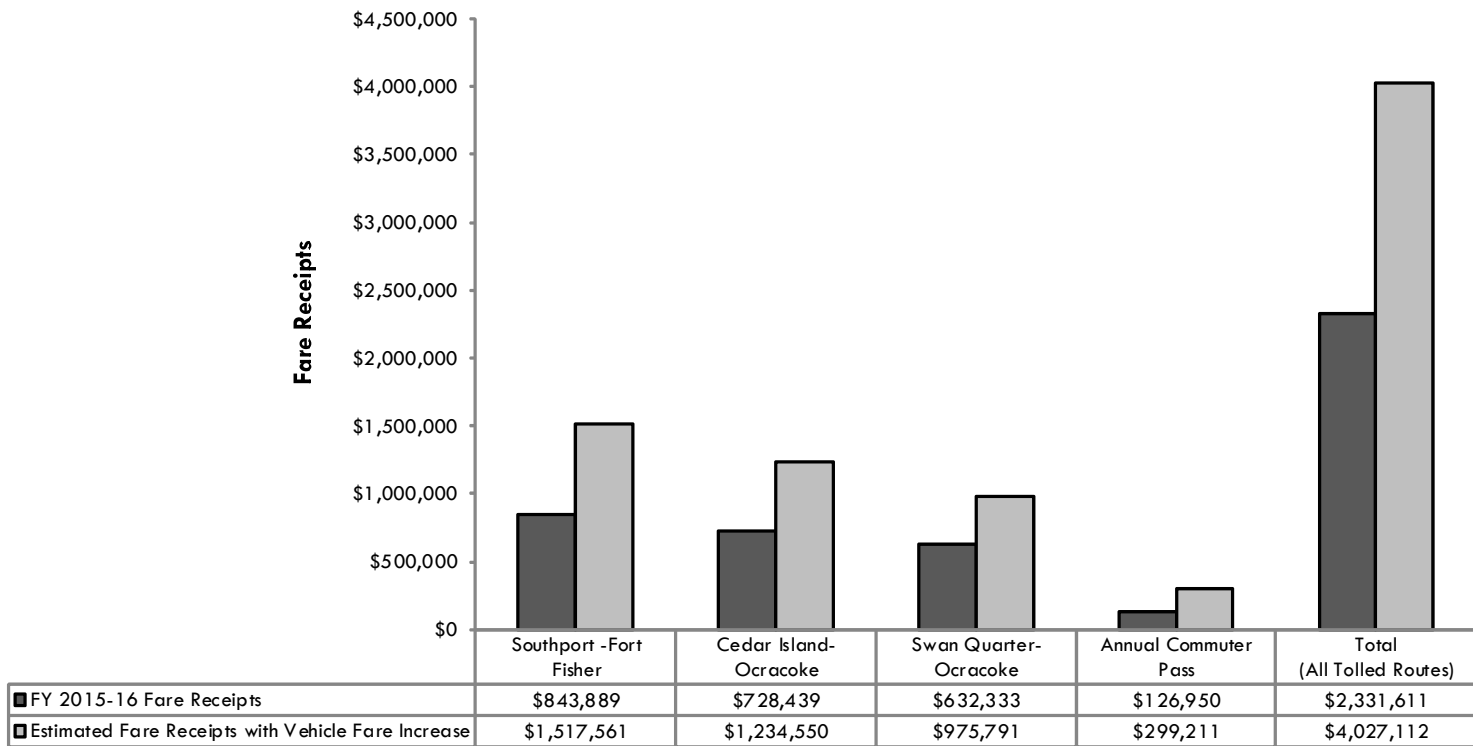
**The Program Evaluation Division determined there is insufficient information to determine the adverse economic impact of implementing a fare for the Hatteras-Ocracoke vehicle ferry route.** As reported in the Ocracoke-Hatteras Passenger Ferry Feasibility Study, 83% of visitors to Ocracoke spend only one day on the island. The study also reported that these visitors spend an average of \$40 per visit. Consequently, implementation of a toll for these visitors may negatively affect their decision to travel because it would represent a significant share of their total expenditures. As a result, the potential adverse economic impact to the residents of Ocracoke may outweigh the benefits from any additional revenues.

The Ferry Division is planning to offer a passenger-only ferry alternative for the Hatteras-Ocracoke route in 2018. The Passenger Ferry Feasibility Study recommended a round-trip fare of \$15 for this service. Should this new service be tolled, usage rates between the passenger-only service and vehicle service could be compared to determine the potential impact on ridership and associated economic impact from implementation of a toll.

**The Program Evaluation Division determined fares could be increased on existing tolled routes without adversely affecting frequent users.** Specifically, increasing vehicle fares by \$15 per crossing for the Swan Quarter-Ocracoke and Cedar Island-Ocracoke routes and by \$5 per vehicle for the Fort Fisher-Southport route would generate an estimated \$1.7 million in additional annual fare receipts. These fare revisions should not apply to pedestrians and bicycles because of the low operating costs to transport these passengers.

**Vehicle fare increases would not adversely affect area residents who use ferry services to commute to and from work and school because of the availability of an annual commuter pass.** The Program Evaluation Division estimates that the proposed increase in vehicle fares would further incentivize frequent users to purchase a commuter pass and thereby limit their total annual expenditures for ferry services to \$150 per year. For example, any area resident who uses the Swan Quarter-Ocracoke or Cedar Island-Ocracoke ferry routes to make more than five round trips in a year can purchase an annual commuter pass and avoid incurring any additional costs associated with a one-way fare increase from \$15 to \$30 for a vehicle and/or combination that is less than 20 feet. This calculation is also applicable for area residents who use the Southpoint-Fort Fisher ferry route to make more than 15 round trips in a year should the one-way fare be increased from \$5 to \$10. As shown in Exhibit 9, this alternative fare pricing structure for currently tolled ferry routes would increase system-wide annual fare collections by an estimated \$1.7 million, from \$2.3 million to \$4 million.

### Exhibit 9: The Ferry Division Can Increase Fare Receipts on Currently Tolled Routes From \$2.3 Million to \$4.0 Million Annually Without Adversely Affecting Area Commuters



Source: Program Evaluation Division based on information provided by the Ferry Division.

**Based on the results of a study funded by DOT in 2012, the Program Evaluation Division determined area visitor demand for ferry services would not be significantly affected by these proposed fare increases.**

This conclusion is also supported by the results of a comprehensive study of the sensitivity of recreational visitors to changes in fares for ferry services conducted by the Washington State Department of Transportation.<sup>13</sup> Research related to incremental recreational cost increases indicates that fee increases do not present a major barrier to visitation to a destination when the fee represents a small share of total expenditures. For that same reason, implementing a fee on the Hatteras-Ocracoke route may produce a negative economic impact.

In summary, the Ferry Division collected \$2.3 million from tolls on three of its seven scheduled ferry routes in Fiscal Year 2015–16. Receipts from these fares represented only 6% of the Ferry Division’s operating expenditures. The Ferry Division can increase vehicle fares on tolled routes by \$15 for the Swan Quarter-Ocracoke and Cedar Island-Ocracoke routes and by \$5 for the Southport-Fort Fisher ferry route and realize an additional \$1.7 million in annual receipts without adversely affecting commuters or harming the economic impact achieved from visitors traveling to the region via these routes.

<sup>13</sup> Washington State Department of Transportation. (2009, June). *Ferries Division Final Long-Range Plan*. Olympia, WA.

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**Finding 3. Using partnerships with other government entities and the private sector can reduce state funding requirements and improve the overall effectiveness of the State's ferry system.**

Partnerships with other public and private entities can enable the Ferry Division to more cost-effectively contribute to the State's transportation goals by combining available state funds with other funding sources. In addition to potentially expanding the level of ferry transportation services that are available to area residents and visitors, effective utilization of partnerships allows stakeholders associated with potential ferry service initiatives to contribute resources and realize some of the potential benefits.

Forming partnerships to more cost-effectively utilize the State's ferry transportation system requires the development of a contractual agreement between each of the participating public and private entities. The use of a contractual agreement enables the sharing of skills and assets of each participating entity in delivering a ferry transportation service. In addition to sharing resources, each party also may share in the associated risks and rewards.

**The proposed passenger-only ferry service for the Hatteras-Ocracoke route is an example of a partnership with a local government entity.**

The island village of Ocracoke has no roadway accessibility and can only be reached by air or water. Scheduled water transportation to the island is provided exclusively by the Ferry Division. In addition to increasing access to the island, the Ferry Division's efforts have contributed to the economic development of this region by benefiting the tourism industry.

In 2013, due to shoaling in the Hatteras Inlet, the Ferry Division determined that the existing route was unsafe for its ferry operation. In response, the Ferry Division began to use a longer, deeper route between Hatteras and Ocracoke that increased crossing times from approximately 40 minutes to 60 minutes.

Using the longer route has resulted in a decrease in the number of daily crossings. Though the Ferry Division is continuing to work with the Army Corps of Engineers to dredge the original channel, the Ferry Division has not been able to use the original route since 2013. Consequently, during the summer peak season, it has become more difficult for tourists to complete a day trip to Ocracoke.

A study conducted in conjunction with a grant funded by the Department of Transportation in 2015 estimated that the increased crossing time associated with the change in the route used by vehicle ferries resulted in an average decrease of over 40,000 visitors to Ocracoke during the summer season, June through August, for 2014 and 2015. The study also attributed this decrease in the amount of visitor expenditures to the reduction in planned trips to Ocracoke and to an increase in the number of tourists abandoning a planned visit due to excessive wait times upon arrival at the Hatteras terminal.

**The Program Evaluation Division estimates the new and longer ferry route resulted in a loss of 89 jobs in the tourism industry and a combined reduction of over \$500,000 in local and state tax revenue during the 2014 and 2015 summer seasons (see Exhibit 10).**<sup>14,15</sup> These decreases in employment and tax revenues are the result of an estimated combined decline in tourism expenditures for these two years of \$5.2 million, from an expected \$52.7 million to 47.6 million (9.7%). An estimated \$242,577 of \$526,152 in reduced tax collections is attributable to state taxes with the remaining \$283,575 associated with reductions in local tax collections. These receipts included taxes collected from the sale of merchandise, lodging, and vehicle rentals as well as income and sales tax paid by employees in the Ocracoke tourism industry.

**Exhibit 10**

Longer Route Between Hatteras and Ocracoke Resulted in Losses of Jobs and Tax Revenues in 2014 and 2015

Tourism Expenditure Reduction (2014 and 2015)	Jobs Lost	Reduced Tax Collections (Local)	Reduced Tax Collections (State)	Reduced Tax Collections (Total)
\$5,243,420	89	\$283,575	\$242,577	\$526,152

Source: Program Evaluation Division based on reports prepared by and for the Department of Transportation and Visit North Carolina.

Tourism expenditures directly support many businesses on the island of Ocracoke and also enhance the general economic activity of the island. For example, an expenditure made at a restaurant directly supports wait staff earnings, indirectly supports the earnings of suppliers of food and beverages sold at that restaurant, and if the wait staff or food and beverage suppliers spend their earnings, it helps support the earnings of other workers on the island.

**In 2016, the General Assembly authorized the Ferry Division to develop and implement a passenger-only ferry service for the Hatteras-Ocracoke route.** Implementation of this passenger-only ferry service is intended to address the decrease in the number of visitors to Ocracoke associated with changes to the route used by vehicle ferries. When fully implemented, the Ferry Division will have augmented the current Hatteras-Ocracoke ferry route with two passenger-only ferries.

**The Ferry Division estimates \$8.6 million in state and federal funds will be required to implement services for one passenger-only ferry for the Hatteras-Ocracoke route (see Exhibit 11).** In addition to the procurement of one 100-person-capacity passenger-only ferry with an estimated cost of \$4.5 million, this requirement also includes \$2.1 million for engineering design and environmental permitting and \$1.9 million for additional capital expenditures. These non-vessel-related capital expenditures include improvements to the Hatteras and Ocracoke terminals and docks and the procurement of a ticketing and reservation system.<sup>16</sup> Finally, DOT plans to

<sup>14</sup> Volkert, Atkins, & ITRE. (2016). *Ocracoke—Hatteras passenger ferry feasibility study*. Prepared for North Carolina Department of Transportation, Ferry Division.

<sup>15</sup> U.S. Travel Association (2016). *The economic impact of travel on North Carolina counties*. Prepared for Visit North Carolina.

<sup>16</sup> Passenger-only ferry construction costs were based on estimated costs provided by the Ferry Division on May 15, 2017.

spend \$166,000 to purchase open-sided shuttle buses and make improvements to the associated shuttle bus transit routes.

**Exhibit 11**

Ferry Division Estimates \$8.6 Million Will Be Required to Implement Passenger-Only Ferry Service for the Hatteras-Ocracoke Route

Passenger-Only Ferry Project Category	Estimated Cost
Engineering design and environmental permitting	\$2,070,536
Construction of one passenger-only ferry	\$4,470,719
Terminal and dock improvements	\$1,788,560
Passenger shuttle services	\$166,000
Ticketing and reservation system	\$150,000
<b>Total</b>	<b>\$8,645,814</b>

Source: Program Evaluation Division based on information provided by the Ferry Division.

**The local government has a key role in ensuring successful implementation of a passenger-only ferry project.** To accommodate the projected increase in demand for public transportation associated with this additional ferry service, state funds also will be used to acquire three 16-passenger vehicles to shuttle ferry passengers and residents around Ocracoke Village and other points of interest. The local government will have responsibility for the operation of these passenger vehicles as well as coordination with other area surface transportation modes.

**The passenger-only ferry service for the Hatteras-Ocracoke route is scheduled to become operational in May 2018.** This service will augment the existing vehicle ferry service for this route with no scheduled reduction in the level of vehicle ferry service. While transit times for both the passenger-only and vehicle ferry service will be about one hour, the passenger-only ferry service will deliver passengers to the South (Silverlake) terminal at Ocracoke village. The vehicle ferry service will continue to deliver passengers to the South dock terminal, which is located approximately 13 miles from Ocracoke village and adds an estimated 15-20 minutes to overall transit time.

**The new passenger-only ferry service can contribute to achievement of the State’s transportation goals.** Implementation of a passenger-only ferry system for the Hatteras-Ocracoke route also may attract other potential visitors who view a passenger-only ferry as a better mode of transportation and consequently a significant factor in their vacation travel planning. In addition to utilizing the Silver Lake terminal and relieving passengers of any difficulty associated with vehicle parking, the proposed passenger-ferry vessels will have an operating service speed of 28 knots, which is nearly three times as fast as the typical operating speed of 10 knots for the vehicle ferries serving the Hatteras-Ocracoke route. The opportunity to experience this new mode of marine transportation may help increase overall visitation to Ocracoke Island. Despite the \$15 round-trip toll recommended in the Passenger Ferry Feasibility Study, potential visitors may view this alternative as preferable.

Potential visitors to Ocracoke Island who use the passenger-only ferry also may be part of the group that abandoned planned visits due to excessive boarding wait times for the vehicle ferry service. For example, the Passenger Ferry Feasibility Study estimated that due to excessive wait

times, approximately 1,273 vehicles, or 3,700 people, abandoned a trip to Ocracoke Island during peak demand periods in 2014.

The planned passenger-only ferry service is intended to address this issue by incorporating a ticketing and reservation system. The proposed ticketing and reservation system will allow for the purchase of tickets in person at the ferry terminal, online via a web portal, and electronically via a mobile device application. The purchase of a ticket through this system will provide passengers with a guaranteed departure and arrival time and therefore prevent them from having to wait in line as was the case with the vehicle ferry service.

An overall increase in the number of visitors traveling to Ocracoke Island by ferry will have a positive economic impact and serve to increase associated state and local tax receipts. As shown in Exhibit 12, based on 2014 and 2015 utilization data, the Program Evaluation Division estimates each passenger contributing to an increase in the overall level of visitation to Ocracoke Island will produce an additional \$71 in tourism-related expenditures. As a result, each additional visitor will also produce an additional \$7.14 in associated local and state tax revenues.

**Exhibit 12: In 2014 and 2015 Visitors Using the Hatteras-Ocracoke Ferry Route Spent an Average of \$71 on Ocracoke Island and Contributed \$7.14 to State and Local Tax Receipts**

Year	Expenditures per Visitor	Local Tax Receipts per Visitor	State Tax Receipts per Visitor	Total Tax Receipts per Visitor
2014	\$72.45	\$3.30	\$3.91	\$7.21
2015	\$69.57	\$3.77	\$3.30	\$7.07
<b>Two-Year Average</b>	<b>\$70.98</b>	<b>\$3.54</b>	<b>\$3.60</b>	<b>\$7.14</b>

Source: Program Evaluation Division based on a report prepared for Visit North Carolina and ferry route utilization information from the Ferry Division.

As with any partnership with another entity, effective coordination is essential to ensure the initiative to add passenger-only ferry service to Ocracoke Island effectively achieves the specific objectives of area residents while contributing to the strategic objectives of the State’s transportation system. Though the Ferry Division and the local government each have specific responsibilities, the success of the new service will be contingent on the effective implementation of all aspects of the initiative.

**Partnerships with other entities, both public and private, represent alternative funding sources that can help increase the overall effectiveness of the ferry system.** For example, in 2017 the General Assembly enacted legislation that included a requirement for the Department of Environmental Quality to conduct a study of the feasibility and cost-effectiveness of acquiring one or more dredges.<sup>17</sup> This legislation also stipulated that the study evaluate options for minimizing costs and increasing cost-effectiveness to include public-private partnerships and shared ownership arrangements with neighboring states or the United States Army Corps of Engineers.

<sup>17</sup> N.C. Sess. Law 2017-57, Section 13.8.(a).



However, partnerships for established services are not easily accomplished. After the State invests in transportation infrastructure such as the establishment of a ferry route, it becomes difficult in the future to shift some or all of the cost responsibility to passengers through tolls and private partnerships for sponsoring or assisting in financing operations, expansions, and enhancements.

For example, the three-and-a-half-mile Aurora-Bayview ferry route connects the northern and southern banks of the Pamlico River and is not currently tolled. In Fiscal Year 2015–16, the Ferry Division expended nearly \$1.5 million to transport 50,632 vehicles on this route.<sup>18</sup> Employees of the largest employer in Beaufort County benefit from this route because it reduces the cost and time to commute by car from the northern half of Beaufort County and points northward. However, when a local Chamber of Commerce official, at the Program Evaluation Division's suggestion, asked the employer to discuss potentially providing financial assistance towards the Aurora-Bayview ferry, the company contended that it already made sufficient contributions to the area through jobs, through state and local taxes, and by being a customer of the state-owned Morehead City Port.

In summary, increased use of partnerships by the Ferry Division can enable more cost-effective utilization of available state funds. The current initiative to establish passenger-only ferry service on the Hatteras-Ocracoke route is an example of a partnership that can benefit both the State and local government by contributing to the economic development of the area. Increased use of partnerships with other private and government entities can provide an alternative funding source and help increase the overall effectiveness of the DOT ferry system.

**Finding 4. Development of a long-range plan provides an opportunity to take a systematic approach to identifying how the Ferry Division can most cost-effectively contribute to the mission of the Department of Transportation and the strategic transportation goals of the State.**

An effective plan should be based on a long-range forecast of the region's transportation needs. It should include an assessment of future funding availability and an analysis of changes to the existing system that may be required to meet those needs.

The long-range plan should be based on a 20-to-30-year forecast of transportation demand and is intended to address the region's needs over that period. It also should be regularly updated. These updates are necessary to ensure the plan reflects changes in the region's industries, economy, population, and infrastructure.

In addition, the recommended set of proposed actions contained in an effective plan should be based on analysis and consultation with other government and private entities as well as the public served by the system. Proposed actions should include consideration of the role that ferry transportation services can play in the State's economy and an assessment

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<sup>18</sup> See page 33 of this report for a detailed statistical and financial profile of the Aurora-Bayview ferry.

of benefits that could be realized through strategic investments in maritime infrastructure.

**The Department of Transportation has produced several studies that provide alternative approaches to cost-effectively address the long-range objectives of the State's transportation system.**

- **Statewide Long-Range Transportation Plan (2040 Plan), August 2012.** The 2040 Plan is a blueprint that sets investment and policy priorities for North Carolina's evolving transportation system over the next 30 years. It is a policy-based document that identifies transportation needs, estimates the revenue necessary to fund those needs, and outlines the investment strategies and policies supporting them. The plan focuses on policies and programs needed to enhance safety, improve mobility, and reduce congestion for all transportation modes.
- **State Transportation Improvement Plan (STIP), December 2016.** The STIP plan is a 10-year state and federally mandated plan that identifies construction funding and scheduling for transportation projects. The multi-year STIP is used to schedule most highway improvements from state and federal gas tax revenues and other federal grants.
- **Seven Portals Study, December 2011.** This study identifies opportunities for North Carolina to tie its transportation infrastructure investments to economic development and the creation of jobs. It examines the State's infrastructure as a whole and the strengths, weaknesses, opportunities, and constraints of the transportation infrastructure within each economic region as compared to the needs and objectives of each regional economy. Among the many ideas presented in the study is a recommendation to increase the number of partnerships with the private sector to realize common economic objectives.
- **Vessel Replacement Plan, April 2016.** This plan identifies the cost to refurbish and to replace each of the ferry boats and support vessels in the current inventory.

Though these studies identify alternative approaches to address the long-range objectives of the State's transportation system as a whole, a comprehensive long-range plan strictly for ferry transportation services provides an opportunity for a more in-depth analysis of the unique opportunities and potential benefits that an effective ferry system can provide. In addition to identifying alternatives to alleviate resource requirements for the State's other transportation modes, an in-depth analysis of the ferry system can help identify alternatives to stimulate economic activity in the region and achieve a corresponding increase in both state and local tax collections.

**The North Carolina Maritime Strategy study is an example of a study that included a long-range plan for a specific segment of the State's transportation system.**<sup>19</sup> This study focused on the segment of the State's

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<sup>19</sup> AECOM in association with URS (2012). *NC maritime strategy final report*. Prepared for the North Carolina Department of Transportation.

transportation system used to conduct regional and global maritime trade including the opportunities and challenges the State experiences as a port for global maritime commerce. The study also examined the role North Carolina ports play in sustaining and strengthening the state economy and sought to identify opportunities and strategies to optimize the benefits gained from the State's investment in ports and associated transportation infrastructure.

As with the North Carolina Maritime Strategy study, the development of a long-range plan for ferry services offers an opportunity to identify and examine alternatives for transporting vehicles and passengers via ferries that cost-effectively contributes to the strategic objectives of the State's transportation system. The long-range plan should be used as a guide for the development of each applicable vehicle and passenger marine transportation initiative including current ferry routes identified for continuation. A long-range plan also should provide a framework for state investment in ferry transportation services. Maritime infrastructure is capital-intensive, increasingly requiring coordination among public and private stakeholders to meet maintenance and expansion requirements. To help leverage available state funds, the long-range plan should identify other potential sources of revenue including passenger fares and partnerships with other government entities and the private sector.

**Other large ferry systems utilize various governance structures in partnering with private and government entities to achieve their marine transportation goals.** The governance structure used to operate each segment of the ferry transportation system affects the sources from which resources are drawn and the means by which policy is established and decisions about any and every aspect of the operation are made.

As shown in Appendix C, a variety of governance structures exist that may be incorporated into a long-term plan to ensure maritime transportation cost-effectively contributes to the strategic objectives of the State's transportation system. Each of these identified governance structures has strengths and weaknesses that should be considered when determining the best approach to cost-effectively achieving these specific objectives.

For example, a public authority provides a governance structure that allows local area residents to cost-effectively achieve goals specific to their region. Establishment of a public authority for a specific geographical area and service type also enables local governments to establish partnerships to leverage available funds and helps ensure area stakeholder participation to more cost-effectively achieve identified goals and objectives. As with other potential governance structures, however, there are also risks that public authorities may not effectively serve the specific objectives of area residents. For example, establishment of public authorities with overlapping geographical boundaries may result in conflicting goals and objectives.

In addition, enabling legislation is generally required as a condition of establishing a public authority. For example, during the 2017 legislative session the General Assembly enacted a bill to authorize the creation of a

ferry transportation authority.<sup>20</sup> This legislation authorizes a public authority for a specific service area. The legislation also stipulates the criteria for establishment of the service area boundaries, as well as the organization, composition, and general powers of the public authority.

Though governance structures that facilitate the establishment of partnerships with other government and private entities enable the State to leverage its resources, they may not always be the most appropriate alternative. For example, North Carolina currently utilizes a Government Line Agency governance structure. Under this governance structure, the State owns all of the associated assets with responsibility for effective operations delegated to the Ferry Division. This governance structure helps ensure scheduled ferry routes can continue to provide the necessary transportation infrastructure to meet the requirements of area residents.

A Government Line Agency governance structure also ensures only state funds will be required to provide ferry services on established routes with supplemental funding coming from tolls and other revenue sources. For some scheduled ferry routes it may not be feasible to use governance structures that involve participation from other public or private entities. These outside entities would need to determine whether the associated benefits of participation exceed the costs. For ferry routes primarily serving area commuters such as the Aurora-Bayview route, the potential for monetary remuneration is limited due to the adverse impact to area residents associated with collecting tolls.

**Stakeholder involvement is a key element of the development and implementation of an effective long-range plan for North Carolina's ferry transportation system.** Key stakeholders in both government and the private sector can provide valuable input through involvement in the management and oversight of a long-term plan. For example, the Maritime Strategy study established an Executive Team to oversee the process, evaluate results, and provide objective technical and economic analysis. The Executive Team for this study included the Lieutenant Governor as well as agency heads from the Department of Transportation and the former Departments of Commerce and Environment and Natural Resources. The Maritime Strategy study also included an Advisory Council of public and private partners with responsibility for strategic development and implementation. The Advisory Council consisted of state officials and staff along with industry representatives from ocean shipping, trucking, rail and manufacturing, and community-at-large representatives.

Stakeholders and the public also can help identify and evaluate various alternatives to cost-effectively achieve the goals and objectives of the State's ferry system by participating in focused stakeholder meetings. In addition, continued stakeholder involvement after issuance of the long-term plan is an important component to its successful implementation. For example, the Maritime Strategy study included a comprehensive public involvement program. The goals of this program include

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<sup>20</sup> N.C. Sess. Law 2017-120.

- fostering a public involvement process that will engage stakeholders and the public to assist in the development process and recommendations;
- producing a comprehensive and cohesive public involvement process that engages various levels of stakeholders through the utilization of a broad array of public involvement tools and techniques;
- creating opportunities to interact with project stakeholders and the public in order to garner input on the future vision for North Carolina's ports; and
- identifying opportunities to collect feedback and comments and respond to these accordingly.

These goals were achieved through engaging stakeholders and the public by educating and informing them on project-related issues, providing multiple formats and opportunities for public input, and integrating feedback into the decision-making process.

**To help evaluate various alternatives, the long-range plan for ferry transportation services should utilize performance measures and targets.** Performance measures and targets provide quantitative measures of economic benefit that can be realized by specific investments. In addition, performance measures and targets can be used to compare major benefits, costs, and implications of identified alternatives. For example, a measure to identify the state and local tax revenues that would be generated from each alternative can be used by the General Assembly to evaluate the return on applicable state funding requirements.

**As with other long-range plans for specific segments of the State's transportation system, the availability of adequate administrative and technical resources is essential to achieving intended objectives.** Required administrative resources include facilities for plan participants to meet and evaluate proposed alternatives and staff support to assist with overall coordination and drafting of reports. In addition, administrative support services are required to facilitate involvement of the maritime industry and community stakeholders. Technical resource requirements include the identification and procurement of specific areas of expertise in ferry system service alternatives as well as associated cost-benefit analysis. This expertise may be available from a variety of sources including the State's university and community college system, state agencies, and private consulting firms.

The Golden LEAF Foundation offers an example of an entity that may be able to provide funds for these resource requirements while adhering to its charter and mission. According to its charter, the Golden LEAF Foundation "shall promote the social welfare and lessen the burdens of government by using its funds to provide economic impact assistance to economically affected or tobacco-dependent regions of North Carolina." The mission of Golden LEAF is to increase economic opportunity in North Carolina's rural and tobacco-dependent communities through leadership in grant-making, collaboration, innovation, and stewardship as an independent and perpetual foundation.

The Golden LEAF Foundation focuses its grant-making in areas that show the most promise for assisting targeted communities with economic transition and/or diversification. For example, the Golden LEAF Foundation issued a grant of \$325,000 to the Department of Natural and Cultural Resources to develop and implement an agricultural and heritage tourism model that can be used to create new sustainable tourism products. Another example is a \$133,380 grant issued to the North Carolina Biotechnology Center to develop a strategic plan to guide the State's investments in biotechnology. As of June 30, 2016, the Golden LEAF Foundation reported a fund balance/net position of \$846.8 million. This amount reflects the Foundation's available unrestricted assets, less its liabilities. In Fiscal Year 2015–16, the Golden LEAF Foundation spent \$30.3 million, primarily on grant disbursements.

In summary, the development of a long-term plan can help ensure North Carolina's ferry transportation services cost-effectively contribute to achievement of the mission of DOT and the strategic transportation goals of the State. The long-term plan should utilize performance measures and targets to evaluate various alternatives and assist the General Assembly in determining expected contributions to state and local tax receipts from associated funding requirements.

## Recommendations

### **Recommendation 1. The General Assembly should direct the Ferry Division to produce a long-range plan for the State's ferry transportation system.**

The objective of the long-range plan should be to identify alternatives and make recommendations to ensure the ferry system cost-effectively contributes to the strategic objectives of the State's transportation system. Evaluation of each potential alternative should include consideration of the associated costs and benefits including the impact on state and local tax receipts and the impact on the State's other modes of transportation.

To address the long-range funding needs of the ferry system, the long-range plan also should evaluate alternative pricing structures that maximize the contribution of fares to support the operation of each ferry route, including the fare pricing alternative presented by the Program Evaluation Division. The evaluation of alternatives to the current fare pricing structure should include consideration of the impact on residents who use routes to commute to and from work or school and the economic impact to the State and region including projected changes in state and local tax receipts as a result of associated changes in ridership for each route. In addition, the long-range plan should identify appropriate levels of operating cost recovery from vehicle and passenger fares, including plans to achieve the established targets.

In addition, the long-range plan should include consideration of various governance structures including partnerships with other government entities and the private sector. At a minimum, the long-range plan should include consideration of the most appropriate governance structure for the following activities/services:

- passenger-only and vehicle ferry operations;
- ferry boat and support vessel construction and maintenance;
- terminal construction, maintenance, and operations; and
- Manns Harbor shipyard operations.

In lieu of requesting a separate legislative appropriation, the General Assembly also should direct the Ferry Division to apply for a grant from the Golden LEAF Foundation to procure necessary support services to effectively identify and evaluate potential alternatives to enhance the cost-effectiveness of the State's ferry transportation system. In addition to providing administrative support services, these responsibilities should include procurement of appropriate technical expertise from available sources including the State's university and community college system, state agencies, and private entities with specific expertise in ferry transportation systems.

The General Assembly also should direct the establishment of an Executive Team to oversee the process, evaluate results, and provide an objective technical and economic analysis. At a minimum, the Executive Team for the long-range plan for the State's ferry transportation system should include designated representatives of the following entities:

- Department of Transportation,
- Department of Natural and Cultural Resources,
- Department of Environmental Quality,

- Visit North Carolina,
- the North Carolina ferry boat and support vessel construction industry, and
- local government(s) with direct access to applicable state waterways.

The General Assembly should direct the Ferry Division to deliver this long-range plan for the State's ferry transportation system, as approved by the designated Executive Team, to the Joint Legislative Transportation Oversight Committee and the Fiscal Research Division by December 1, 2018.

**Recommendation 2. The General Assembly should direct the Department of Transportation to evaluate the schedule of crossings for each ferry route to ensure ferry services cost-effectively meet the needs of both area residents and tourists.**

This evaluation should include alternatives presented by the Program Evaluation Division as well as input from ferry system stakeholders including local governments directly affected by ferry services. Evaluation of alternatives should include consideration of expected use and impact on the operating costs of each route.

The results of this evaluation should be included in the long-range plan.

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## Appendices

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Appendix A: Ferry Division Routes

Appendix B: Publicly-Owned Ferry Systems in North America

Appendix C: Governance Structure Alternatives

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## Agency Response

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A draft of this report was submitted to the North Carolina Department of Transportation's Ferry Division to review. Its response is provided following the appendices.

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## Program Evaluation Division Contact and Acknowledgments

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For more information on this report, please contact the lead evaluator, Chuck Hefren, at [chuck.hefren@ncleg.net](mailto:chuck.hefren@ncleg.net).

Staff members who made key contributions to this report include Pat Madej. John W. Turcotte is the director of the Program Evaluation Division.



## Appendix A: Ferry Division Routes

### Division Performance FY15-16:

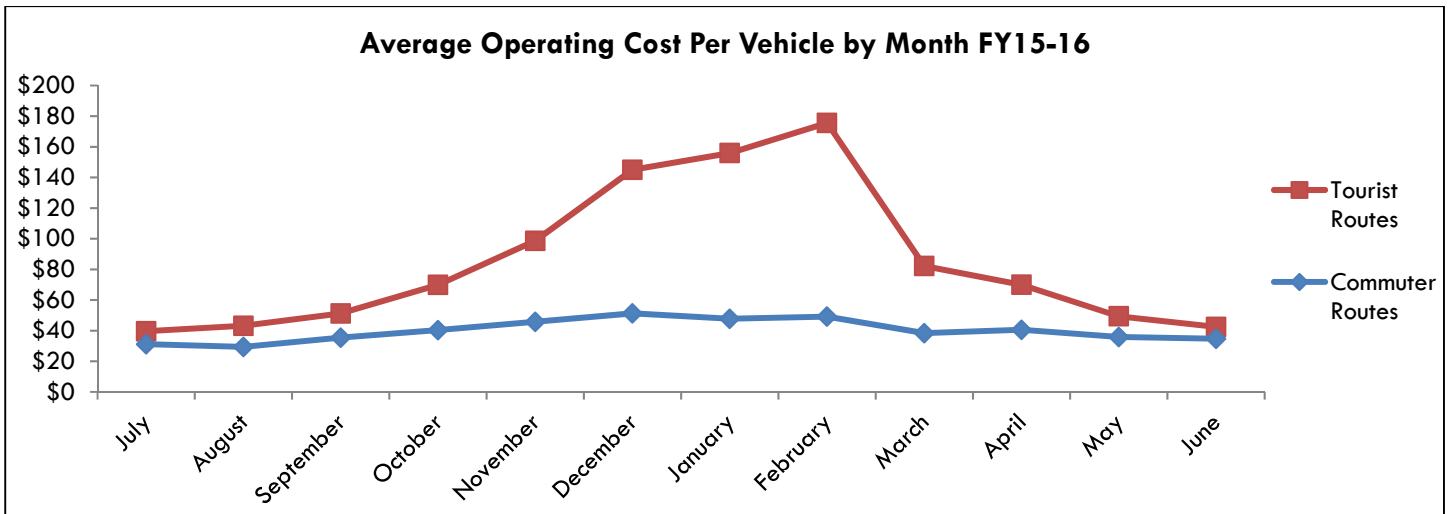
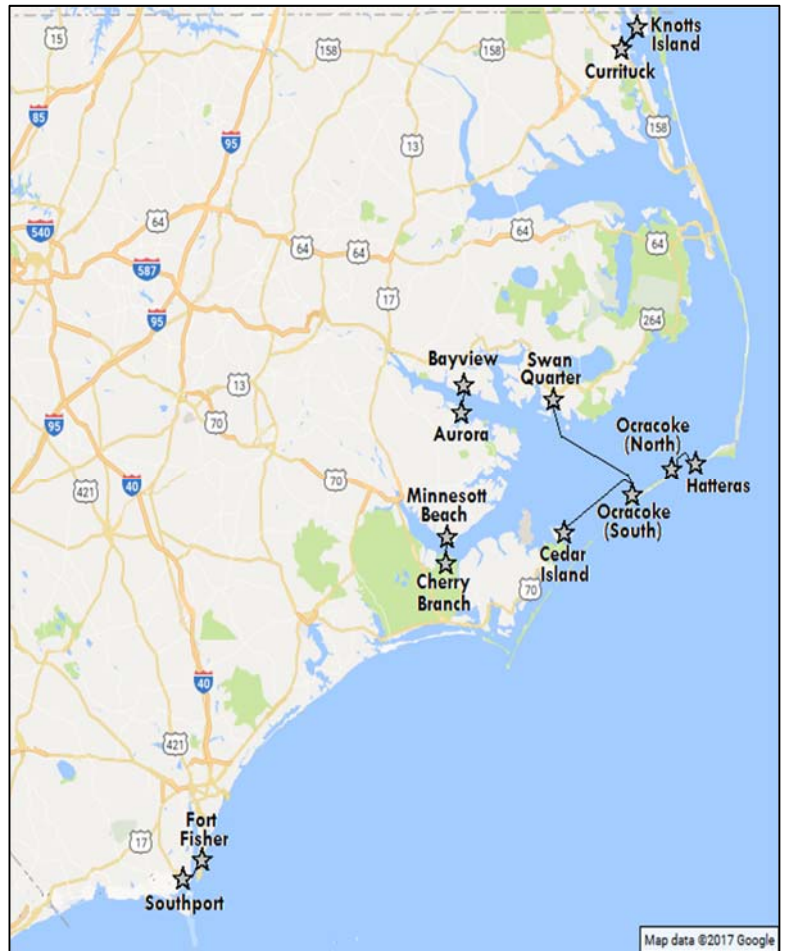
<b>Number of Routes:</b>	7
<b>Number of Ferries:</b>	21
<b>Daily Crossings:</b>	154-202
<b>Total Crossings:</b>	61,662
<b>Sailings on Time:</b>	95.8%
<b>Vehicles Transported:</b>	801,256
<b>Passengers Transported:</b>	1,872,757
<b>Monthly Capacity Range:</b>	16.3-95.7%
<b>Average Capacity Used:</b>	49.0%

### Division Expenditures FY15-16:

<b>Vessel Costs:</b>	\$20,672,052
<b>Terminal Costs:</b>	5,809,652
<b>Marine Maintenance Costs:</b>	1,319,864
<b>Dredging Costs:</b>	66,001
<b>Total Operating Costs:</b>	\$27,867,568

### Division Revenue FY15-16:

<b>Net Toll Revenue:</b>	\$ 2,204,661
<b>Commuter Pass Revenue</b>	126,950
<b>Total Revenue:</b>	\$ 2,331,611



Notes: Excluding weather-related missed sailings, 98.3% of sailings were made on time. Operating costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging costs. Costs related to system executive management and system-wide administrative activities were not included. Tourist routes are Ocracoke routes (Cedar Island, Swan Quarter, and Hatteras) and Southport-Fort Fisher due to a relatively high increase in summer ridership. Commuter routes are Currituck-Knotts Island, Aurora-Bayview, and Cherry Branch-Minnesott.

# Currituck - Knotts Island

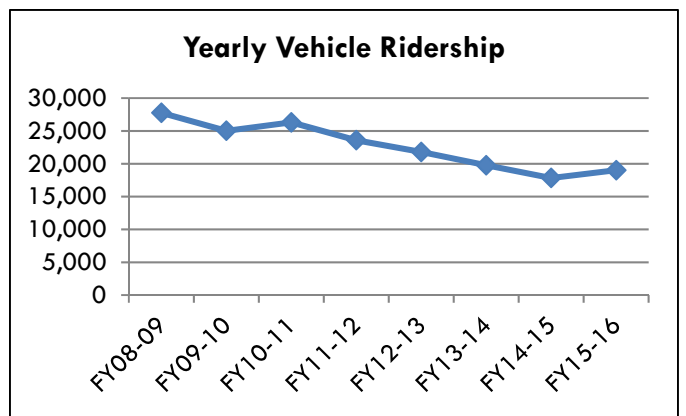
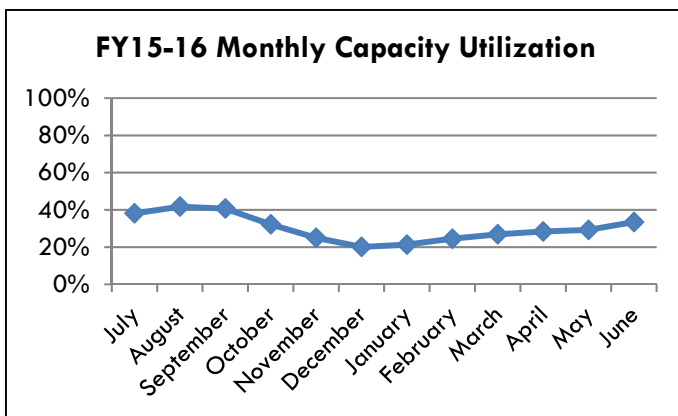
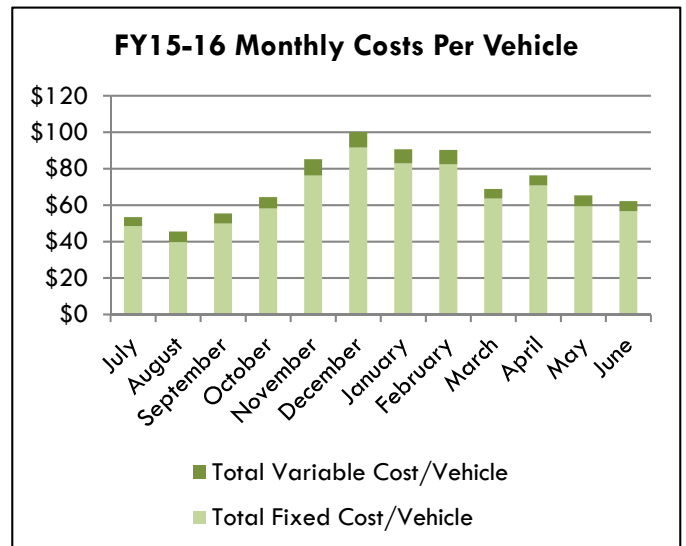
## Route Information FY15-16:

<b>County:</b>	Currituck
<b>Primarily Serves:</b>	Commuters, local K-12 students
<b>Route Distance:</b>	5 miles
<b>Sailing Time:</b>	45 minutes
<b>Passenger Vehicle Fare:</b>	\$0
<b>Daily Crossings:</b>	10 - 12



## Route Performance FY15-16:

<b>Vehicles Transported:</b>	19,016
<b>Percent Out of State Vehicles:</b>	34.4%
<b>Operating Costs:</b>	\$1,285,004
<b>Variable Costs:</b>	\$118,709
<b>Average Cost Per Vehicle:</b>	\$68
<b>Average Cost Per Crossing:</b>	\$329
<b>Variable Cost Per Crossing:</b>	\$30
<b>Sailings on Time:</b>	96.2%
<b>Change in Ridership FY08-09 to FY15-16:</b>	-31.5%

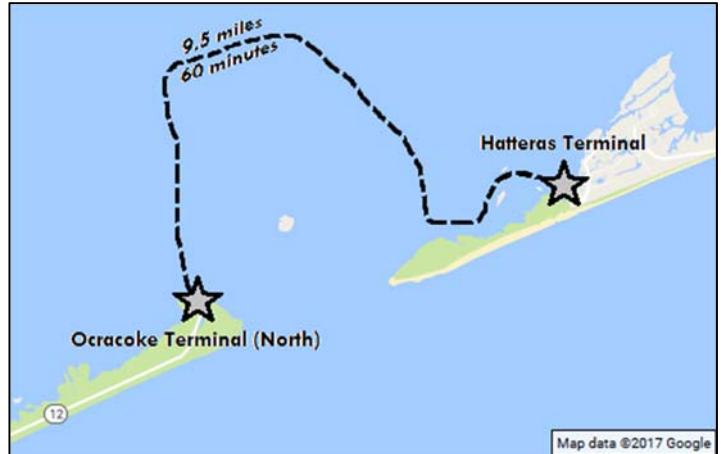


Notes: Operating costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging costs. Costs related to system executive management and system-wide administrative activities were not included. Variable costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Variable costs include fuel and vessel maintenance costs.

# Hatteras - Ocracoke

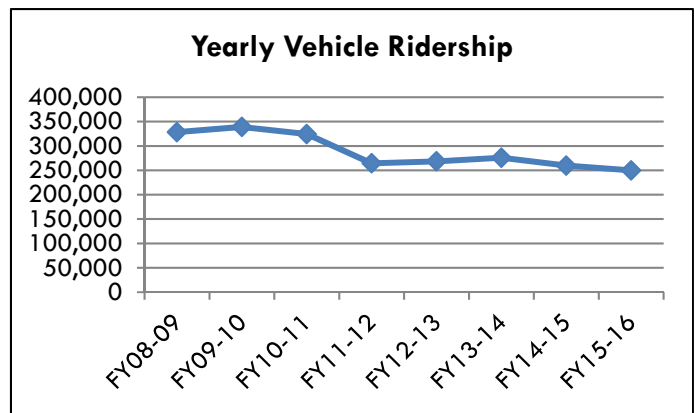
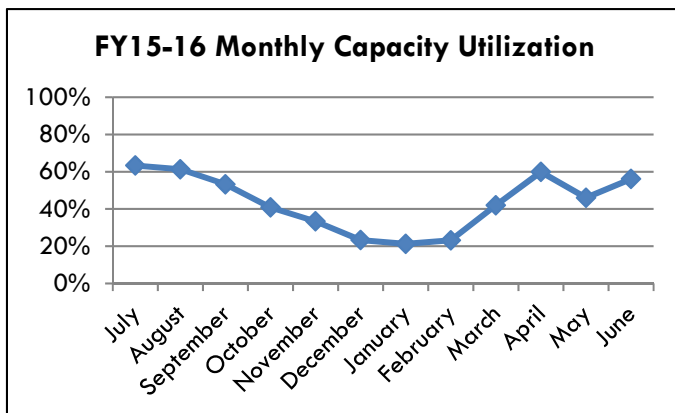
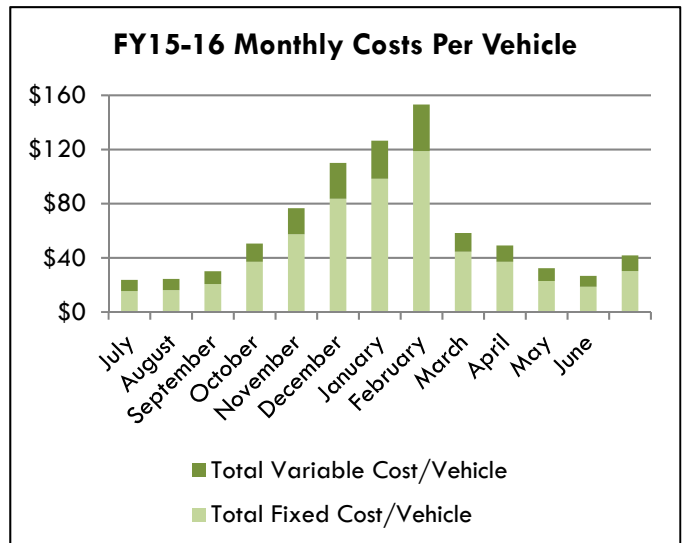
## Route Information FY15-16:

<b>Counties:</b>	Hyde, Dare
<b>Primarily Serves:</b>	Ocracoke residents, tourists
<b>Route Distance:</b>	9.5 miles
<b>Sailing Time:</b>	60 minutes
<b>Passenger Vehicle Fare:</b>	\$0
<b>Daily Crossings:</b>	36 - 72



## Route Performance FY15-16:

<b>Vehicles Transported:</b>	249,858
<b>Percent Out of State Vehicles:</b>	59.0%
<b>Operating Costs:</b>	\$10,428,192
<b>Variable Costs:</b>	\$2,882,240
<b>Average Cost Per Vehicle:</b>	\$42
<b>Average Cost Per Crossing:</b>	\$556
<b>Variable Cost Per Crossing:</b>	\$154
<b>Sailings on Time:</b>	95.6%
<b>Change in Ridership FY08-09 to FY15-16:</b>	-23.9%



Notes: Operating costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging costs. Costs related to system executive management and system-wide administrative activities were not included. Variable costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Variable costs include fuel and vessel maintenance costs.

# Aurora - Bayview

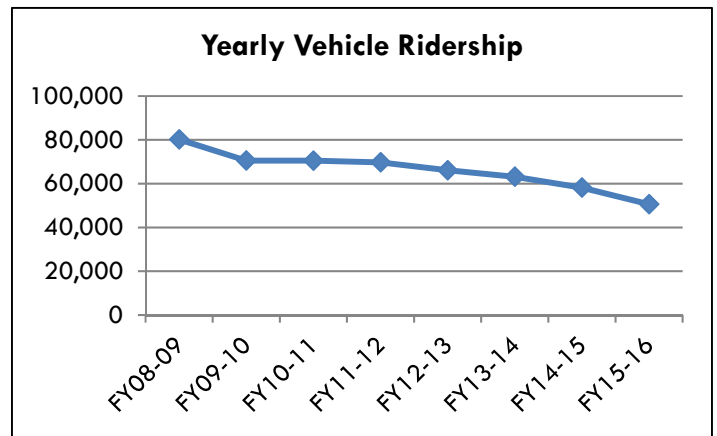
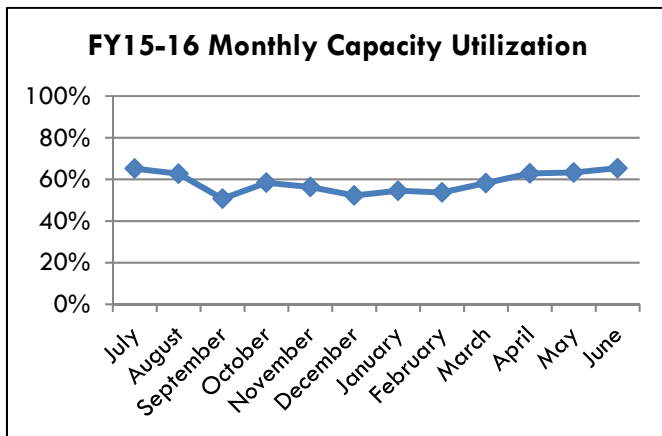
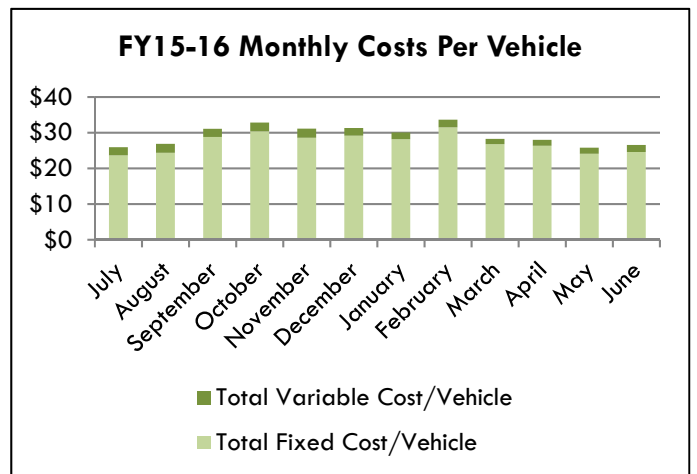
## Route Information FY15-16:

<b>County:</b>	Beaufort
<b>Primarily Serves:</b>	Commuters, Potash Corp
<b>Route Distance:</b>	3.5 miles
<b>Sailing Time:</b>	30 minutes
<b>Passenger Vehicle Fare:</b>	\$0
<b>Daily Crossings:</b>	14



## Route Performance FY15-16:

<b>Vehicles Transported:</b>	50,632
<b>Percent Out of State Vehicles:</b>	2.4%
<b>Operating Costs:</b>	\$1,470,586
<b>Variable Costs:</b>	\$105,602
<b>Average Cost Per Vehicle:</b>	\$29
<b>Average Cost Per Crossing:</b>	\$295
<b>Variable Cost Per Crossing:</b>	\$21
<b>Sailings on Time:</b>	97.2%
<b>Change in Ridership FY08-09 to FY15-16:</b>	-36.9%



Notes: Operating costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging costs. Costs related to system executive management and system-wide administrative activities were not included. Variable costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Variable costs include fuel and vessel maintenance costs.

## Cherry Branch – Minnesott Beach

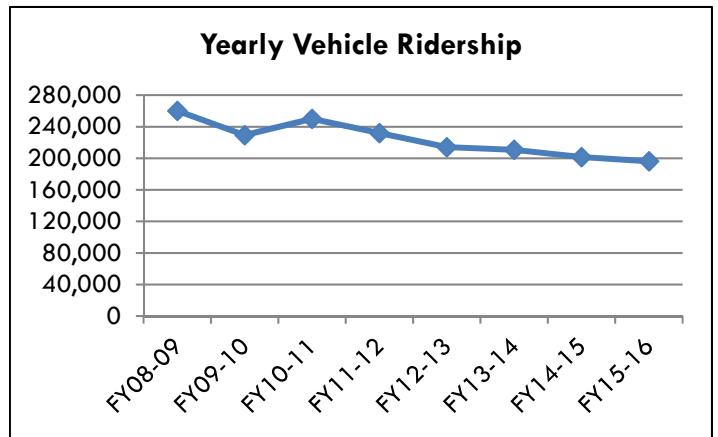
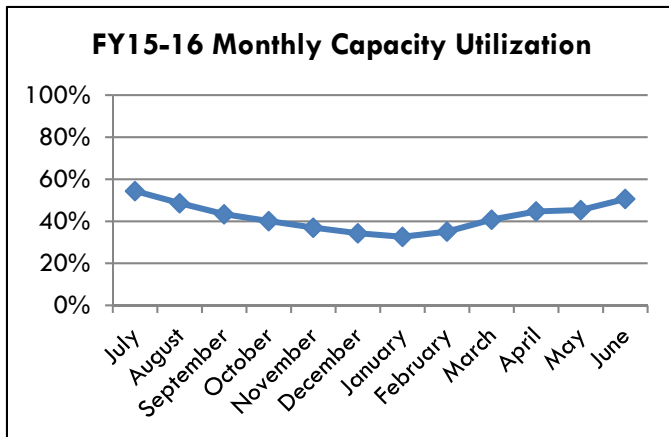
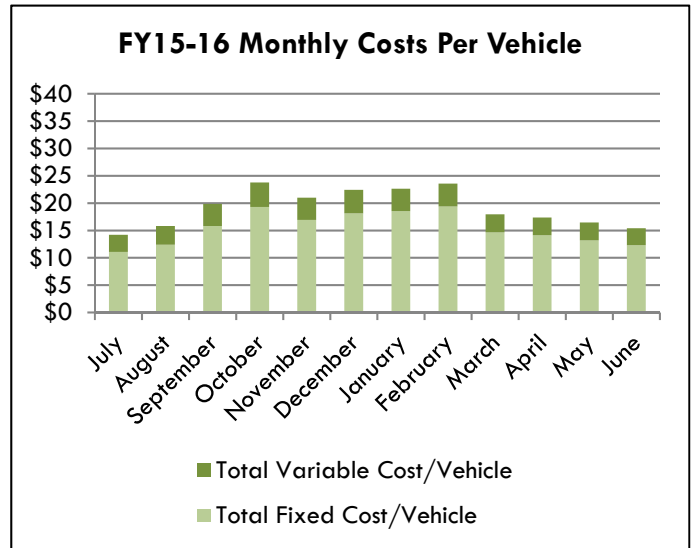
### Route Information FY15–16:

<b>Counties:</b>	Craven, Pamlico
<b>Primarily Serves:</b>	Commuters, MCAS Cherry Point
<b>Route Distance:</b>	2 miles
<b>Sailing Time:</b>	20 minutes
<b>Passenger Vehicle Fare:</b>	\$0
<b>Daily Crossings:</b>	54



### Route Performance FY15–16:

<b>Vehicles Transported:</b>	196,210
<b>Percent Out of State Vehicles:</b>	6.6%
<b>Operating Costs:</b>	\$3,647,999
<b>Variable Costs:</b>	\$714,538
<b>Average Cost Per Vehicle:</b>	\$19
<b>Average Cost Per Crossing:</b>	\$193
<b>Variable Cost Per Crossing:</b>	\$38
<b>Sailings on Time:</b>	96.0%
<b>Change in Ridership FY08-09 to FY15-16:</b>	-24.6%



Notes: Operating costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging costs. Costs related to system executive management and system-wide administrative activities were not included. Variable costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Variable costs include fuel and vessel maintenance costs.

# Southport – Fort Fisher

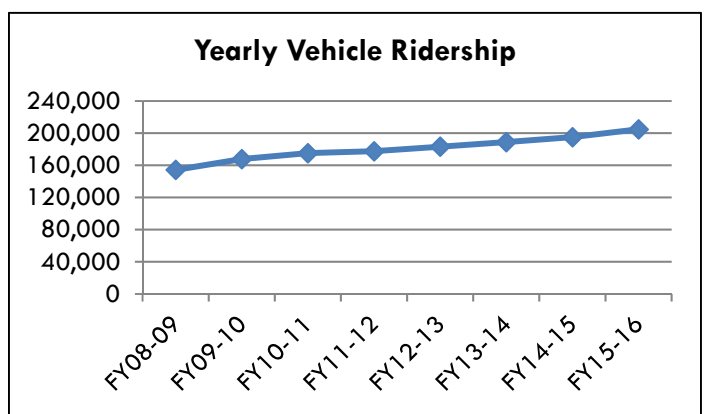
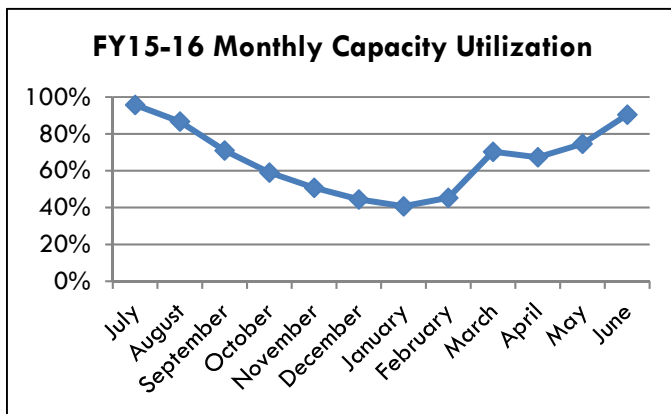
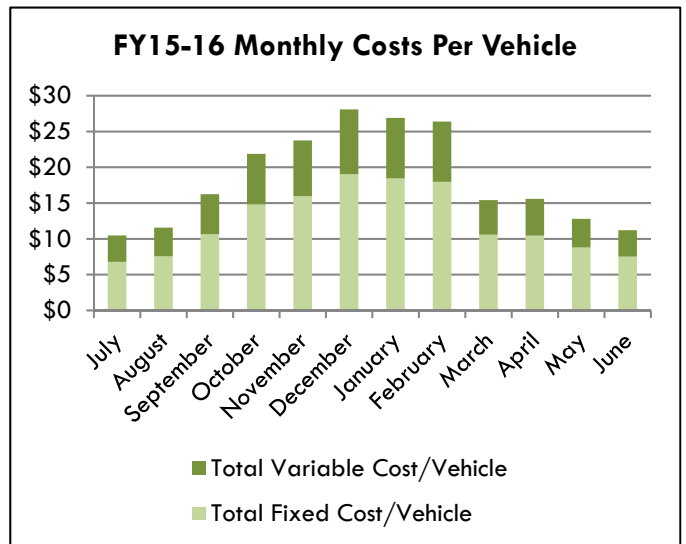
## Route Information FY15–16:

<b>Counties:</b>	Brunswick, New Hanover
<b>Primarily Serves:</b>	Commuters, tourists
<b>Route Distance:</b>	4 miles
<b>Sailing Time:</b>	35 minutes
<b>Passenger Vehicle Fare:</b>	\$5 - \$15
<b>Daily Crossings:</b>	28 - 32



## Route Performance FY15–16:

<b>Vehicles Transported:</b>	204,799
<b>Percent Out of State Vehicles:</b>	32.7%
<b>Operating Costs:</b>	\$3,313,918
<b>Variable Costs:</b>	\$1,086,725
<b>Average Cost Per Vehicle:</b>	\$16
<b>Average Cost Per Crossing:</b>	\$326
<b>Variable Cost Per Crossing:</b>	\$107
<b>Sailings on Time:</b>	95.5%
<b>Change in Ridership FY08-09 to FY15-16:</b>	+32.7%

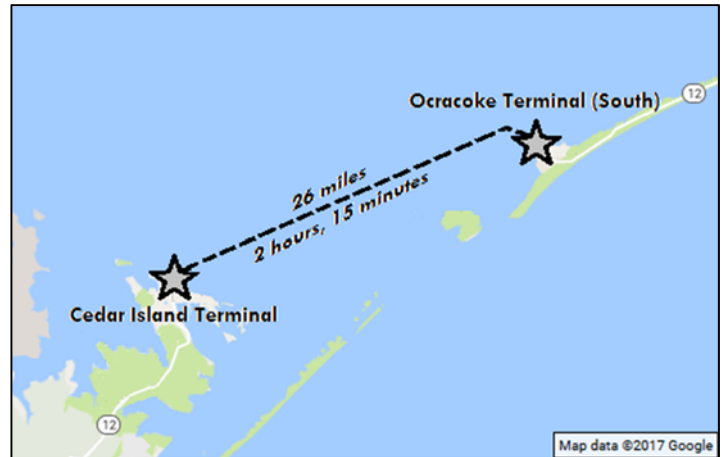


Notes: Operating costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging costs. Costs related to system executive management and system-wide administrative activities were not included. Variable costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Variable costs include fuel and vessel maintenance costs.

## Cedar Island - Ocracoke

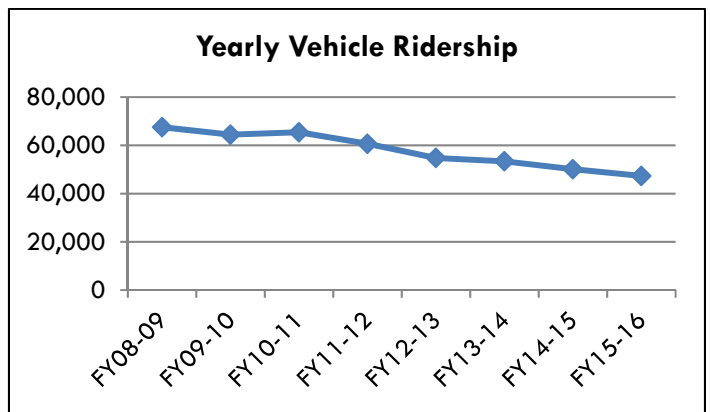
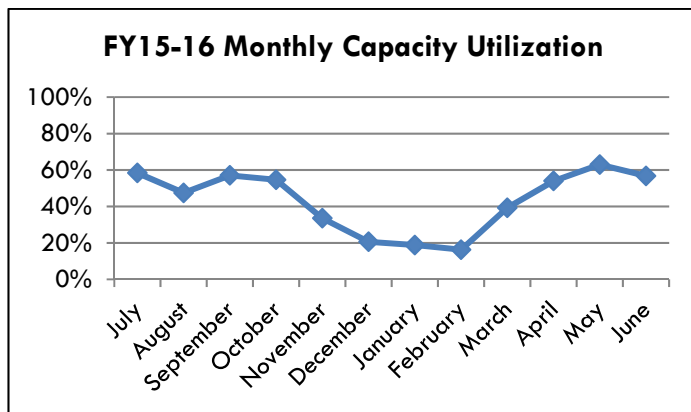
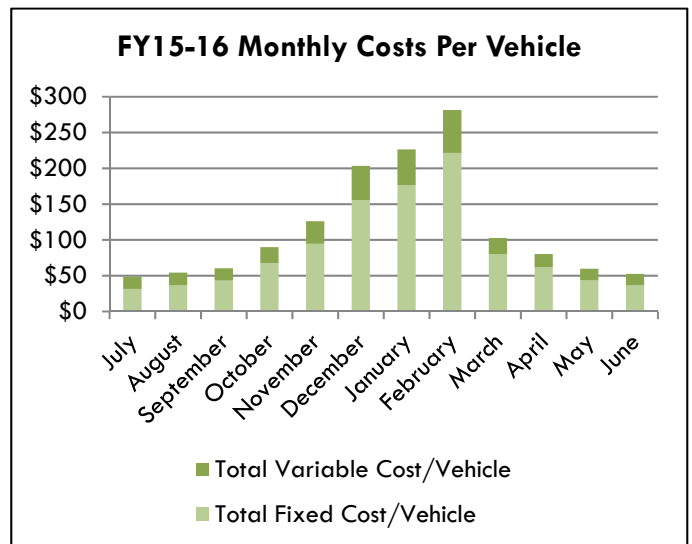
### Route Information FY15-16:

<b>Counties:</b>	Carteret, Hyde
<b>Primarily Serves:</b>	Ocracoke residents, tourists
<b>Route Distance:</b>	26 miles
<b>Sailing Time:</b>	2 hours, 15 minutes
<b>Passenger Vehicle Fare:</b>	\$15 - \$45
<b>Daily Crossings:</b>	6 - 10



### Route Performance FY15-16:

<b>Vehicles Transported:</b>	47,336
<b>Percent Out of State Vehicles:</b>	58.4%
<b>Operating Costs:</b>	\$3,797,950
<b>Variable Costs:</b>	\$1,011,051
<b>Average Cost Per Vehicle:</b>	\$80
<b>Average Cost Per Crossing:</b>	\$1,505
<b>Variable Cost Per Crossing:</b>	\$401
<b>Sailings on Time:</b>	95.2%
<b>Change in Ridership FY08-09 to FY15-16:</b>	-29.9%



Notes: Operating costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging costs. Costs related to system executive management and system-wide administrative activities were not included. Variable costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Variable costs include fuel and vessel maintenance costs.

## Swan Quarter - Ocracoke

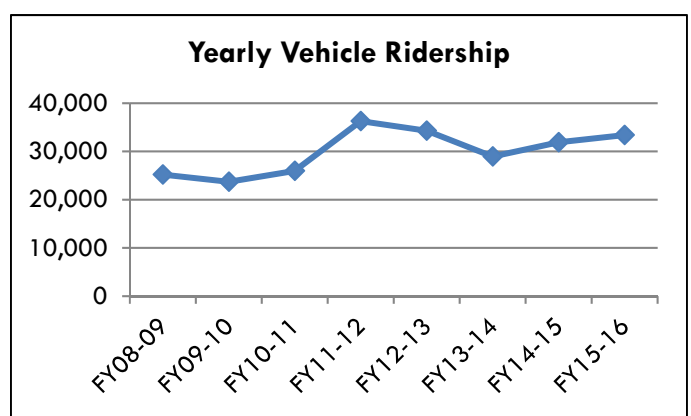
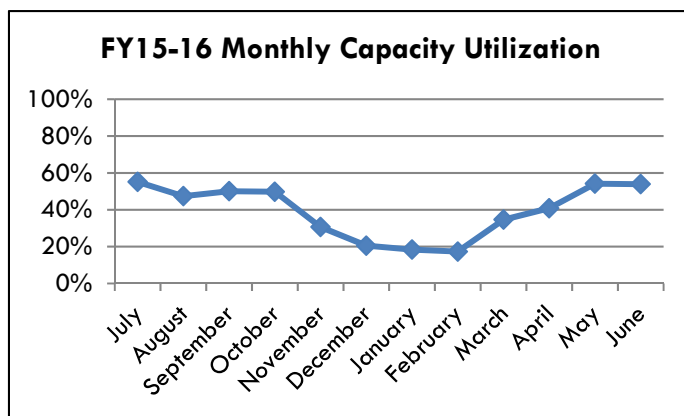
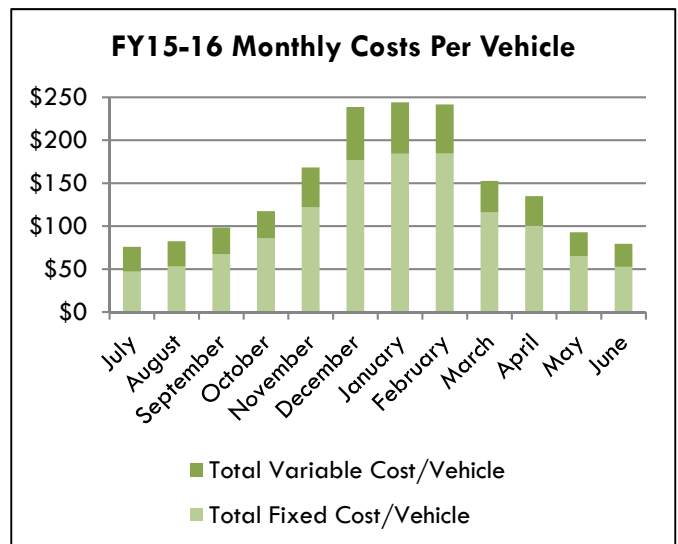
### Route Information FY15-16:

<b>County:</b>	Hyde
<b>Primarily Serves:</b>	Ocracoke residents, tourists
<b>Route Distance:</b>	30 miles
<b>Sailing Time:</b>	2 hours, 40 minutes
<b>Passenger Vehicle Fare:</b>	\$15 - \$45
<b>Daily Crossings:</b>	6 - 8



### Route Performance FY15-16:

<b>Vehicles Transported:</b>	33,405
<b>Percent Out of State Vehicles:</b>	57.4%
<b>Operating Costs:</b>	\$3,923,919
<b>Variable Costs:</b>	\$1,147,959
<b>Average Cost Per Vehicle:</b>	\$117
<b>Average Cost Per Crossing:</b>	\$1,623
<b>Variable Cost Per Crossing:</b>	\$475
<b>Sailings on Time:</b>	94.9%
<b>Change in Ridership FY08-09 to FY15-16:</b>	+32.5%



Notes: Operating costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Operating costs include labor (terminal and vessel), fuel, maintenance (terminal, vessel, and docks), and dredging costs. Costs related to system executive management and system-wide administrative activities were not included. Variable costs were calculated by the Program Evaluation Division based on information provided by the Ferry Division. Variable costs include fuel and vessel maintenance costs.



## Appendix B: Publicly-Owned Ferry Systems in North America

Ferry System	Area Served	Governance Model	Operating Expenses (FY 2013)	Farebox Recovery Ratio (FY 2013)	Annual Vehicles (FY 2013)	Annual Passengers (FY 2013)	Number of Annual Crossings (FY 2013)
<b>Ferry Division</b>	<b>Eastern North Carolina</b>	<b>Government Line Agency</b>	<b>\$37,104,016</b>	<b>6%</b>	<b>834,625</b>	<b>1,923,100</b>	<b>64,644</b>
Steamship Authority	Martha's Vineyard and Nantucket	Public Authority	\$85,964,000	93%	614,434	2,846,691	22,050
British Columbia Ferries	British Columbia Coast	Public Corporation	\$538,198,669	83%	7,748,743	19,919,098	183,800
Washington State Ferries	Washington and Vancouver Island	Government Line Agency	\$227,349,000	70%	10,045,000	22,395,000	158,858
Cape May-Lewes	New Jersey and Delaware	Public Authority	\$22,358,231	58%	256,971	742,938	4,650
Golden Gate Ferries	San Francisco Bay	Transportation District	\$27,461,000	55%	N/A (Passenger-only)	2,324,874	17,249
Alaska Marine Highway	Alaska, British Columbia, and Washington	Government Line Agency	\$172,527,000	25%	108,797	313,311	3,682
Staten Island Ferries	New York City	Government Line Agency	\$115,126,620	N/A (Toll free)	N/A (Passenger only)	21,399,000	35,979

Notes: FY 2013 denotes the period from July 1, 2012 through June 30, 2013 except for the Steamship Authority and Cape May-Lewes ferry systems, for which it denotes the period from January 1, 2013 through December 31, 2013, and the British Columbia ferry system, for which it denotes the period from April 1, 2012 through March 31, 2013. As reported in the referenced study, operating expenses do not include capital expenditures nor depreciation and amortization.

Source: Program Evaluation Division based on A 2015 Comparison of Operational Performance: Washington State Ferries to Ferry Operators Worldwide (March 2015) and a review of applicable ferry system websites.

## Appendix C: Governance Structure Alternatives

Governance Structure	Description	Strengths	Weaknesses
Government Line Agency	A Government Line Agency is a separate division within a state agency that receives state funding. The ferry system owns and operates vessels and terminals as part of a mandate to provide basic transportation infrastructure. State funding may be supplemented by fares or other revenue sources.	<ul style="list-style-type: none"> <li>• Responsive to public through election of the Governor as the chief executive</li> <li>• Legislation and processes already in place</li> <li>• Facilitates coordination and planning across other transportation modes</li> <li>• Offers access to low cost of capital and direct federal grants for capital projects</li> </ul>	<ul style="list-style-type: none"> <li>• Subject to senior management turnover due to gubernatorial elections</li> <li>• Requires ferries to compete internally for budget before even going to the legislature</li> <li>• Lacks incentives for improvements in efficiency</li> </ul>
Public/Private Corporation	A public-private corporation is a private company, operating vessels that are either owned or leased by the operator, that works with public agencies to develop routes and their associated terminals. The company pays for use of the public facilities and is free to establish schedules, rates, and business practices to create financial return within any associated regulatory constraints.	<ul style="list-style-type: none"> <li>• Government ownership of assets provides access to federal funds and lower borrowing costs</li> <li>• Government can exercise powers of eminent domain to develop new terminals and connecting roads</li> <li>• Private operator would have financial incentives to grow non-fare revenue and improve system efficiencies</li> <li>• Public sector has a major role in service planning</li> </ul>	<ul style="list-style-type: none"> <li>• Objectives of the public entity (providing transportation to support residents and the economy) are not necessarily aligned with the objectives of the private entity (to make a profit for its shareholders)</li> <li>• Potential difficulty in attracting qualified private firms if financial incentives are weak</li> <li>• Private operator may not be as responsive to the needs of the communities or may shift resources to routes that are more profitable</li> </ul>
Public Authority	A public authority is an independent government entity is created to focus on a specific set of objectives. There is enabling legislation that defines the scope and powers of the authority. The management of the authority is overseen by a governing board.	<ul style="list-style-type: none"> <li>• Provides management stability.</li> <li>• Responsible for achievement of the specified goals and objectives of established service area</li> <li>• Strong checks and balances to ensure specific area goals and objectives effectively contribute to the State's goals</li> </ul>	<ul style="list-style-type: none"> <li>• May not be able to react quickly to events or changes that affect its mission or funding source</li> <li>• Governing board may not reflect some key constituencies</li> <li>• Multiple authorities with overlapping service areas may result in conflicting goals and objectives</li> </ul>
Public Corporation	A public corporation is a corporation that provides transportation services with some level of revenue support from the regional government. The corporation is governed as a commercial entity with a board of directors but has its shares held on behalf of the public.	<ul style="list-style-type: none"> <li>• Insulates management from political considerations</li> <li>• As a corporation owned by the State, it would be exempt from federal and state income taxes</li> <li>• Finances are transparent and subject to periodic approvals by public shareholders</li> </ul>	<ul style="list-style-type: none"> <li>• Key stakeholders such as residents or employees may feel marginalized</li> <li>• Transportation costs and their impact on local economies may not be integrated into a larger economic or transportation strategy</li> <li>• Requires predictable on-going financial support from government to provide basic transportation to isolated communities</li> </ul>

Governance Structure	Description	Strengths	Governance Structure
Private Corporation	A private corporation is a private company that owns all assets and is free to establish business practices that create financial return within regulatory constraints. It operates with no assistance from state, city, or federal government, nor does it receive funds from those entities.	<ul style="list-style-type: none"> <li>• Requires limited support from government</li> <li>• Offers more nimble operation due to minimal labor constraints</li> <li>• Possesses ability to change service delivery without extensive public input or legislative oversight</li> </ul>	<ul style="list-style-type: none"> <li>• Would cause some communities to lose service unless there was a government guarantee</li> <li>• Eliminates access to federal funds or state bonds for capital projects resulting in a higher cost of capital</li> <li>• Ability to recapitalize fleet is questionable without some certainty in revenue stream for debt repayment</li> </ul>
Transportation District	A transportation district is a public entity operating multiple modes of transportation for the economic benefit of a defined geographical area. Ferry operations are typically one portion of the larger transportation entity and may be subsidized by other modes or by taxation within the geographical area.	<ul style="list-style-type: none"> <li>• Allows transportation coordination across regional boundaries such as cities, counties, and unincorporated areas</li> <li>• Depending upon the size of the region served, can manage more extensive and expensive projects such as building a light rail network that integrates with existing services</li> </ul>	<ul style="list-style-type: none"> <li>• Creates competition against other regions for funding from state and federal sources</li> <li>• Size of organizations may result in slow response to changing conditions</li> </ul>

Source: Program Evaluation Division based on a review of literature on transportation governance.



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

October 2, 2017

Mr. John W. Turcotte, Director  
Program Evaluation Division  
300 North Salisbury Street, Suite 100  
Raleigh, NC 27603-5925

Dear Mr. Turcotte:

Thank you for the opportunity to review and respond to the Program Evaluation Division's (PED) report entitled "Reducing Off-Season Crossings, Adjusting Fares, and Using Partnerships Can Improve Ferry Division Efficiency." Please accept this letter as the Department of Transportation's formal response.

NCDOT appreciates the hard work by PED staff that has gone into this report. We recognize the significant time PED staff spent researching our Ferry Division, including visiting the system, assets and people. We view this report as an opportunity to improve our services while implementing further efficiencies.

The summary and the recommendations sections both mentioned potential cost savings as a result of reductions in service during periods of low use. The Ferry Division continuously evaluates the crossing schedules to ensure that the ferry services cost-effectively meet the needs of both area residents and tourists. Ferry Division management constantly performs analysis of ridership data, seasonality and trends to modify the schedules while carefully balancing the level of service that is expected by both area residents and tourists, as well as the need to ensure licensed personnel obtain adequate hours "at sea" to fulfil their licensure requirements as per Coast Guard regulations.

The report also mentions utilizing partnerships with other governmental entities and the private sector to better leverage resources and effectiveness. NCDOT appreciates the acknowledgement in the report of our current partnerships with local government entities on projects such as the passenger ferry. The Ferry Division, along with NCDOT as a whole, is committed to improving and increasing our partnerships with other government entities and the private sector.

*Mailing Address:*  
NC DEPARTMENT OF TRANSPORTATION  
FACILITIES MANAGEMENT UNIT  
1525 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1525

*Telephone:* (919) 707-4540  
*Fax:* (919) 715-0399  
*Customer Service:* 1-877-368-4968

*Website:* [www.ncdot.gov](http://www.ncdot.gov)

*Location:*  
1 SOUTH WILMINGTON STREET  
RALEIGH, NC 27601

The development of a long-range plan was also mentioned in the summary and the recommendations sections. NCDOT recognizes the importance of long-range planning, especially in regards to specialty niches such as the Ferry Division. As mentioned in this report, NCDOT already has several plans and studies that are pertinent to the Ferry Division, but none specifically on long-term planning. This is an item that the Department would certainly like to discuss with leadership in the General Assembly and work toward a plan that involves all parties.

In conclusion, NCDOT and the Ferry Division appreciate the time and effort that went into this report. Once again thank you for the opportunity to respond to the report and its recommendations.

Sincerely,



MG(R) James H. Trogdon, III, PE  
Secretary  
North Carolina Department of Transportation

Cc: