



Chapel Hill Strategic and Financial Sustainability Plan

January 5, 2015



Consultant Presentation

- Chapel Hill Transit - State of the System
- Upcoming Challenges
 - Capital Needs
 - Staffing
- Solutions and Potential Opportunities
- Next Steps



Strategic and Financial Sustainability Plan

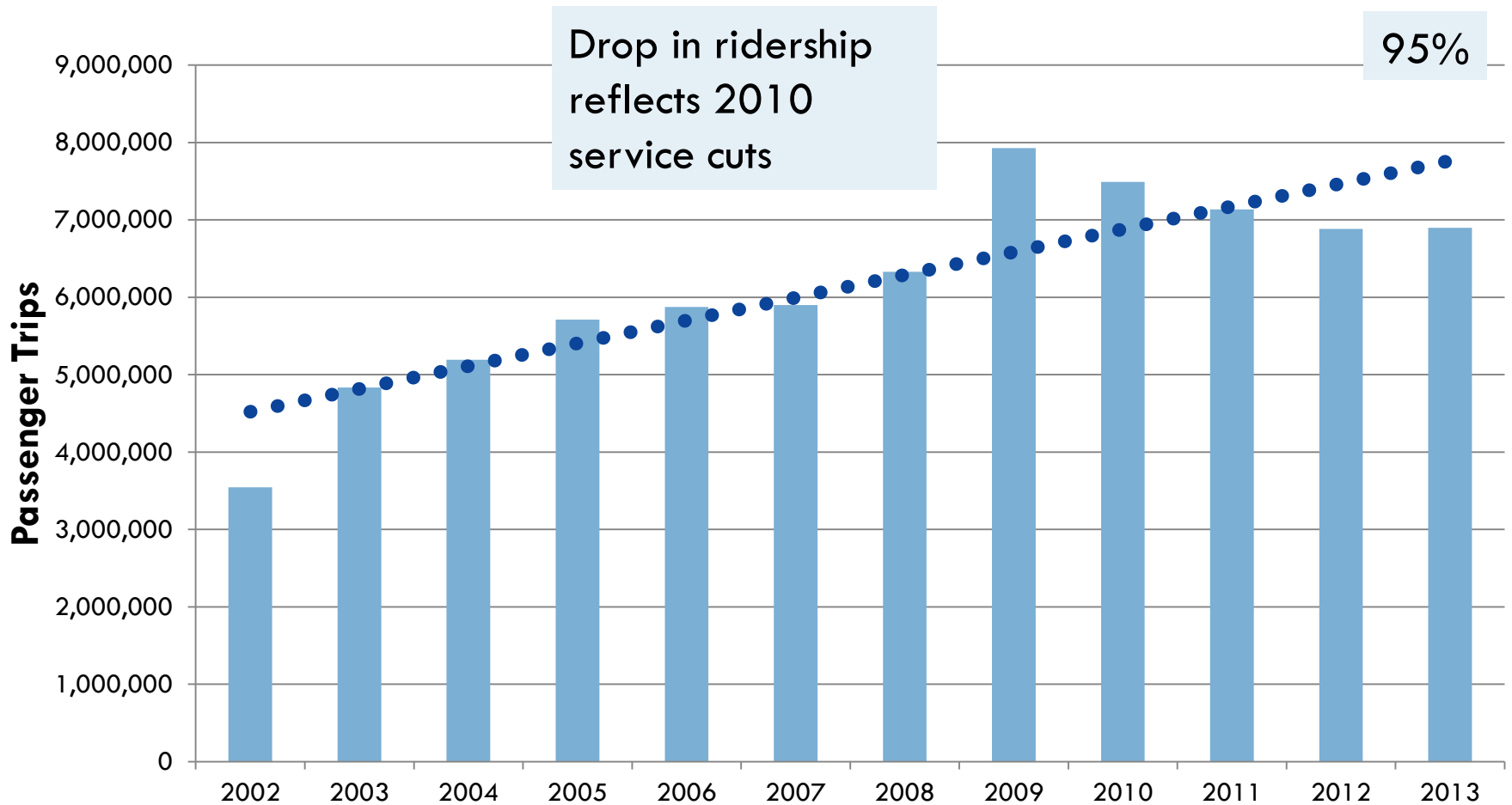
Chapel Hill
transit

Strategic and Financial Sustainability Plan

- Vision and Strategic Plan
- Organizational and Staffing Plan
- Funding and Financial Plan

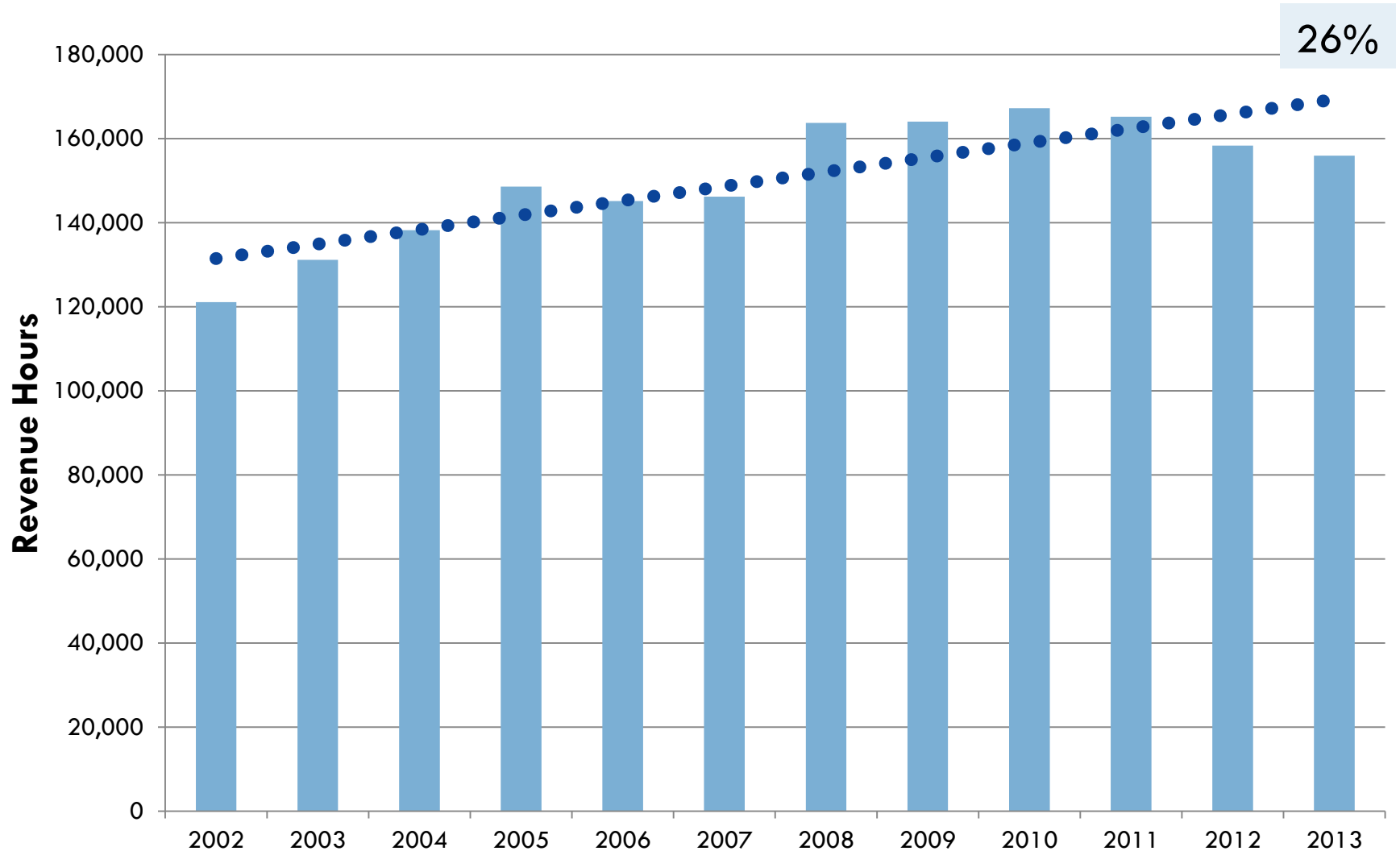
- Intended to Position CHT for Continued Success
 - Ensure service is aligned with community and partner goals
 - Balance resources with agency, partner, and community needs
 - Craft strategy for future growth and development
 - Respond to regional opportunities

Significant Ridership Growth



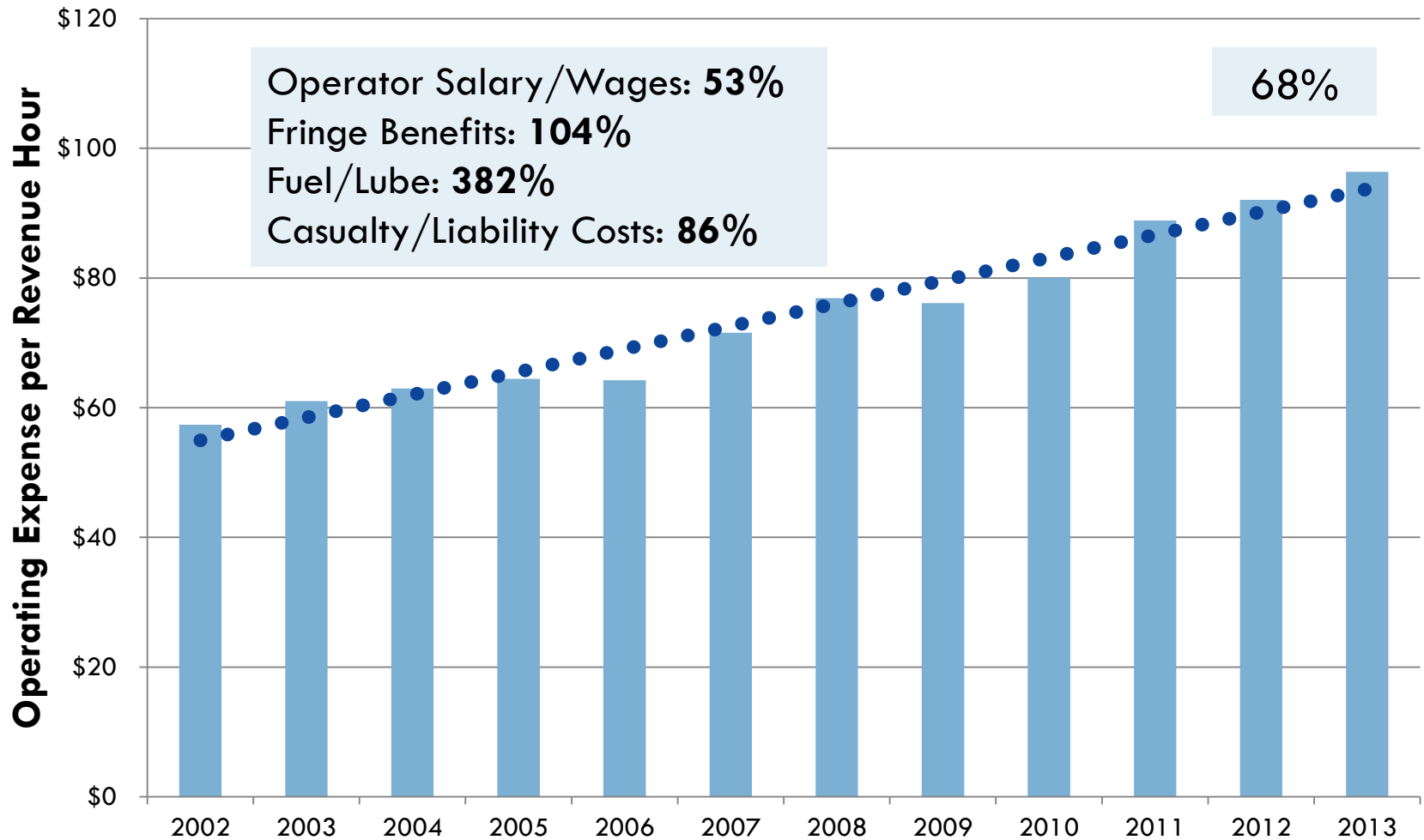
Source: National Transit Database

Significant Increase in Service Provided



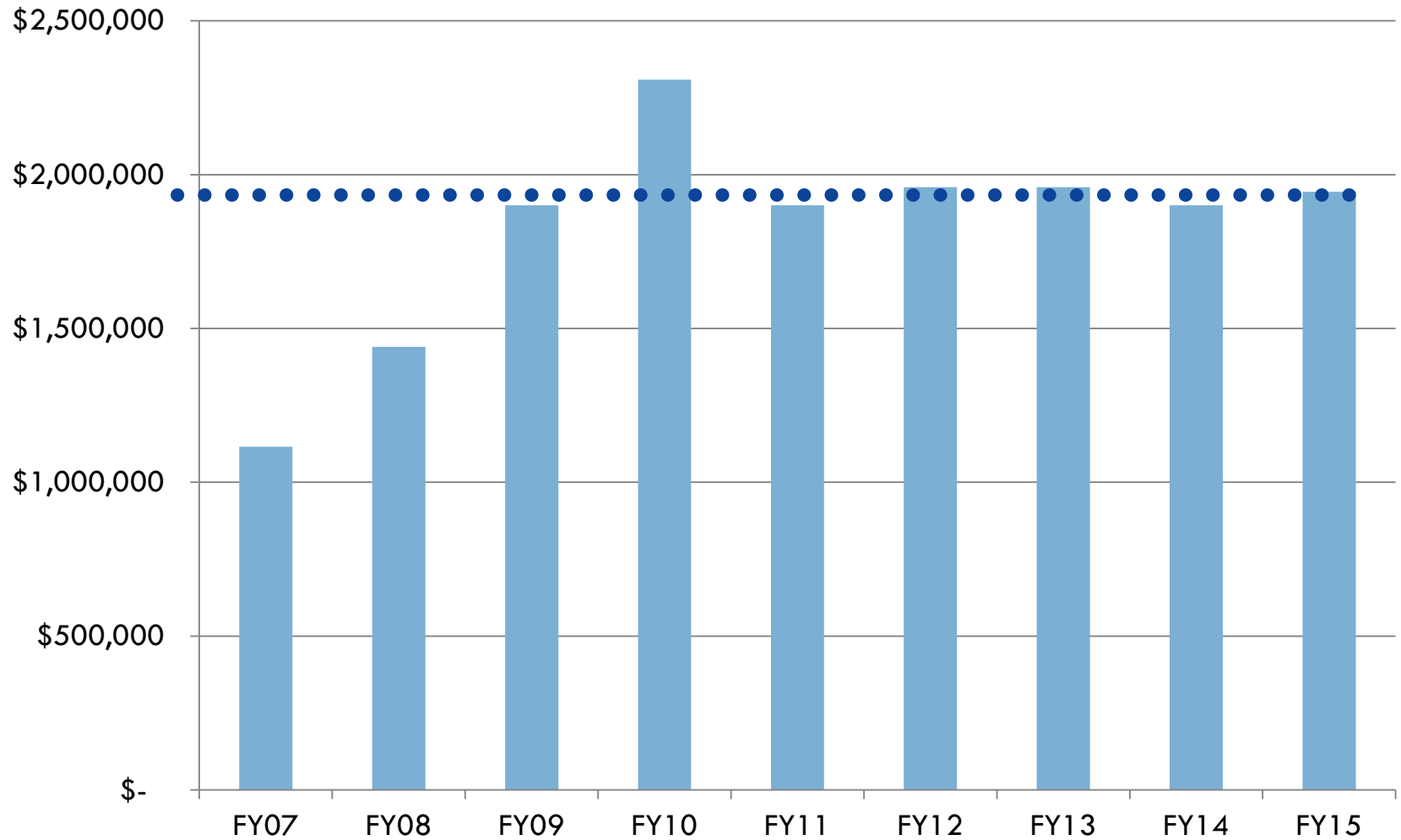
Source: National Transit Database

Increase in Cost per Hour of Service



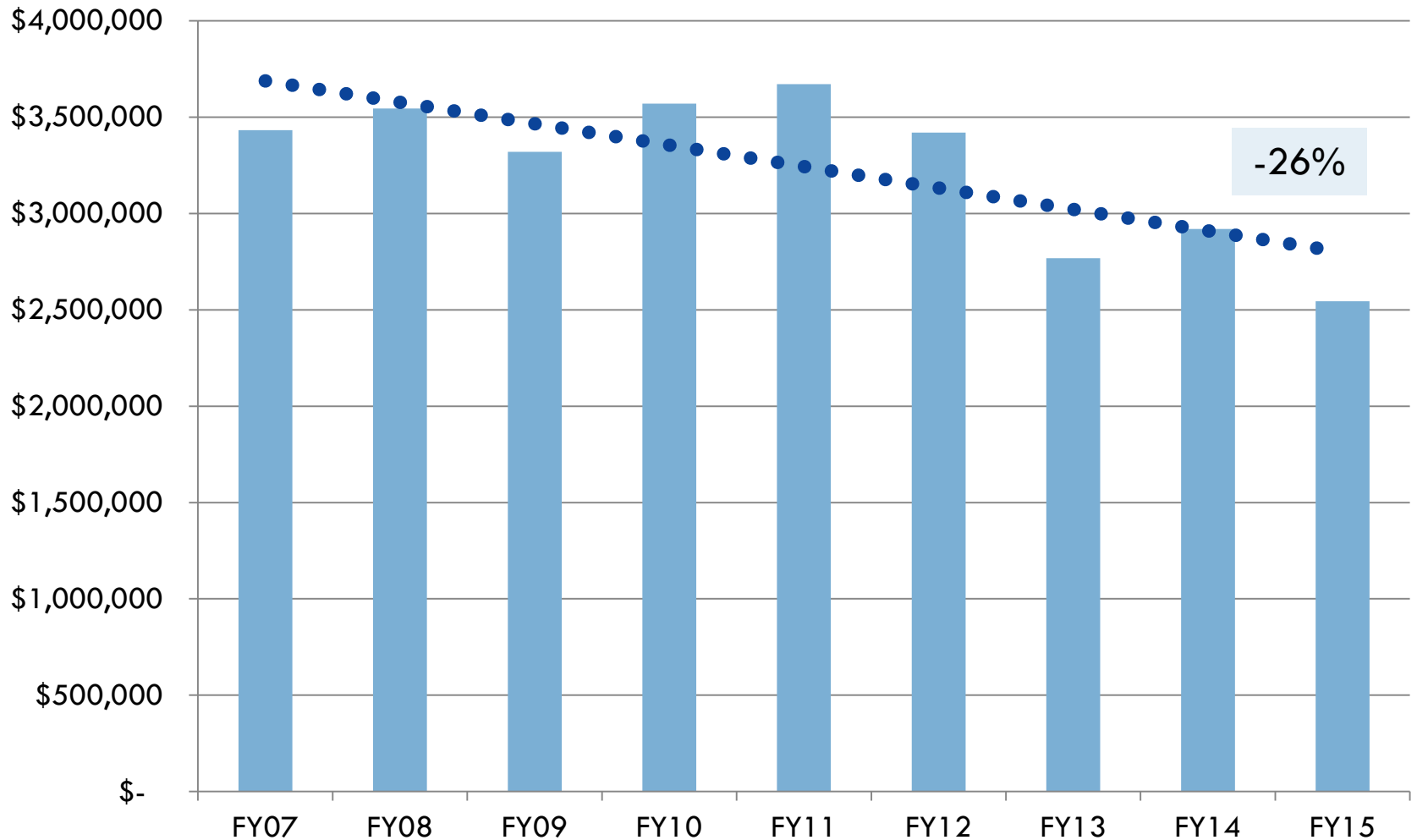
Source: National Transit Database

Revenue Trends: Federal Funding



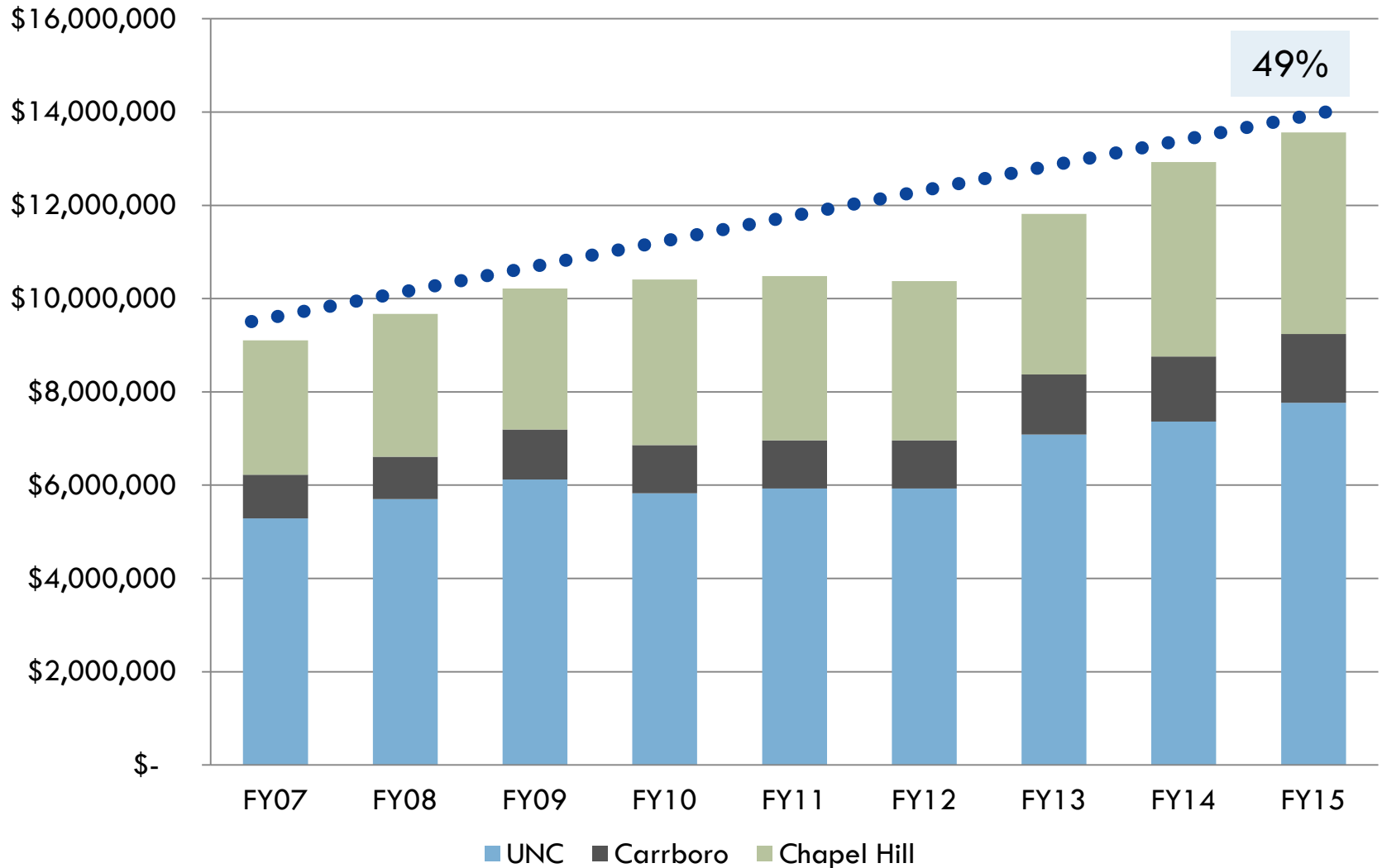
Source: Town of Chapel Hill

Revenue Trends: State Funding



Source: Town of Chapel Hill

Chapel Hill Transit – Partner Contributions



Source: Town of Chapel Hill

State of the System

- Growth has Stabilized
 - Ridership and service hours remained steady
 - Cost increases largely reflect inflation

- But, Impact of Growth and Expansion Still Being Felt
 - Providing more service
 - Cost of each unit of service increased
 - Funding equation changed
 - Federal and state funds flat, declining and changing
 - Partner increases offset declines

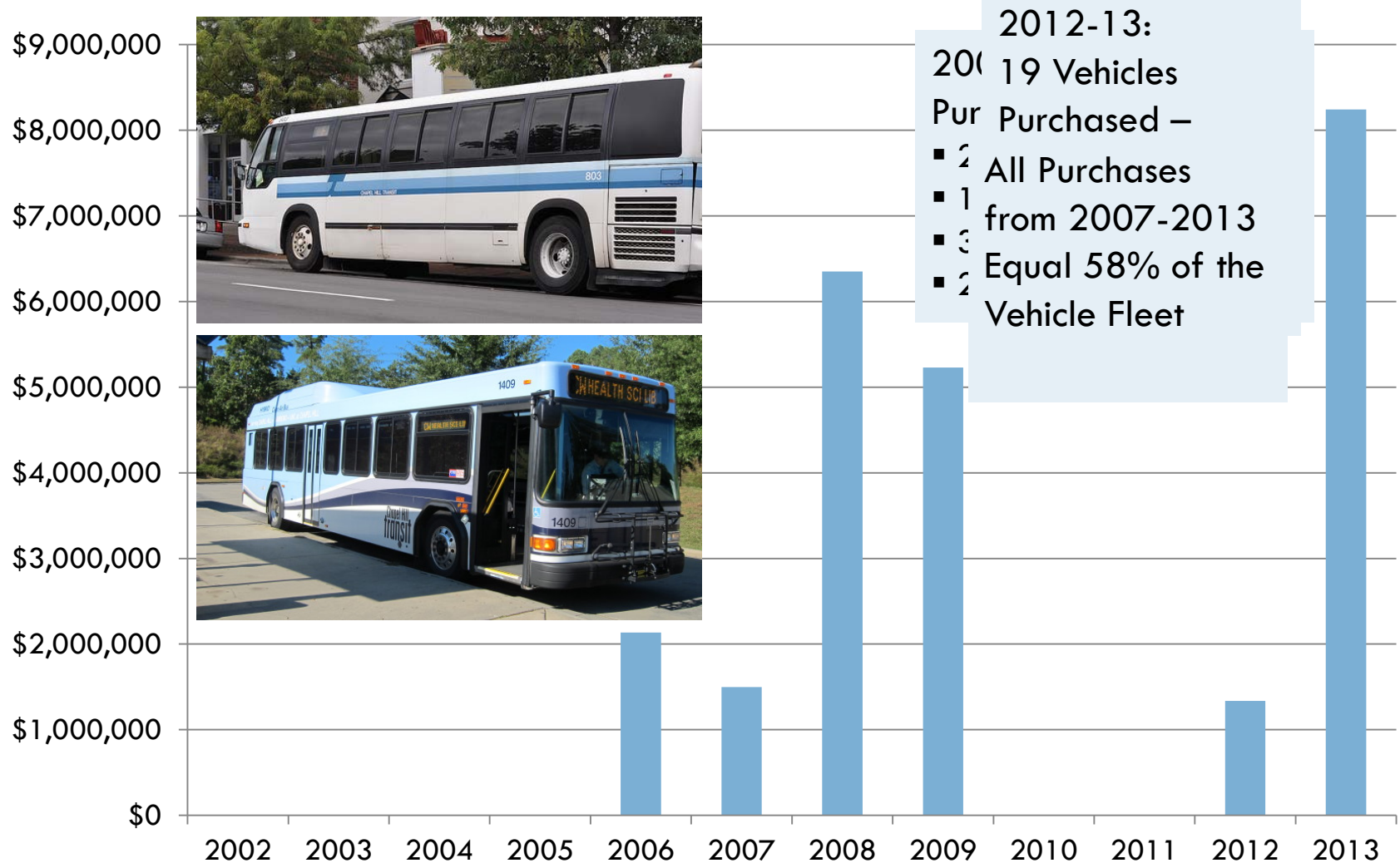
- Growth Occurred Without Corresponding Investments
 - Capital – mostly vehicles but also some facilities
 - Staffing – operators, mechanics, and supervisors

- ***Chapel Hill Transit Operations are Financially Unsustainable***

State of the System – Implications of Funding Shortage

- Long Term Under-Investment in Capital
 - Focus on operations and service expansion
 - Supported in part by flexing capital funds to operations
 - Historically CHT's capital program relied on Congressional earmarks and ARRA grants

Historical Spending on Fixed-Route Vehicles



Source: National Transit Database

State of the System

- Long Term Under-investment in Staffing
 - Historic under-investment (2002)
 - Magnified challenge during recession

State of the System

- **\$80 million (estimated) additional revenues needed over next 10 years**
 - Invest in capital investments
 - Buses, paratransit vehicles, technology, and park-and-ride lots
 - Invest in staff and operations
 - Operators, mechanics and supervisors



Operations and Maintenance Staffing

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Critical Staffing Issues

Three Primary Challenges

1. Transit Operators
2. Maintenance Staff
3. Operations and Maintenance Supervisors

Need is for front line staff – people sitting behind steering wheels, using wrenches, and supervising these workers



Transit Operators - Revenue Hours per Operator

CHT – 1,510 (2013)

Industry High – 1,500

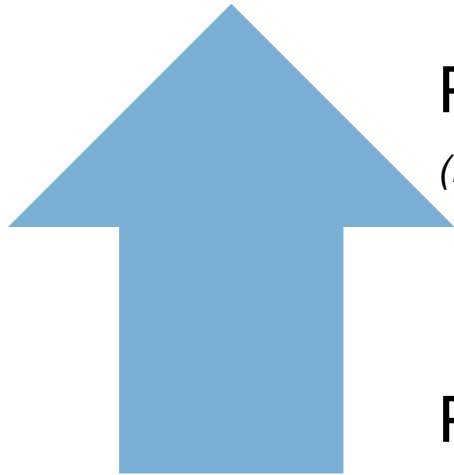
1 driver for every 1,500 revenue hours of service

Peer Group Average – 1,267

Industry Low – 1,100

Source: National Transit Database

Maintenance Staff – Buses per Full Time Mechanic

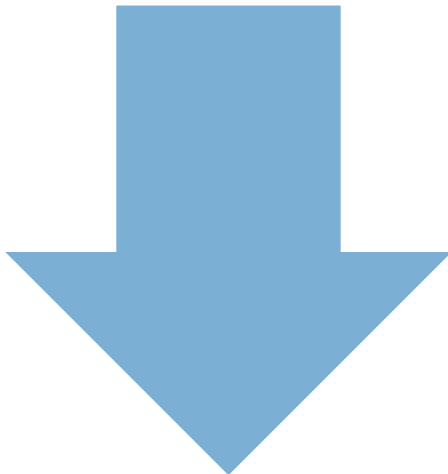


Peer Group High – 7.83

(Each full time mechanic services roughly 8 buses)

CHT – 7.62 (2013)

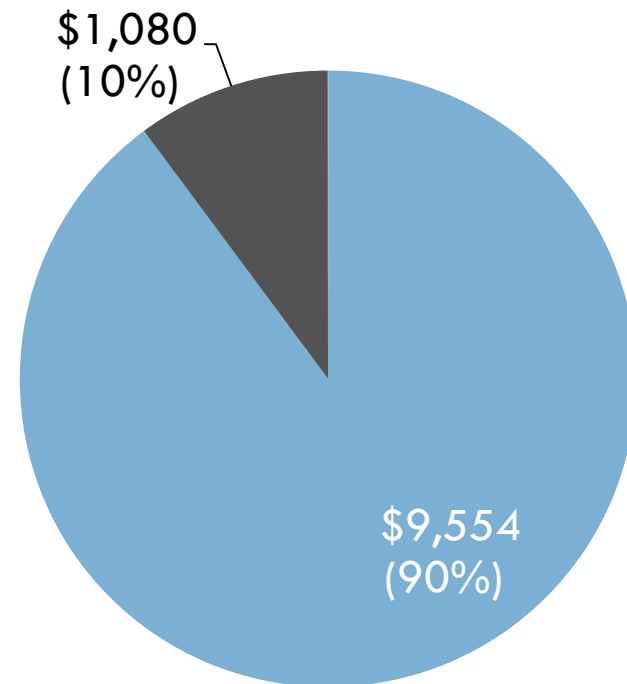
Peer Group Average – 5.57



Peer Group Low – 2.76

Implications of Under-staffing

- **Stability**
 - Turnover and absenteeism
- **Service Quality**
 - Service disruptions
 - Increased customer service complaints
- **Service Costs**
 - Reliance on overtime



- Average Daily Total Regular Operator Pay
- Average Daily Total Operator Overtime Pay



Fleet Management and Replacement

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Transit Capital Terms

- Useful Life – Defined by Federal Transit Administration
 - Based on vehicle age and miles
 - Measured and tested
 - When a vehicle has reached its useful life, transit agencies can use FTA funds to buy a new one

- Useful Life Varies by Vehicle Type
 - Larger, heavier vehicles tend to have a longer “useful life”
 - 40’ Buses - 12 years
 - Smaller Demand Response Van – 4 to 5 years

Chapel Hill Transit – Current Fleet



■ RTS Buses

- Mostly very old (1998, 1999 and 2001)
- Vehicles no longer manufactured
- Highest priority for replacement
- Use as little as possible



■ Conventional Bus

- Purchased in 20 in 2007 – 2009, plus 4 in 2012
- Cost about \$440,000 per vehicle
- Primarily used for local service

Chapel Hill Transit – Current Fleet



- **Articulated Vehicles (“Artics”)**
 - Six purchased between 2007 and 2009
 - Some hybrid-electric vehicles
 - Cost \$650,000 per bus (more for hybrids)
 - Primarily used for express routes/park and ride lot service



- **Hybrid Electric Vehicles**
 - Purchased in 13 between 2007 and 2009
 - Air quality funds
 - An additional 15 purchased in 2012
 - Cost \$550,000 per vehicle
 - Primarily used for local service

Chapel Hill Transit – Current Fleet

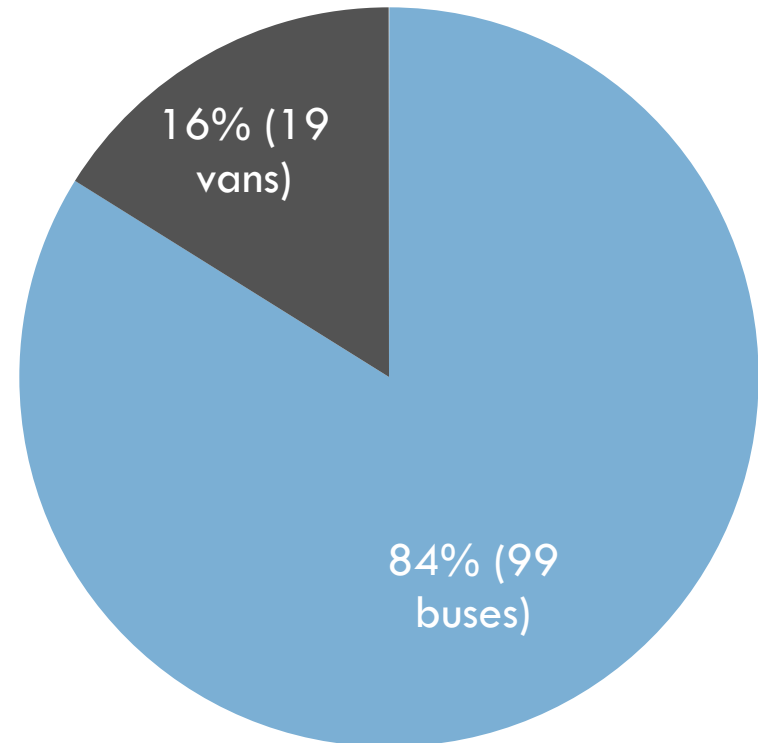


- Vans and Light Duty Vehicles
 - Shorter life ~ 5 to 7 years
 - Cost \$75,000 per vehicle
 - Primarily used for EZ Rider service
 - Replaced six in 2014



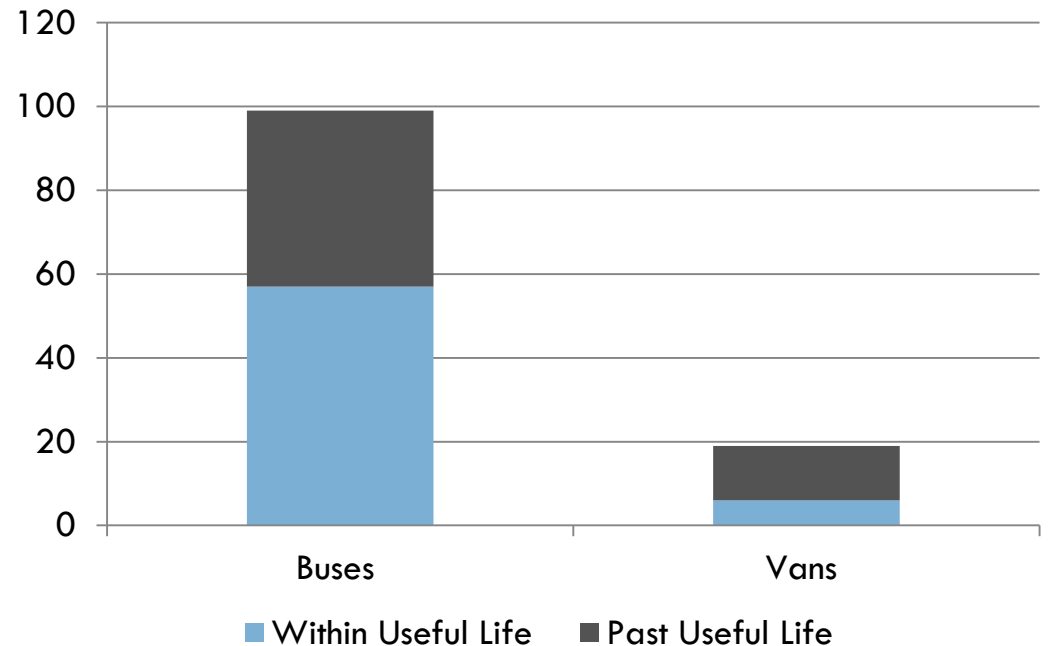
CHT Fleet Size and Composition

Vehicle Type	Size of Fleet	Per Unit Cost (Average 2014)
Buses	99	\$500,000
Vans	19	\$75,000

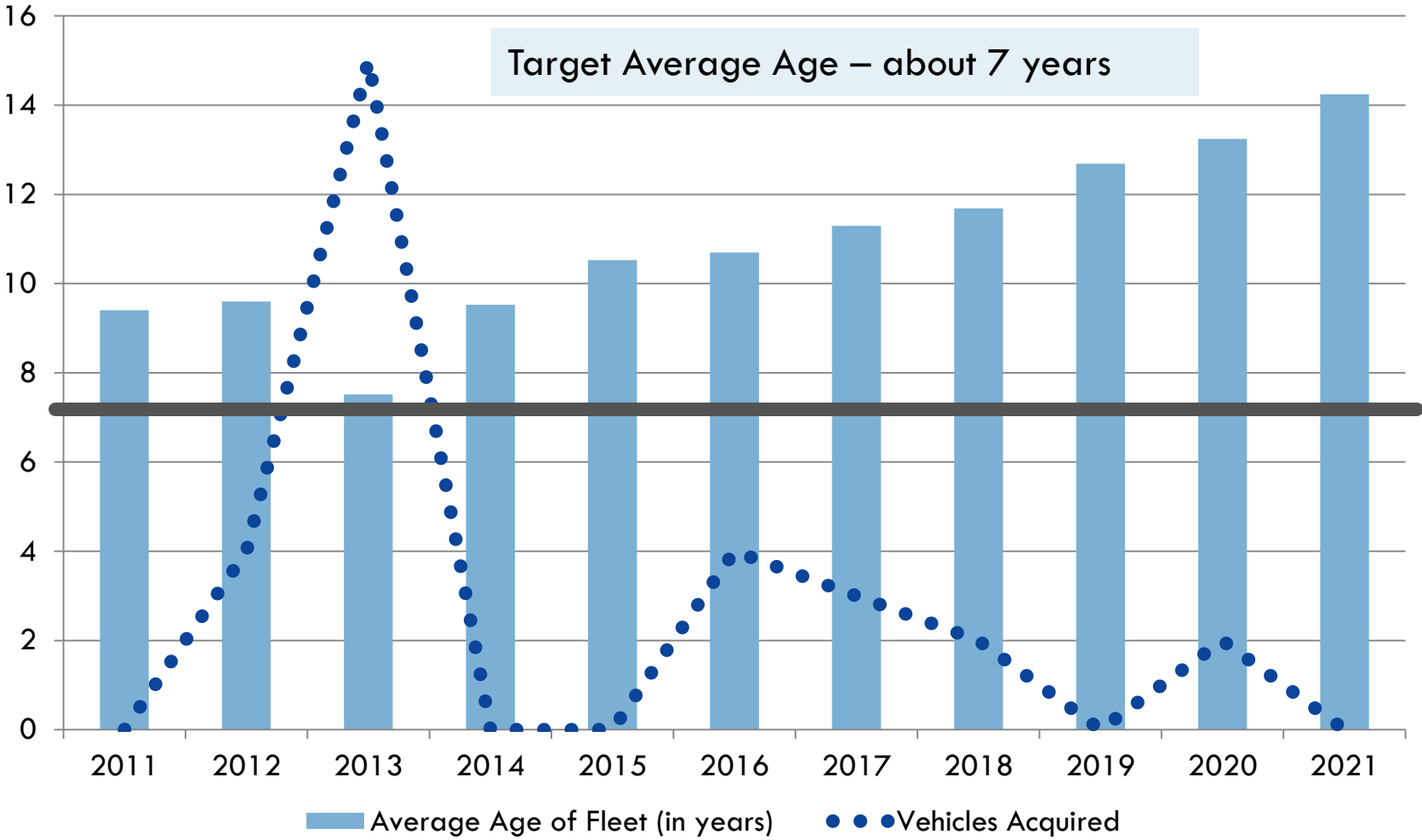


CHT Fleet Replacement Needs

Vehicle Type	Size of Fleet	Number Past Useful Life	Average Per Unit Cost	Estimated Cost (2014)
Buses	99	42 (42%)	\$500,000	\$21 million
Vans	19	13 (68%)	\$75,000	\$1 million



Fixed-Route Vehicles – Planned Purchases & Average Age



Source: National Transit Database

State of System – Vehicles

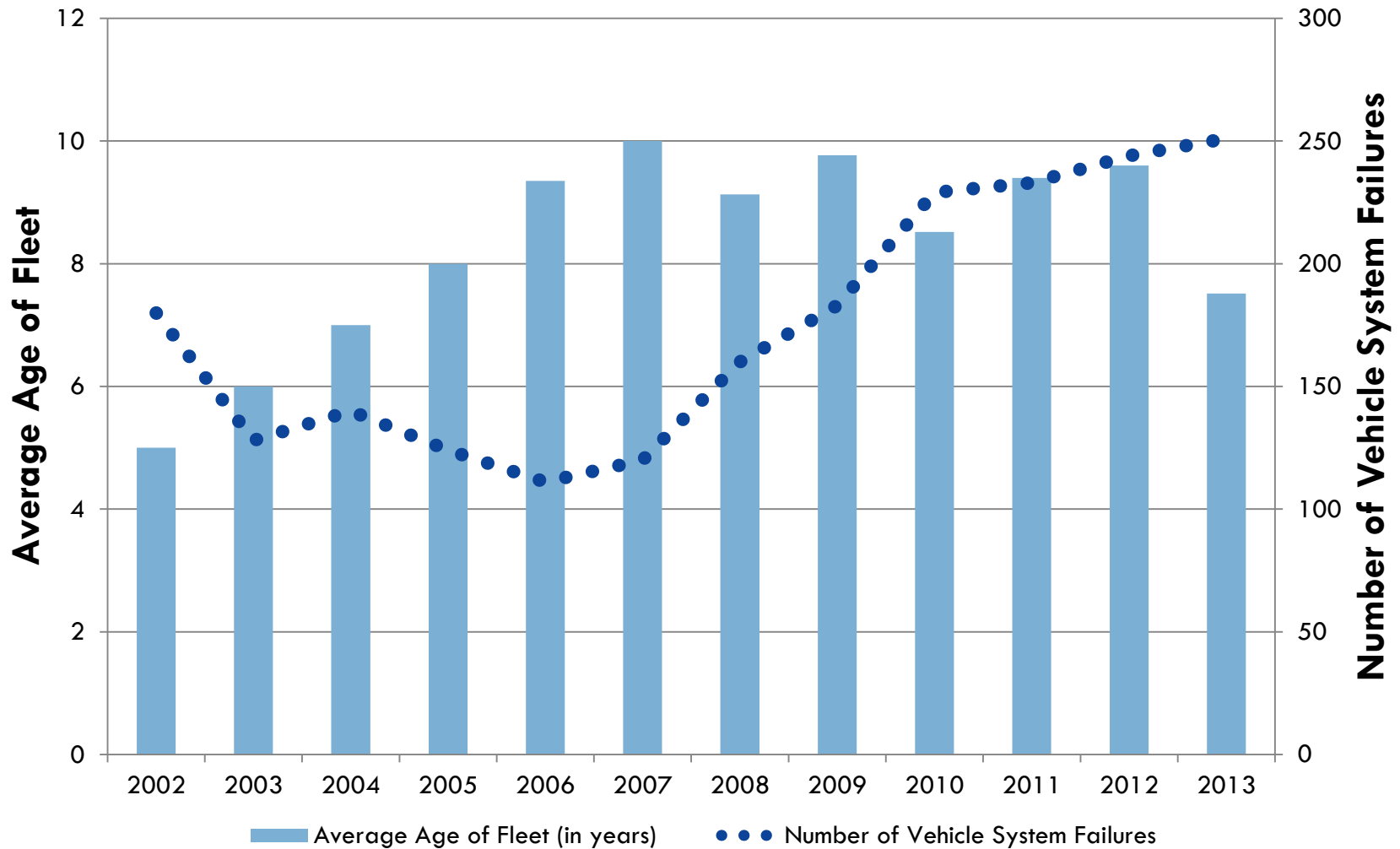
- Impacts on Transit Riders
 - Comfort and reliability

- Service Disruptions
 - More road calls – decreased service reliability
 - More staff out on road
 - Requires additional maintenance staff

- Increased Maintenance Costs
 - 37 RTS buses past useful life:
 - Vehicles/parts ceased production 2002
 - Parts increasingly difficult to find
 - More expensive to maintain
 - Older vehicles less fuel efficient and have higher emissions

- ***CHT is Unable to Increase Service*** – especially during peak
 - Can't operate service without vehicles

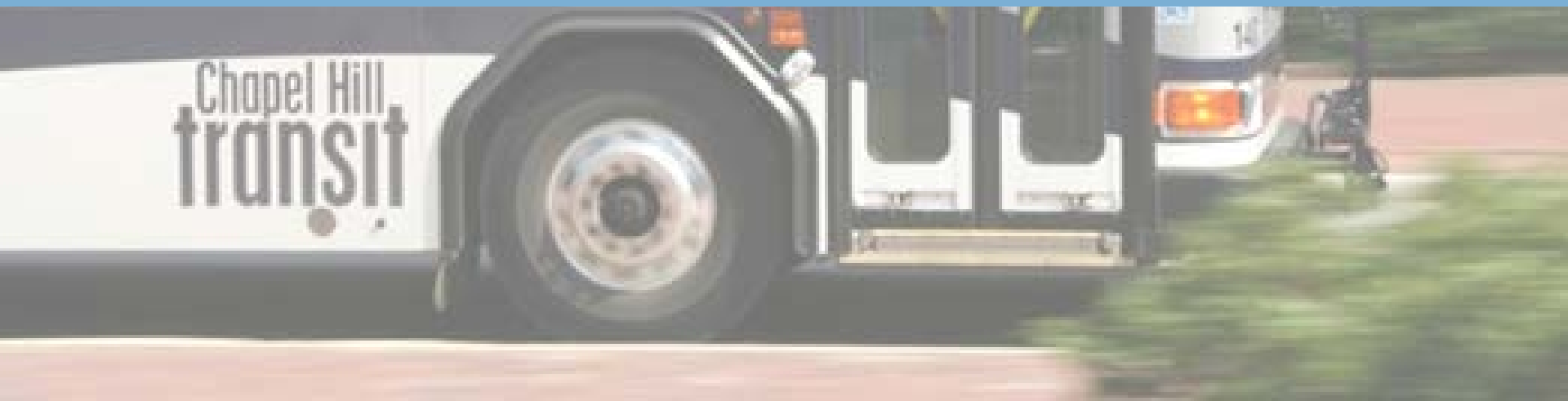
Average Age of Fleet and Vehicle Failures



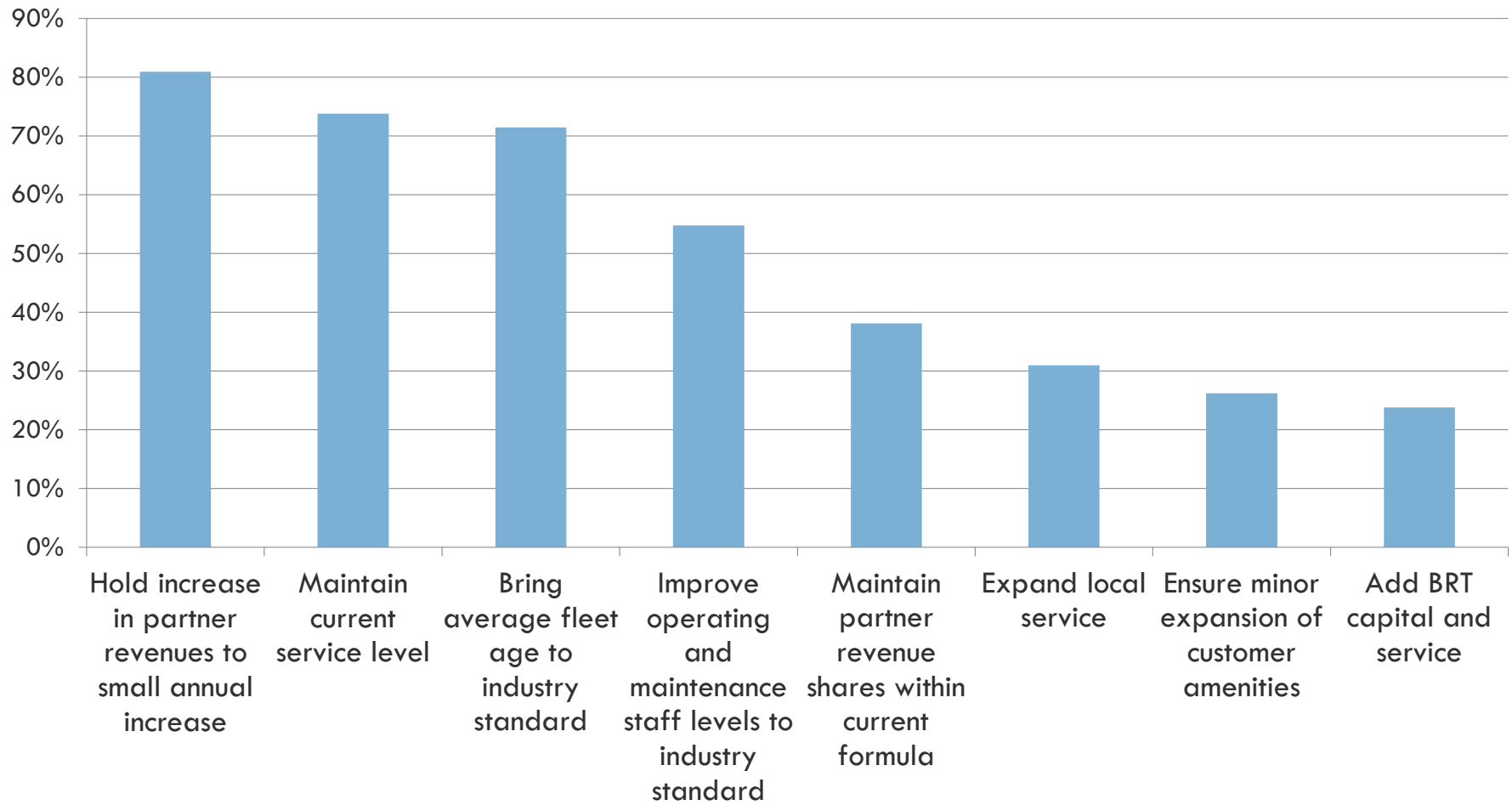
Source: National Transit Database



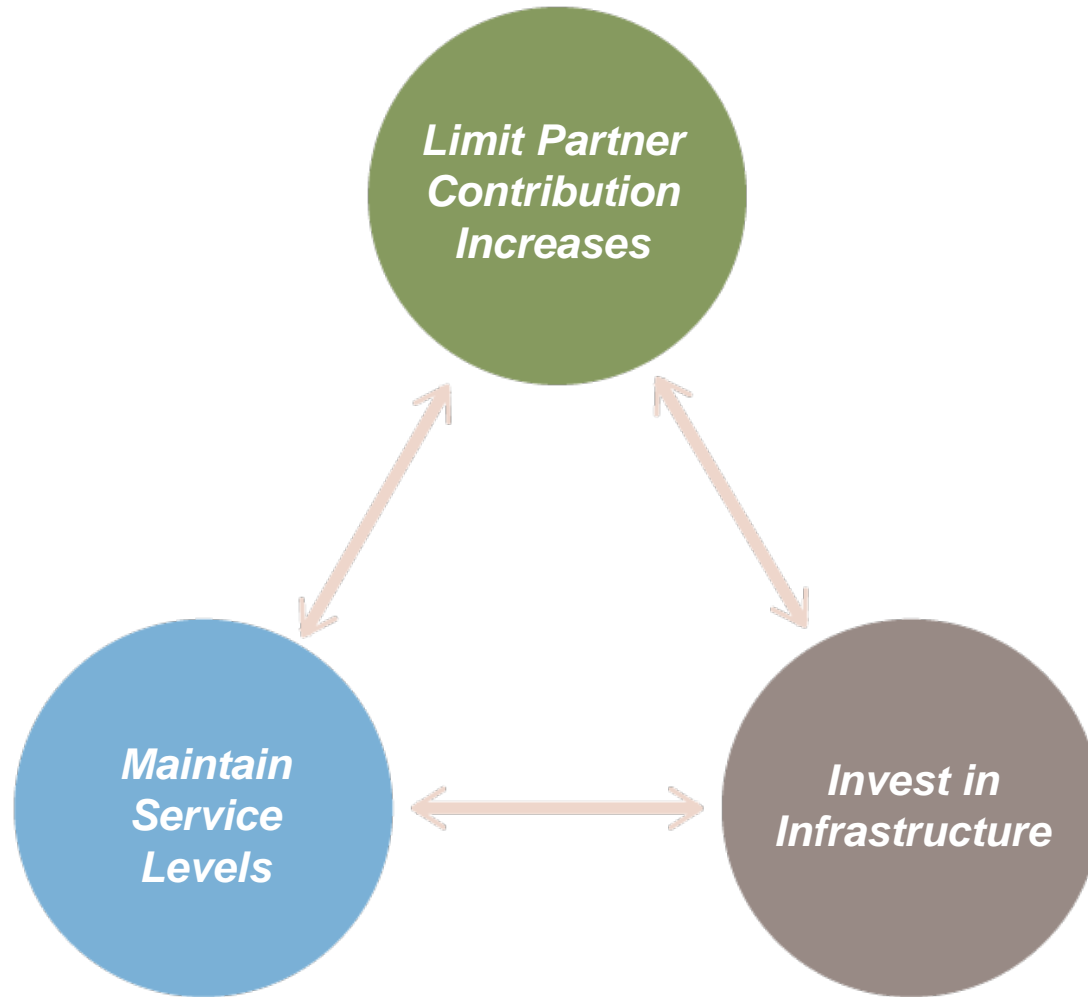
Priorities and Needs



Partner Committee Priorities (Fall 2014)



2015 – Address Capital and Staffing Needs



2015 – Address Capital and Staffing Needs

■ Developing Capital Plan

- Address immediate vehicle needs
- Ensure entire system is capitalized appropriately
 - Vehicle Replacement
 - Passenger facilities
 - Park and Ride facilities
 - Operations and Maintenance facility

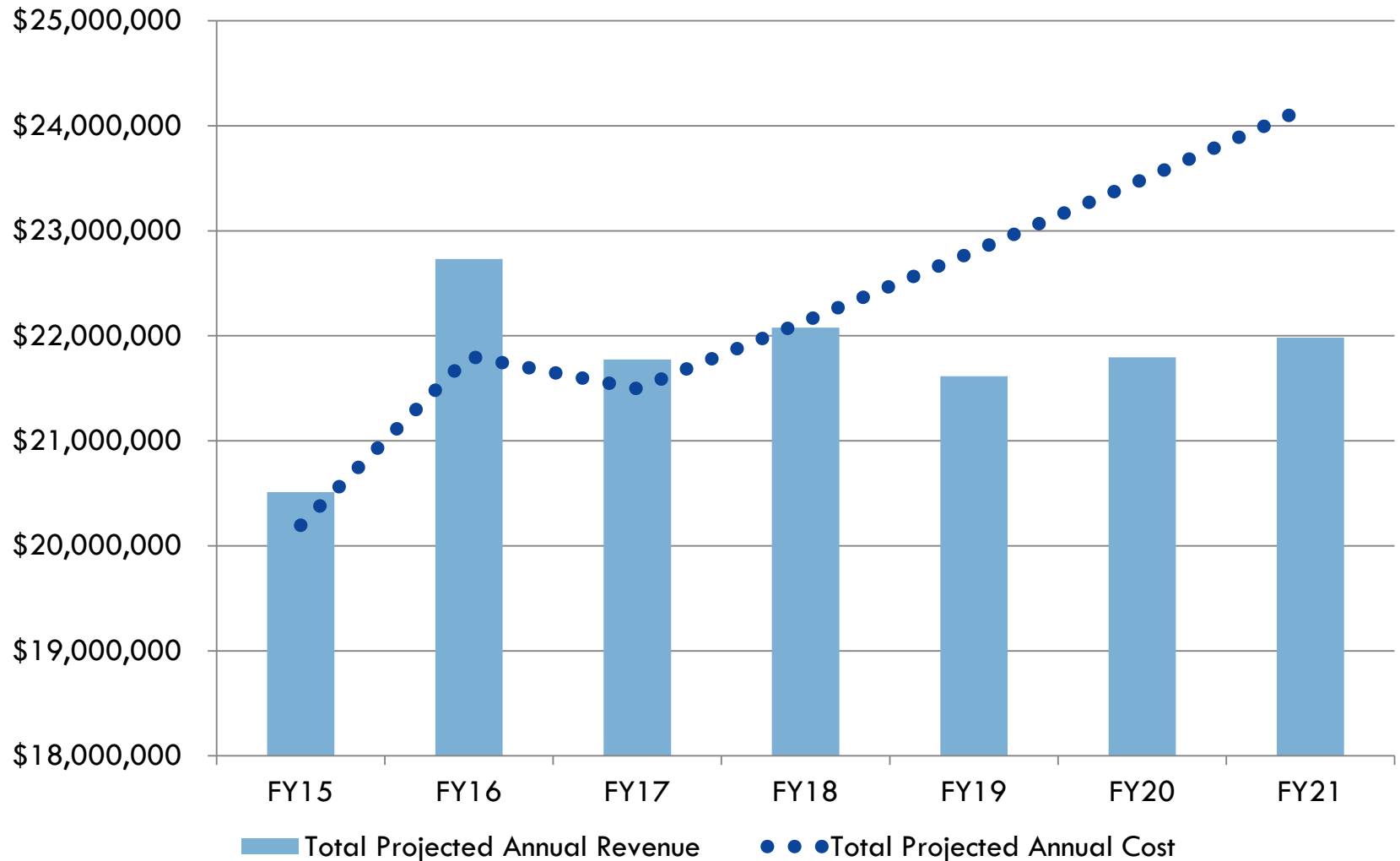
■ Creating Staffing Plan

- Address immediate need to add staff
 - Hire, train, and retain
- Staffing plan to ensure ongoing needs are met

Future Needs

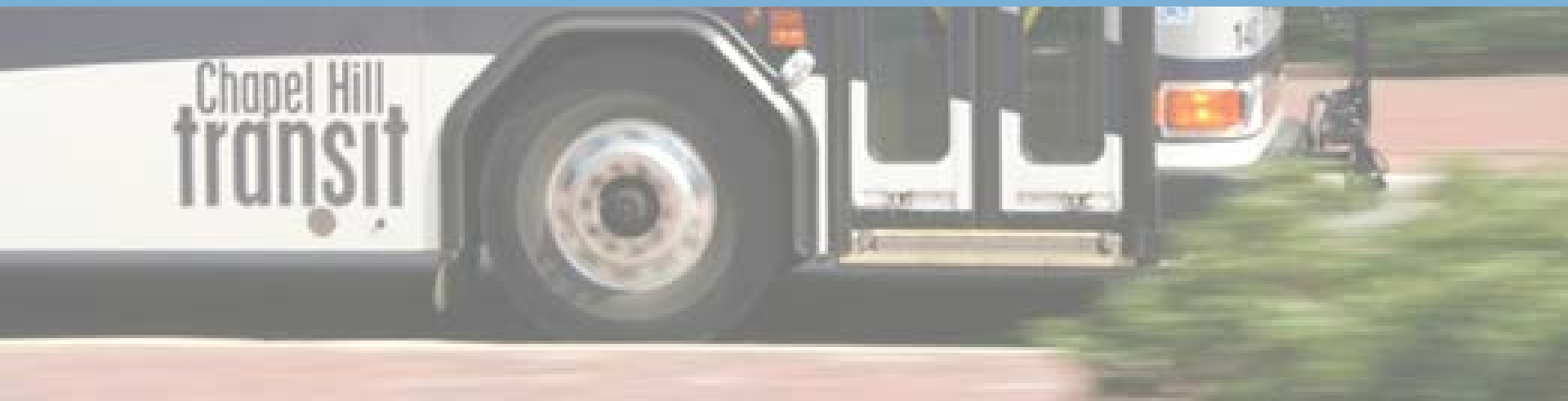
- Estimated Need - \$80 million over Next 10 Years
 - Funds are for **additional** revenues only
 - Capital requirements – roughly \$41 million
 - Operational needs – roughly \$39 million
- Estimate Does Not Include Service Expansion
 - Replaces existing vehicle fleet, plus some facility repair
 - Addresses staffing needs

Future Needs - Revenue Scenario





Opportunities



Potential Opportunities

- Orange County Bus and Rail Investment Plan
- Reduce Service Levels
- Additional Revenue Sources (Fares)
- Finance Vehicle Purchases/Lease Vehicles
- Increase Local Taxes/Partner Contributions

Orange County Bus and Rail Investment Plan

- New (2012) Revenues for Transit in Orange County
 - One-half Cent Sales Tax
 - New Vehicle Registration Fees
 - New fees and inflation adjustments

- Full Year Revenues Estimated at \$6.7 million – All Sources
 - Most for regional services and future light rail

- Existing Service (Chapel Hill Transit) has Access to New Vehicle Registration Fee Revenues Only
 - Estimated revenue - \$338,000
 - Assumed growth rate for revenue source - 2%
 - Already assumed in financial projections

Reduce Service/Operate Fewer Routes

Opportunities

- Potential strategy to reduce cost and demands on capital resources

Challenges

- Big impact on riders
- Contrary to CHT Partner priorities and community goals
- Less service results in fewer federal and state funds
- Funding agreements challenge service reductions

Fares and User Fees

Opportunities

- Shares costs with users

Challenges

- Requires capital investment (fare boxes)
- Will impact service operations and staffing
- Will impact ridership

Leasing and Debt Financing

Opportunities

- Allows CHT to acquire vehicles relatively quickly
- Spreads costs evenly over several years
- Town of Chapel Hill already has vehicle leasing program

Challenges

- Current governance structure means Town of Chapel Hill alone would hold the debt
- Adds financing costs

Raise Taxes/Partner Contributions

Opportunities

- Increase funding to system needs
- Share burden across partners

Challenges

- Contrary to CHT Partner priorities
- Just raised taxes and increased fees

Next Steps

- Gather input from Town of Chapel Hill Council, Carrboro Board of Aldermen and UNC on overall direction
- Expand analysis of leasing/vehicle financing concept
- Continue to work with CHT Partners on issues in partnership agreement related to issuance of debt
- Examine fare potential (with CHT Partners)
- Continue work on longer-term capital and staffing plans



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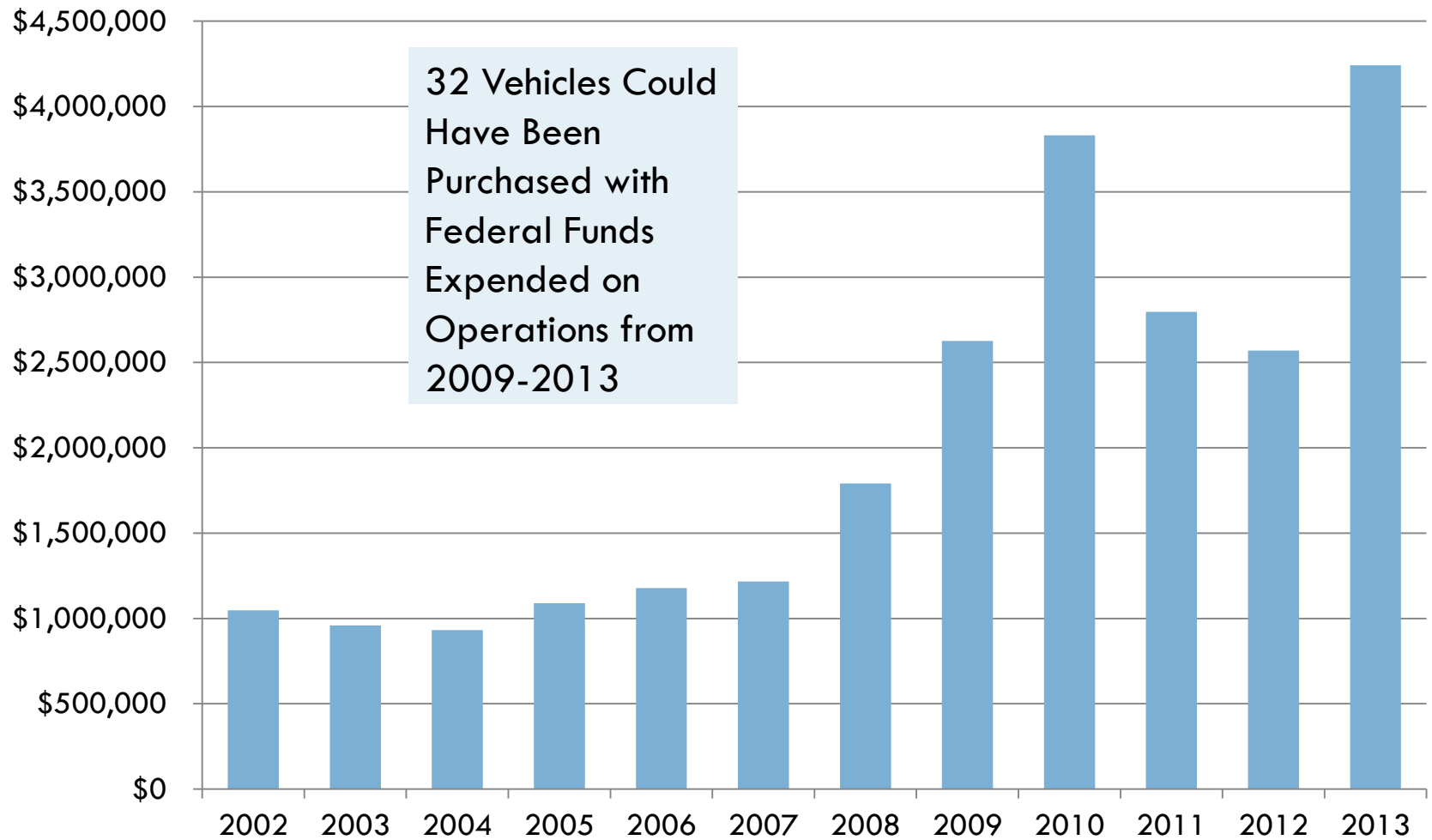
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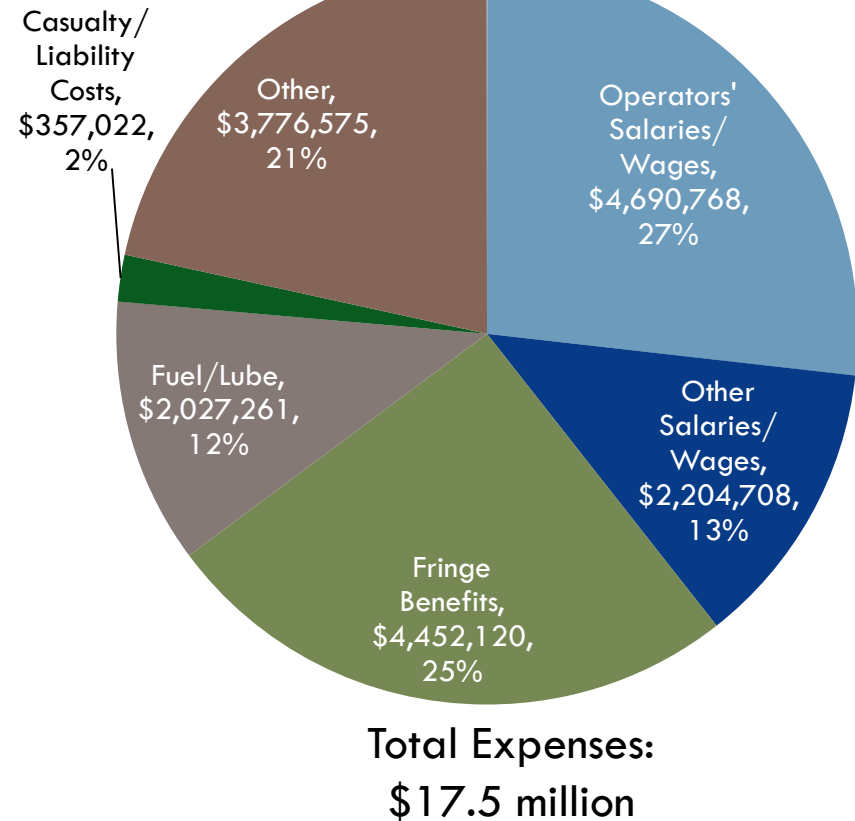
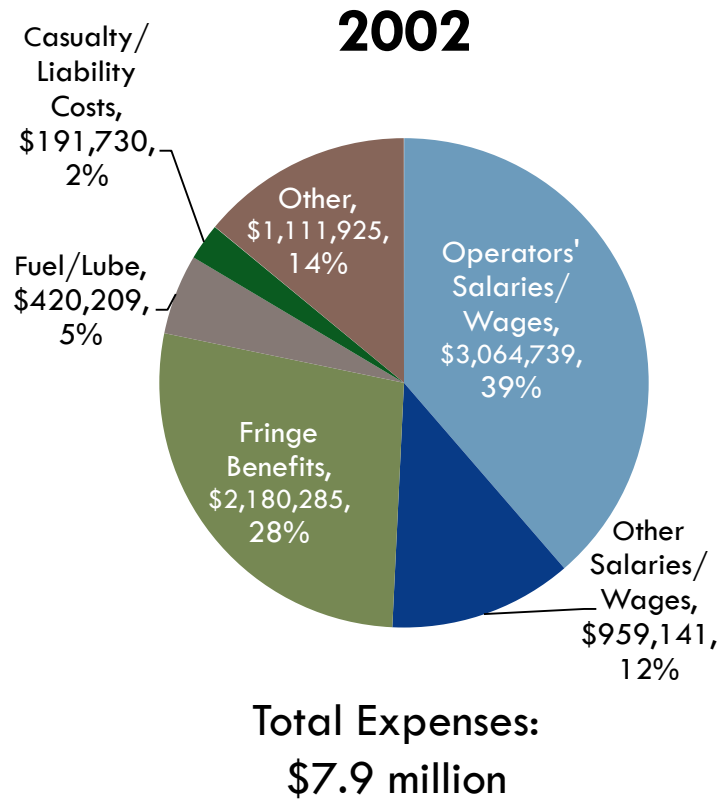
Revenue Trends: Federal Funds Expended on Operations



Source: National Transit Database

How We are Spending Money has Changed

2013



Source: National Transit Database

Transit/Maintenance Supervisors

- Transit Supervisor Functions – Dispatch, Operator Evaluation, Service Supervision, Accident Investigation, Training
- Current ratio of supervisors to operators is about 1:50
 - Operator Performance Evaluation
 - 2 drive behind evaluations per year
 - 2 ride along evaluations per year
 - Requires a ratio of 1:33 to complete evaluations
 - Currently about 80% completed each year

Transit/Maintenance Supervisors

- Maintenance Supervisor Functions – Work assignment and distribution, quality control, safety, personnel evaluation, records management
- Currently garage is staffed 20 hours per day
- Four hours per day there are no supervisors on site
 - Safety requires at least two people on the floor at all times
 - Incidents/breakdowns occasionally require all staff away from base

Opportunity: Governance

- Re-organize/restructure Chapel Hill Transit
 - Stand alone transit agency
 - Water and Sewer Authority
 - Contract rather than operate service
 - Merge with existing agency (TTA)
- Potential to increase flexibility
- Town would still need to fund the system
 - Presently no new taxing authority to support new agency

Potential Strategies: Fares

Advantages

- Analysis suggests some revenue could be realized
 - Some revenue could be realized

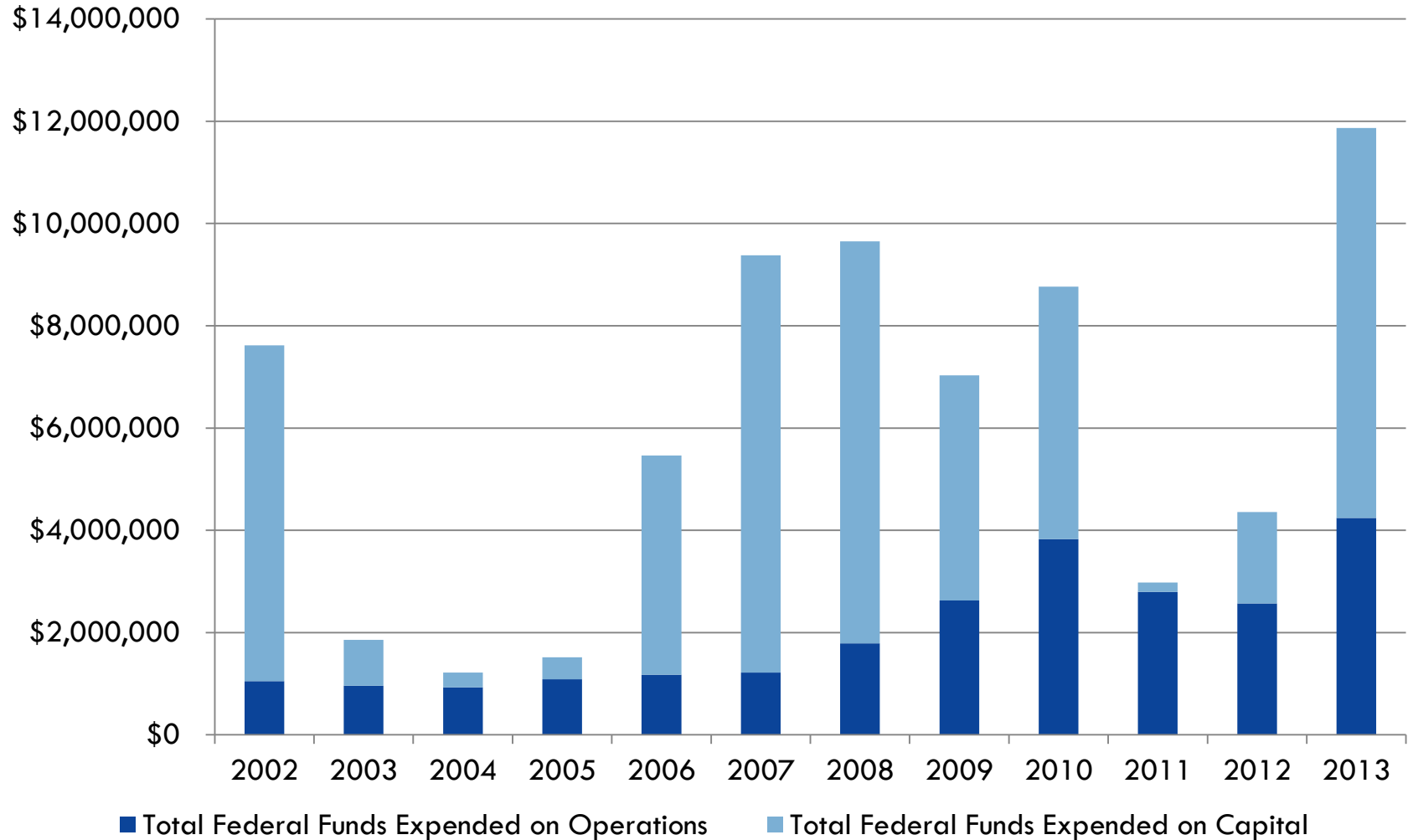
Disadvantages

- Requires capital investment
- Operational impact
 - Increase vehicle dwell time
- Staffing impact
 - Sell/manage fare media
 - Manage cash resources
- Loss in ridership
- Will vary with fare charges
 - Ridership losses due to fare implementation could affect funding allocation to CHT

Fare Analysis – Assumptions Revenue Estimate

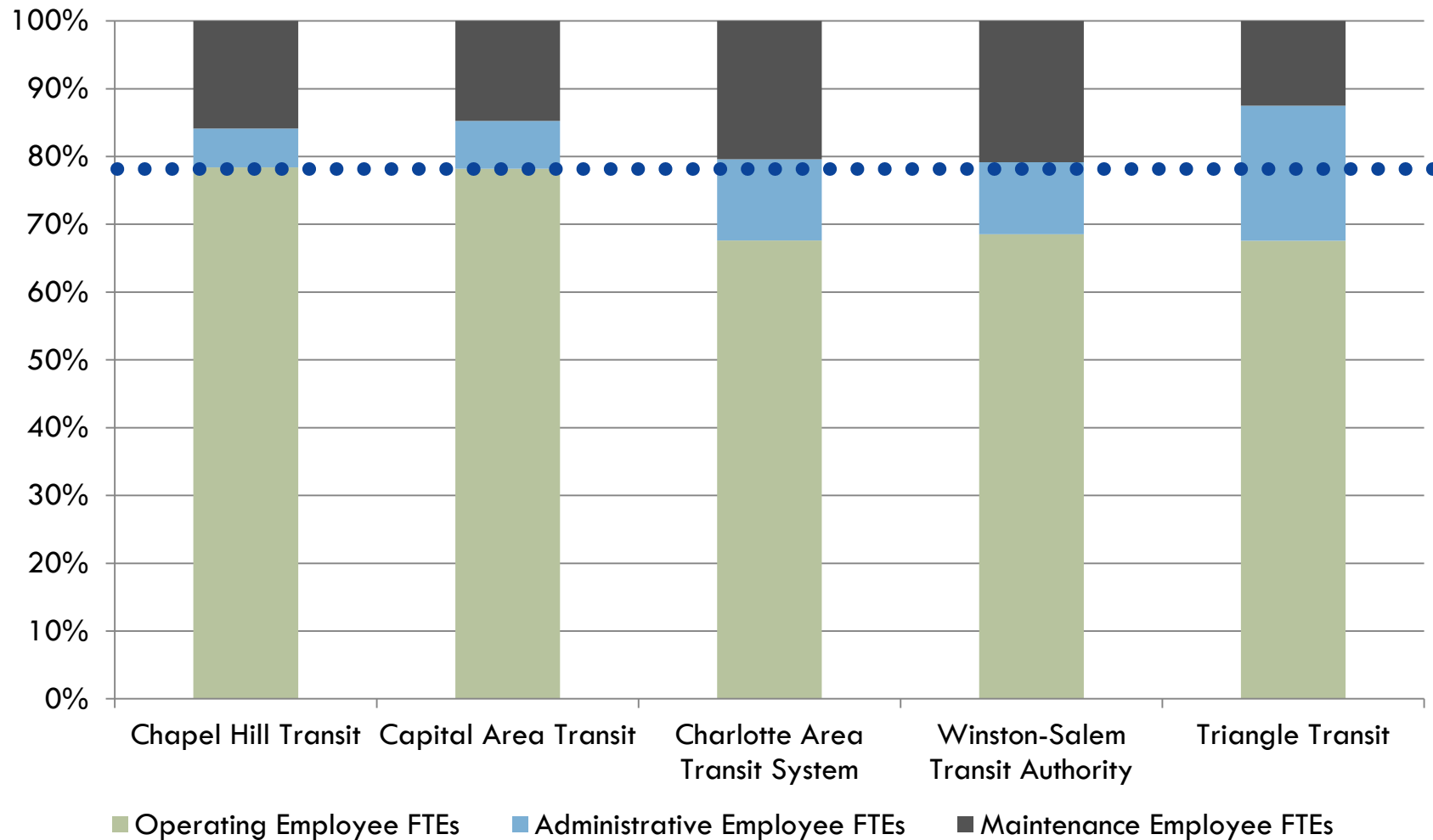
- Assumes UNC riders continue with existing arrangement and do not pay a cash fare
- Assumes no federal funds are used for purchasing capital equipment
 - Initial capital investment is estimated to be approximately \$1.4 million to \$2.1 million
 - Annual operating costs are estimated at \$504,000
- Assumes an additional 1.5 seconds is needed for each individual boarding a CHT vehicle
- Assumes fixed-route ridership losses ranging from a low of 28% to a high of 39%

Revenue Trends: Federal Funding



Source: National Transit Database

Staffing Levels – Peer Systems



Source: National Transit Database