# Get On The Bus: Public Transportation In Hampton Roads



### **GET ON THE BUS: PUBLIC TRANSPORTATION** IN HAMPTON ROADS

"You can't understand a city without using its public transportation system." Erol Ozan, Author

well-functioning transit network is a regional asset. Public transportation empowers people to get wherever they need to go, regardless of whether they have a driver's license or access to a car. This is particularly essential in a region as geographically expansive as Hampton Roads, where 43% of us live and work in different localities. Our cities and counties are knitted together by tunnels, bridges, and interstate highways that are not primarily intended for bikers or pedestrians. Buses, ferries, light rail, and other forms of transit enhance personal mobility and increase workforce participation while easing roadway congestion, reducing fuel consumption, and lowering carbon emissions.

According to an economic impact study commissioned by the Virginia Department of Rail and Public Transportation (DRPT), \$1.5 billion was spent on transit in Virginia in FY 2018 (\$1.2 billion from public sources). Public investment in transit brought \$2.53 billion in direct benefits, "including travel time savings, transportation cost savings, avoided vehicle crashes, emissions reductions, fuel savings, employment benefits, and expenditure savings for transit riders." This investment generated \$3.4 billion in economic activity (\$2.6 billion in northern Virginia, \$791 million in Hampton Roads and other urban areas, and \$43 million in rural areas). Every public dollar spent on transit generated \$2.86 statewide (\$3.02 in northern Virginia, \$2.51 in Hampton Roads and other urban areas, and \$1.68 in rural areas).<sup>2</sup>

Further, public transportation can add economic value in other ways that are not always easy to quantify. As the DRPT study notes, urban transit tends to incentivize higher density residential and commercial development encouraging more efficient land use, reducing the need for parking, and

raising nearby property values. Tourist destinations benefit from transit options that help visitors get around easily. And large employers consider access to transit as one of many factors when deciding where to establish new headquarters or other major work sites.

The case for expanding public transportation networks in Hampton Roads and other metropolitan areas is strong-but transit succeeds only if people are willing to use it. A hard truth is that riders across the U.S. are abandoning public transportation. This longer-term trend can be explained in part, but not entirely, by the COVID-19 pandemic. Unsurprisingly, ridership plunged everywhere at the start of the pandemic; the National Transit Database reported an 81% decrease in national urban public transportation ridership between the months of April 2019 and April 2020.3 However, many U.S. transit systems had been shedding riders gradually since at least 2014, and transit use today has not come close to recovering to pre-pandemic levels. In Hampton Roads, the total number of transit rides taken each year decreased

Hampton Roads Transportation Planning Organization, State of Transportation in Hampton Roads 2022, 35. Available at: https://www.hrtpo.org/page/state-of-transportation/
2 Virginia Department of Rail and Public Transportation, Economic Impacts of Public Transportation in the Commonwealth of Virginia (February 2020), at: https://www.drpt.virginia.gov/studies-and-reports/economic-impacts-of-public-

<sup>3</sup> National Transit Database, National Transit Summaries and Trends 2021, 6. Available at: https://www.transit.dot.gov/ntd/annual-national-transit-summaries-and-trends

66% from 2012 to 2021, including a 52% drop between 2019 and 2021.<sup>4</sup> These declines in ridership were not limited to Hampton Roads, as public ridership dropped in Virginia by 38.3% from December 2018 and December 2022 (Graph 1).

There are numerous reasons for this decline, beginning with the growing number of people who now work part- or full-time from home. Other commuters left the workforce altogether during the pandemic and have not returned. Persons without a car have more transportation options now than they did just fifteen years ago—including ridesharing services such as Uber and Lyft, and electric or traditional bikes and scooters that are easily borrowed through mobile apps. What's more, the new services are potentially available 24-7 and may take their riders door-to-door. Traditional public transportation is less expensive than these new options, but it is also less convenient.

Hampton Roads has one of the lowest rates of transit ridership among similarly sized U.S. metropolitan areas, ranking 32nd among the 41 metro areas with populations between one and four million. (Our per capita spending on transit operating and capital expenses likewise ranked 32nd.) Meanwhile, nearly three-quarters of all Hampton Roads commuters drive alone by car to work, the 10th highest percentage among the same group of peers. Only 4.7% of jobs can be reached by public transportation within 60 minutes.<sup>5</sup> The decentralized nature of our region, our multidirectional commuting patterns, and our localities' uneven coordination of transportation policy largely keeps us in our cars. Roadway congestion is not severe enough, or gas high prices high enough, for most drivers to seek alternatives—so transit in our region is primarily used by those who have no other option. For these riders, however, it remains an indispensable lifeline.

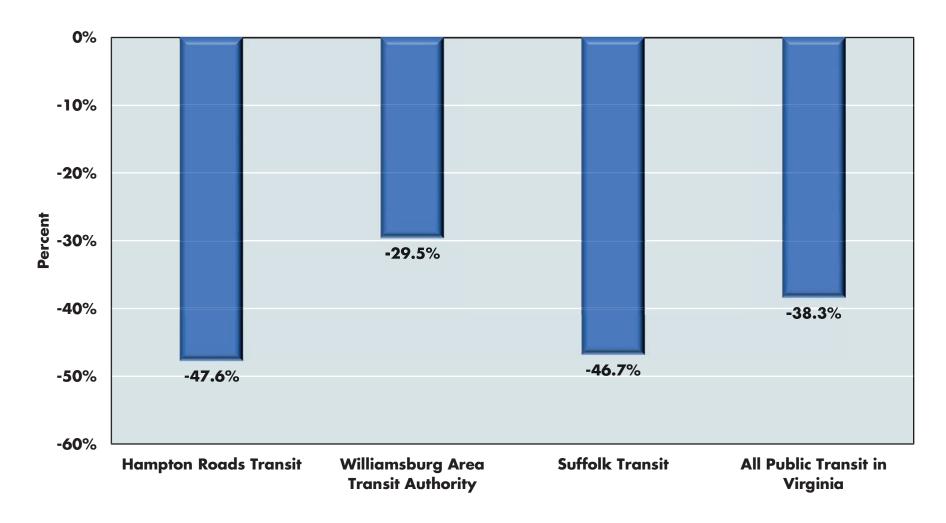
This chapter takes a closer look at how public transportation functions in Hampton Roads. We provide an overview of our region's three transit systems: Hampton Roads Transit (HRT), Suffolk Transit, and the Williamsburg Area Transit Authority (WATA), and we examine how they are funded. Our emphasis is on bus transit. Although light rail has dominated much of the public discussion about transit in our region, buses are the heart of these agencies' operations (Graph 2). The overwhelming majority of our region's transit passengers ride by bus, and will do so for the foreseeable future. This chapter highlights some of the most compelling proposals and recent innovations that seek to make buses and other forms of transit more accessible, appealing, and affordable to a wider circle of Hampton Roads residents.



<sup>4</sup> State of Transportation in Hampton Roads 2022, 48; and Congressional Research Service, "Public Transportation Ridership: Implications of Recent Trends for Federal Policy," 10 November 2022, 2–3.

<sup>5</sup> State of Transportation in Hampton Roads 2022, 36–38 and 50.

GRAPH 1
CHANGE IN PUBLIC TRANSIT RIDERSHIP
DECEMBER 2018 TO DECEMBER 2022

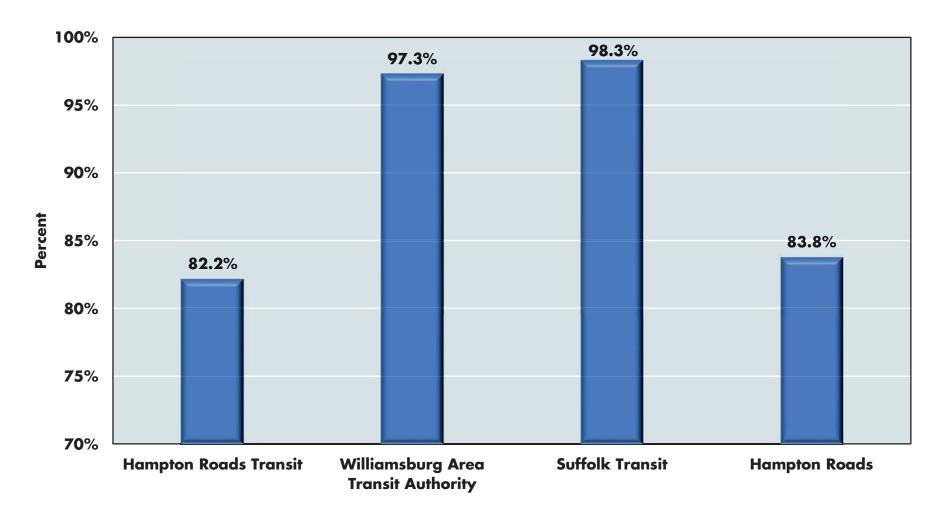


Source: Virginia Department of Rail and Transportation, at: https://data.drpt.virginia.gov/stories/s/Transit-Performance-Data/c4e4-hrd6

GRAPH 2

PERCENT OF PUBLIC RIDERSHIP BY BUS

HAMPTON ROADS, 2021



Source: Hampton Roads Transportation Planning Organization, The State of Transportation in Hampton Roads, 2022.

# One region, three transit providers

Public transportation operates within a closely defined institutional framework. The Hampton Roads Transportation Planning Organization (HRTPO) is the federally mandated Metropolitan Planning Organization (MPO) that coordinates transportation planning across our region's 13 Virginia localities. Three separate transit providers operate within its purview, each of which serves a defined urbanized area, or UZA. Our region is home to one large UZA (defined by a population of more than one million) that is served by Hampton Roads Transit in the localities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach. In addition, the Williamsburg Area Transit Authority provides service in Williamsburg, James City County, and upper York County, while the city of Suffolk has its own transit network. Each of these two smaller providers effectively serves a small UZA (population of 50,000 to 200,000) within the greater region. While there is a bit of geographic overlap in the routes covered by the three providers, each serves a core population that is defined by its UZA.

Table 1 provides a brief overview of each of the public transit providers in Hampton Roads. Hampton Roads Transit is the largest provider, followed by the Williamsburg Area Transit Authority, and then Suffolk Transit. Hampton Roads Transit has the largest coverage area, with 438 square miles, and serves the largest population as well. All the transit agencies offer reduced fares to seniors, Medicare cardholders, and persons with disabilities. Let's briefly look at each of these public transit agencies.

### Paratransit: Making transportation accessible to all

Public transportation providers must offer a comparable level of service to persons with disabilities, as set forth by the Americans with Disabilities Act of 1990. In practice, this means that providers are required to offer accessible transit options during the same hours as their fixed route service to origins and destinations within 34 mile of the fixed routes. The accessible rides may not cost more than twice the standard bus fare. To meet this requirement, Hampton Roads' three transit systems offer paratransit, or demand response, service to all ADA-certified persons. Paratransit rides—generally in a van or other wheelchair-accessible vehicle, which may be shared with other riders—must be scheduled by phone or HRT Paratransit mobile app at least one day in advance. Further, all fixedroute HRT buses are equipped with ramps or wheelchair lifts, and ADA-certified persons may ride these buses for free.

TABLE 1			
HAMPTON ROADS TRANSIT AGENCIES AT A GLANCE			
	Hampton Roads Transit	Williamsburg Area Transit Authority	Suffolk Transit
Localities served	Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach	Williamsburg, James City County, York County	Suffolk
Service area	438 square miles	144 square miles	73 square miles
Population	1,150,833	153,600	87,677
Annual passenger miles	32,178,023	3,381,621	N/A
Annual unlinked trips	6,491,615	610,291	108,658
Annual vehicle revenue miles	14,166,842	917,477	368,893
Annual vehicle revenue hours	979,042	58,569	20,268
Adult one-ride fare	\$2.00	\$1.50	\$1.50
Adult all-day fare	\$4.50	\$3.00	\$3.00
Monthly pass	\$70.00	\$45.00	\$57.50
Paratransit	\$3.50	\$3.00	\$3.00
Reduced fare	Seniors 65 and older, Medicare cardholders, persons with disabilities, unaccompanied riders 17 and under	Seniors 65 and older, Medicare cardholders, persons with disabilities, WJCC/York students	Seniors 65 and older, Medicare cardholders, persons with disabilities, students
Free rides	Children 17 and under with fare- paying adult, certified paratransit users, student Freedom Pass holders	Children 38 in. and under, William & Mary ID holders	Children 5 and under
Sources: Hampton Roads Transit, Williamsburg Area Transit Authority, Suffolk Transit, and National Transit Database profiles.			

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### HAMPTON ROADS TRANSIT

Hampton Roads Transit (HRT) is Virginia's largest public transportation agency outside of the Washington Metro. It is the product of a 1999 merger between Pentran (serving Hampton and Newport News) and Tidewater Regional Transit (serving Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach). Suffolk opted out of this union in 2011. HRT's governing body, the Transportation District Commission of Hampton Roads, includes one City Council member and one gubernatorial appointee from each of the six localities.

HRT operates a fleet of 275 buses, which cover 70 routes that crisscross our region. While hours and frequency of service vary from route to route, many buses run once an hour, seven days a week, from the early morning into the evening. The new 757 Express buses on Jefferson Avenue and Mercury Boulevard run every 15 minutes during peak travel times. Still other buses carry workers just a few times each day to large regional employers such as Amazon and the Newport News Shipyard. The Base Express, reintroduced after a 15-year hiatus in 2022, gives free rides to personnel around Naval Station Norfolk. VB Wave trolleys offer frequent service around the Virginia Beach Oceanfront between May and September, representing as much as 6% of HRT's annual ridership.

The Tide light rail line, which was introduced in 2011, serves 11 stations on 7.4 miles of track in the city of Norfolk. In 2016, 57% of Virginia Beach voters opposed spending local funds to extend the line to Town Center, and so the line ends at Newtown Road, just before the Virginia Beach border. A proposed extension to Sentara Leigh Hospital and the Military Circle redevelopment area would potentially link Norfolk's downtown to key destinations on the eastern side of the city. HRT is currently conducting the required environmental assessment for the extension. A formal proposal and accompanying financial plan, outlining expected federal, state, and local contributions, will likely come before Norfolk City Council in early 2024.

Three Elizabeth River ferries carry passengers between downtown Norfolk and downtown Portsmouth, with additional service to Harbor Park during

Tides home baseball games. The Traffix program also encourages additional commuting options such as carpooling and vanpooling.

At a regional transit advocacy day in May 2023, HRT President and Chief Executive Officer William Harrell described the present moment as the most exciting time for HRT since its founding in 1999. As we'll discuss below, his enthusiasm is driven in no small part by a new regional transit fund, which has begun to bear fruit in the form of the 757 Express bus network and other key improvements for HRT riders.

### WILLIAMSBURG AREA TRANSIT AUTHORITY

The Williamsburg Area Transit Authority (WATA) was established in its present form in 2008. Its board of directors includes representatives from the City of Williamsburg, James City County, York County, the Colonial Williamsburg Foundation, and the College of William and Mary. WATA operates eleven fixed-route bus lines in Williamsburg, James City County, and upper York County, as well as the trolley in historic Yorktown. Most buses run once an hour between 6:00 a.m. and 9:00 p.m., Monday through Saturday, with shorter operating hours on Sunday. Riders can view buses' real-time location and upcoming stops on a flat-screen monitor inside each bus. The main point of connection with HRT is Lee Hall in Newport News, the end destination of a long WATA route that begins near Colonial Williamsburg.

WATA is poised for larger changes in 2023. The authority's new Executive Director, Matthew Scalia, had been serving in his position just eight days when we spoke to him in April. He and other members of his team explained to us that WATA expects to adopt a new strategic plan in September, oriented around increasing ridership and frequency of service. WATA was also about to introduce a new mobile ticketing app and to more fully integrate the Colonial Williamsburg shuttle buses within its network this fall. A new bus transfer center, near the Sentara Williamsburg Regional Medical Center in northern York County, is slated for completion in early 2026.

### SUFFOLK TRANSIT

Only 29% of urban transit providers in the U.S. are run by an independent transit authority like HRT or WATA. A more common arrangement, particularly for smaller localities like Suffolk, is transit run directly by a city or county government (53% of all providers). Suffolk withdrew from HRT in 2011, after an efficiency study proposed eliminating two of the city's four bus routes due to low ridership. Suffolk now contracts with the non-profit organization Virginia Regional Transit to offer bus service on six different routes across the city. Suffolk possesses its own fleet of 12 small buses and two paratransit vans which are operated and maintained by Virginia Regional Transit. Most buses run once an hour between 6:30 a.m. and 6:30 p.m., Monday through Saturday. The Spot mobile app tracks the real-time position of every bus on a map, giving riders an easy overview of the entire transit system.

Transit Manager Maria Ptakowski describes the creation of Suffolk Transit as an amicable arrangement that has ultimately allowed the city to expand service within its borders in a cost-effective way. Suffolk passengers can transfer to HRT buses at three different points: College Drive in northern Suffolk, the Amazon fulfillment center in Northgate Commerce Park, and Chesapeake Square. Within the next three to five years, Suffolk Transit hopes to introduce an additional HRT transfer point at Victory Square in Portsmouth and a new commuter line on Route 460 to the town of Windsor.

## **Who Pays for Public Transit?**

Transit in the U.S. today is not a money-making venture. A very few, high-ridership transit systems in places like New York City and San Francisco may cover more than half of their operating budgets from passenger fares (or at least they did before the pandemic). Everywhere else, "farebox recovery" is much lower. The National Transit Database indicates a 18.4% average recovery ratio across all U.S. transit systems for FY 2020 and a 12.8% ratio for FY 2021 in the midst of the pandemic. But the mean recovery ratio across all U.S. transit systems is certainly much lower, given the disproportionate influence of a few, very large urban providers. And even within transit systems, the proportion of operating expenses covered by fares varies dramatically between routes and modes of transit. Heavy and commuter rail tend to have the highest ratios, while paratransit has the lowest.

All of which is to say that most of the funding for transit in regions such as Hampton Roads comes from a mixture of federal, state, and local public dollars. Federal funds are often designated for capital expenses and sometimes require a local match. However, this situation changed dramatically in FY 2020 and FY 2021 as federal supplemental appropriations—emergency funding related to the pandemic—ballooned to an unprecedented \$69.5 billion or "about five times the pre-pandemic \$12 billion in annual federal public transportation support." The Coronavirus Aid, Relief, and Economic Security (CARES) Act, the American Rescue Plan (ARP), and other initiatives have sent billions of federal dollars to U.S. transit providers for both capital and operating expenses.

Thus, the most recent figures available from the National Transit Database, while broadly reflecting the mixture of sources that fund public transportation, are also quite exceptional, given the many ways that COVID-19 affected budgets and operations. Both WATA and Suffolk Transit eliminated fare collection altogether for several months during the pandemic. This policy means that non-government revenue, in part, declined significantly for these agencies in 2020 and 2021. In Graph 3, we provide a breakdown of total operating funding by source for each of the three public transit agencies in the region.

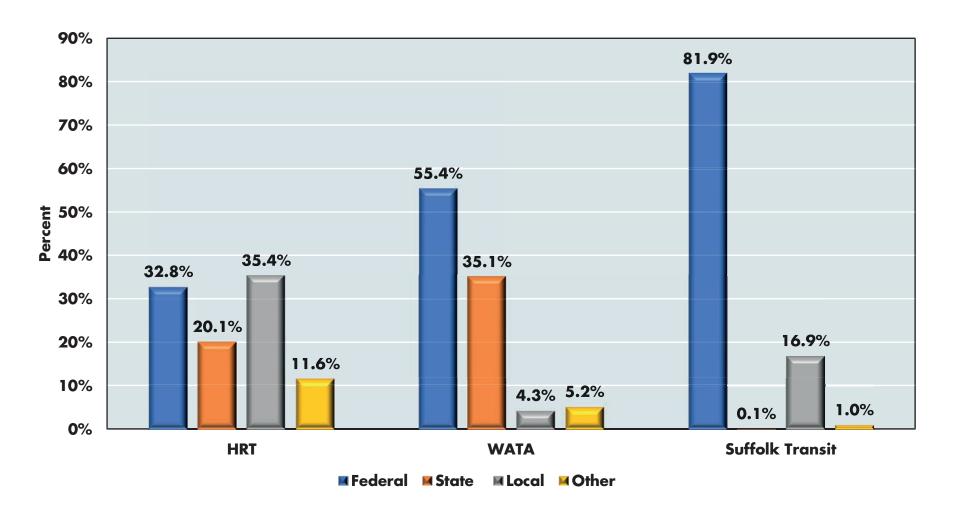
<sup>6</sup> National Transit Database, National Transit Summaries and Trends 2021, 5.

<sup>7</sup> National Transit Database, National Transit Summaries and Trends 2021, 21.

<sup>8</sup> Congressional Research Service, "Public Transportation Ridership: Implications of Recent Trends for Federal Policy," 1.

GRAPH 3

TOTAL OPERATING FUNDING BY SOURCE
HAMPTON ROADS PUBLIC TRANSIT AGENCIES, 2021



Source: National Transit Database agencies profiles, at: https://www.transit.dot.gov/ntd and National Transit Summaries & Trends 2021, p. 16, at: https://www.transit.dot.gov/ntd/annual-national-transit-summaries-and-trends

## HRT's Cost Allocation Agreement and the challenges of regional transit

As a mid-sized transit agency, HRT has always relied on local subsidies as the largest source of its operating budget. The Cost Allocation Agreement between localities was a long-negotiated aspect of the 1999 merger that established HRT. According to this agreement, each city determines "how much service will be provided within its borders based on how much it is willing to pay for those services after all federal, state, and farebox revenues are applied. Each year, as part of the budgeting process, the [Transportation District] Commission will propose a public Transportation Service Plan (TSP) for the region. The TSP will contain a description of the service such as route name, hours of service to be provided, estimated cost, estimated revenue and estimated local share of the cost of service. Each participating city will have final determination on the type, amount and location of public transportation service provided within its borders. After each city has approved funding of its portion of the TSP, the Commission will approve and publish the TSP as the Transportation Service Plan of Hampton Roads."9

Beyond determining how much local funding HRT receives, this arrangement explains some of the peculiarities in service that define our regional transit. A glance at the most recently published TSP shows that the six cities contribute at very different levels—for reasons having to do with politics, demographics, geography, and parochial interests. In FY 2022, Norfolk's annual contribution of \$20,133,699 funded 19 bus lines, the Tide, paratransit, and the Elizabeth River ferries—a total of 350,810 service hours (Graph 4). At the other extreme, Chesapeake and Portsmouth each funded under 67,000 service hours, contributing \$2,821,863 and \$2,970,726, respectively. Given Portsmouth's compact size, its transit network is still comparatively close-knit, while large stretches of Chesapeake have only limited bus access.

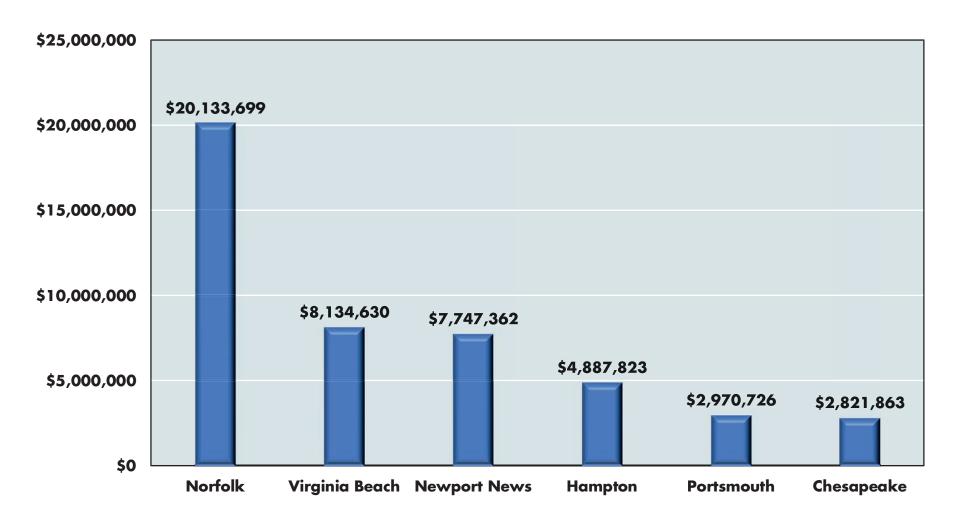
The challenges of operating a coherent regional transit network under these circumstances should be readily apparent. Riders who travel between localities may encounter different operating hours or levels of service, depending on the direction of their trip. Intercity bus routes are determined less by the overall needs of our region's riders and more by a "lowest common denominator" of service that all localities on any given route are willing to subsidize.



<sup>9</sup> Transportation District Commission of Hampton Roads, Fiscal Year 2022 Operating Budget, 27, at: https://gohrt.com/agency/finance/

GRAPH 4

TOTAL LOCAL CONTRIBUTIONS TO HAMPTON ROADS TRANSIT, FY 2022



Source: HRT Fiscal Year 2022 Operating Budget.

# Transit transformation and regional funding

In response to these regional challenges and the nationwide decline in transit ridership, the Transportation District Commission of Hampton Roads launched an ambitious Transit Transformation Project in the fall of 2018, seeking to create a better regional bus system. In a June 2019 op-ed, the chairs of the project's Regional Advisory Panel, Portsmouth Mayor John Rowe and Hampton Mayor Donnie Tuck, noted that HRT had maintained "roughly the same patchwork of routes and service levels" for the past two decades and that HRT's bus operating costs were 20% less than those of peer agencies. Making the case for "a regional bus system that is more relevant and responsive to needs across Hampton Roads," they challenged city leaders "to foster new approaches to pay for public transportation in a sustainable way." <sup>10</sup>

Project leaders identified four action areas at the end of 2019:

- Implementing regional standards to achieve a more effective bus network
- Leveraging technology and service innovations
- Expanding regional collaboration and partnerships
- Exploring new business models for public transit

The Transit Transformation Project did not make specific recommendations for regional funding, although lobbying efforts were certainly underway. Just as COVID-19 was beginning to spread across the country, the 2020 General Assembly passed House Bill 1726 and Senate Bill 1038, which created the Hampton Roads Regional Transit Fund (HRRTF). Signed into law by Governor Northam in September 2020, the legislation created the first dedicated regional funding source for public transportation. The HRRTF is now administered through the Hampton Roads Transportation Accountability Commission (HRTAC) and paid for by "an additional grantor's tax of \$.06 per \$100 real estate value in the six cities served by HRT, a regional transient

occupancy tax of 1% of the charge for occupancy in the six cities, and a reallocation of statewide recordation taxes." As a result, 5.4% of HRT's operating budget in FY 2022 came from new regional funding. 12

Largely unnoticed by our local news media in the year of its inception, the HRRTF has been described to us by multiple observers as a public transportation "game changer." The \$65 million it generated through May 2022 has enabled significant progress toward the Transit Transformation Project's goals—supporting a regional network of 757 Express buses, new technologies such as mobile fare payment and real-time bus information, and the construction of more than 600 bus shelters. The HRRTF legislation also directed the Hampton Roads Transportation Planning Organization (HRTPO) to assemble a Regional Transit Advisory Panel of community leaders, to be responsible for providing "ongoing advice in the regional planning process".



<sup>10</sup> John Rowe and Donnie Tuck, "Help remake regional transportation," The Virginian-Pilot (16 June 2019), at: https://www.pilotonline.com/opinion/columns/article\_a889864a-8e33-11e9-b29b-a7321ca2a071.html

<sup>11</sup> State of Transportation in Hampton Roads 2022, 51

<sup>12</sup> Transportation District Commission of Hampton Roads, Fiscal Year 2022 Operating Budget, 23.

# The big picture: Long-range planning and the HRTPO

The Hampton Roads Transportation Planning Organization (HRTPO) is closely involved in numerous aspects of regional transportation planning. Among its key responsibilities is developing and maintaining a Long-Range Transportation Plan (LRTP), which seeks "to guide multimodal investments that promote an efficient, reliable, and well-connected transportation system while maximizing the use of scarce funds." The plan is a "living document" and is comprehensively updated every five years. It is informed by an array of economic, technical, geographic, and demographic considerations which can be explored in greater depth on the HRTPO website.

The 2045 LRTP, which was adopted in June 2021, includes around 300 candidate projects which are described "as the most robust projects the region can afford over the next 20 years to help improve the transportation system." The great majority of these projects involve highways, interchanges, bridges, and tunnels, but the plan also includes intermodal freight, active transportation (biking and walking), and transit projects. Transit candidate projects include the proposed transit extension to Norfolk Naval Station, high-capacity transit extensions to Suffolk and the Greenbrier area of Chesapeake, as well as new ferry and rail service.

All candidate projects receive a prioritization score that is based on their utility, viability, and economic vitality—but even highly scoring projects are not guaranteed realization. Their fates are tied to many external factors, including the state of the economy, the will of voters, and shifting priorities in local, state, and federal administrations. Indeed, Hampton Roads has a history of ambitious, but ultimately unrealized, transit proposals. The extent to which the HRRTF can change this game by encouraging broader regional investment in transit remains to be seen.

### **BETTER BUSES**

According to the February 2023 update of the LRTP, four transit projects are currently underway, with an estimated project cost of \$882.4 million. Not coincidentally, all involve buses—an emphasis that reflects the ambitions of the Transit Transformation Project and the unfulfilled hopes around light rail. It also mirrors a broader shift in federal transit policy, which has increasingly moved away from funding new rail systems, particularly in mid-sized regions, and toward bus rapid transit, zero-emission vehicles, and other improvements to existing bus service. Economists and transportation experts largely agree that light rail makes the most economic sense "in corridors where ridership is high—but not where a bus could carry the same load." Bus routes are much more easily reconfigured in response to changing traffic patterns, and the new electric buses are able to operate in an environmentally sustainable way. Here are some of the most important innovations ahead for Hampton Roads bus riders.

### 757 EXPRESS BUSES

The first 757 Express buses hit the road on HRT's Route 112 (Jefferson Avenue in Newport News) in October 2022. It is one of 13 "backbone routes" [see HRT regional backbone map, page 117] that will provide more frequent service, consistent across all localities, on our region's busiest corridors. 757 Express buses now run at 15-minute intervals during the peak weekday travel times of 6:00-9:00 a.m. and 3:00-6:00 p.m. on Jefferson Avenue and Mercury Boulevard. HRT plans to extend this level of service to Route 20 (Virginia Beach Boulevard), the busiest bus route in the Commonwealth, later this fall.

Fifteen-minute intervals are considered "frequent" in transit—a standard currently met by few buses in Hampton Roads, but one that would enhance their viability for many more users. As transit advocate Steven Higashide notes: "The difference between a bus that runs every half hour and a bus that runs every 15 minutes is the difference between planning your life around a schedule and the freedom to show up and leave when you want." <sup>15</sup> Having

<sup>13</sup> Hampton Roads 2045 Long-Range Transportation Plan, 2045 LRTP Overview, at: https://storymaps.arcgis.com/stories/015e33b5167e4265b2e72aabfab81fa3

<sup>14</sup> Christof Spieler, Trains Buses People: An Opinionated Atlas of US and Canadian Transit, 2nd ed. (Washington DC: Island Press, 2021), 27.

<sup>15</sup> Steven Higashide, Better Buses Better Cities (Washington DC: Island Press, 2019), 23.

to transfer between buses that run just once an hour—a typical interval in our region—means that even short-distance trips can easily take more than two hours. The 757 Express proposal will benefit current riders and likely attract new ones. HRT reports that ridership on Route 112 increased 20% in the new service's first six months. The fly in the ointment is a persistent shortage of bus drivers, which will make full implementation on all 13 routes a formidable challenge.

### **MOBILE PAYMENTS**

"Buying coffee with your phone is easy. Paying for the subway is a pain." <sup>16</sup> This recent Washington Post headline highlights one way that transit is perceived to have fallen out of step with users' needs. (A 2016 survey found that 88% of HRT riders owned a smartphone; the proportion today is likely higher.) Until this year, boarding a bus anywhere in Hampton Roads without a pre-purchased farecard meant needing not only cash, but also exact change. When we spoke with the WATA and HRT teams this spring, we learned that both transit authorities were planning to introduce mobile payment options on all of their buses—WATA, in July 2023 and HRT, in a gradual rollout over the next few years.

Accepting mobile payments is not just a matter of convenience, but can also be a tool for promoting equity. Riders in our region have long had the option of purchasing monthly passes. A frequent rider might save around \$20 by paying per month—but only if they had the funds on hand (between \$45 and \$70) to pay all at once. Mobile payment options allow riders who pay one day at a time still to take advantage of lower monthly rates. New mobile apps can track how much riders have spent per month, "capping" their fare once they reach the amount of a monthly pass. Smartphone owners (or, potentially, smartcard holders) who do not have a debit or credit card can still use cash to load their accounts.

### **ELECTRIFICATION**

Virginia may be on the road to using less gasoline and diesel in the future. Legislation passed by the General Assembly in 2021 obliges the Commonwealth to follow California's strict emissions standards, which require all new vehicles sold by 2035 to be independent of fossil fuels (though we recognize there is considerable debate whether to continue to follow California's standards). Our region's transit providers are actively considering when and how to electrify their fleets.

HRT has been a leader in this arena, introducing its first six electric buses on Route 20 (Virginia Beach Boulevard) in the fall of 2020. These vehicles are currently charged and serviced at HRT's 18th Street facility in Norfolk. A new state-of-the-art facility in Virginia Beach's Corporate Landing Business Park, slated for completion in 2028, will make room for many more. HRT plans to transition fully to a zero-emissions fleet by 2049. Meanwhile, Suffolk Transit recently received a \$565,000 Department of Transportation grant for the purchase of two electric buses and charging stations, and WATA is observing this fast-changing field and weighing its options.

Electric buses are quiet, clean, and comparatively inexpensive to maintain, but their up-front costs are steep. A full-size, fully equipped electric bus now costs around \$1.5 million, according to HRT Planning and Development Director Ray Amoruso—about twice as much as a traditional diesel vehicle. Moreover, there are significant costs associated with introducing the new buses—purchasing and installing charging stations and associated technology, hiring specialists, and retraining drivers and mechanics. New federal grants can cover many of these expenditures; the 2021 Infrastructure Investment and Jobs Act (IIJA) provides a hefty \$1.1 billion per year specifically for this purpose. Grant Sparks, director of transit planning for the Virginia DRPT, advises localities to "let Uncle Sam pay for your electrification efforts and save yourself from spending any local or state funding on this." 17

<sup>16</sup> Shira Ovide, "Buying coffee with your phone is easy. Paying for the subway is a pain," The Washington Post (21 March 2023), at: https://www.washingtonpost.com/technology/2023/03/21/wageworks-edenred-mta-digital-wallets/17 Congressional Research Service, "Public Transportation Ridership: Implications of Recent Trends for Federal Policy," 11; and Wyatt Gordon, "As Congress bankrolls electric conversion for bus fleets, is Virginia ready?" Virginia Mercury (8 June 2022), at: https://www.virginiamercury.com/2022/06/08/as-congress-bankrolls-electric-conversion-for-bus-fleets-is-virginia-ready/

### **BUS RAPID TRANSIT**

Further down the road is the possibility of bus rapid transit (BRT), sometimes called "light rail on rubber tires." BRT relies on innovations such as dedicated bus lanes, elevated boarding platforms, traffic-signal priority, and off-board fare collection, enabling passengers to get on and off quickly, and buses to glide through busy traffic corridors. A celebrated nearby example is Richmond's Pulse, which runs on a 7.6-mile route along Broad Street and Main Street, far surpassing ridership expectations since its 2018 introduction. In Hampton Roads, a possible BRT route on Jefferson Avenue and Mercury Boulevard has been studied. BRT is also being considered for Phase 2 of the Tide extension project. Instead of extending light rail to Norfolk Naval Station, as once proposed, a BRT route on Military Highway could potentially connect Norfolk Naval Station with the Tide and eventually the Greenbrier area in Chesapeake.

### **AUTONOMOUS VEHICLES**

Another possibility for the future, still dependent on developing technologies, involves autonomous vehicles. A Congressional research report from November 2022 calls driverless vehicle technology "perhaps the biggest unknown but potentially most disruptive factor for future public transportation ridership. Estimates of when fully autonomous vehicles will be in use in urban environments vary from a few years to a few decades." Earlier this year, the Norfolk Innovation Corridor, in cooperation with Yunex Traffic and the Siemens Ingenuity Center in Austin, Texas, suggested a Colley Avenue pilot project for autonomous vehicles which could potentially connect the western terminus of the Tide at the Norfolk medical complex with the main campus of Old Dominion University. The future of the proposal will depend on key stakeholders (including HRT, ODU, EVMS, and the City of Norfolk) deciding to move forward with the project and applying for federal grant funding.

### MOBILITY ON DEMAND

Transit providers everywhere have begun to consider how the successful ridesharing model of Uber and Lyft might be applied to public transportation. In a sense, this model is not new; paratransit users have long ordered rides on demand within a defined service area. The new question is whether the service could be extended to many more riders on the much shorter notice they have come to expect. This kind of "microtransit" is difficult to scale upward. If a key goal of transit is reducing urban traffic or efficiently moving large numbers of people across long distances, then traditional fixed-route service is usually a better solution. In other situations, however, microtransit could be a useful complement or even replacement for fixed-route buses.

HRT conducted a microtransit pilot project, HRT OnDemand, between July 2022 and February 2023. The experiment took place in select areas of Newport News (around Christopher Newport University, Patrick Henry Mall, and the Denbigh neighborhood) and Virginia Beach (around Town Center, Virginia Wesleyan University, and the Bayside neighborhood), where users could order rides through a dedicated app. Passengers were directed to a nearby "virtual bus stop," to be picked up by an HRT van potentially shared with other users. HRT reports that 29,514 riders used the service during the sixmonth trial period and that a second, 12-month pilot project will begin soon.

The City of Virginia Beach initiated its own pilot program in 2022, contracting with the Florida-based company Freebee to offer free rides around the Oceanfront. In this case, passengers used the Freebee app to order rides (also potentially shared with other users) in one of five electric Tesla Model X vehicles. The service provided 91,151 rides in the area between 42nd Street, General Booth Boulevard, and Birdneck Road in its first 12 months. In 2023 city officials renewed the Freebee contract and increased the summertime fleet to ten vehicles. <sup>19</sup>

<sup>18</sup> Congressional Research Service, "Public Transportation Ridership: Implications of Recent Trends for Federal Policy," 12.

<sup>19</sup> Stacy Parker, "Virginia Beach funds year-round free rides at the Oceanfront," The Virginian-Pilot (20 May 2023), at: https://www.pilotonline.com/news/transportation/vp-nw-freebee-renewed-0518-20230520-ml36jo53vfeaxgwmxy6rrzig44-story.html

The City of Suffolk, meanwhile, is considering how microtransit might extend the reach of its existing bus routes. The Chuckatuck, Holland, and Whaleyville areas do not have enough residents to sustain fixed-route buses, but an ondemand service might one day carry riders from these neighborhoods to an existing bus line or downtown Suffolk.

### FREE RIDES AND TRANSIT EQUITY

One of the hottest topics in transit today is the free ride. Metro areas as diverse as Albuquerque, Kansas City, North Carolina's Research Triangle, and Missoula, Montana, have all recently eliminated or paused bus fares, seeking to increase ridership and improve transit access. The zero-fare movement gained momentum during the pandemic, subsidized in part by COVID relief funds and driven by the need for social distancing. A 2022 DRPT Transit Equity and Modernization Study reports that "roughly half of Virginia's transit agencies have expressed an interest in implementing zero-fare transit," and that "eleven agencies have already fully or partially implemented zero-fare transit."20 WATA and Suffolk Transit introduced free rides at the start of the pandemic, primarily to reduce contact between drivers and passengers, but resumed fare collection in July 2021.

Proponents of free rides argue that transit should be considered a public service—similar to schools and libraries or police and fire departments. If tax dollars pay for paving and maintaining roads, even in places with comparatively few drivers, so the argument goes, why not for buses or other forms of transit? This is an interesting and important public policy question. As transit currently functions in the U.S., however, financial trade-offs must be made. Is it better to reduce fares or enhance service? Should buses run everywhere a few times a day? Or should they run more often, but only on the busiest corridors? Transportation and city planners make these kinds of hard decisions all the time, seeking the best use of limited resources.

Our region's transit providers survey their users regularly. Hampton Roads riders typically prioritize concerns about quality of service (frequency, reliability, and safety) over free or less expensive rides—responses that resemble survey results elsewhere around the country.<sup>21</sup> In short, free rides mean little if they can't get you to work on time or wherever else you need to go. One way of interpreting the loss of transit riders over the past 10 years is that people who can pay more for services like Uber and Lyft may increasingly be choosing to do so, voting with their feet for reliability and convenience over inexpensive rides.

The Transit Equity and Modernization Study notes that zero-fare transit "is not a one-size-fits-all solution," and that "several other policies and strategies have been shown to provide equity benefits." This is particularly true in regions such as Hampton Roads, where the existing level of service is comparatively low. None of our region's transit providers plan to eliminate fares altogether in the foreseeable future (although certain groups are already eligible for free rides). Instead of free rides, HRT and WATA are focusing on increasing the frequency of service on certain key routes, and Suffolk Transit is considering longer hours and broader geographic coverage.

HRT's ongoing installation of more than 600 bus shelters equipped with solarpowered lighting, benches, and trash cans is an important development in this context. Before February 2021, only around 200 of 2,700 HRT bus stops had a shelter, a bench, or both. New amenities mean that fewer riders will have to stand in the dark, rain, or summer sun while waiting for a bus. HRT President and Chief Executive Officer William Harrell affirms that, beyond free rides, "equity also starts with providing clean bus shelters, better technology, and reliable bus service to each customer we serve."22

 <sup>20</sup> HJ 542 Final Report, Virginia Transit Equity and Modernization Study (August 2022), at: https://www.vatransitequity.com/
 21 Spieler, Trains Buses People, 22; Jerusalem Demsas, "Buses Shouldn't Be Free," The Atlantic (9 December 2022), at: https://www.theatlantic.com/ideas/archive/2022/12/washington-dc-free-bus-transit/672407/; and TransitCenter, Who's on Board 2019: How to Win Back America's Transit Riders, at: https://transitcenter.org/publication/whos-on-board-2019/
 22 Gavin Stone, "New and improved bus shelters are popping up across Hampton Roads," The Virginian-Pilot (15 September 2022), at: https://www.pilotonline.com/news/transportation/vp-nw-hampton-bus-shelters-20220915-

<sup>2</sup>q5uyftwojgq3nox27l6t5lc5u-story.html; and Josh Janney and Cianna Morales, "Hampton Road's Transit is providing free rides on Friday to celebrate Rosa Parks' legacy. Could it ever happen year-round?" The Virginian-Pilot (2 February 2023), at: https://www.pilotonline.com/news/transportation/dp-nw-hrt-transit-equity-day-20230202-xpck5mckvja2pavcptyaud253a-story.html

## **Final Thoughts**

Public transportation in Hampton Roads and elsewhere in the U.S. is in a moment of transition, sparked by technological change, pandemic disruptions, a growing emphasis on social equity, and a longer-term loss of riders that cannot be ignored. Critics of transit argue—not incorrectly—that ballooning government subsidies have, in too many cases, brought diminishing results. <sup>23</sup> Overall, we tend to agree with transit advocate Christof Spieler, who says that riders want "transit that gets them where they want to go, when they want to go there, in a reasonable and predictable amount of time, in an understandable way. If transit delivers that, more people will ride. . . . But transit that ignores these basic principles simply won't attract riders." <sup>24</sup> It seems clear that major innovations, such as the ones discussed in this chapter, are necessary to make public transportation a practical and desirable option for many more people in Hampton Roads.

You can probably use transit to get where you need to go—if you have plenty of time. Although Hampton Roads has some significant "transit deserts" (notably, rural areas outside our urban core, lower York County, Poquoson, and parts of southern Chesapeake and Virginia Beach), our major commercial and population centers are connected by at least hourly bus service. However, finding a connection that will take you where you need to go, in the time that you have, may not be feasible. Only 4.7% of our region's jobs can be reached by public transportation within 60 minutes. At a time when employers everywhere are struggling to attract and retain employees, our region's bus network is of only limited assistance connecting workers and jobs.

Smartphones have made our region's buses easier to use, but getting around without one might be a challenge. HRT, WATA, and Suffolk Transit have all adopted live bus tracking, which means that anyone waiting for a bus can follow its progress in real time—either on the providers' websites, through dedicated apps like Spot or Transit, or mapping and navigation platforms such as Google Maps. If you're wondering how to take a bus anywhere in Hampton Roads, these services can tell you immediately—in

some cases, informing you how much the ride will cost, proposing multiple routes, or suggesting how to combine your ride with Lyft or a Lime scooter to reach your destination faster. On the other hand, if you're not aware of these new technologies or able to access them, you will find very little to orient you at most bus stops. Even at transfer hubs and other busy locations, there are typically few maps, signs, schedules, or other instructions that might facilitate your ride or give you a broader idea of where transit can take you. HRT does expect to install real-time customer displays at key transfer centers by the end of 2023. In general, however, we found that getting around successfully by bus means getting online first.

We are on the way to regional integration but there is still a ways to go. The Hampton Roads Regional Transit Fund (HRRTF) is a major milestone on the road to a more dynamic and integrated regional transit network, although the new revenue stream applies only to the six cities that are served by HRT. A framework for broader regional cooperation does not yet exist. Hampton Roads' three transit providers have a collegial relationship and meet every so often under the auspices of the HRTPO. However, riders who need to transfer between networks, or who live or work near these networks' boundaries, are likely to have fewer transit options. Further, an HRT pass is not valid on WATA or Suffolk Transit (or vice versa), so passengers transferring between systems must pay more.

Fewer transit options intensify the financial pressures on Hampton Roads workers. Past State of the Region reports have addressed some of the cost-of-living challenges Hampton Roads workers face. In 2022, we found that 35% of our region's households can be considered cost-burdened (spending more than 30% of their income on housing). In 2020, we learned that 1 of 9 residents had recently experienced food insecurity. Both situations are exacerbated by our comparatively underdeveloped transit system. Even lower-income households may be compelled to own one or more cars in order to cover their transportation needs, placing further strain on already tight budgets. And living in a "food desert" is that much more dire for households without adequate transportation. Frequent and reliable transit options can connect people not only with jobs but also healthy sources of food and other necessities.

<sup>23</sup> Randal O'Toole, "Transit: The Urban Parasite," Policy Analysis No. 889, Cato Institute (20 April 2020), at: https://www.cato.org/policy-analysis/transit-urban-parasite 24 Spieler, Trains Buses People, 33.

FIGURE 1
HAMPTON ROADS TRANSIT REGIONAL BACKBONE MAP

