The Location of Non-Drivers in Hampton Roads

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HAMPTON ROADS MPO
METROPOLITAN PLANNING ORGANIZATION

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ABSTRACT

This is the sixth report from a multi-year effort to determine ways to increase the mobility of non-drivers in Hampton Roads. Having measured earlier in the effort the impact which proximity to activities and bus routes has on the mobility of non-drivers, in this report staff develops a model for locating non-drivers, applies that model to Hampton Roads, provides maps of non-driver locations for each locality in Hampton Roads, and assesses the proximity of local non-drivers to activities and bus routes. Local government can use these maps and findings to locate bus routes and business activities—and to accommodate bicycle riding and walking—near the homes of non-drivers in order to improve their mobility.

ACKNOWLEDGEMENTS

Prepared in cooperation with the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA), and the Virginia Department of Transportation (VDOT). The contents of this report reflect the views of the Hampton Roads Metropolitan Planning Organization (MPO). The Hampton Roads Planning District Commission (HRPDC) is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the FHWA, VDOT, or HRPDC. This report does not constitute a standard, specification, or regulation. FHWA or VDOT acceptance of this report as evidence of fulfillment of the objectives of this planning study does not constitute endorsement/approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

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INTRODUCTION

DEFINITION OF NON-DRIVERS

The definition of "non-driver" used in this report is a person who does not consider themselves to be a driver. The usage of this term comes from the National Household Travel Survey in which persons are simply asked "Are you a driver?". It is assumed that non-drivers—for whatever reason: physical, financial, legal—do not have a drivers license and therefore *cannot* drive (as opposed to simply choosing not to drive).

OVERVIEW OF MULTI-YEAR STUDY

This document is the sixth in a series of documents emanating from the non-driver studies begun by HRMPO staff in 2003. The first non-driver document (published June 2005) examined improvements to the mobility of elderly non-drivers using the National Household Travel Survey (NHTS).[1] It revealed that:

- elderly non-drivers travel half as much as elderly drivers, but
- elderly non-drivers living in denser areas have higher mobility due to walking and bus usage.

The second document (published November 2006) examined non-drivers age 18-64 again using the NHTS.[2] It revealed that:

- 18-64 non-drivers also make half as many trips as their driving counterparts,
- the mobility of 18-64 non-drivers living in central areas is significantly higher than those living in other areas, and
- walking and use of public transit give non-drivers in central areas this higher mobility.

It was concluded in these first two documents that living near destinations and having access to public transit causes the higher non-driver mobility observed in dense areas and central areas. But due to the structure of the NHTS survey, neither study was able to directly measure the mobility impact of living near transit and living within walking distance of destinations. Therefore, a local survey was designed, implemented, and analyzed to measure these factors. A third document (published June 2007) presented a statistical snapshot of local non-drivers based on data from the survey.[3]

[1] Robert B. Case, *Improving Elderly Transportation Using the NHTS* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2005).
[2] Robert B. Case, *Improving the Mobility of Non-Drivers Age 18-64 Using the NHTS* (Chesapeake, Va.: Hampton Roads Planning District Commission, November 2006).
[3] Robert B. Case, *Snapshot of Non-Drivers in Hampton Roads* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2007).

A fourth document (published June 2007) presented a model based on the local survey (and associated GIS data) which measured the mobility impact of proximity to transit and destinations.[4] That model revealed that:

- better-walking non-drivers living in High Business Activity Locations have odds of leaving home five (5) times higher than the odds of those living away from activities

- better-walking non-drivers living within one mile of a bus stop have odds of leaving home two (2) times higher than the odds of those living away from bus stops

The fourth document presented recommendations to local governments, developed from these findings, for improving the mobility of local non-drivers, including:

1) furthering the location of mobility-enhancing infrastructure near non-drivers:

- locating bus routes near concentrations of residences
- locating government facilities near concentrations of residences
- using zoning authority to ensure that adequate numbers of activity locations (businesses, institutions, etc.) are allowed to be built near concentrations of residences

2) furthering the location of housing near mobility-enhancing activity areas:

- using zoning authority to ensure that adequate numbers of residences are allowed to be built in High Business Activity Locations

A fifth document (published June 2007) applied the findings of the fourth document to three specific neighborhoods in Hampton Roads.[5] In this current (sixth) document, the location of residences of non-drivers in Hampton Roads are identified in order that local government may apply the findings of earlier documents.

[4] Robert B. Case, *Improving the Mobility of Non-Drivers Using Proximity to Destinations and Bus Routes* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2007).
[5] Andy Pickard, *Improving the Mobility of Non-Drivers: Neighborhood Gaps Analysis* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2007).

STUDY OBJECTIVE

The purpose of this study is to locate non-drivers in Hampton Roads in order that local government may improve their mobility by:

furthering the location of mobility-enhancing infrastructure near non-drivers:

- locating bus routes near concentrations of non-drivers
- locating government facilities near concentrations of non-drivers
- using zoning authority to ensure that adequate numbers of activity locations (businesses, institutions, etc.) are allowed to be built near concentrations of non-drivers
- accommodating bicycle riders and pedestrians near concentrations of non-drivers

An additional purpose of this study is to locate high business activity locations with little nearby housing. Local government can improve non-driver mobility by using zoning authority to ensure adequate numbers of housing units are allowed to be built near/in high business activity locations.

A METHOD OF LOCATING NON-DRIVERS

Non-drivers not being identified in the Census—the most extensive source of geographic information on residents of Hampton Roads—a review of transportation literature was conducted to find methods for identifying the residential locations of non-drivers.

LITERATURE REVIEW

No research could be found concerning specifically the location of non-drivers. Related research, however, does exist. That portion of the literature which provides characteristics of non-drivers which are reflected in the Census is of particular interest due to the possibility of combining knowledge of those characteristics and Census data to locate non-drivers.

Non-Driver Characteristics and Related Geographic Tendencies

Age

A relationship exists between being elderly and being a non-driver. Driving license status drops with age. Studying Florida, Ward found: "Among those 75-79 years old, 85 percent are licensed to drive; 75 percent aged 80-84 years are licensed to drive; and almost 50 percent of those persons 85 years and over hold a valid drivers' license."[6] Therefore, it is expected that many non-drivers can be found in households and neighborhoods where elderly persons live.

Mode Choice

A relationship exists between using public transit and being a non-driver. Case found that 37 out of 177 (21%) non-drivers age 18-64 in Hampton Roads used the bus on the survey day[7], i.e. much higher than that which would be expected for drivers. Therefore, it is expected that many non-drivers can be found in households and neighborhoods where transit users live.

Automobile Ownership

An obvious relationship exists between not owning an auto and being a non-driver. Although less than 10% of households in Hampton Roads have zero vehicles[8], a much larger percentage of local non-drivers (36% to 57%, depending on age) live in households with zero vehicles.[9] Therefore, in order to learn where the residences of

[6] Beverly Ward, unpublished paper.
[7] Robert B. Case, *Snapshot of Non-Drivers in Hampton Roads* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2007), p. 11.
[8] Andrew Pickard, *A Review of 2000 Census Commute Data for Hampton Roads* (Chesapeake, Va.: Hampton Roads Planning District Commission, Nov. 2005), p. 21.
[9] Robert B. Case, *Snapshot of Non-Drivers in Hampton Roads* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2007), p. 26.

non-drivers are located, literature concerning the geography and nature of automobile ownership has been reviewed. Examining Buffalo, NY in the 1970s, Paaswell and Recker found a higher percentage of households in the city having zero vehicles (34%) than households in the suburbs (7%).[10] Therefore, it is expected that many non-drivers can be found in urban households and neighborhoods.

Examining Portland in recent years, Hess and Ong found the following significant "statistical determinants of automobile ownership probability"[11]:

- household income
- household size
- single family home
- male householder
- land use mix

Based on the findings of Hess and Ong, it is expected that lower income neighborhoods contain many households with vehicle deficits (fewer vehicles than adults), including households with zero vehicles. Logically, these low-income, low-vehicle households would be expected to contain a significant number of non-drivers. In fact, the finding of Meyer and Gomez-Ibanez that "of all urban households with 1969 incomes below $3,000…93 percent lived within six blocks of…a transit line [leading to a central business district]…"[12] is probably related to the presence of non-drivers in those households.

Physical Ability

A relationship exists between being handicapped and being a non-driver. Case found that 58 out of 253 (23%) non-drivers age 18-64 in Hampton Roads use a cane, walker, or wheelchair[13], i.e. much higher than that which would be expected for drivers. Therefore, it is expected that many non-drivers can be found in households and neighborhoods where handicapped persons live.

Employment

A relationship exists between not being employed and being a non-driver. From a 1974 survey of persons in Buffalo, Paaswell and Berechman found that 22% of employed respondents had no drivers license vs. 50% of those not employed.[14] Therefore, it is expected that many non-drivers can be found in households and neighborhoods where persons who are not employed live.

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[10] R. E. Paaswell and W. W. Recker, "Location of the Carless", *Transportation Research Record 516* (1974), p. 13.
[11] Daniel B. Hess and Paul M. Ong, "Traditional Neighborhoods and Automobile Ownership", *Transportation Research Record 1805* (2002), p. 42.
[12] John R. Meyer and Jose A. Gomez-Ibanez, *Autos, Transit, and Cities* (Cambridge: Harvard University Press, 1981), p. 242.
[13] Robert B. Case, *Snapshot of Non-Drivers in Hampton Roads* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2007), p. 25.
[14] Robert E. Paaswell and Joseph Berechman, "The Urban Disadvantaged and the Search for Locational Opportunity", *Traffic Quarterly* (January 1976), p. 91.

Gender

A relationship exists between being female and being a non-driver. According to Cambridge Systematics: "Older drivers generally become aware of their limitations and reduce or discontinue driving accordingly, sometimes long before it is necessary (especially in the case of women)."[15] Therefore, it is expected that many non-drivers can be found in households and neighborhoods where women live.

Income

A relationship exists between having low income and being a non-driver. According to Blumenberg, "…the U.S. Department of Health and Human Services (1997) reported that as few as 7 percent of all families on welfare owned automobiles."[16] Therefore, it is expected that many non-drivers can be found in households and neighborhoods where low-income persons live.

Summary of Literature Review

In summary, although no research could be found concerning specifically the location of non-drivers, the literature search revealed characteristics of non-drivers which may be useful in developing a method for locating non-drivers.

[15] Cambridge Systematics, *Elderly Issues in Transportation* [prepared as part of NCHRP Project 08-36, Task 31] (Chevy Chase, MD: Cambridge Systematics, January 2004), p. 1-2.
[16] Evelyn Blumenberg, *En-gendering Effective Planning: Spatial Mismatch, Low-Income Women, and Transportation Policy* (Los Angeles: UCLA School of Public Policy and Social Research, July 19, 2003), p. 12, 13.

DEVELOPING A MODEL FOR LOCATING NON-DRIVERS

Overview

The US Census is the only know publically-available, statistically-valid source of information on households in Hampton Roads *by location*, and yet the Census does not directly identify non-drivers, i.e. the Census does not ask respondents whether or not they are drivers. Therefore, the relationship between Census variables and non-drivers was calculated in order that the Census could be indirectly used to locate non-drivers. Because the NHTS contains non-driver identification plus Census-type data (age, income, etc.), it was used for calculating the relationship between Census variables and non-drivers.

The 2001 NHTS national sample household data set was used for model development. It contains 22,178 households considered “100% completed” in that a survey was received for each adult in the household.

Candidate Models

Given the non-driver characteristics revealed during the literature review, three (3) models were developed as candidates for usage in locating non-drivers:

1. a regression model based on the number of persons and vehicles in each geographic area (e.g. blockgroup)
2. a rate model based on the age-tenure-vehicle category of each household
3. a rate model based on the person-vehicle category of each household

Regression Model based on Number of Persons and Vehicles

Based on the literature review and common sense, the number of non-drivers in a household is positively related to the number of persons in the household and negatively related to the number of household vehicles. Regressing the number of non-drivers age 18+ on the number of persons 18+ and the number of household vehicles rendered the following regression statistics:

Linear Regression- Dependent Variable: Non-Drivers 18+

Regression Statistics	
Multiple R	0.65
R Square	0.42
Adjusted R Square	**0.42**
Standard Error	2,637
Observations	22,178

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	1.14E+11	5.68E+10	8,173	0
Residual	22176	1.54E+11	6.95E+06		
Total	22178	2.68E+11			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Persons 18+, weighted	**0.39**	0.00	131.6	0	0.38	0.40
HHVEHCNT, weighted	**-0.28**	0.00	-96.8	0	-0.29	-0.28

Source: HH file- certain vars only.xls

The equation—based on the above regression—for estimating the number of non-drivers in a household, or—by extension—in households in a blockgroup or other geographic area is:

Regression Model based on Number of Persons and Vehicles

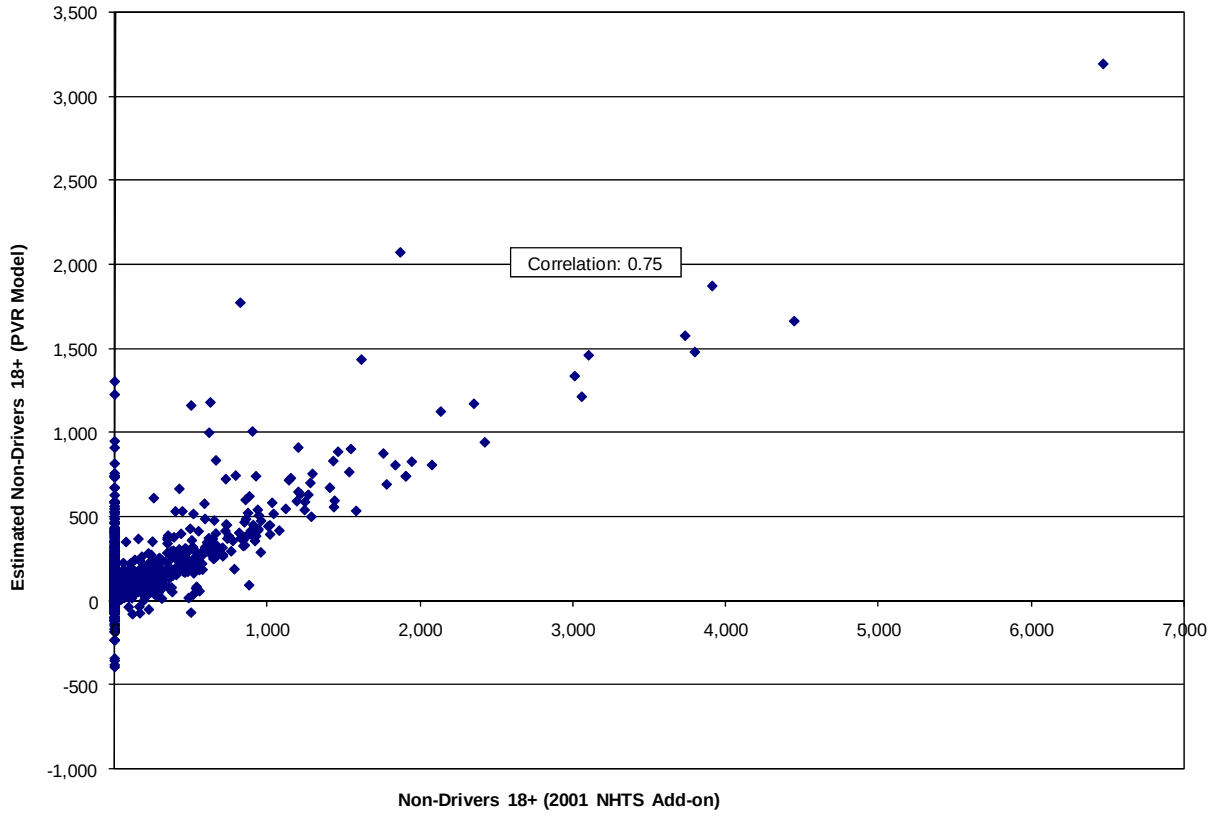
Non-drivers 18+ = (Persons 18+) * 0.39 – (Vehicles) * 0.28

In order to check the validity of this model (and subsequently the other candidate models), the model was applied to the blockgroups of the Baltimore metro area using NHTS data. Baltimore was one of the areas in which special sampling was conducted for the 2001 NHTS. This add-on sample was not part of the national sample with which this model (and the other candidate models) were developed. The national sample is too small to provide reliable data at the blockgroup level. For example, only 153 households were surveyed for the 1,000 (approx.) blockgroups in Hampton Roads.

When weighted to represent all Baltimore area households, the 3,804 household surveys in the Baltimore add-on, however, provide a fairly good representation of the actual number and geographic distribution of non-drivers in that metro area.

The 2001 NHTS indicates that 211,587 non-drivers age 18+ live in the 100% completed, 100% age-known Baltimore add-on households. The regression model based on number of persons and vehicles ("PVR Model", for short) estimates that 213,353 non-drivers 18+ live in these Baltimore households, i.e. a very close match. A geographic comparison (on a blockgroup basis) between these same two sources also indicates a close match, as follows:

Testing PVR Model using 2001 NHTS Baltimore Add-on, by Blockgroup

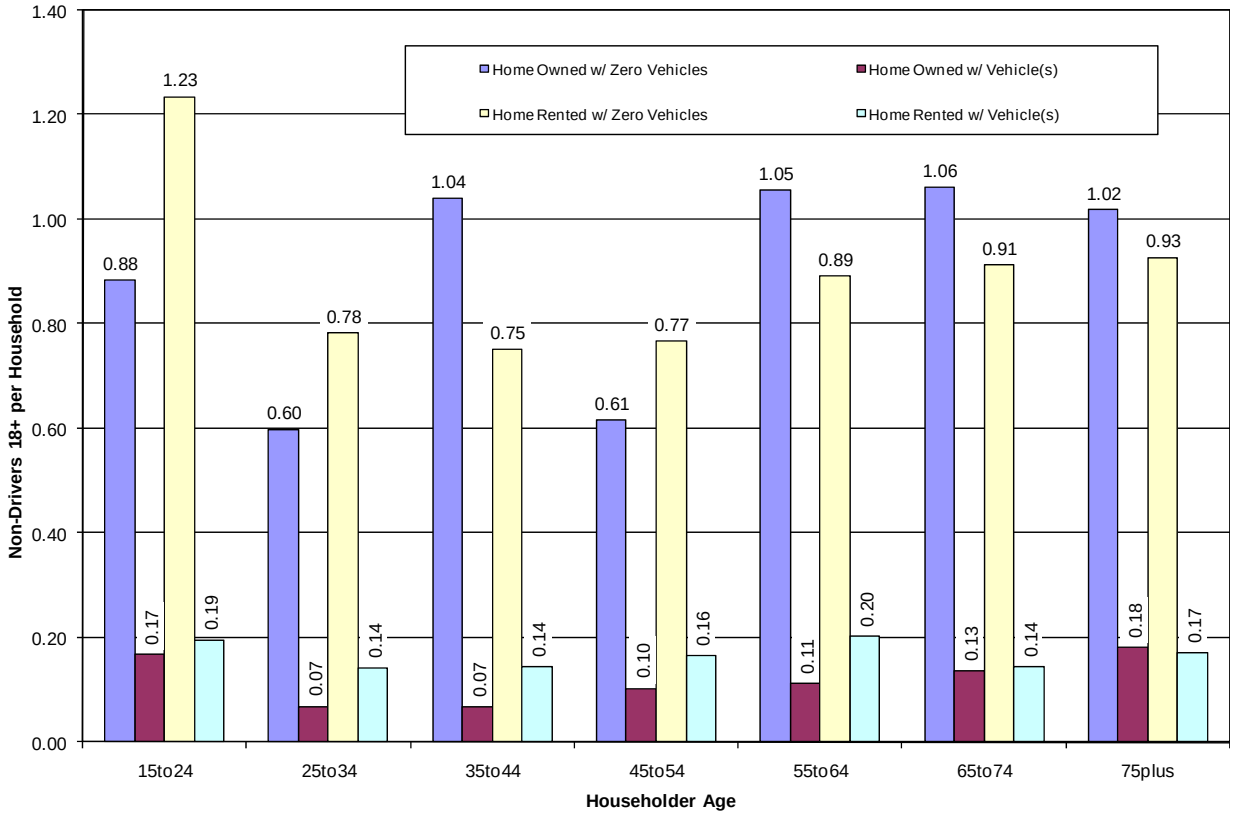


Source: Baltimore Add-Ons- NHTS household data2.xls

Rate Model based on Household Age-Tenure-Vehicle Categories

Based on the literature review, non-driver status is related to (among other things) age, income, and vehicle ownership. Census table H45 "Tenure by Vehicles Available by Age of Householder" reflects these three variables from the literature review. (Tenure—rented vs. owned—is related to income.) Therefore, in order to prepare a model to estimate the location of non-drivers using table H45, the NHTS was used to calculate the average number of non-drivers 18+ in each age-tenure-vehicle category, rendering the following non-driver rates:

Non-Driver 18+ Rates based on Household Age-Tenure-Vehicle Category



Source: HH file- certain vars only.xls

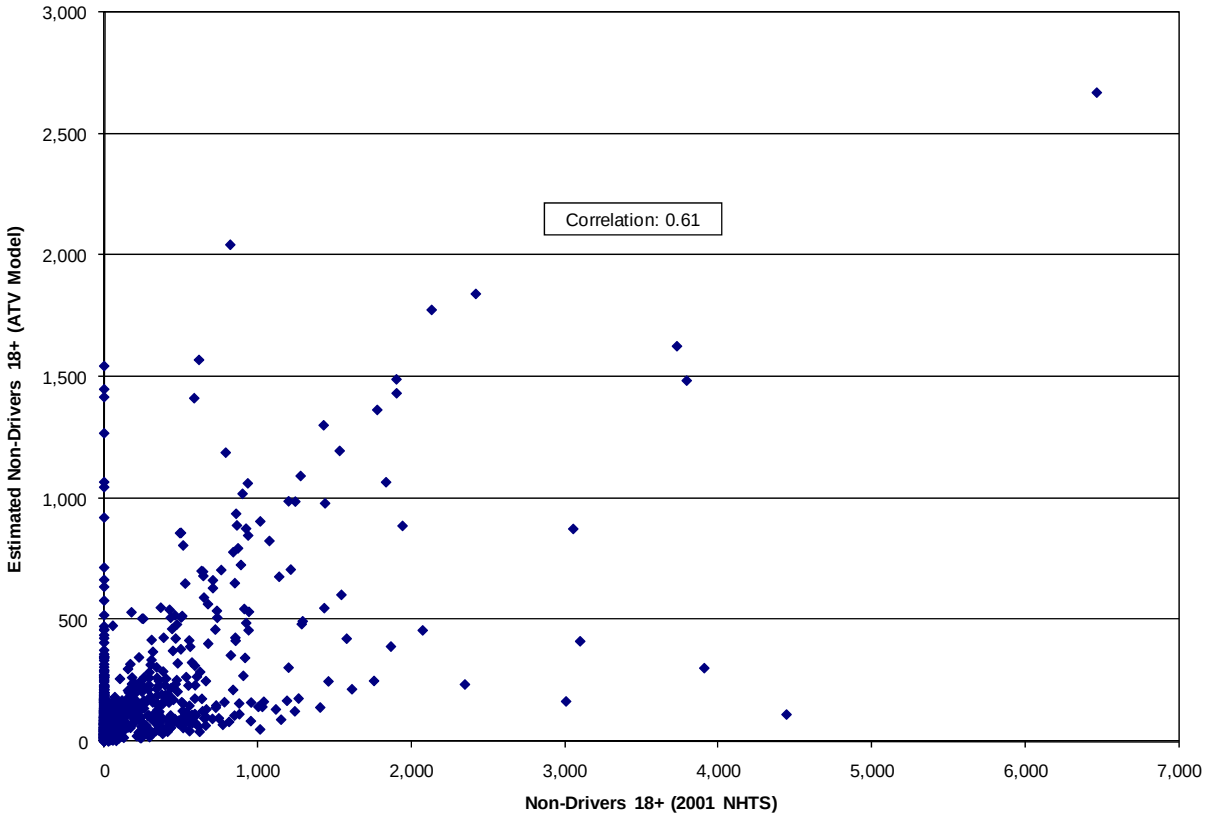
The equation—based on the above average non-driver rates—for estimating the number of non-drivers in a household, or—by extension—in households (HHs) in a blockgroup or other geographic area is:

Rate Model based on Household Age-Tenure-Vehicle Categories

Non-drivers 18+ = $\sum$ [(number of HHs in category) * (category rate)]

As in the case of the first candidate model, the validity of this candidate model was checked by applying the model to the blockgroups of the Baltimore metro area using NHTS data. The 2001 NHTS indicates that 211,587 non-drivers age 18+ live in the 100% completed, 100% age-known Baltimore add-on households. The rate model based on household age-tenure-vehicle categories ("ATV Model", for short) estimates that 183,569 non-drivers 18+ live in these Baltimore households, i.e. a moderately close match. A geographic comparison (on a blockgroup basis) between these same two sources also indicates a moderately close match, as follows:

Testing ATV Model using 2001 NHTS Baltimore Add-on, by Blockgroup

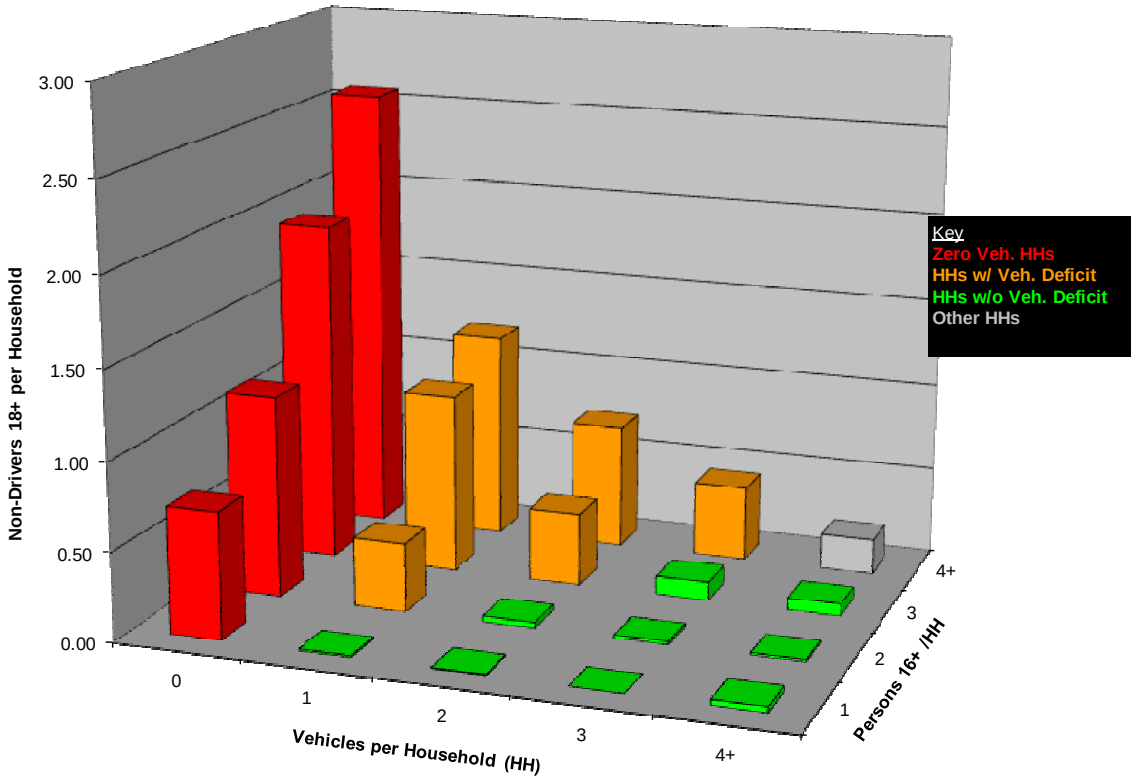


Source: Baltimore Add-Ons- NHTS household data2.xls

Rate Model based on Household Person-Vehicle Categories

Based on the literature review and common sense, non-driver status is related to vehicle ownership. Census Transportation Planning Package (CTPP) table 1-068 "Vehicles available by Number of persons 16 or over in household" reflects vehicle ownership. Therefore, in order to prepare a model to estimate the location of non-drivers using table 1-068, the NHTS was used to calculate the average number of non-drivers 18+ in each person-vehicle category, rendering the following non-driver rates:

Non-Driver 18+ Rates based on Household Person-Vehicle Category



		Persons 16+ per Household			
		1	2	3	4+
Vehicles per House-hold	0	0.72	1.15	1.94	2.57
	1	0.01	0.39	1.02	1.18
	2	0.01	0.03	0.42	0.71
	3	0.00	0.02	0.10	0.43
	4+	0.03	0.01	0.07	0.20

Source: HH file- certain vars only.xls

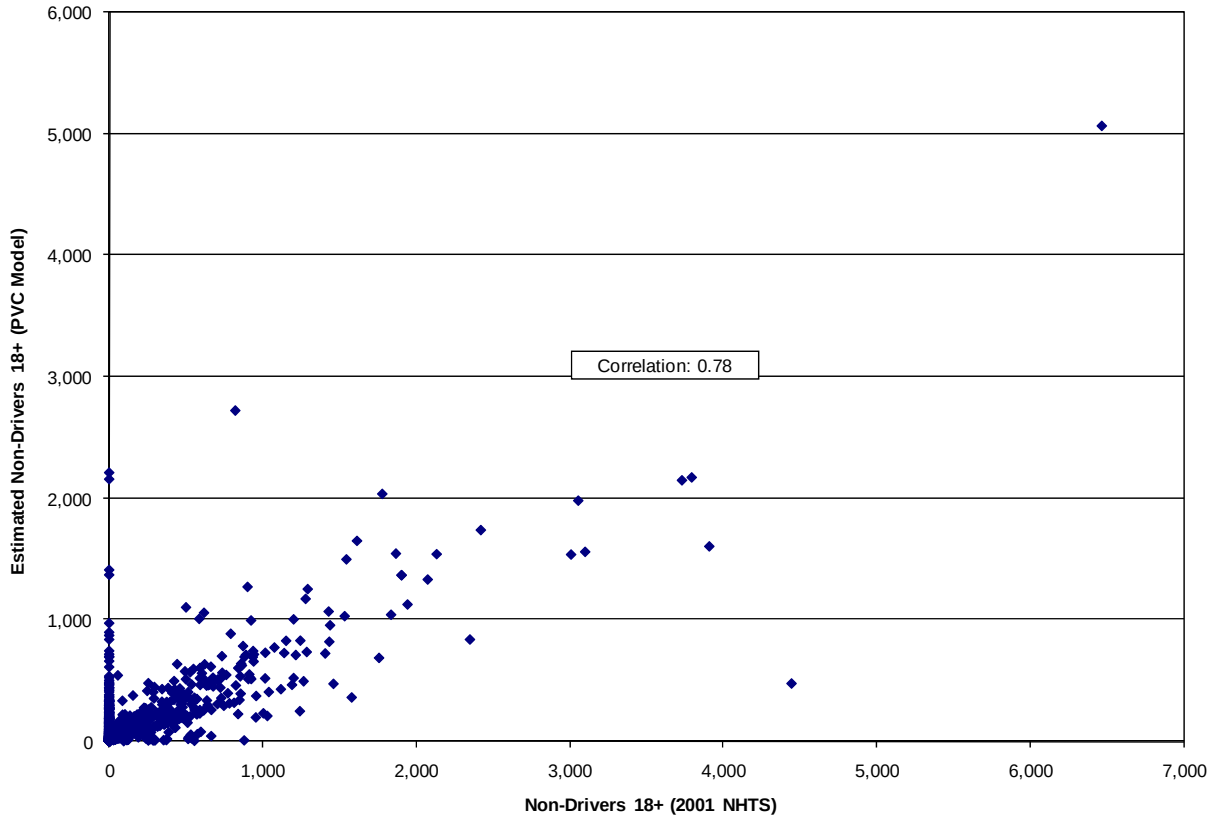
The equation—based on the above average non-driver rates—for estimating the number of non-drivers in a household, or—by extension—in households in a blockgroup or other geographic area is:

Rate Model based on Household Person-Vehicle Categories

Non-drivers 18+ = ∑ [(number of HHs in category) * (category rate)]

As in the case of the first two candidate models, the validity of this candidate model was checked by applying the model to the blockgroups of the Baltimore metro area using NHTS data. The 2001 NHTS indicates that 211,587 non-drivers age 18+ live in the 100% completed, 100% age-known Baltimore add-on households. The rate model based on household person-vehicle categories ("PVC Model", for short) estimates that 196,109 non-drivers 18+ live in these Baltimore households, i.e. a close match. A geographic comparison (on a blockgroup basis) between these same two sources also indicates a close match, as follows:

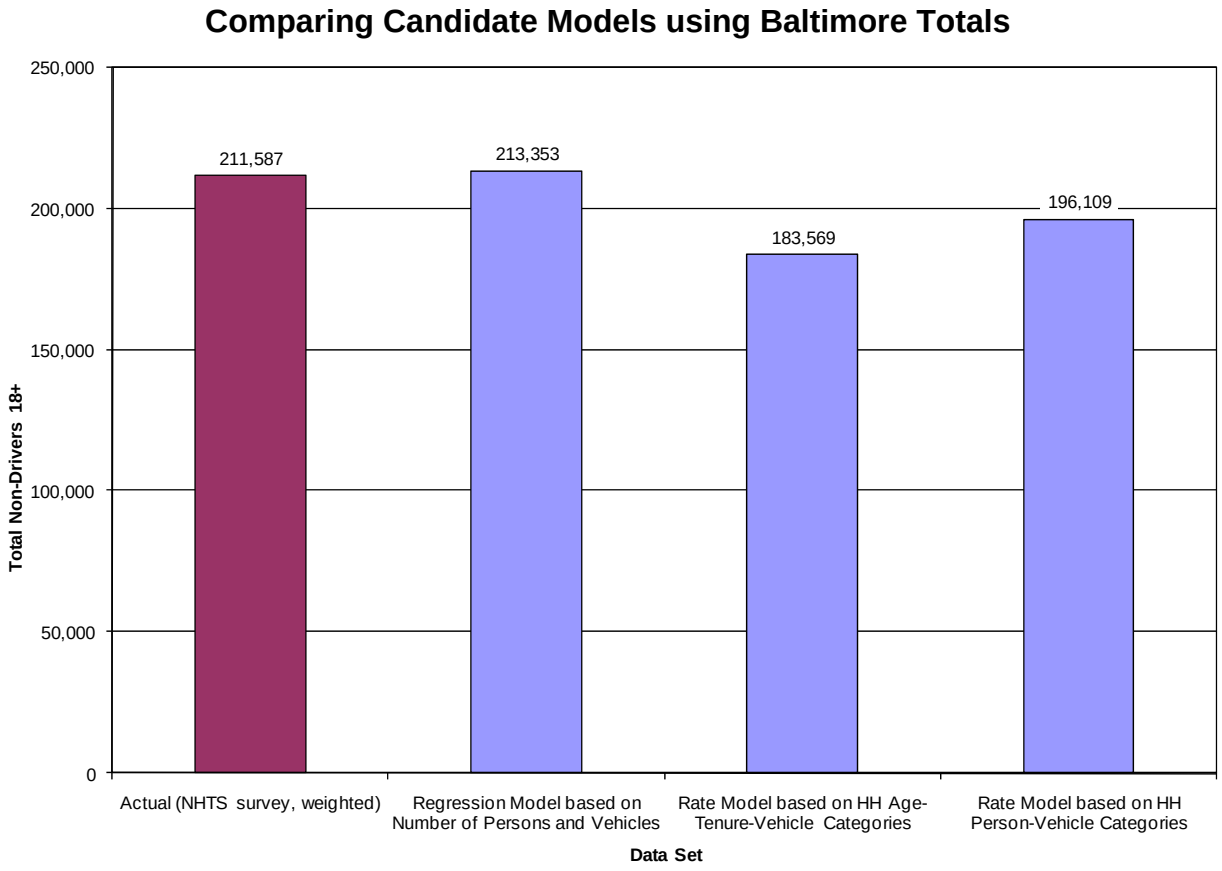
Testing PVC Model using 2001 NHTS Baltimore Add-on, by Blockgroup



Source: Baltimore Add-Ons- NHTS household data2.xls

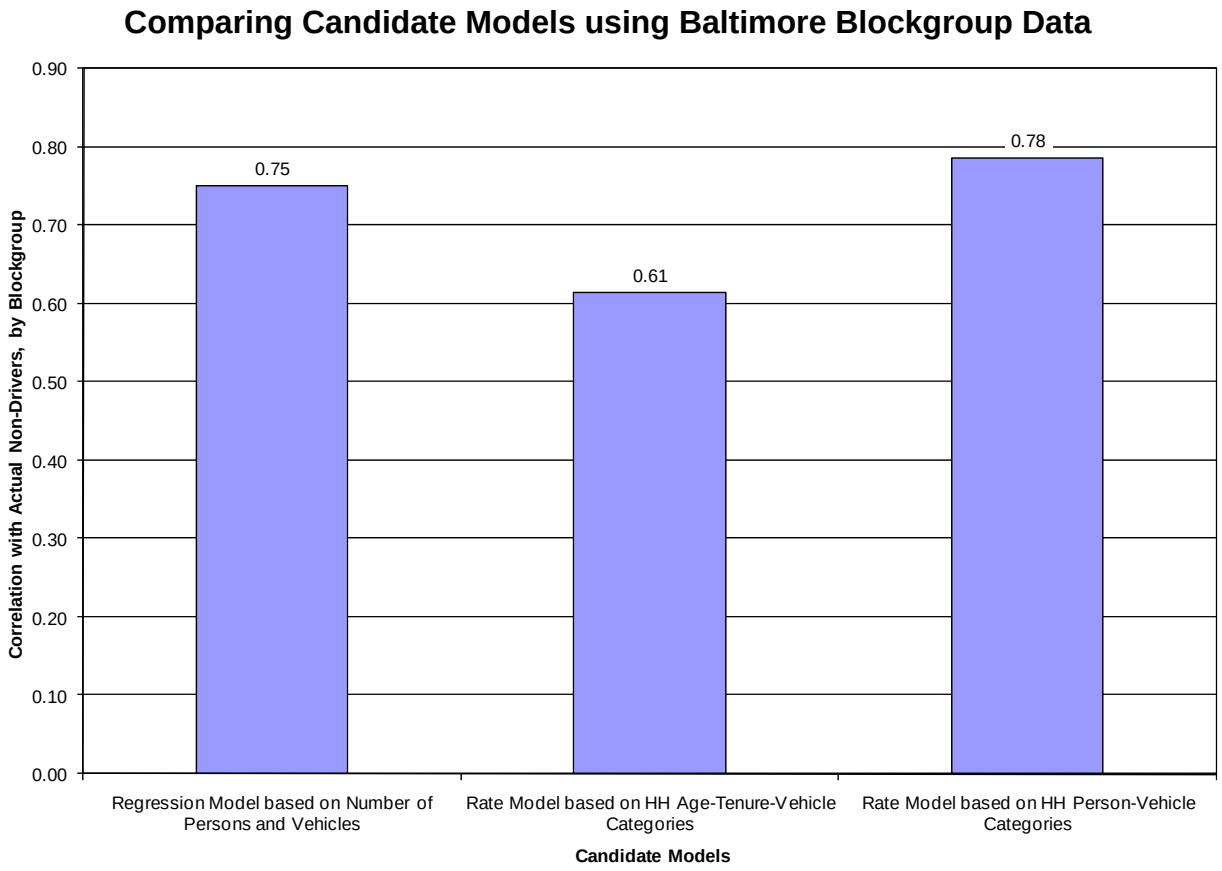
Choosing a Model

A model for estimating the location of non-drivers in Hampton Roads was chosen by considering the performances of the above three candidate models in replicating the Baltimore data. Examining Baltimore non-driver totals, the first and third models performed well, as reproduced on the following chart:



Source: Baltimore Add-Ons- NHTS household data2.xls

Examining Baltimore non-drivers by block group, the first and third models performed well, as reproduced on the following chart:

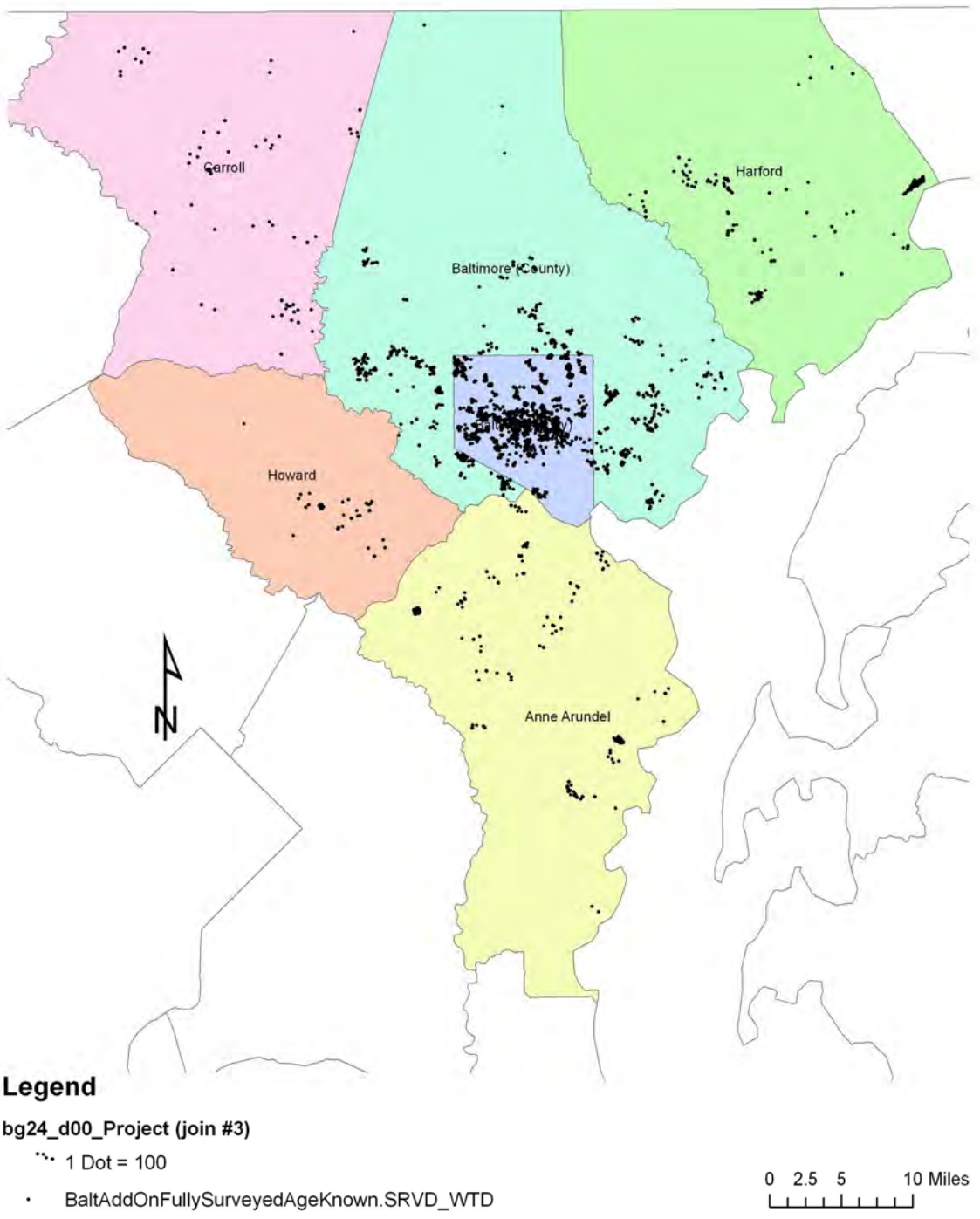


Source: Baltimore Add-Ons- NHTS household data2.xls

Given that the first model can render hard-to-interpret negative estimates of non-drivers, the third model will be used to locate non-drivers in Hampton Roads.

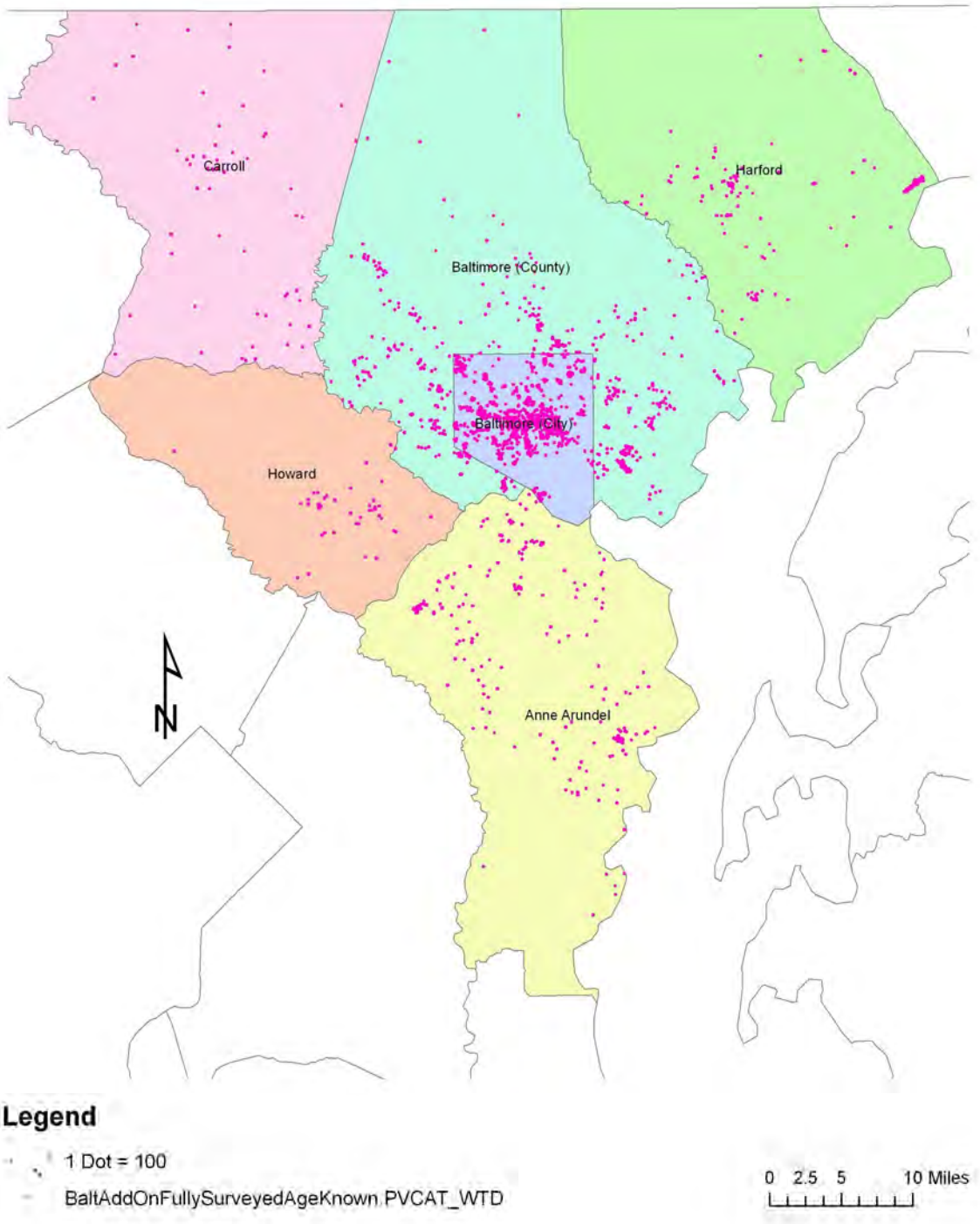
The ability of the chosen Rate Model based on Household Person-Vehicle Categories ("PVC Model") to geographically replicate the Baltimore data is demonstrated by comparing the maps below:

Non-Drivers in Baltimore Metro- 2001 NHTS



Source: Survey_100pComp_AgeKnown_Wtd.jpg

Non-Drivers in Baltimore Metro- PVC Model



Source: PV_Cat_100pComp_AgeKnown_Wtd.jpg

THE LOCATION OF NON-DRIVERS IN HAMPTON ROADS

The purpose of this study is to locate non-drivers in Hampton Roads in order that local government may improve their mobility by:

furthering the location of mobility-enhancing infrastructure near non-drivers:

- locating bus routes near concentrations of non-drivers
- locating government facilities near concentrations of non-drivers
- using zoning authority to ensure that adequate numbers of activity locations (businesses, institutions, etc.) are allowed to be built near concentrations of non-drivers
- accommodating bicycle riders and pedestrians near concentrations of non-drivers

An additional purpose of this study is to locate high business activity locations with little nearby housing. Local government can improve non-driver mobility by using zoning authority to ensure adequate numbers of housing units are allowed to be built near/in high business activity locations.

To prepare local government to improve non-driver mobility in the above ways, the following work was completed as shown in this section of the report:

- the current residential locations of local non-drivers was estimated by applying the location model chosen above to Hampton Roads,
- maps of non-driver locations for each locality in Hampton Roads were prepared, and
- assessments of the proximity of local non-drivers to business activities and bus routes were made.

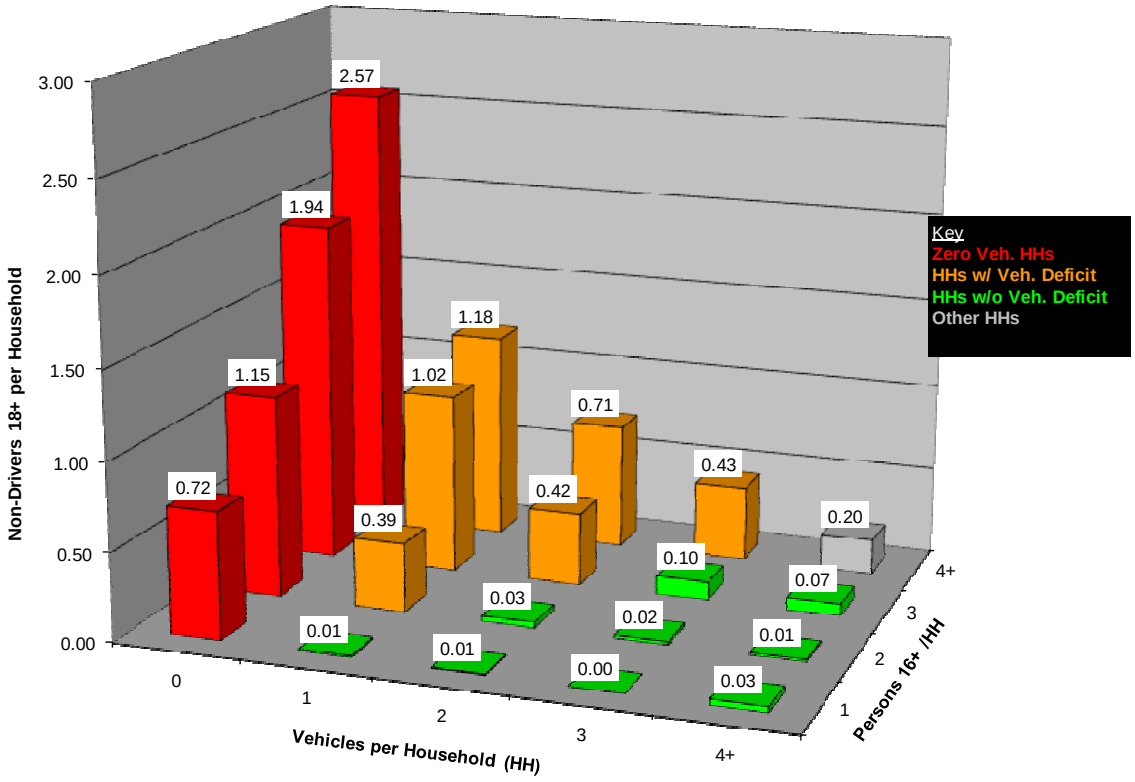
APPLICATION OF LOCATION MODEL TO HAMPTON ROADS

The structure and rates of the non-driver location model chosen above for locating non-drivers in Hampton Roads (the "Rate Model based on Household Person-Vehicle Categories" or PVC Model) are restated below:

Rate Model based on Household Person-Vehicle Categories

Non-drivers 18+ = ∑ [(number of HHs in category) * (category rate)]

Non-Driver 18+ Rates based on Household Person-Vehicle Category

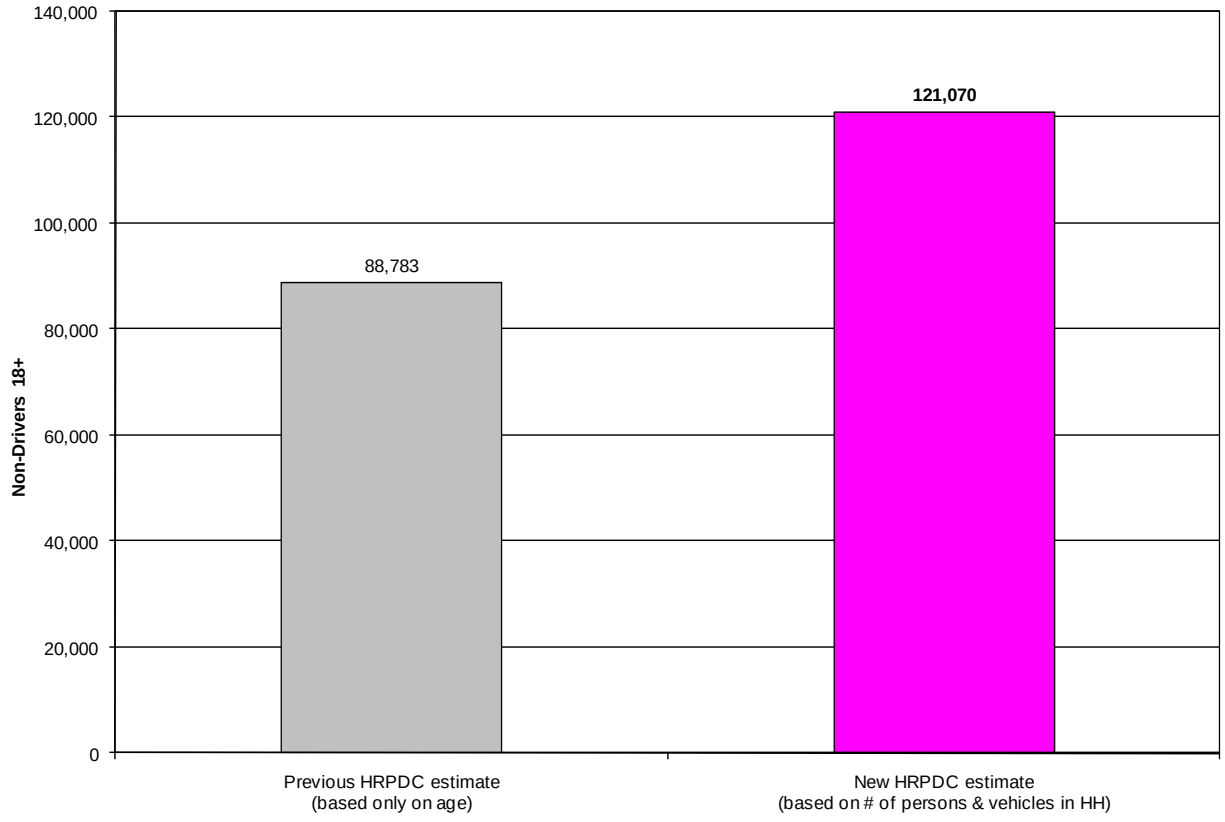


Source: HH file- certain vars only.xls

The number of non-drivers was calculated for each of the approximately 1,000 Transportation Analysis Zones (TAZs) in Hampton Roads by multiplying the above rates by the number of households (by type of household) and adding all of these products together (as shown in the formula above). These TAZ estimates form the basis of the maps and findings which follow.

Adding all of the TAZ estimates together results in an estimate of 121,070 non-drivers age 18+ in households[17] in Hampton Roads[18] in the year 2000, as shown below. This estimate is considerably higher than the previous HRPDC/HRMPO estimate. The new estimate is more reliable than the old one because the old estimate was based only on the age profile of Hampton Roads whereas the new estimate 1) is based on the number of persons and vehicles examined on an individual household basis, and 2) is based on a methodology found to be reliable when tested on Baltimore data.

Non-Drivers 18+ in Households in Hampton Roads, 2000

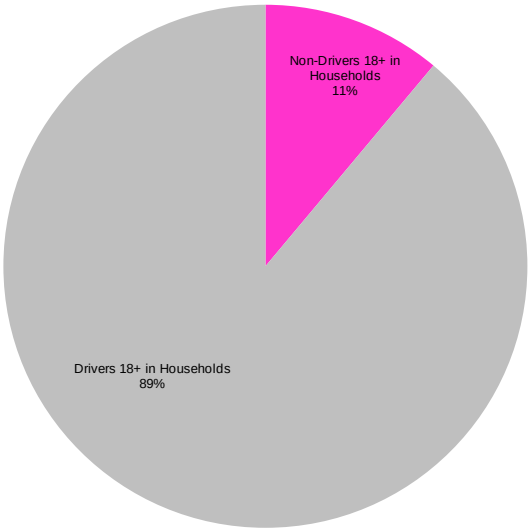


Source: data_by_TAZ.xls

[17] The number of non-drivers in Group Quarters (e.g. dorms, barracks, retirement homes) is unknown because the Census does not count the number of vehicles in Group Quarters.
[18] For this study, "Hampton Roads" is the 16 localities in the Hampton Roads Planning District.

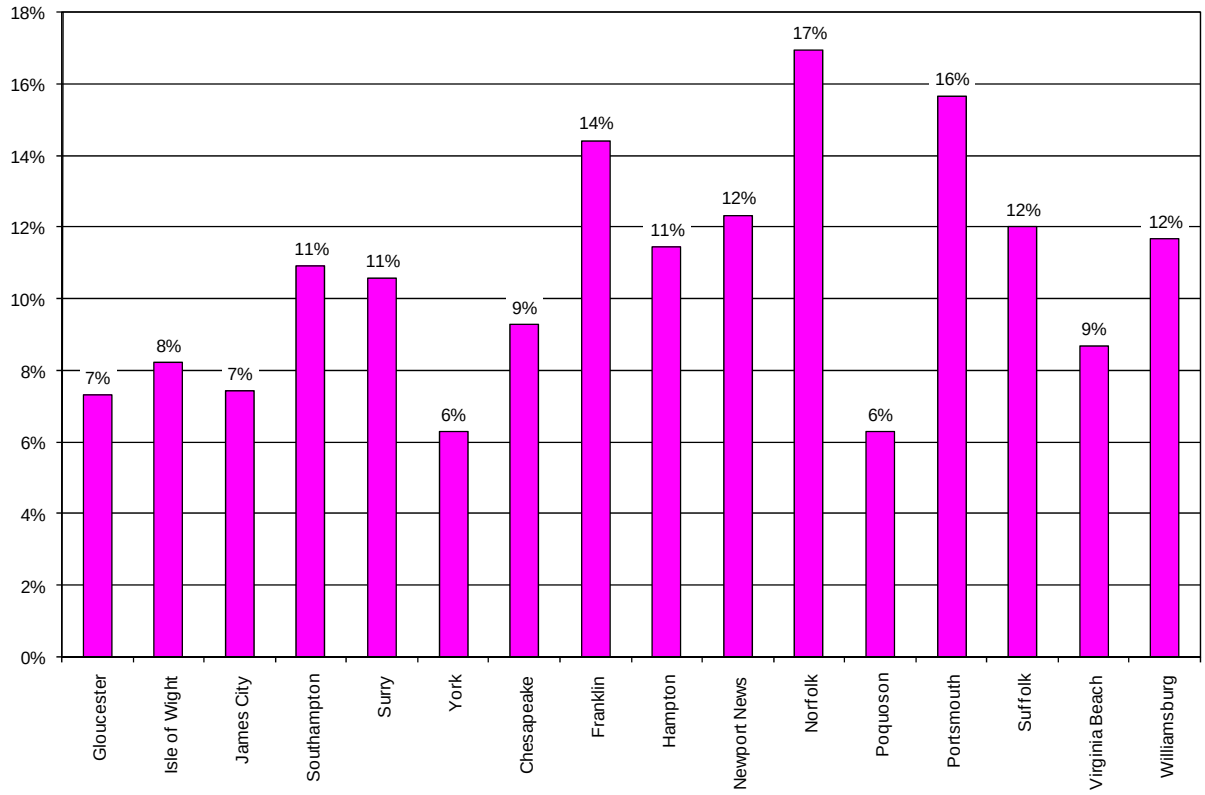
Based on this model, one out of every 9 adults living in Hampton Roads households is a non-driver, as shown below:

Non-Drivers 18+ in Households as % of Persons 18+ in Households



Source: data_by_TAZ.xls

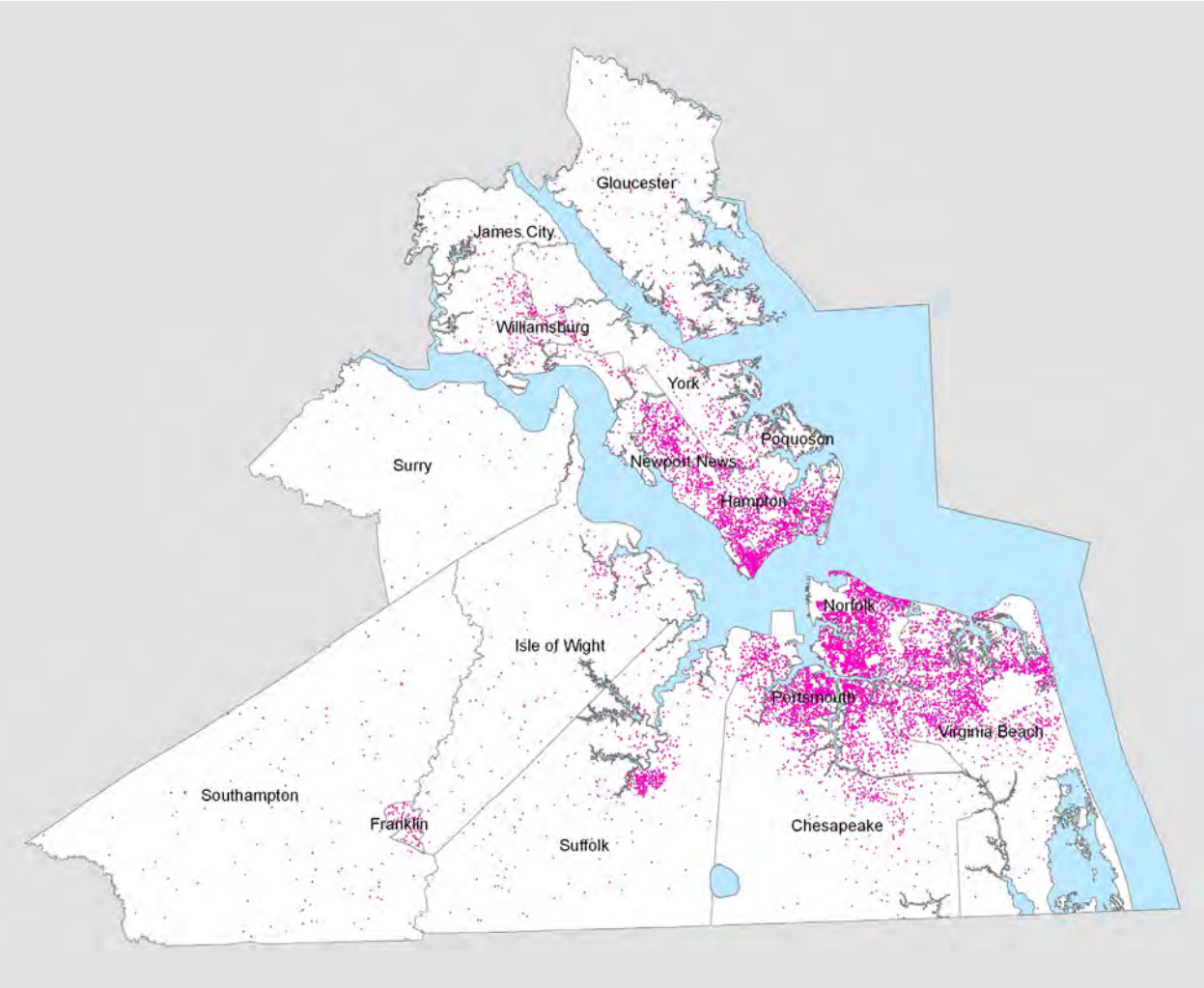
Non-Drivers 18+ in Households as % of Persons 18+ in Households



Source: data_by_TAZ.xls

Applying the Rate Model based on Household Person-Vehicle Categories to the year 2000 Census data for Hampton Roads, by TAZ[19] renders the non-driver locations as shown below.

Non-Drivers 18+ in Households, 2000- Hampton Roads



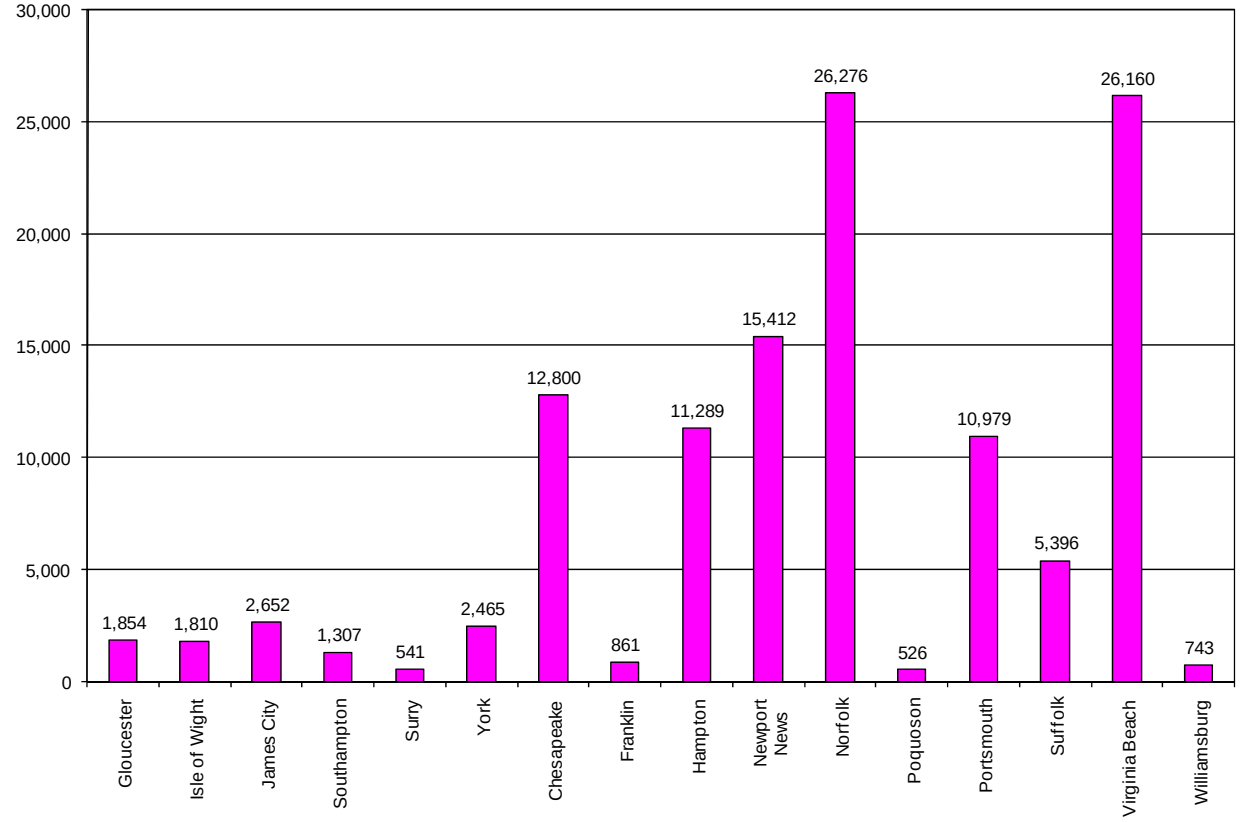
Legend: 10 non-drivers per dot

Source: HR non-drivers 18p.jpg

Detailed maps by locality are provided in a following section.

[19] For the CTPP, Hampton Roads has been divided into approximately 1,000 polygons called "Transportation Analysis Zones" or TAZs. TAZs are similar in size to Census block groups.

Non-Drivers 18+ in Households, 2000



Source: Data_by_TAZ.xls

DEVELOPMENT AND INTENDED USE OF MAPS AND FINDINGS

Two different categories of maps and findings were prepared: one category simply for non-driver locations, and one category to address proximity. Each category is discussed below.

Non-Driver Location Maps

Maps were prepared which simply show where non-drivers live. These maps can be used by local government in its planning efforts, including pedestrian and bicycle facility planning. It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Proximity Maps and Findings

As discussed above, previous non-driver research conducted by the HRPDC/HRMPO showed that non-driver mobility increases with proximity to business activity locations and bus stops:

- better-walking non-drivers living in High Business Activity Locations have odds of leaving home five (5) times higher than the odds of those living away from activities

- better-walking non-drivers living within one mile of a bus stop have odds of leaving home two (2) times higher than the odds of those living away from bus stops

Therefore, one way local governments can improve non-driver mobility is to locate business activity and bus routes near where non-drivers live, and to locate many residences near business activity locations and bus stops. Low density residential areas near bus stops and business activity locations limit the ability of non-drivers to locate near these facilities.

The neighborhoods of Hampton Roads vary according to the proximity of non-drivers to these mobility-enhancing factors. In some parts of Hampton Roads, concentrations of residences (and therefore, typically, concentrations of non-drivers) are near business activity locations and bus stops; in other parts of Hampton Roads concentrations of residences and facilities (business activity locations and bus stops) are far apart. In order for local government to identify the latter for possible improvement, maps were prepared containing non-driver locations plus graphical representation of the two subject mobility factors. In addition, findings of proximity and lack of same have been noted on the maps. Using these maps and findings, local government can target zoning changes, public facility construction, and transit investments to improve non-driver mobility in their localities.

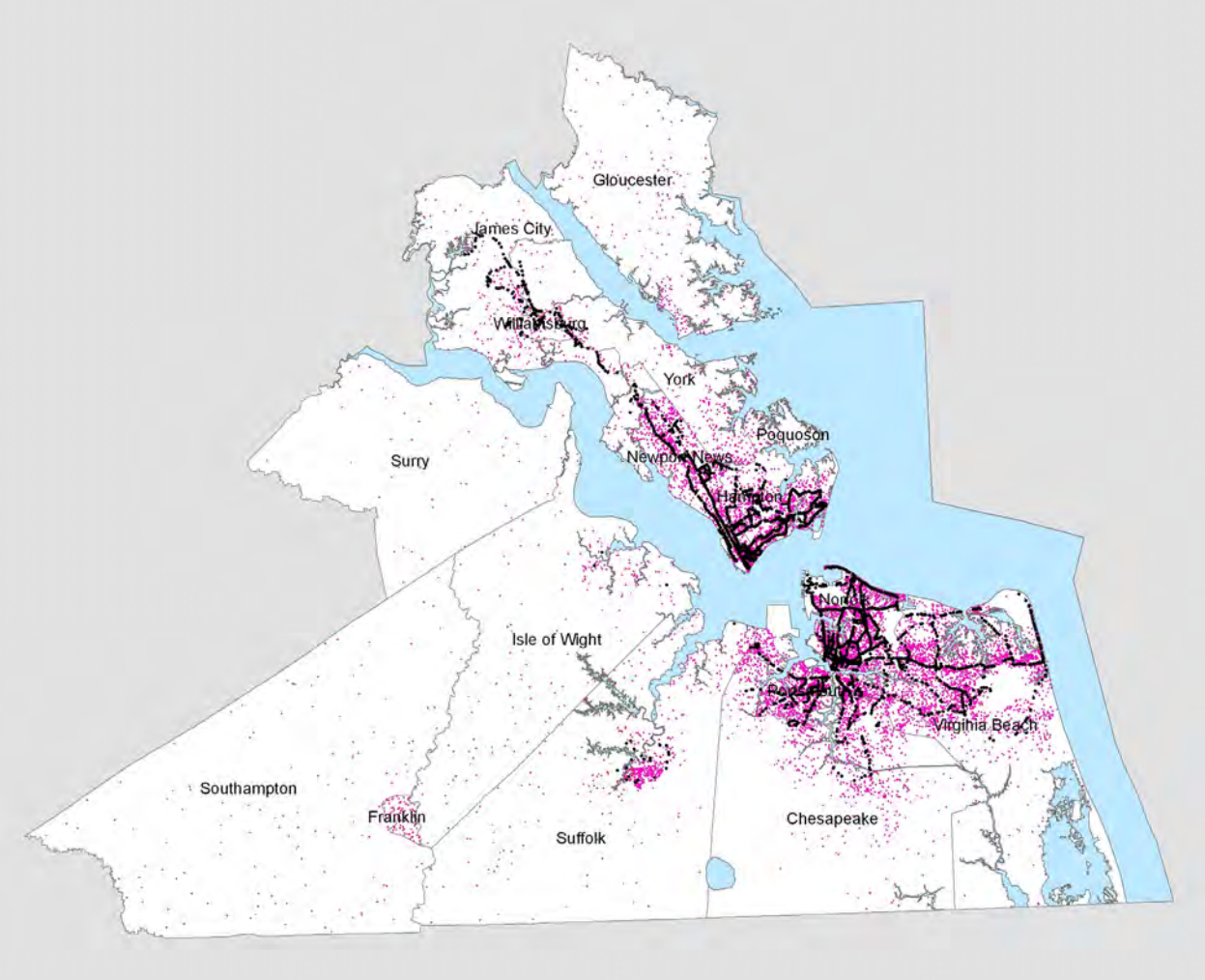
Proximity to Bus Stops

The key to determining the proximity of non-drivers to bus stops is walking distance. Planners have traditionally used one quarter-mile walking distance when estimating bus route ridership, i.e. in examining the impact of persons on bus route ridership numbers. This study, however, examines the bus-person relationship in the opposite direction: the impact of bus routes on the mobility of persons, in this case, on non-drivers. Earlier HRPDC/HRMPO non-driver research found that the one-mile maximum walking distance is a statistically more powerful predictor of the mobility impact of bus routes on non-drivers in Hampton Roads (i.e. helping the non-driver get out of the home) than are shorter maximum walking distances (quarter-mile, half-mile).[20] In other words, non-drivers living up to one-mile from a bus stop experience a measureable increase in mobility due to that bus stop. In relation to this mobility finding, the earlier HRPDC/HRMPO research also revealed that non-drivers are routinely walking up to one mile to bus stops.[21] Consequently, the one-mile walking distance will be used in this study to determine which non-drivers are getting a mobility benefit from a bus stop and which non-drivers are not getting that benefit.

[20] Robert B. Case, *Improving the Mobility of Non-Drivers Using Proximity to Destinations and Bus Routes* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2007), p. 21.
[21] Robert B. Case, *Improving the Mobility of Non-Drivers Using Proximity to Destinations and Bus Routes* (Chesapeake, Va.: Hampton Roads Planning District Commission, June 2007), p. 22.

Overlaying bus stops on non-driver locations renders the following:

Bus Stops & Non-Drivers, 2000- Hampton Roads



Legend: 10 non-drivers per dot; 1 bus stop per black dot Source: HR non-drivers w bus stops.jpg

Detailed maps by locality are provided in a following section.

Proximity to Business Activity

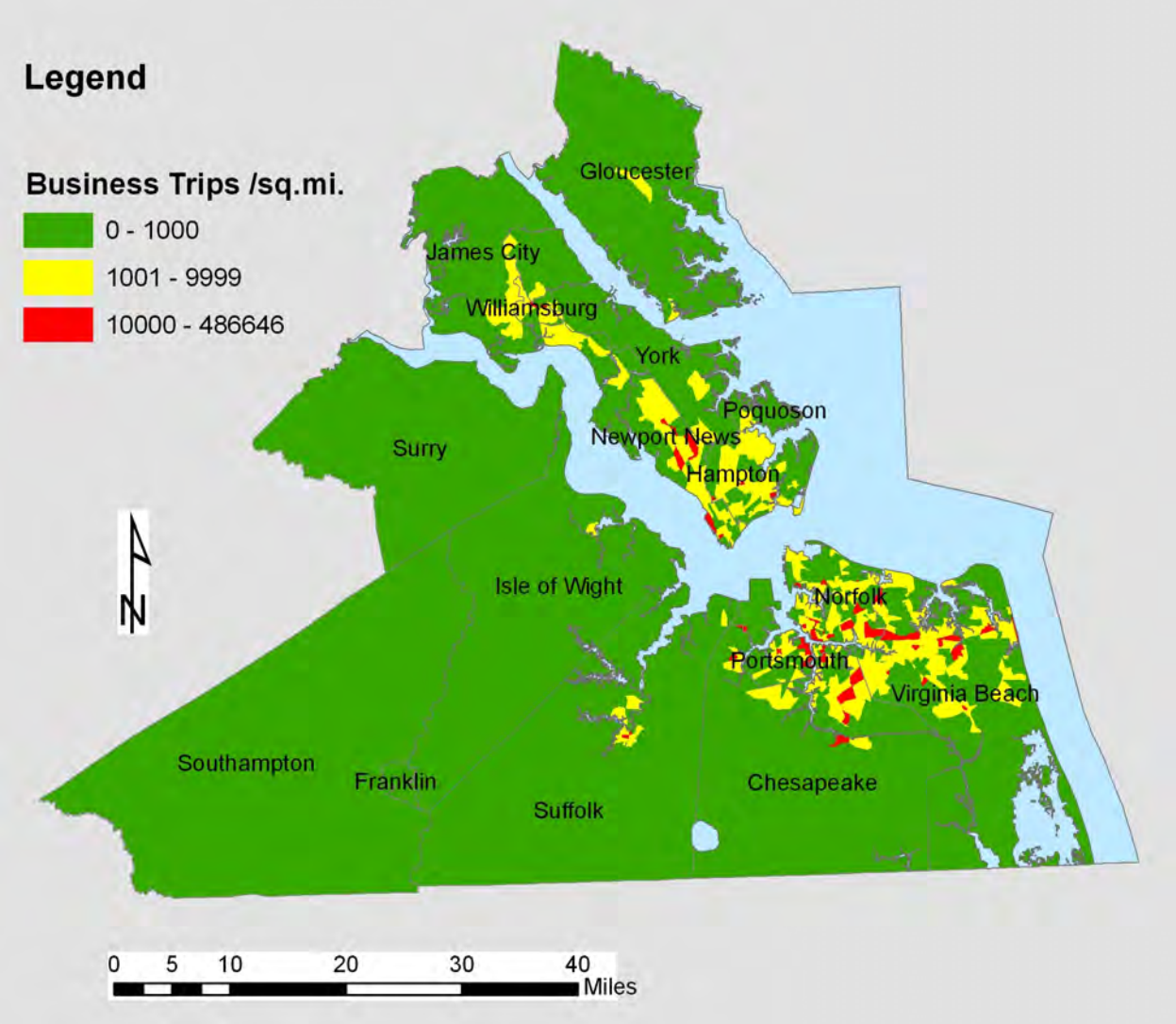
On the following pages, the proximity of non-driver residential locations to business activity will be judged by considering the findings of previous HRPDC/HRMPO research concerning the mobility impact of such proximity. Earlier research found that, for each additional 1,000 "Activity Location Units"[22] (ALUs) within one-half mile of a non-drivers' home, the odds of a better-walking non-driver being mobile on a given day increase 19%. Because the non-driver residential locations in this current study were estimated on an area basis (in this case, on a TAZ basis)—as opposed to the pin-point address basis used in the earlier HRPDC/HRMPO research—it was not possible to calculate the amount of business activity within one-half mile of each non-drivers' home. Therefore, in this study, the proximity of non-driver residential locations to business activity was examined visually via maps with non-driver locations overlain on a representation of business activity. Because business trips (i.e. trips attracted to places of employment) are a measure of business activity more readily understood than ALUs, the number of attracted trips was calculated for each business in Hampton Roads for this study.[23] In order to differentiate between areas of low and high business activity, the number of business trips per square mile was calculated for each TAZ, and each TAZ was shaded using a range of colors to represent the relative greatness of its business activity. In order for the result to resemble the measurement of business activity used in the earlier HRPDC/HRMPO research, to the degree possible, a green-to-red color scheme was used with green indicating TAZs with less than 1,000 business trips / sq. mi. and red indicating TAZs with more than 10,000 business trips / sq. mi.[24]

[22] In an attempt to reflect the difference in attractiveness of various business locations, Activity Location Units (ALUs) were calculated in the earlier PDC research for each business. The ALU value of a non-retail business was set equal to its number of employees, and the ALU value of a retail business was set equal to 3 times its number of employees.

[23] Business trips were calculated using rates used in the region's travel demand model (1.44 trips per employee for non-retail businesses; 3.39 trips per employee for retail businesses). The number and type of employees at each establishment came from the Virginia Employment Commission (VEC) ES202 data for the 2nd quarter of 2005.

[24] In the earlier PDC research, circles with a half-mile radius centered on the subject non-drivers' residential location were given one of five colors—from yellow (low activity) to red (high activity)—to indicate the number of ALUs within one half-mile of the subject residence. Because the model used in this report estimates the residential location of non-drivers by TAZ instead of by address, the intensity of business activity in this report could not be calculated or represented in the same way used in the earlier address-based research (as stated above). In addition, the difficulty of visually differentiating between the five yellow-to-red colors was eliminated by using a three-color green-yellow-red scheme. The break points for change of color in this current study were chosen so that the high activity areas in the earlier research tend to be identified as having high activity in the current study, and the low activity areas in the earlier research tend to be identified as having low activity in the current study.

Business Activity, 2000- Hampton Roads



Source: HR business trips.jpg

Detailed maps by locality are provided in a following section.

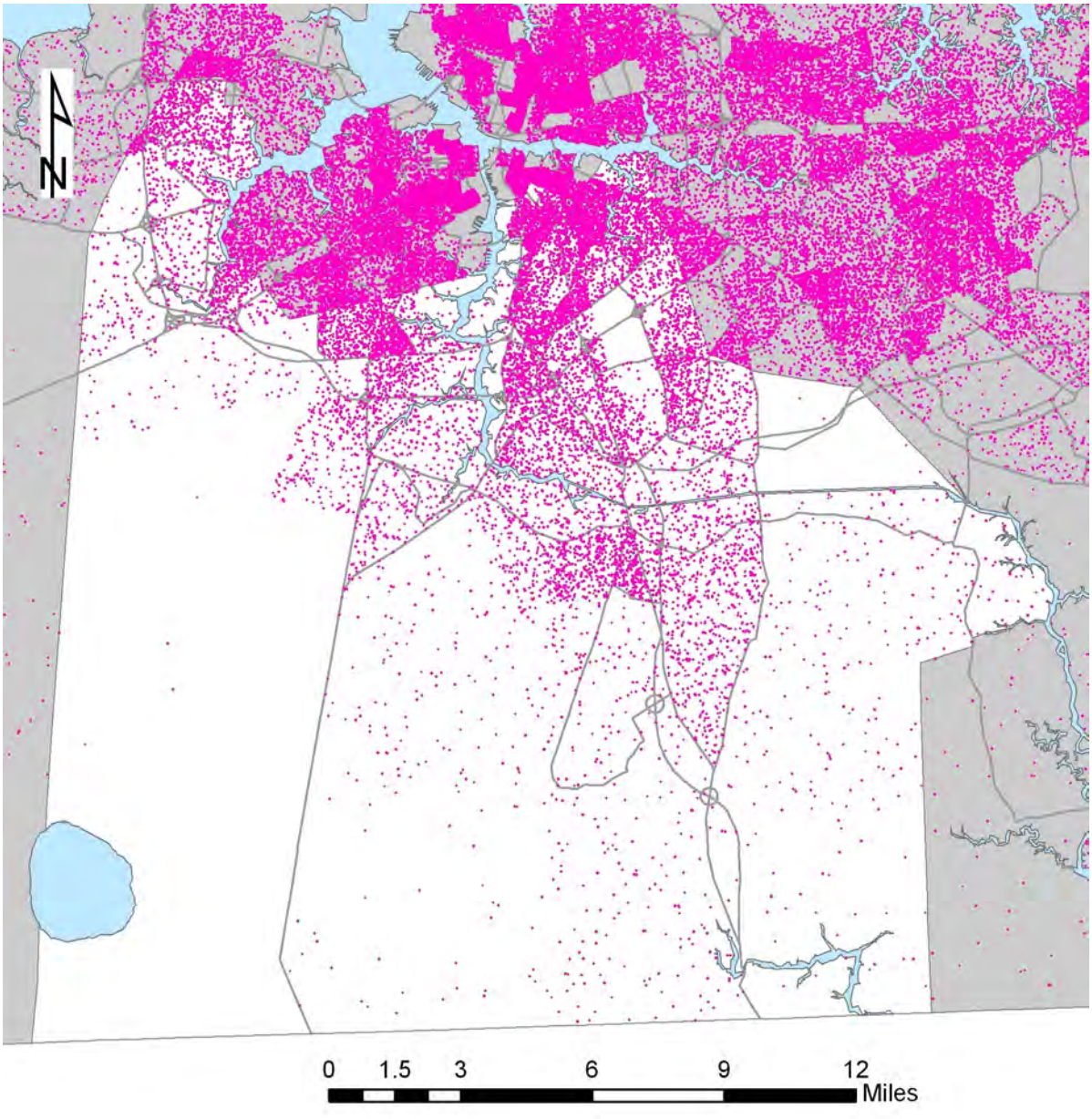
MAPS AND FINDINGS

Non-driver location maps and proximity maps for each locality are presented below (in alphabetical order).

Chesapeake

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Chesapeake

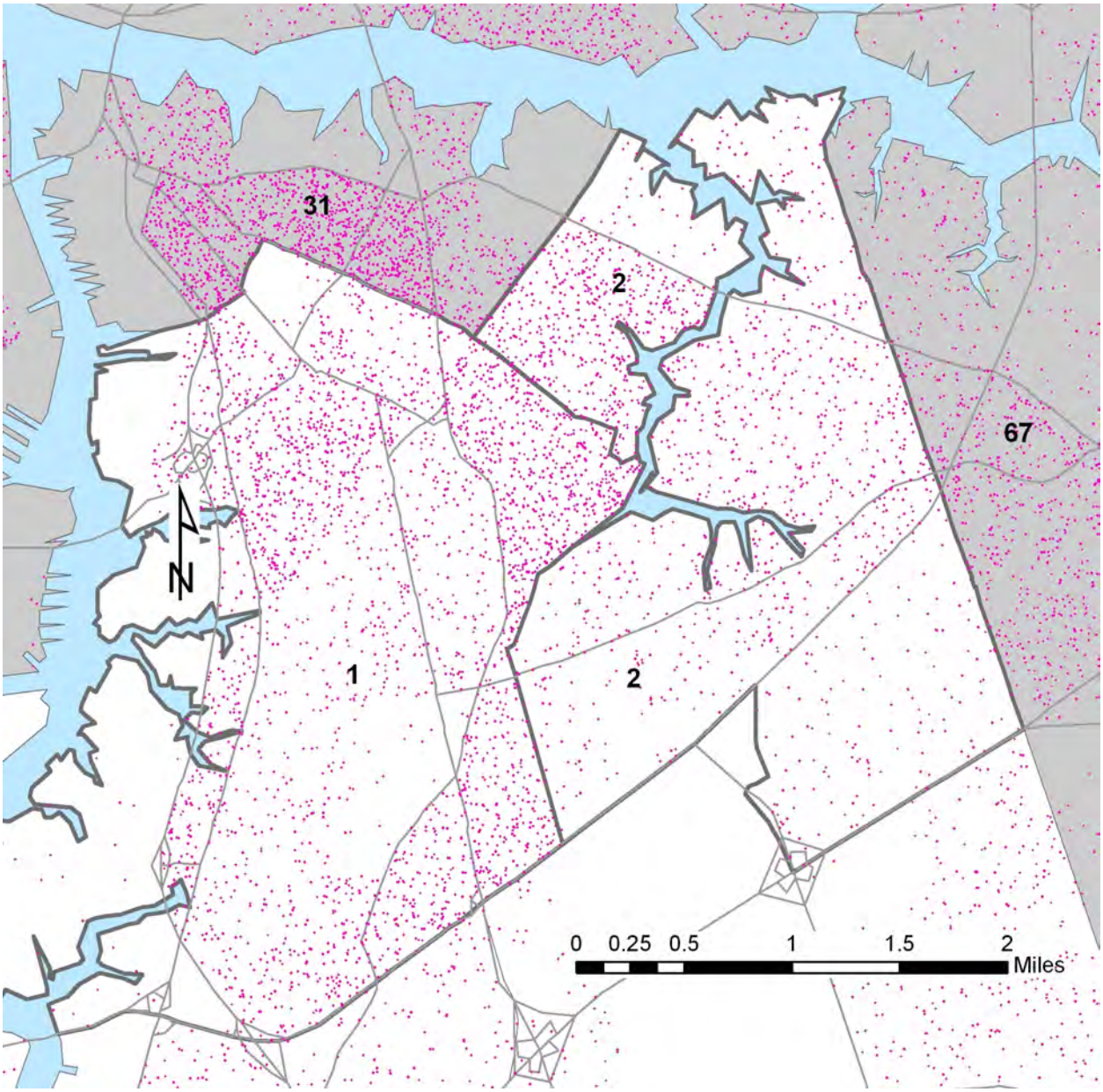


Legend: 1 non-driver per dot

Source: Chesapeake.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Chesapeake, Districts 1 and 2

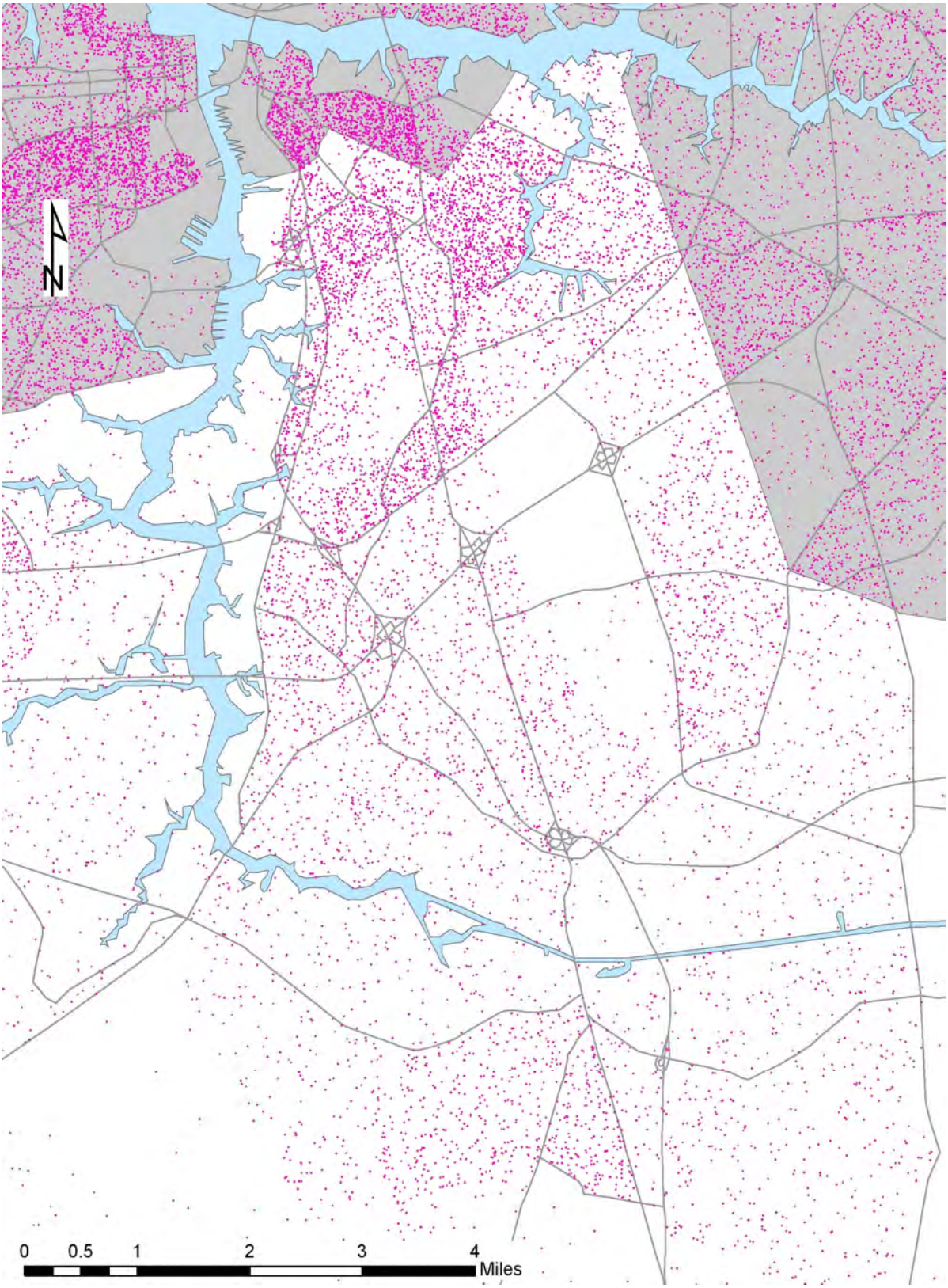


Legend: 1 non-driver per dot

Source: districts 1 and 2.jpg

The 4,281 non-drivers 18+ in the 16,025 households in Districts 1 and 2 shown above—which together generally comprise the portion of Chesapeake north of Military Highway and east of the Southern Branch of the Elizabeth River—represent 33% of Chesapeake's 12,800 non-drivers in households and 23% of its 69,900 households.

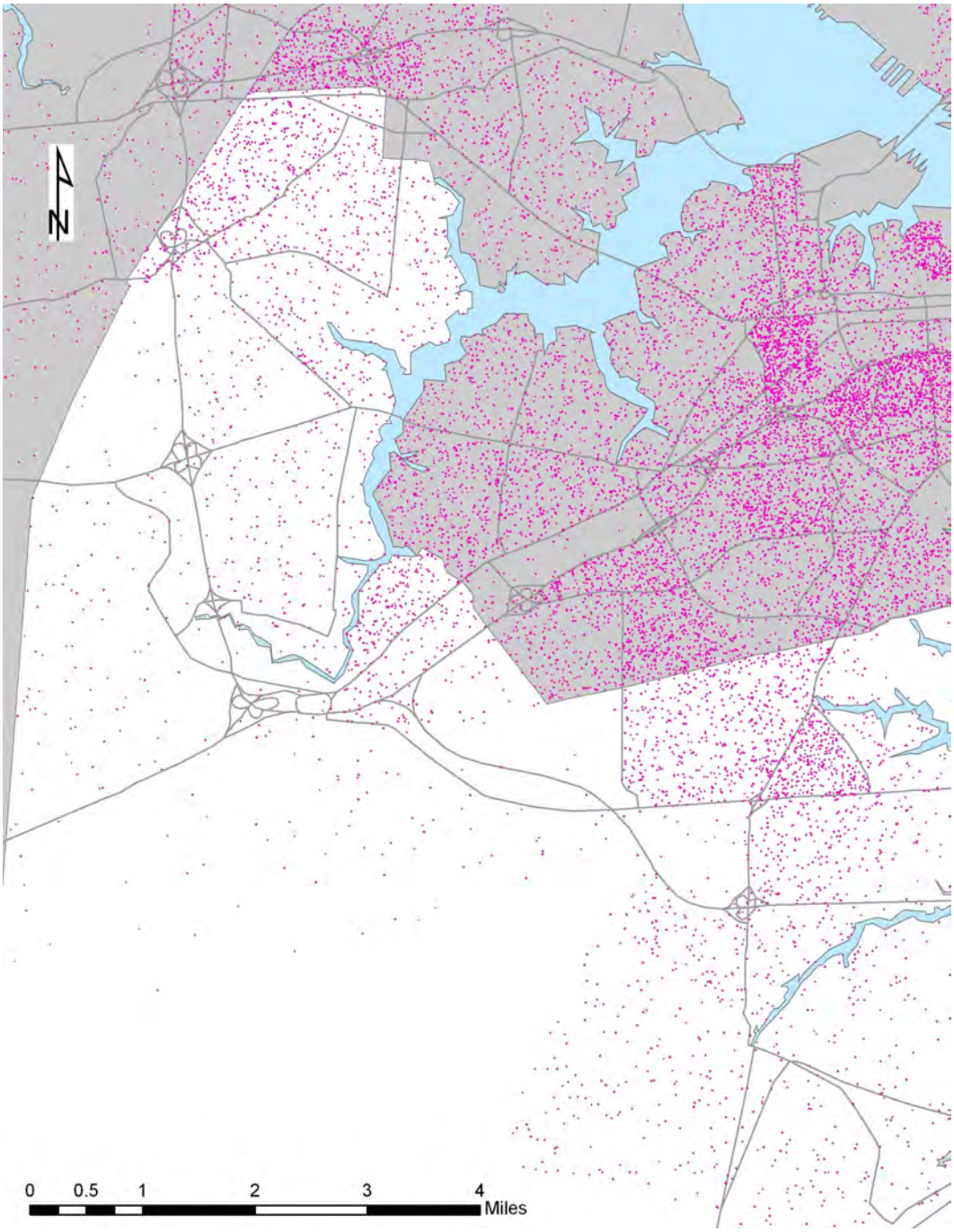
Non-Drivers 18+ in Households, 2000- Northeastern Chesapeake



Legend: 1 non-driver per dot

Source: NE Ches.jpg

Non-Drivers 18+ in Households, 2000- Northwestern Chesapeake

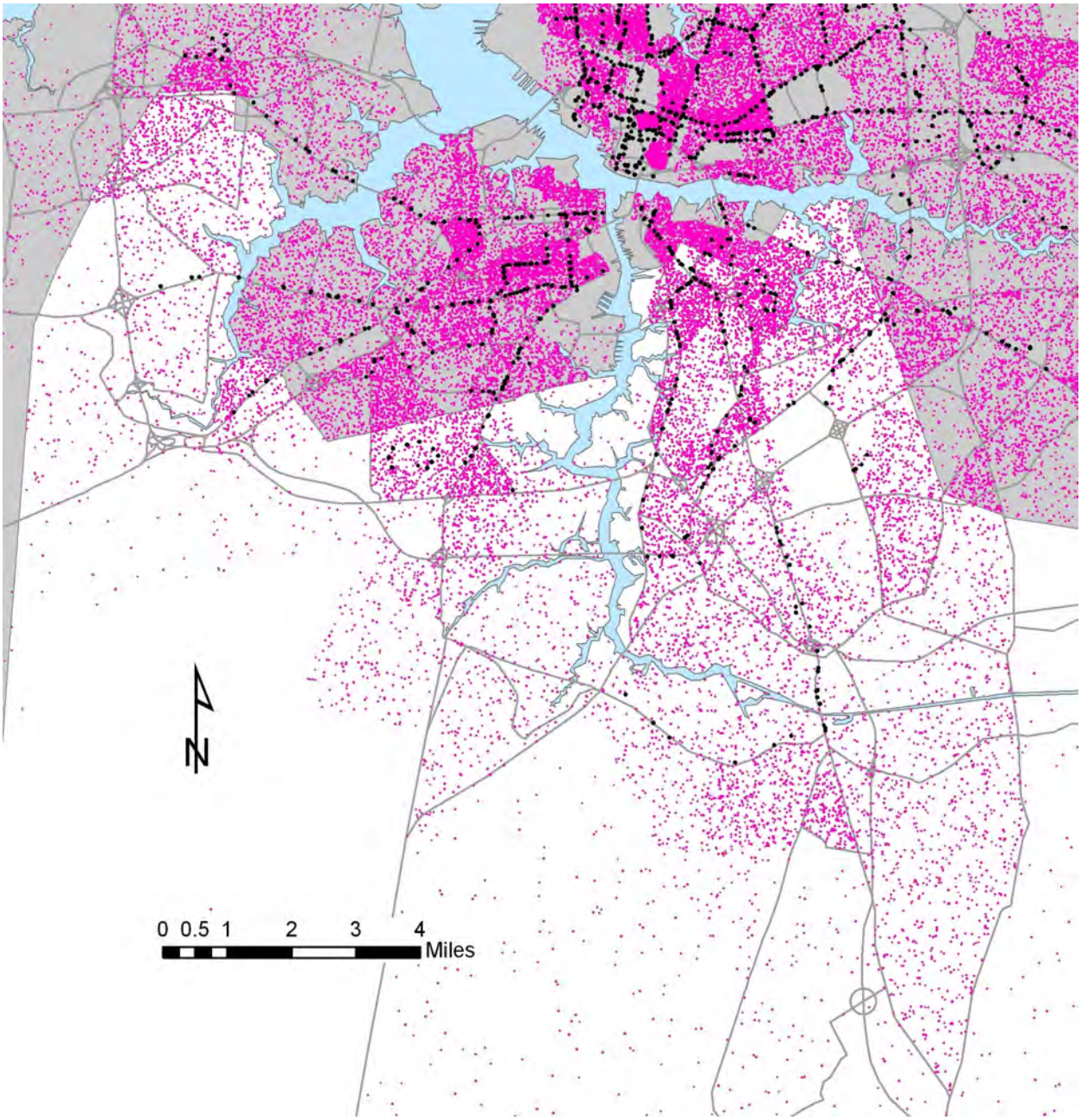


Legend: 1 non-driver per dot

Source: NW Ches.jpg

Proximity of Residences and Bus Stops

Bus Stops & Non-Drivers, 2000- Chesapeake



Legend: 1 non-driver per pink dot; 1 bus stop per black dot

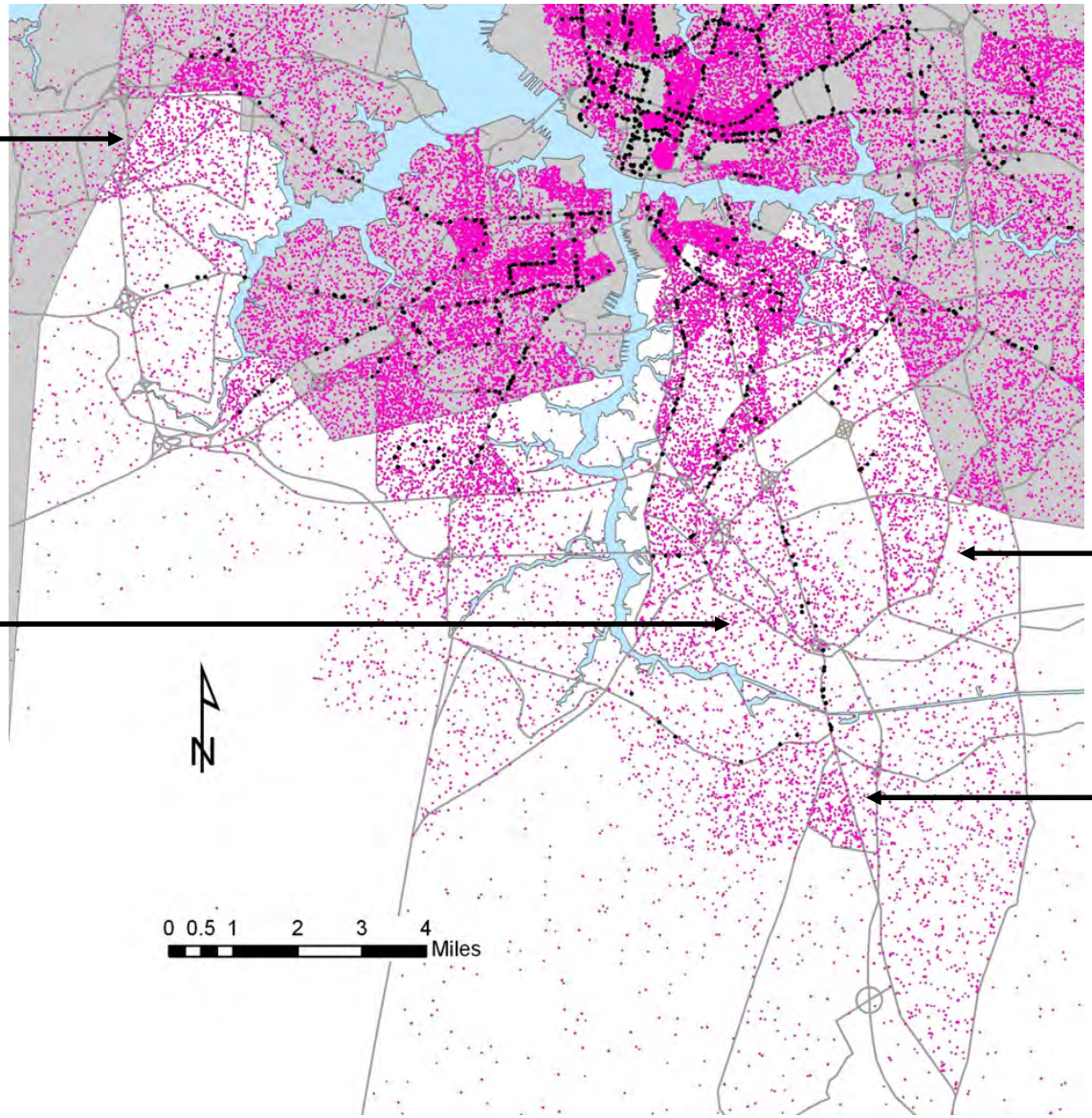
Source: bus.jpg

The bus stops in Chesapeake appear to provide most local non-drivers with service within walking distance.

Bus Stops & Non-Drivers, 2000- Chesapeake- Findings

The closest bus stops for most of the 412 adult non-drivers living in this triangular area (bounded by US 17, Taylor Rd, and the corporate limit) are more than 1 mile away.

Higher residential density along Battlefield Blvd and Cedar Road would provide more opportunities for non-drivers to take advantage of existing bus route (#13).



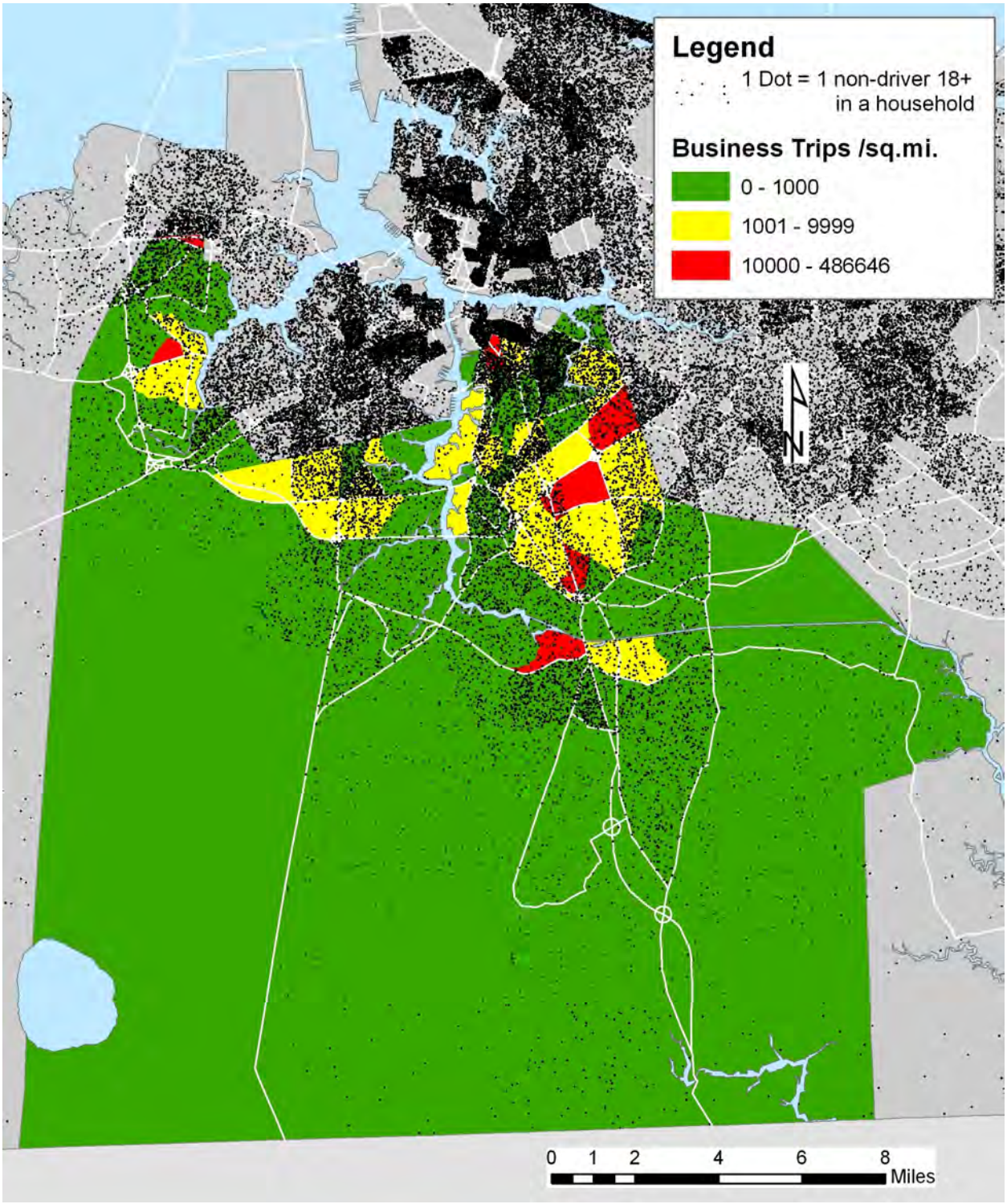
Source: bus.jpg

The closest bus stops for most of the 320 adult non-drivers living in this triangular area (bounded by Greenbrier Rd, Volvo Pkwy, and Kempsville Rd) are more than 1 mile away.

The closest bus stops for many of the 193 adult non-drivers living in this triangular area (bounded by Johnstown Rd, Hanbury Rd, and Battlefield Blvd) are more than 1 mile away.

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Chesapeake

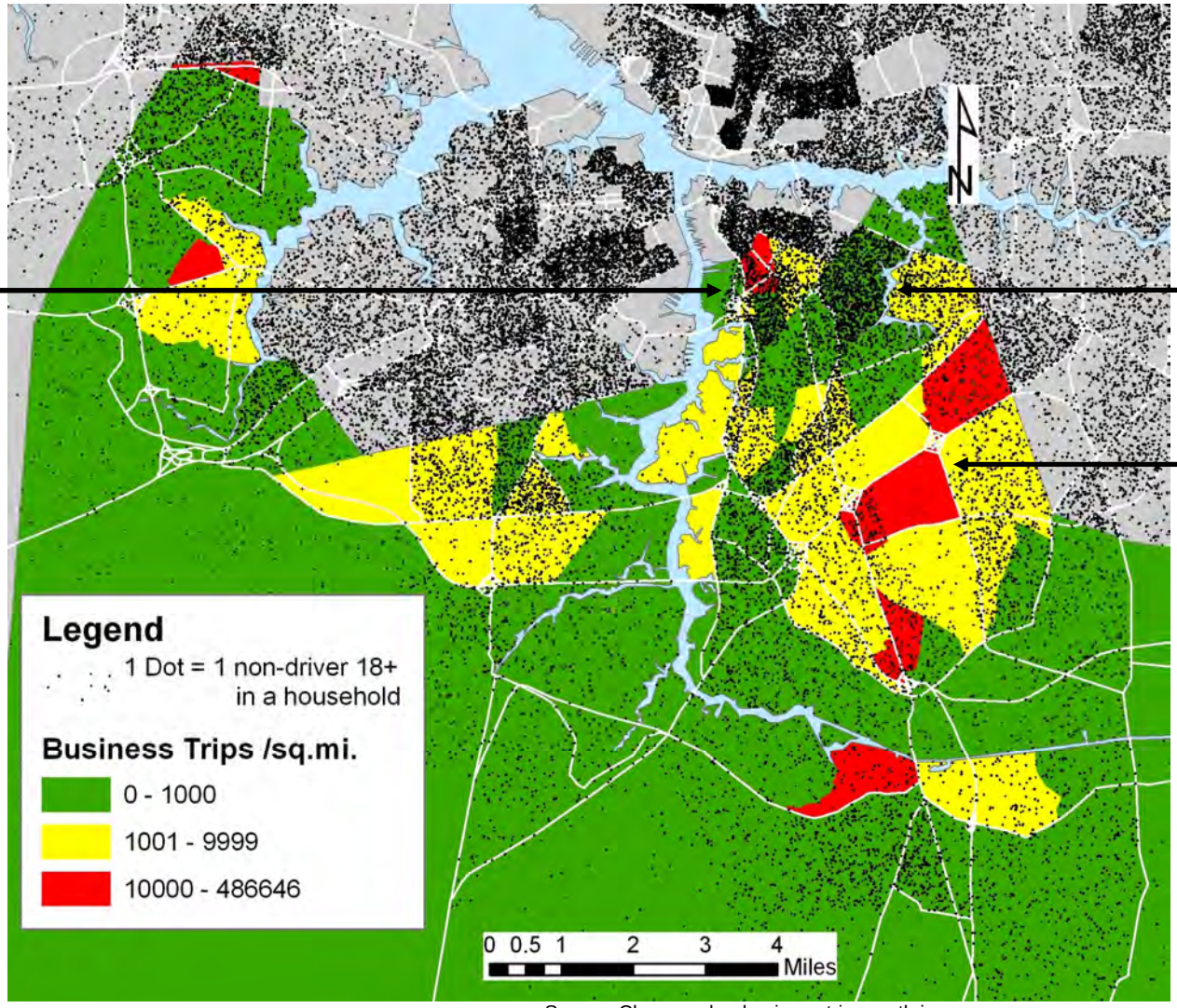


Source: Chesapeake- business trips.jpg

Business Activity & Non-Drivers, 2000- Chesapeake- Findings

There are few business activities near non-drivers living in the area bounded by Campostella Rd, Norfolk Corp. Limit, Indian River Rd, and Indian River.

Non-drivers in South Norfolk live within walking distance of many business activities.



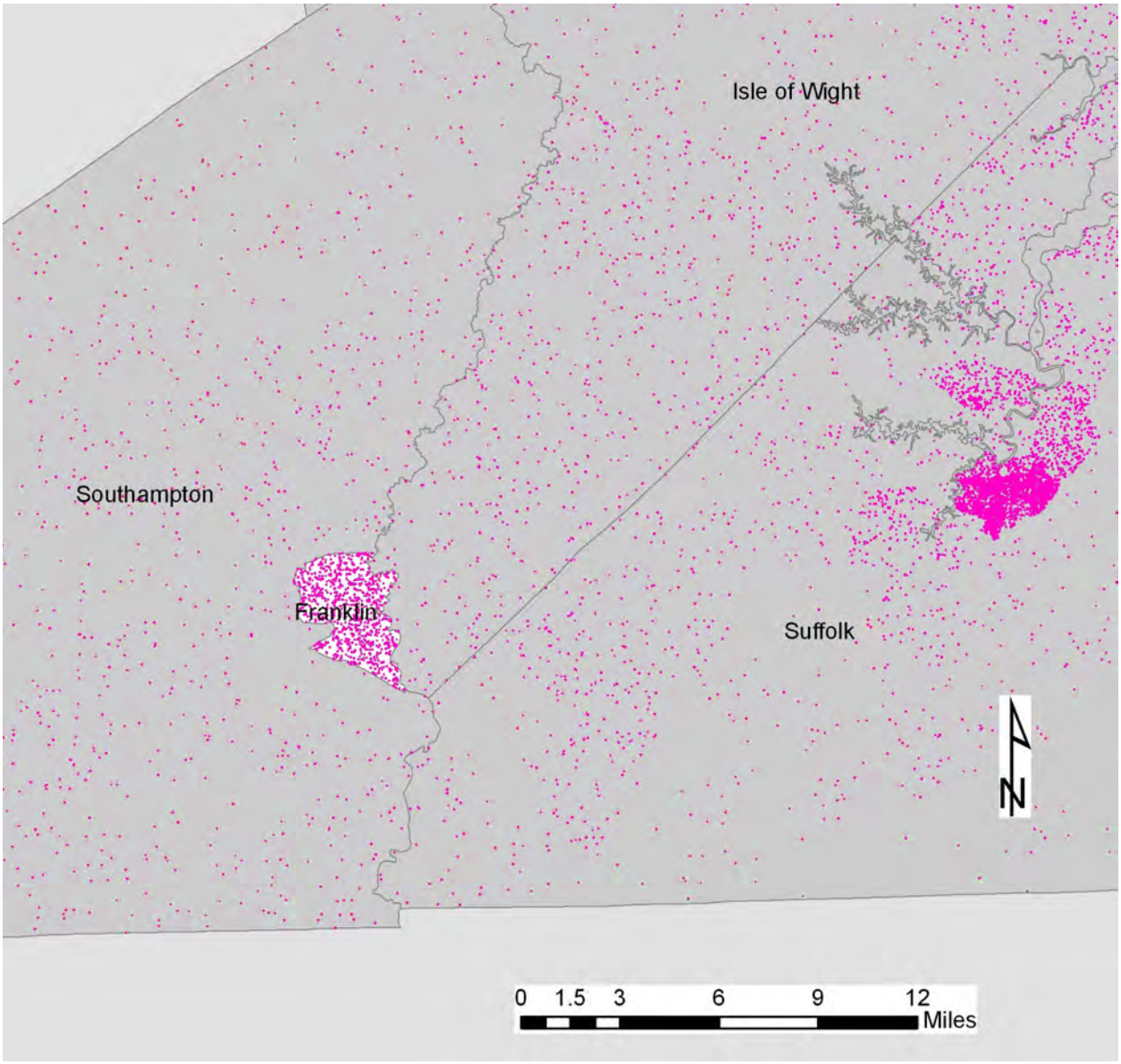
Source: Chesapeake- business trips north.jpg

Non-drivers may benefit from more residential opportunities near the business activities in the Greenbrier area bounded by Greenbrier Pkwy, Volvo Pkwy, Battlefield Blvd, and Military Hwy.

Franklin

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Franklin



Legend: 1 non-driver per dot

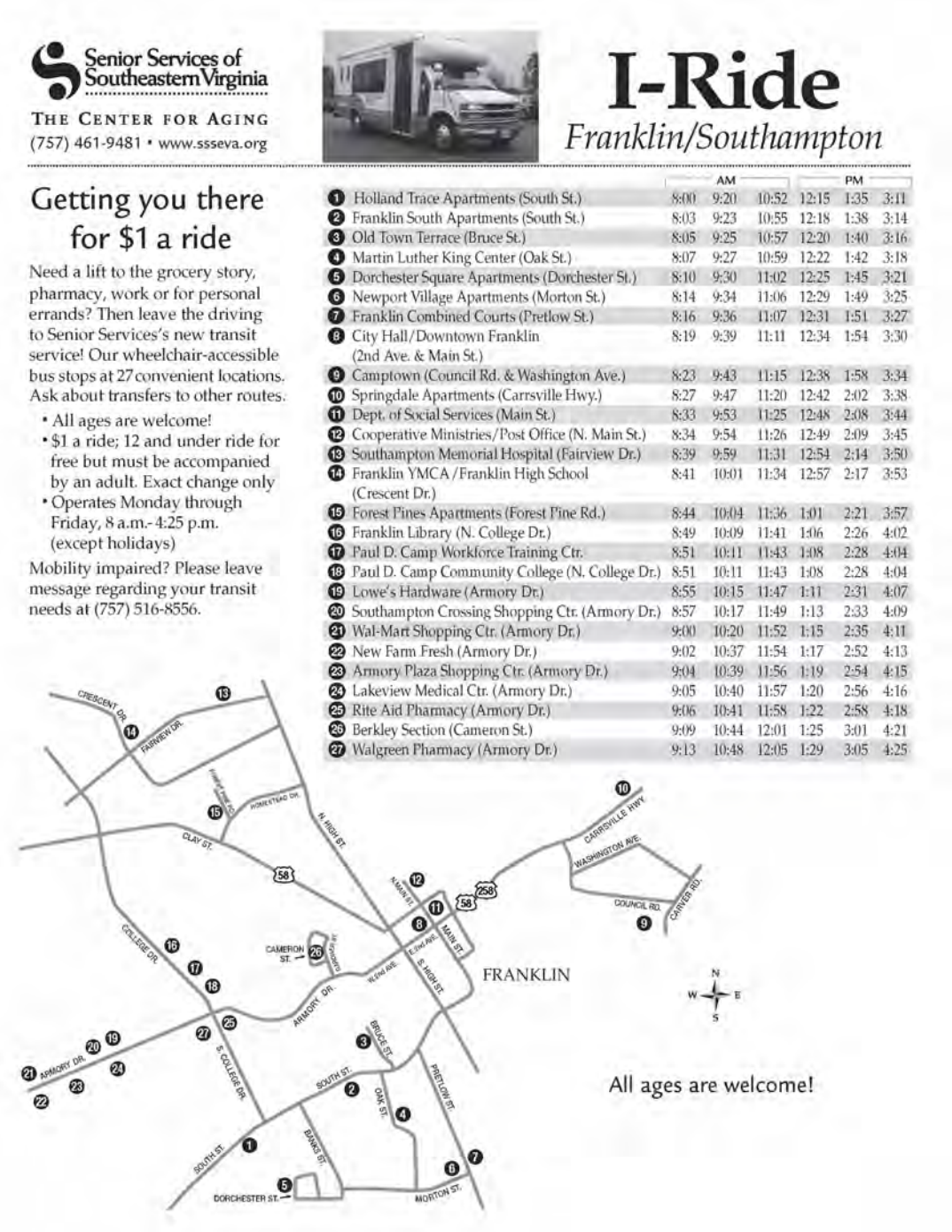
Source: Franklin.jpg

There being only one TAZ in Franklin, it is not known where—within the city—the 861 non-drivers live. Therefore, the area surrounding Franklin is covered by the above map in order to show that the density of non-drivers in Franklin is fairly high.

Proximity of Residences to Bus Stops and Business Activity Locations

I-Ride runs fixed-route bus service in Franklin as shown below. There being only one TAZ in Franklin, an analysis of the proximity of residences to bus stops and business activity locations could not be performed.

I-Ride- Franklin



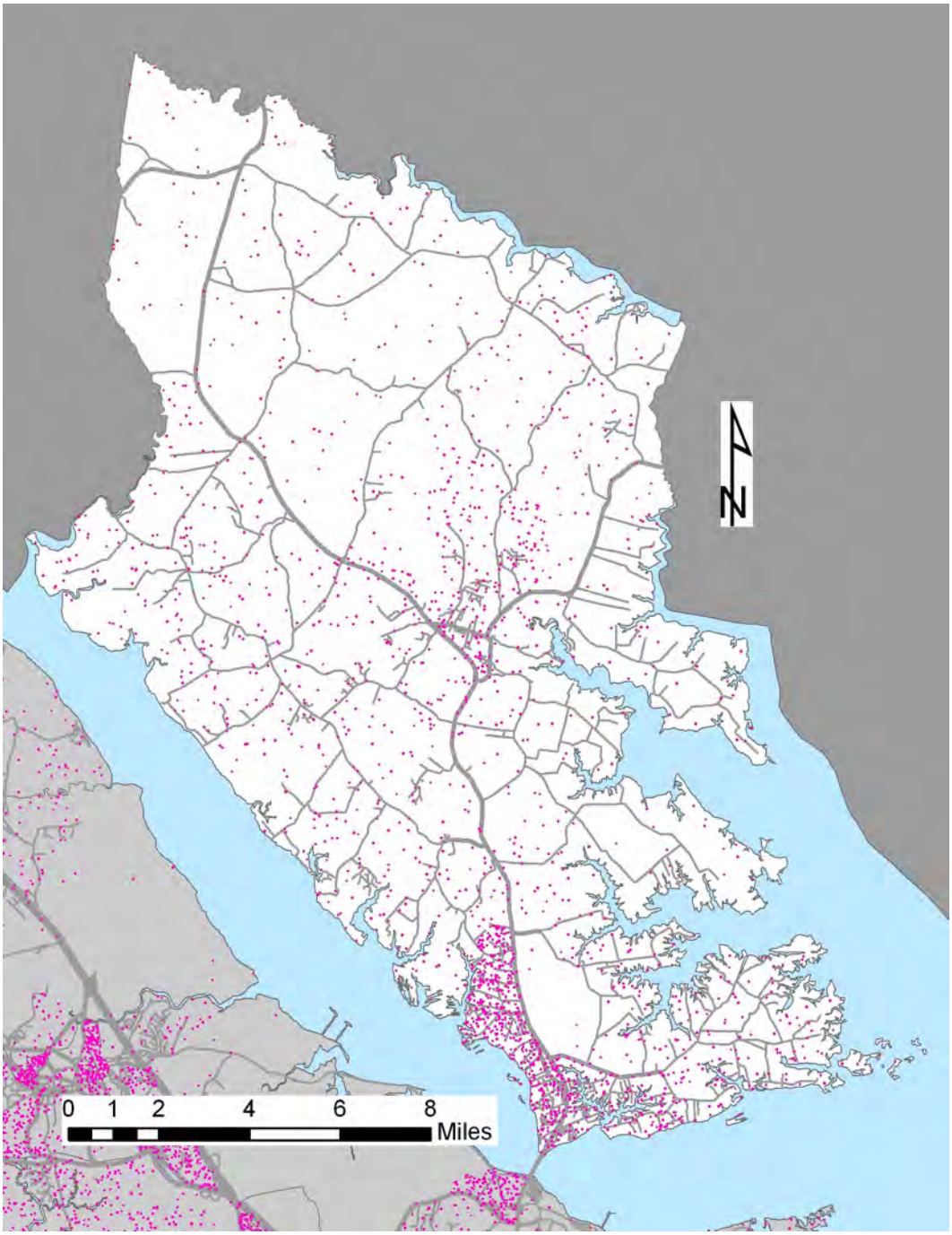
	AM			PM		
1 Holland Trace Apartments (South St.)	8:00	9:20	10:52	12:15	1:35	3:11
2 Franklin South Apartments (South St.)	8:03	9:23	10:55	12:18	1:38	3:14
3 Old Town Terrace (Bruce St.)	8:05	9:25	10:57	12:20	1:40	3:16
4 Martin Luther King Center (Oak St.)	8:07	9:27	10:59	12:22	1:42	3:18
5 Dorchester Square Apartments (Dorchester St.)	8:10	9:30	11:02	12:25	1:45	3:21
6 Newport Village Apartments (Morton St.)	8:14	9:34	11:06	12:29	1:49	3:25
7 Franklin Combined Courts (Pretlow St.)	8:16	9:36	11:07	12:31	1:51	3:27
8 City Hall/Downtown Franklin (2nd Ave. & Main St.)	8:19	9:39	11:11	12:34	1:54	3:30
9 Camptown (Council Rd. & Washington Ave.)	8:23	9:43	11:15	12:38	1:58	3:34
10 Springdale Apartments (Carrsville Hwy.)	8:27	9:47	11:20	12:42	2:02	3:38
11 Dept. of Social Services (Main St.)	8:33	9:53	11:25	12:48	2:08	3:44
12 Cooperative Ministries/Post Office (N. Main St.)	8:34	9:54	11:26	12:49	2:09	3:45
13 Southampton Memorial Hospital (Fairview Dr.)	8:39	9:59	11:31	12:54	2:14	3:50
14 Franklin YMCA / Franklin High School (Crescent Dr.)	8:41	10:01	11:34	12:57	2:17	3:53
15 Forest Pines Apartments (Forest Pine Rd.)	8:44	10:04	11:36	1:01	2:21	3:57
16 Franklin Library (N. College Dr.)	8:49	10:09	11:41	1:06	2:26	4:02
17 Paul D. Camp Workforce Training Ctr.	8:51	10:11	11:43	1:08	2:28	4:04
18 Paul D. Camp Community College (N. College Dr.)	8:51	10:11	11:43	1:08	2:28	4:04
19 Lowe's Hardware (Armory Dr.)	8:55	10:15	11:47	1:11	2:31	4:07
20 Southampton Crossing Shopping Ctr. (Armory Dr.)	8:57	10:17	11:49	1:13	2:33	4:09
21 Wal-Mart Shopping Ctr. (Armory Dr.)	9:00	10:20	11:52	1:15	2:35	4:11
22 New Farm Fresh (Armory Dr.)	9:02	10:37	11:54	1:17	2:52	4:13
23 Armory Plaza Shopping Ctr. (Armory Dr.)	9:04	10:39	11:56	1:19	2:54	4:15
24 Lakeview Medical Ctr. (Armory Dr.)	9:05	10:40	11:57	1:20	2:56	4:16
25 Rite Aid Pharmacy (Armory Dr.)	9:06	10:41	11:58	1:22	2:58	4:18
26 Berkley Section (Cameron St.)	9:09	10:44	12:01	1:25	3:01	4:21
27 Walgreen Pharmacy (Armory Dr.)	9:13	10:48	12:05	1:29	3:05	4:25

Source: I-Ride.jpg

Gloucester

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Gloucester

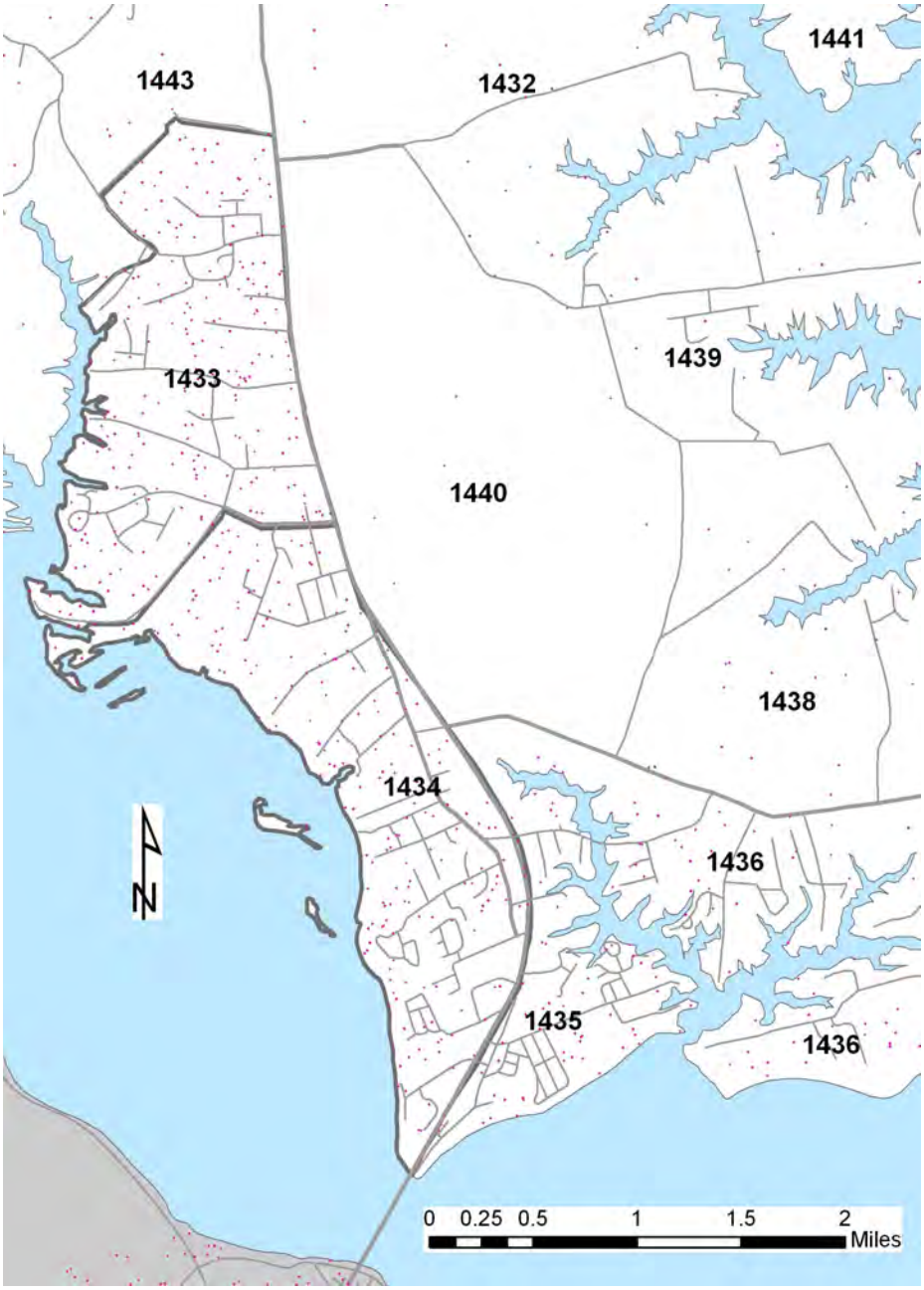


Legend: 1 non-driver per dot

Source: Gloucester.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Gloucester, TAZs 1433 & 1434



Legend: 1 non-driver per dot

Source: TAZs 1433 and 1434.jpg

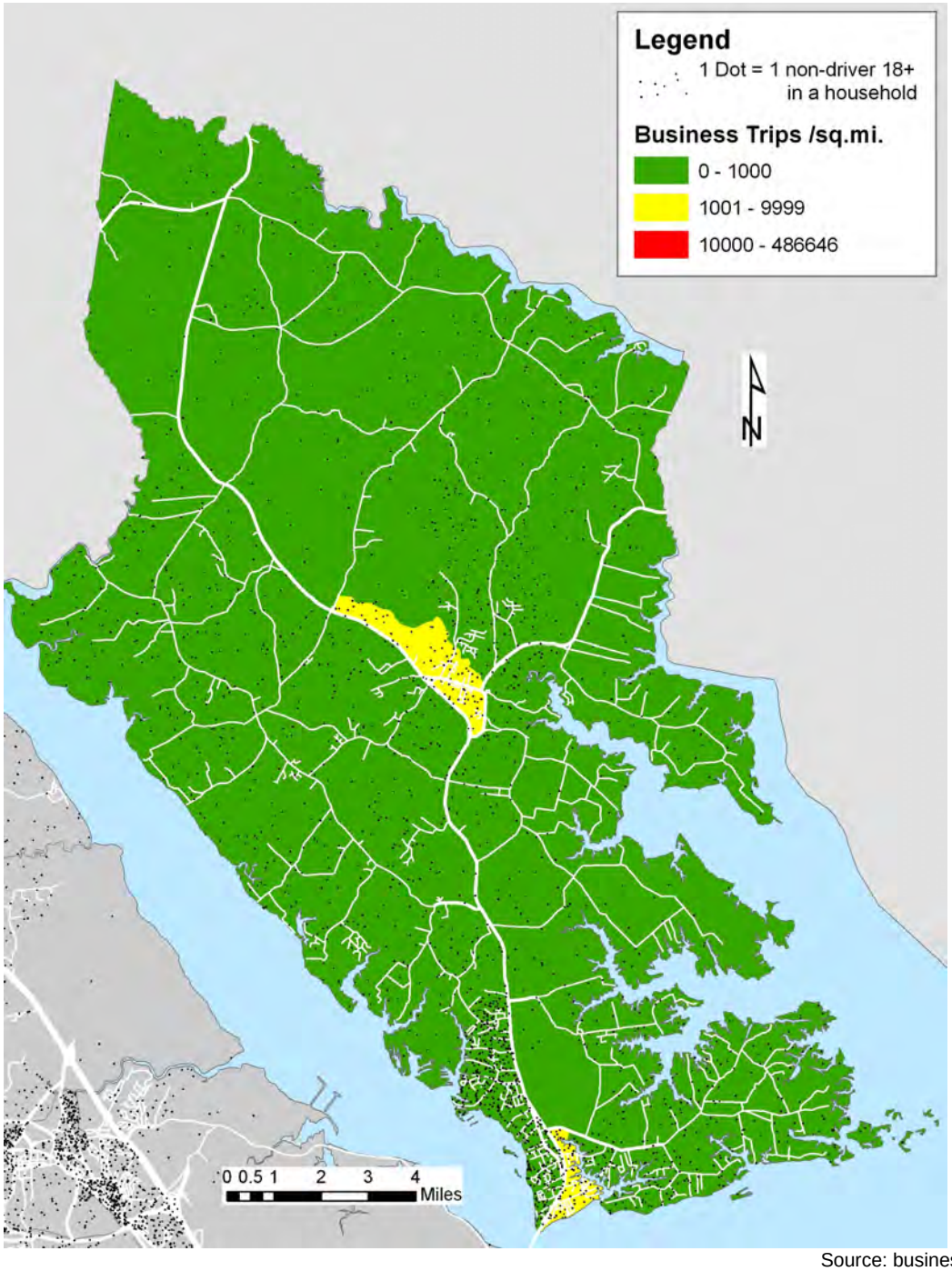
The 433 non-drivers 18+ in the 2,450 households in TAZs 1433 and 1434 shown above (which generally comprise the portion of Gloucester west of US 17 and south of Ernest Lane) represent 23% of Gloucester's 1,854 non-drivers 18+ in households and 19% of its 13,127 households.

Proximity of Residences and Bus Stops

There being no fixed-route bus service in Gloucester, no bus stop analysis was done.

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Gloucester



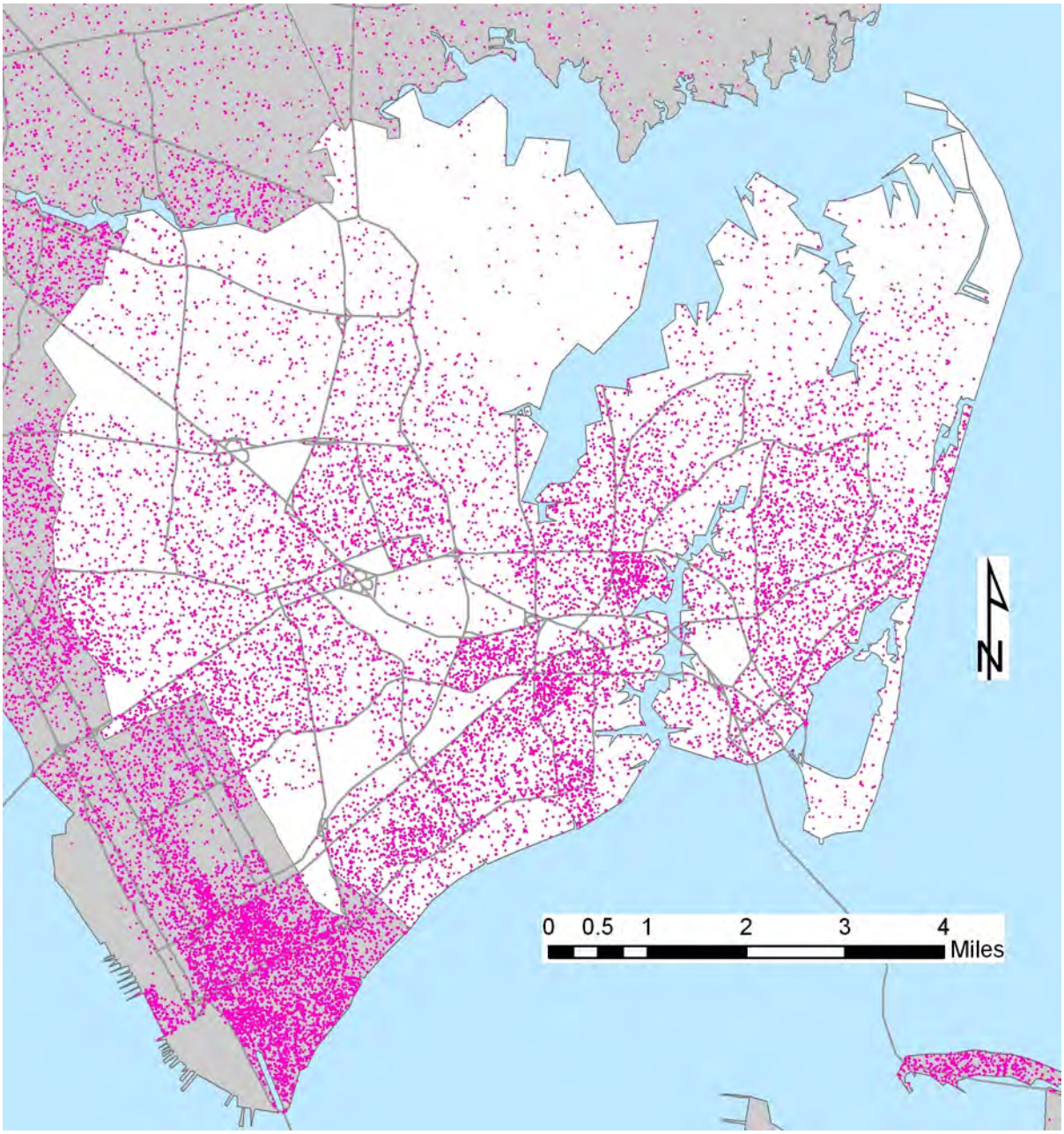
Source: business trips.jpg

The non-drivers in the Courthouse and Gloucester Point areas live within walking distance of many business activities.

Hampton

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Hampton

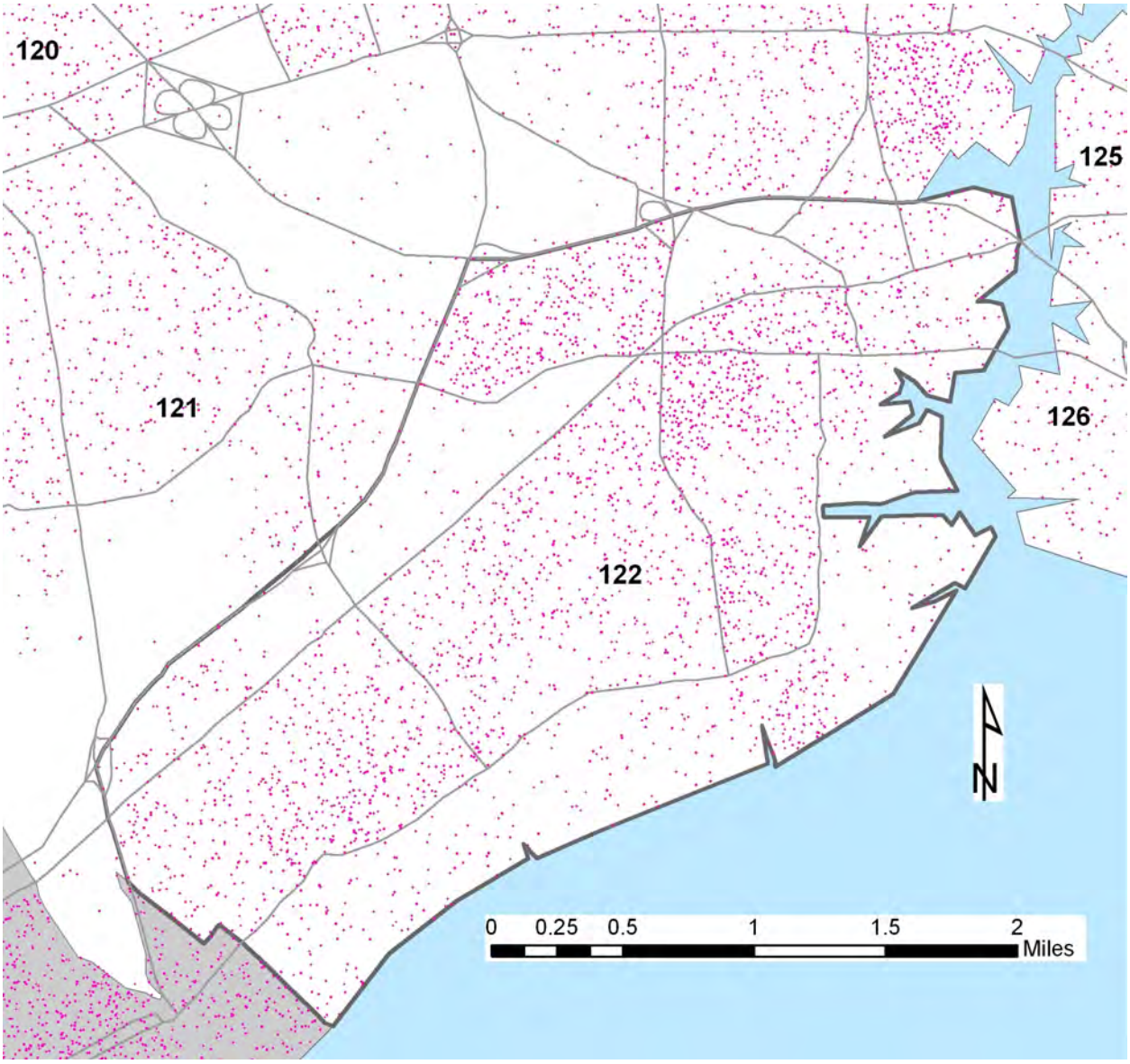


Legend: 1 non-driver per dot

Source: Hampton.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Hampton, District 122



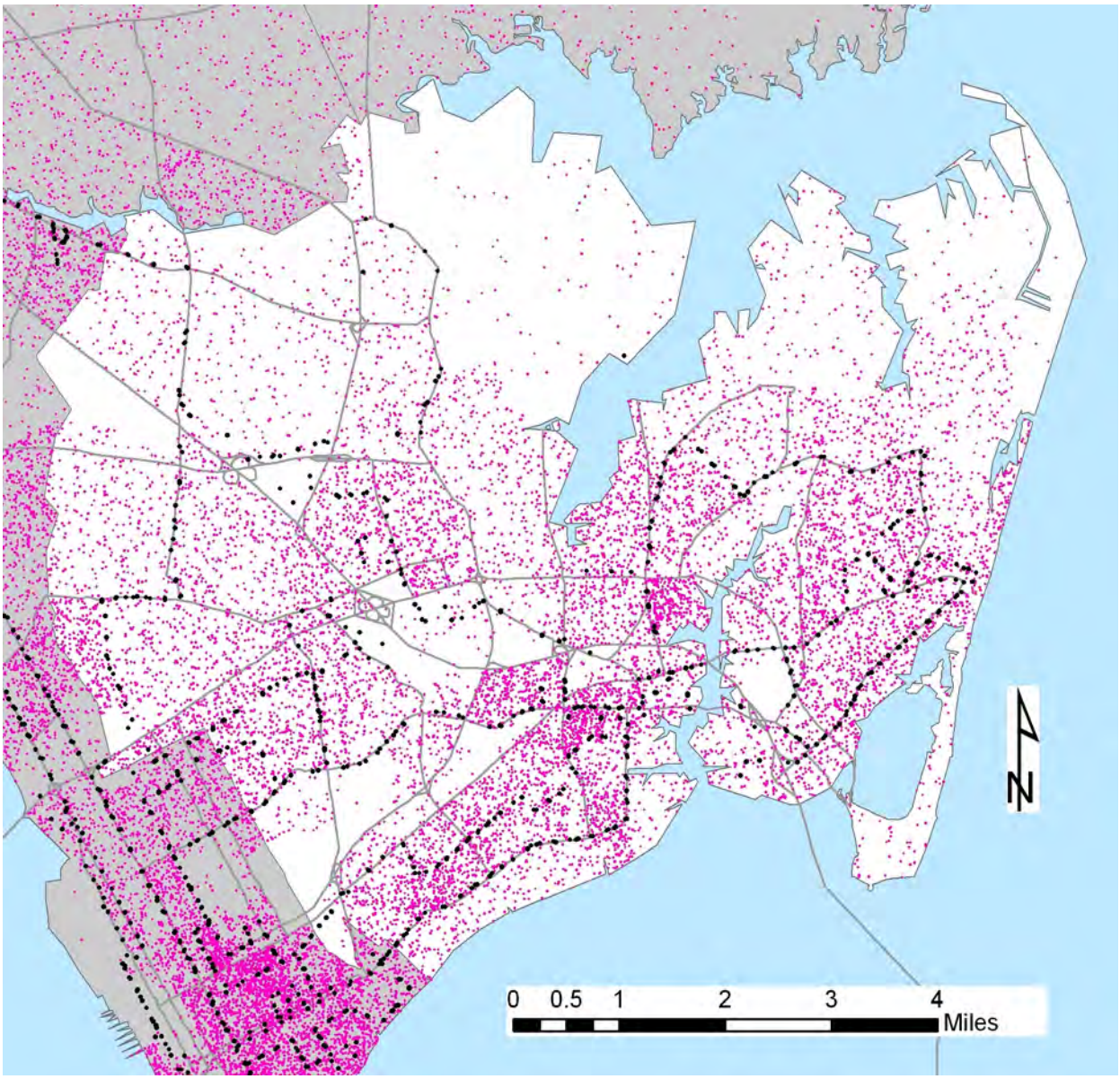
Legend: 1 non-driver per dot

Source: district 122.jpg

The 2,850 non-drivers 18+ in the 9,800 households in District 122 shown above (which generally comprises the portion of Hampton west of Hampton River, south of I-64, and east of I-664) represent 25% of Hampton's 11,289 non-drivers 18+ in households and 18% of its 53,887 households.

Proximity of Residences and Bus Stops

Bus Stops & Non-Drivers, 2000- Hampton



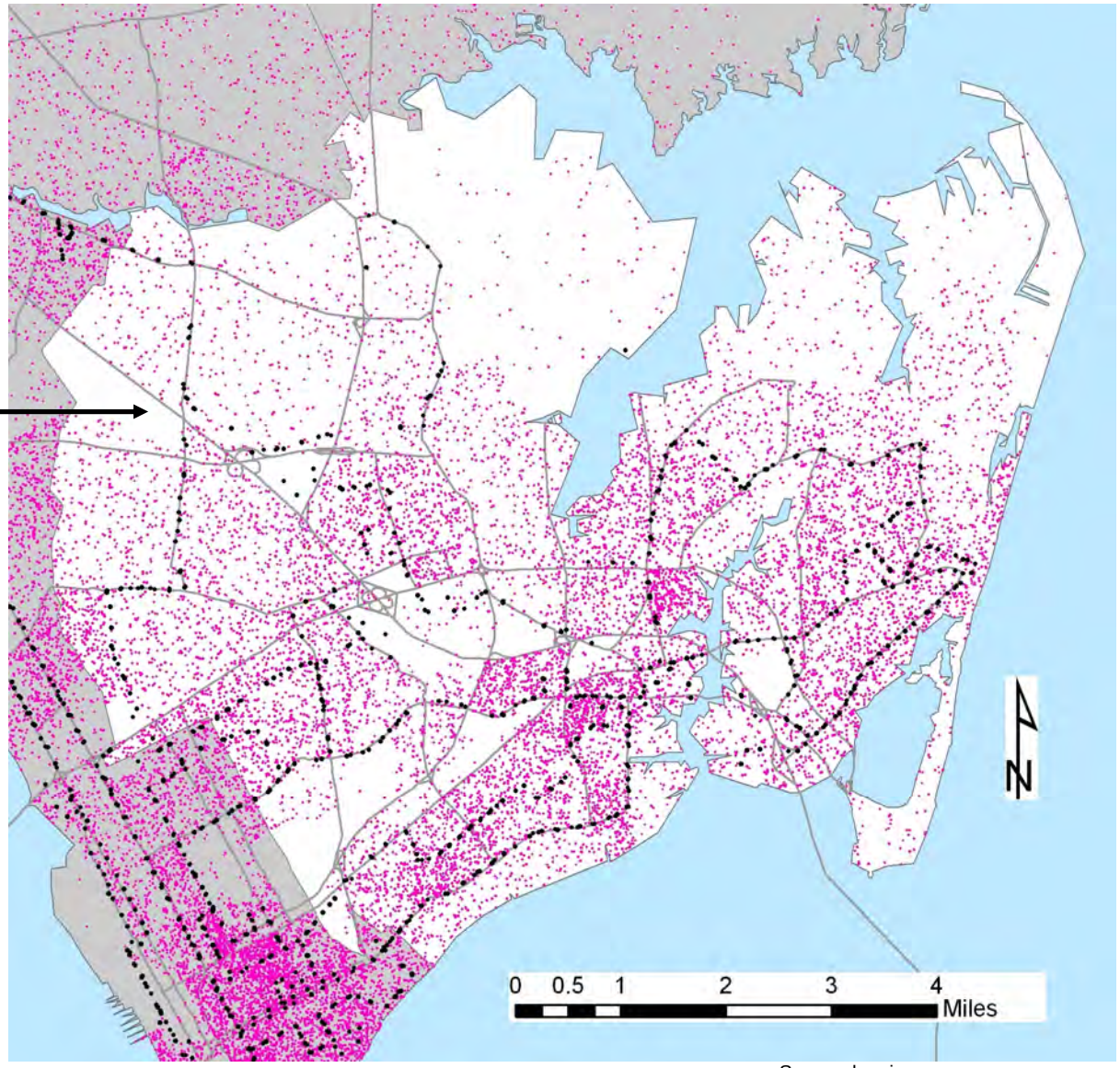
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: bus.jpg

The bus stops in Hampton appear to provide most local non-drivers with service within walking distance.

Bus Stops & Non-Drivers, 2000- Hampton- Findings

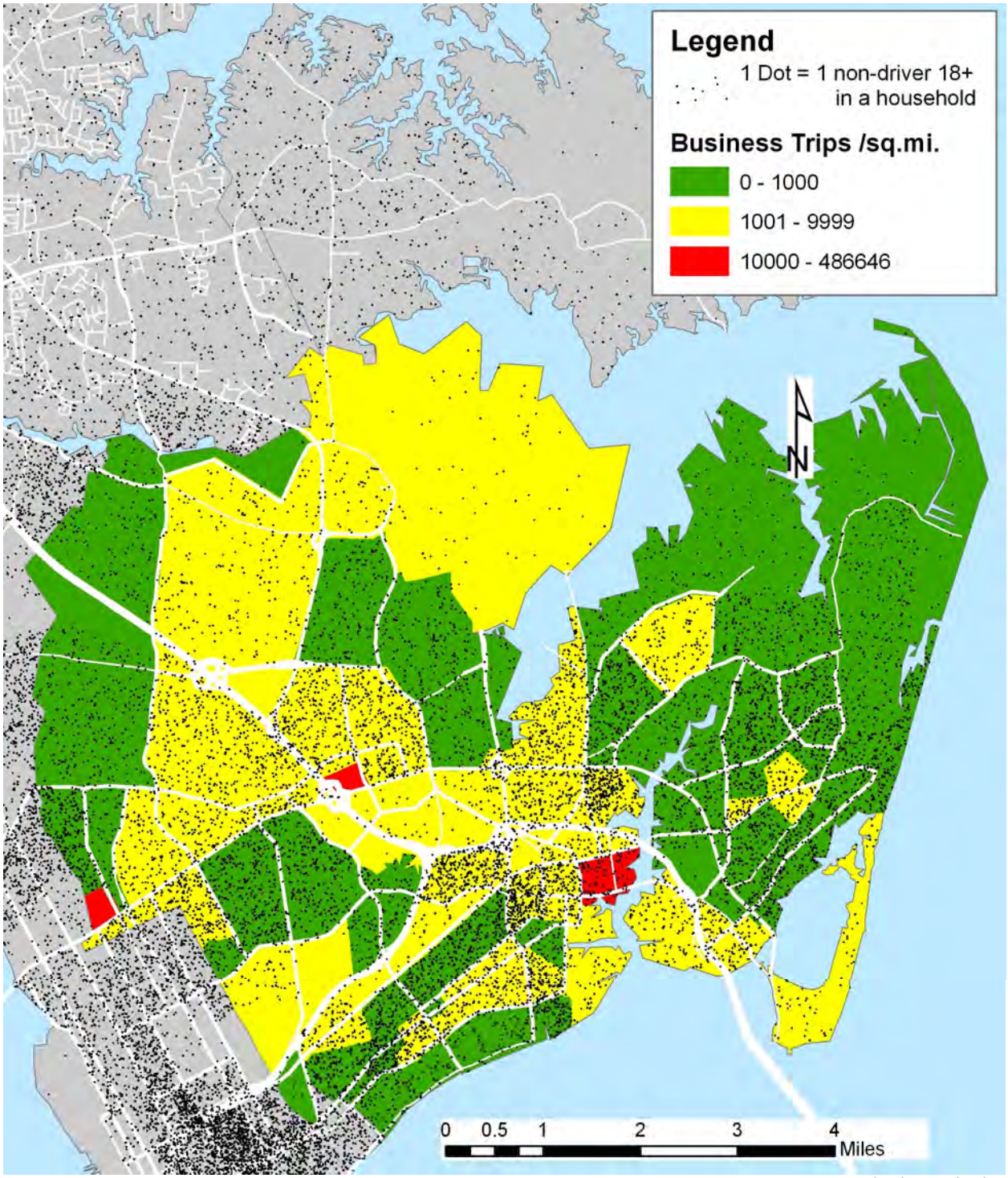
Higher residential density along Big Bethel Rd would provide more opportunities for non-drivers to take advantage of existing bus routes (#110 and 111).



Source: bus.jpg

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Hampton

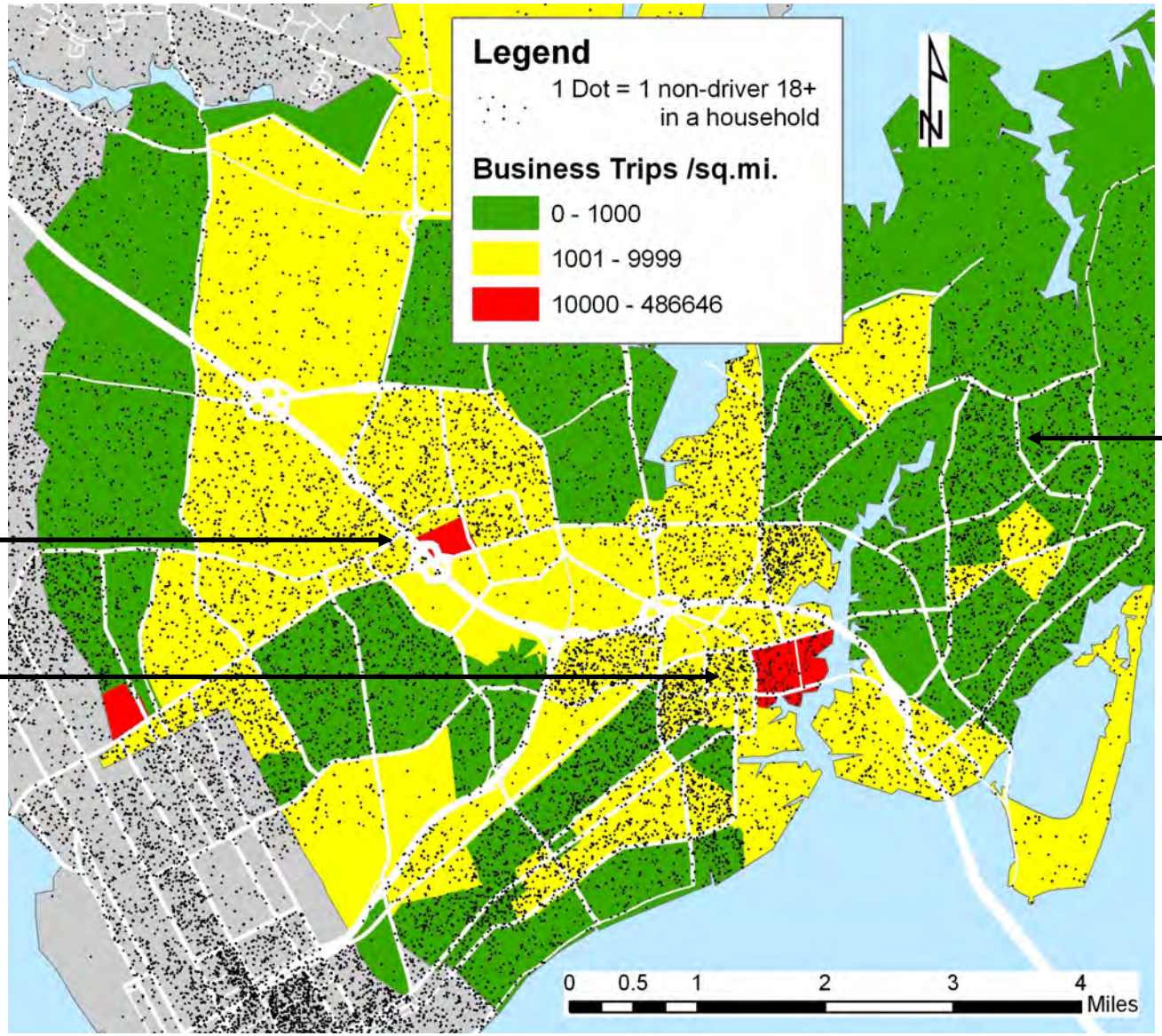


Source: business trips.jpg

Business Activity & Non-Drivers, 2000- Hampton- Findings

Non-drivers in Coliseum Mall area live within walking distance of many business activities.

Non-drivers in Downtown area live within walking distance of many business activities.



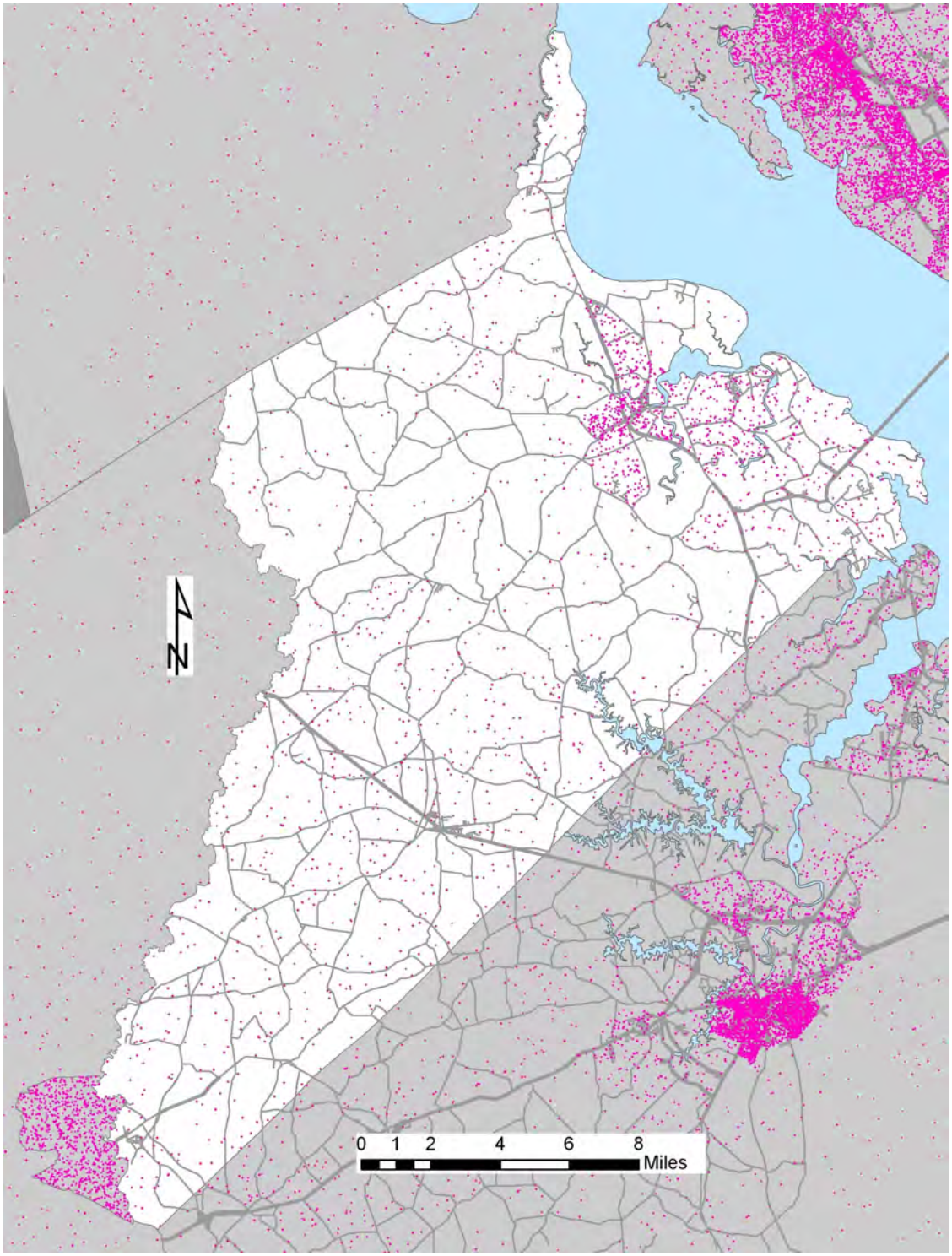
There are few business activities near non-drivers living in the area bounded by Woodland Rd, Foxhill Rd, Nickerson Blvd, and Andrews Blvd.

Source: business trips mid.jpg

Isle of Wight

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Isle of Wight

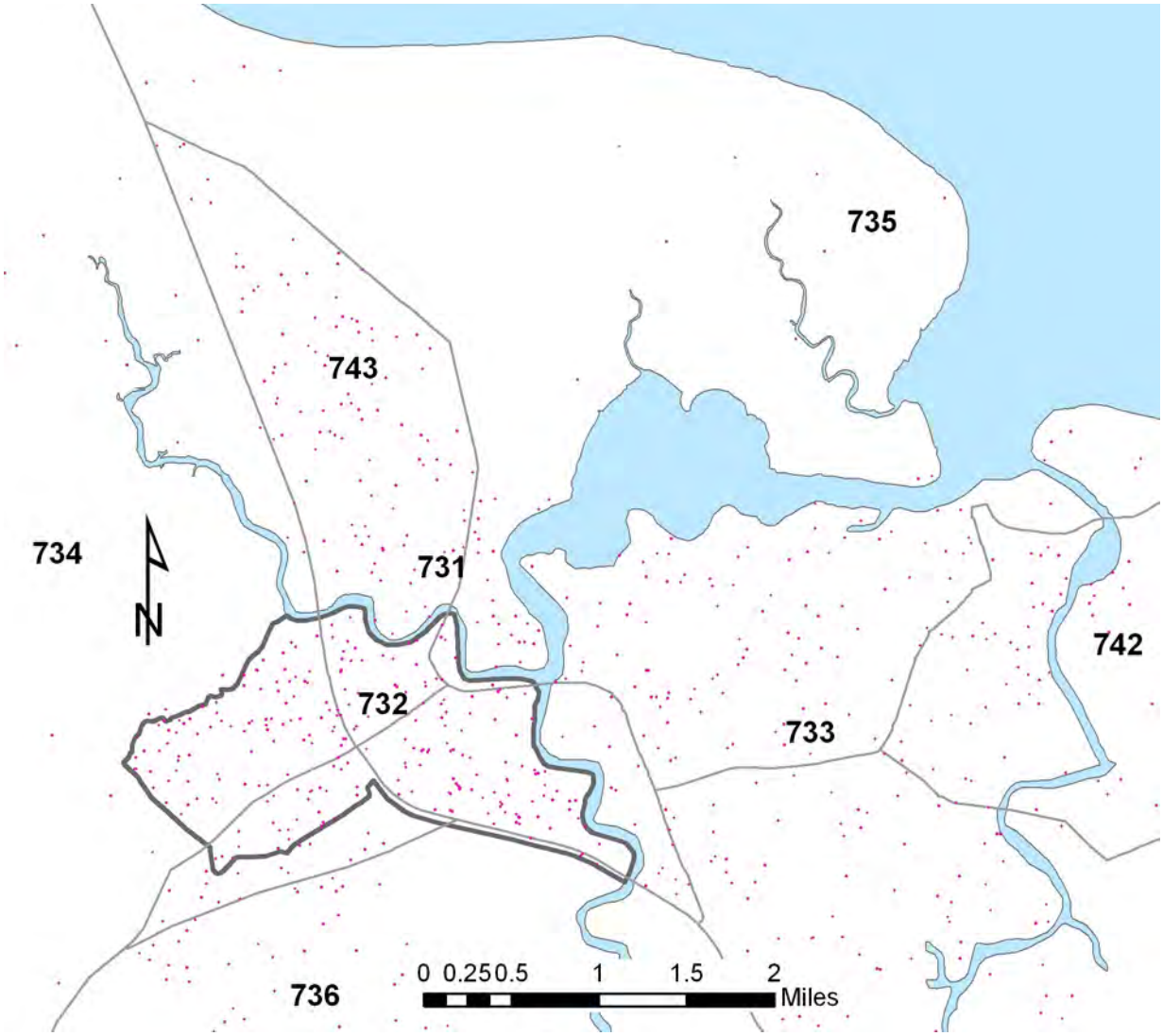


Legend: 1 non-driver per dot

Source: Isle of Wight.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Isle of Wight, TAZ 732



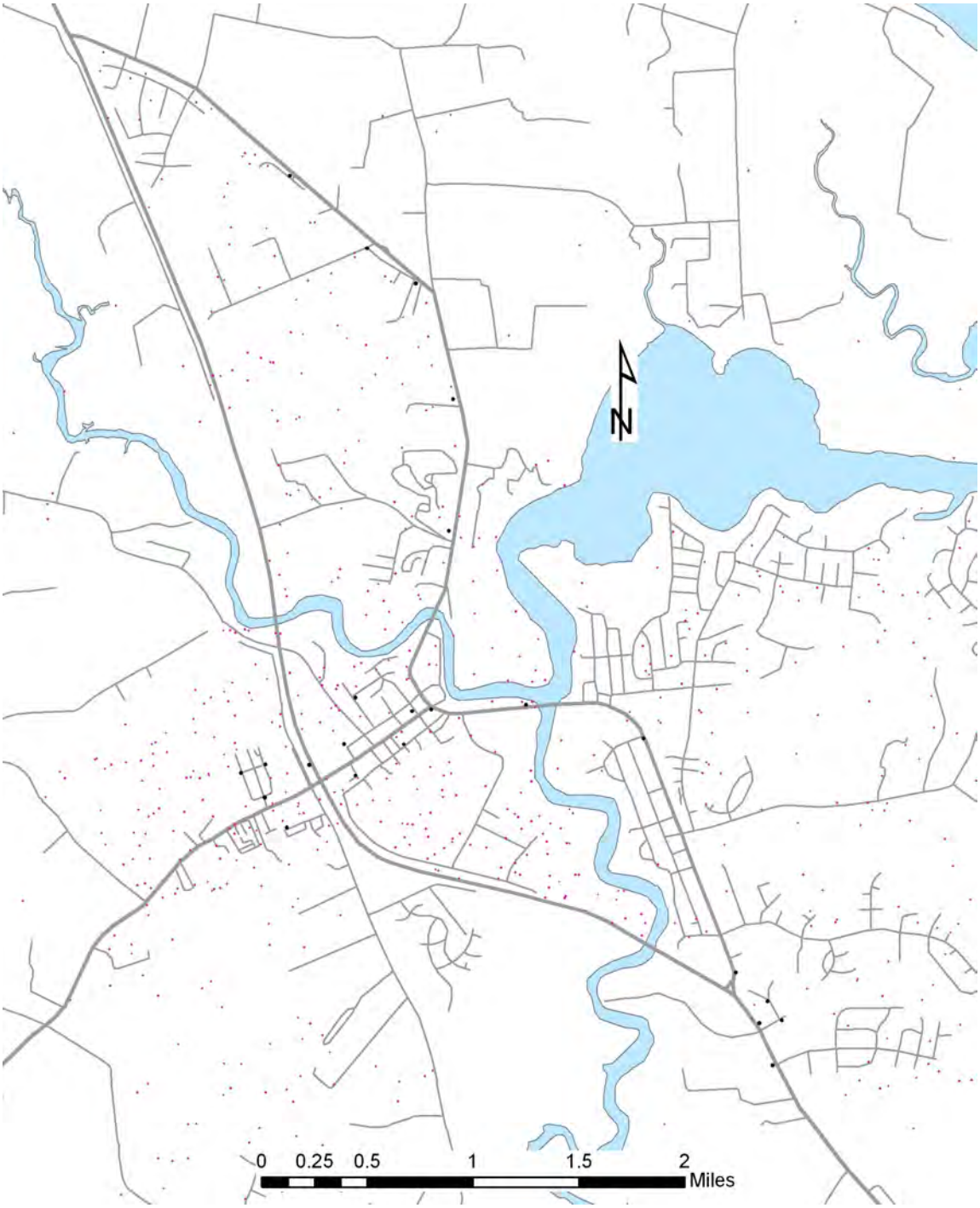
Legend: 1 non-driver per dot

Source: TAZ 732.jpg

The 237 non-drivers 18+ in the 755 households in TAZ 732 shown above (which generally comprises the portion of the Town of Smithfield west of Cypress Creek and south of the Pagan River) represent 13% of Isle of Wight's 1,810 non-drivers 18+ in households and only 7% of its 11,319 households.

Proximity of Residences and Bus Stops

Bus Stops & Non-Drivers, 2000- Isle of Wight



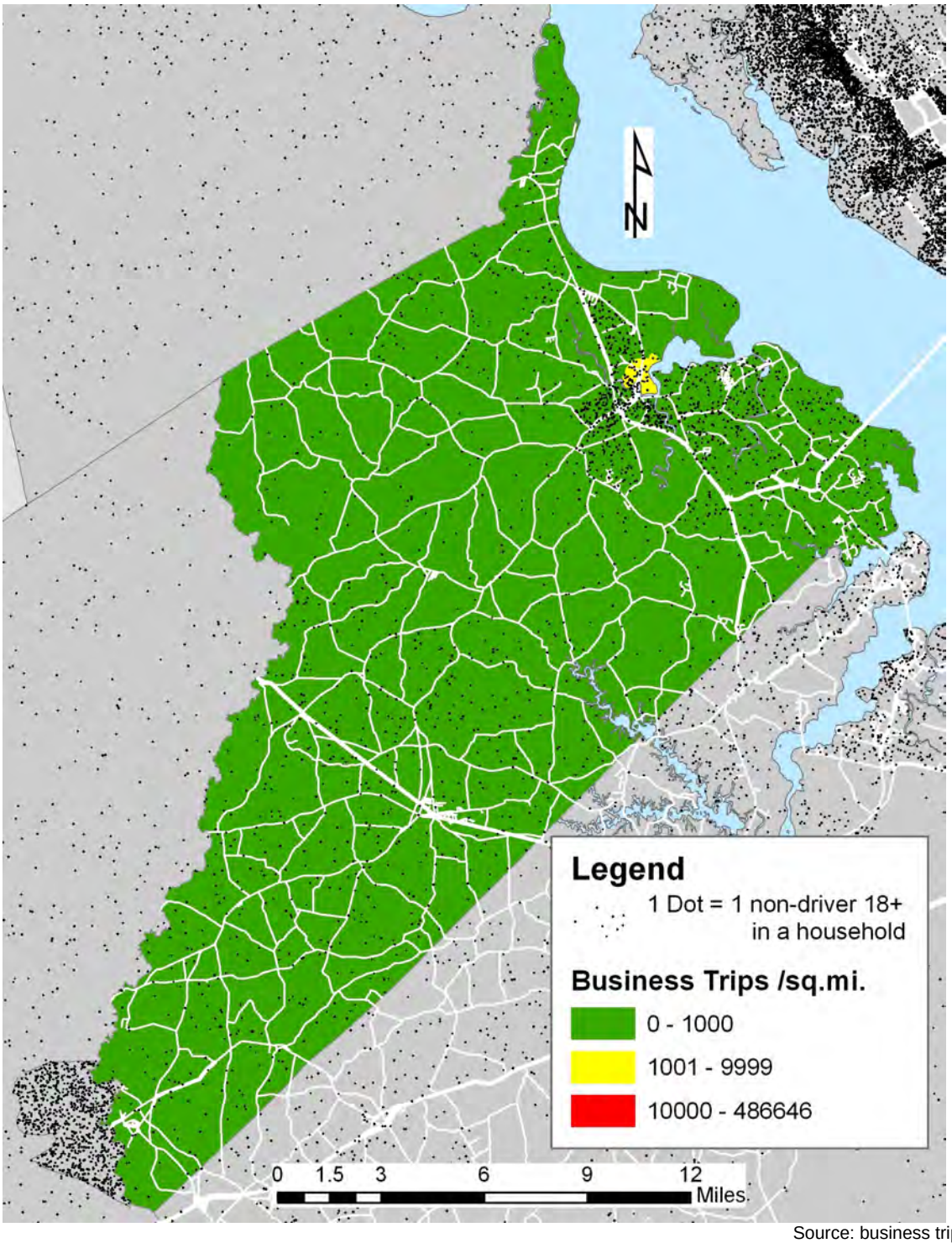
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: bus.jpg

The I-Ride bus stops appear to provide most non-drivers in Smithfield with service within walking distance. Note that the bus passes some stops only four times per day.

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Isle of Wight



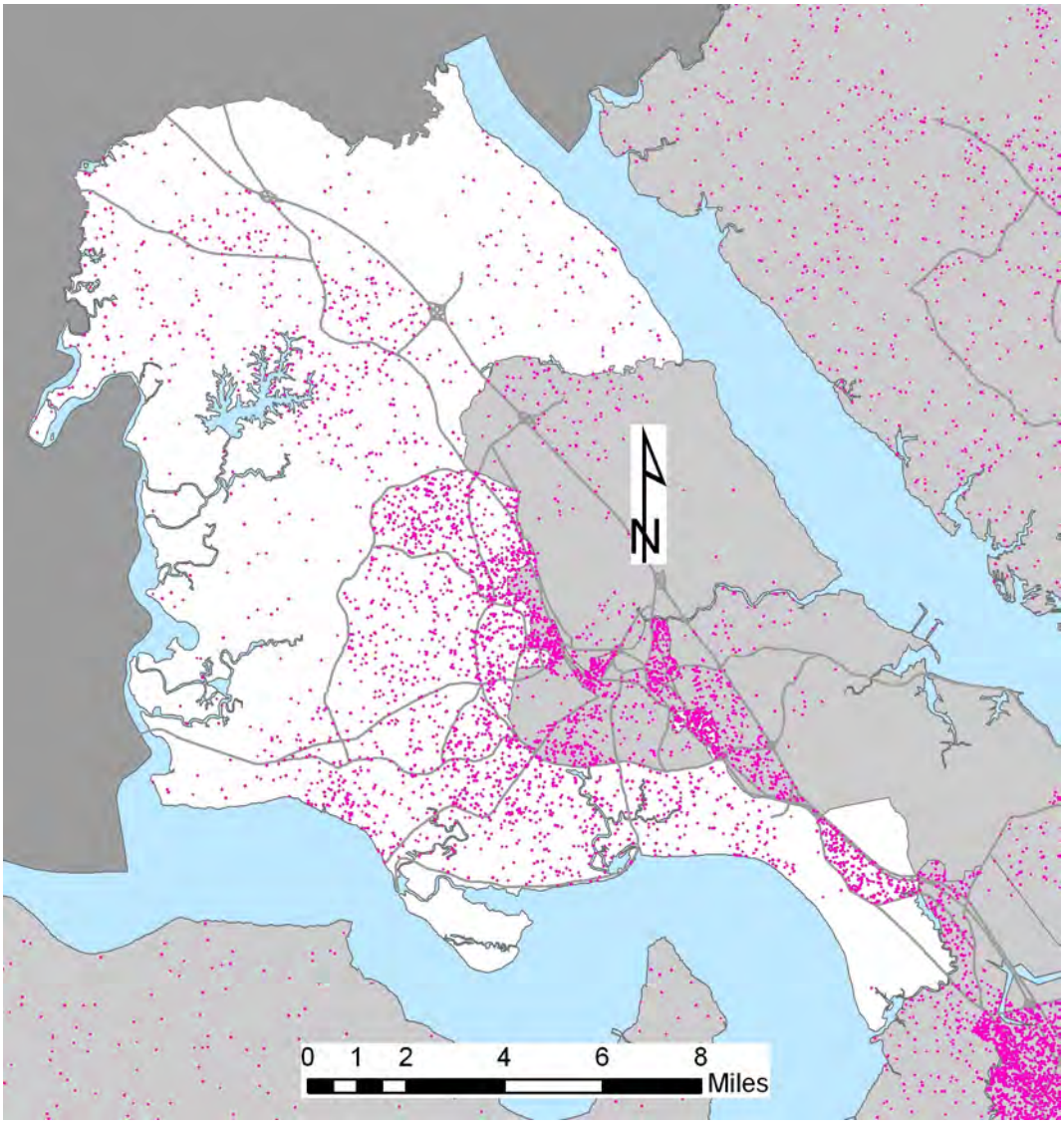
Source: business trips.jpg

Most of the non-drivers in Smithfield live within walking distance of many business activities.

James City

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- James City

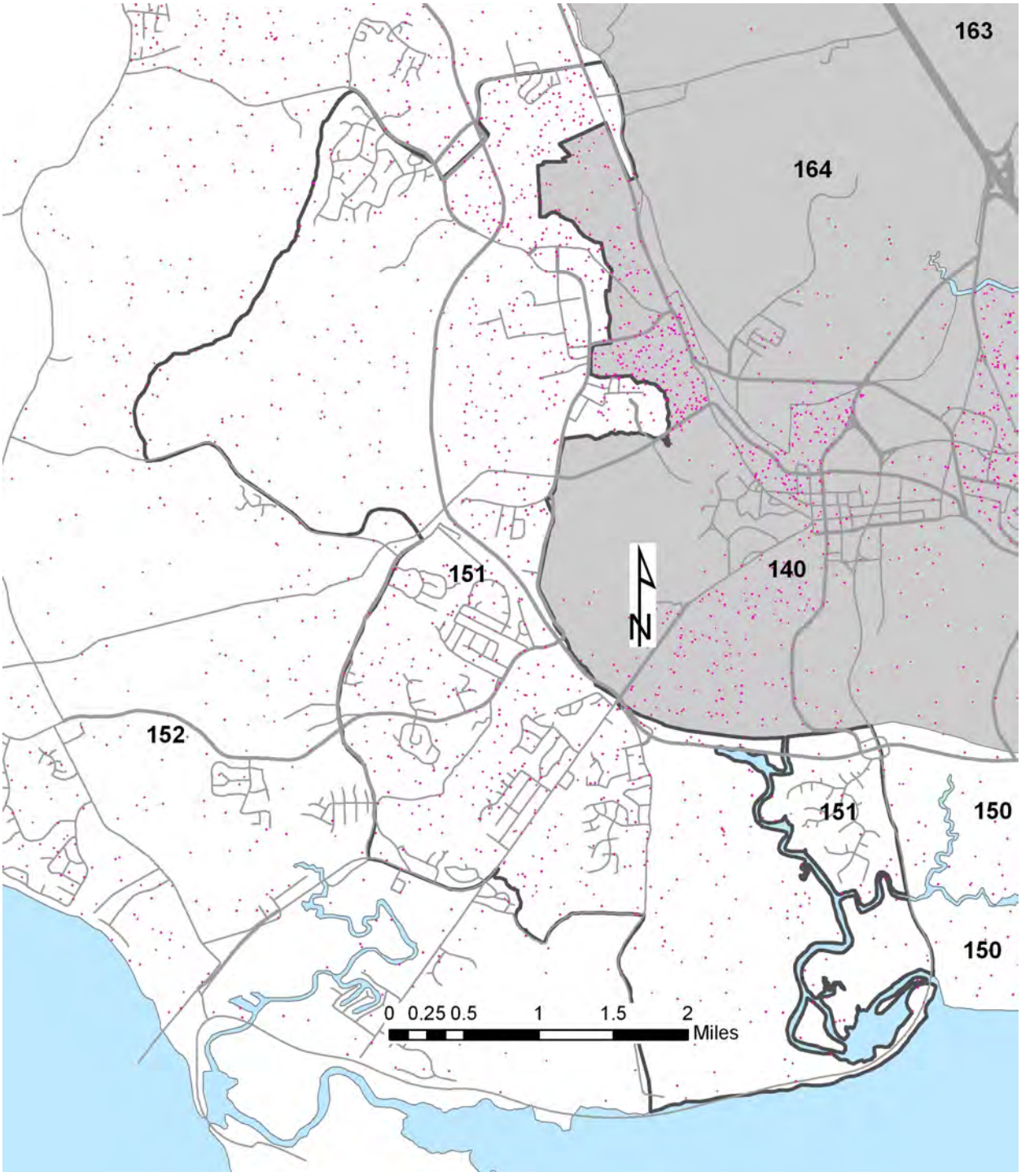


Legend: 1 non-driver per dot

Source: James City.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- James City, District 151



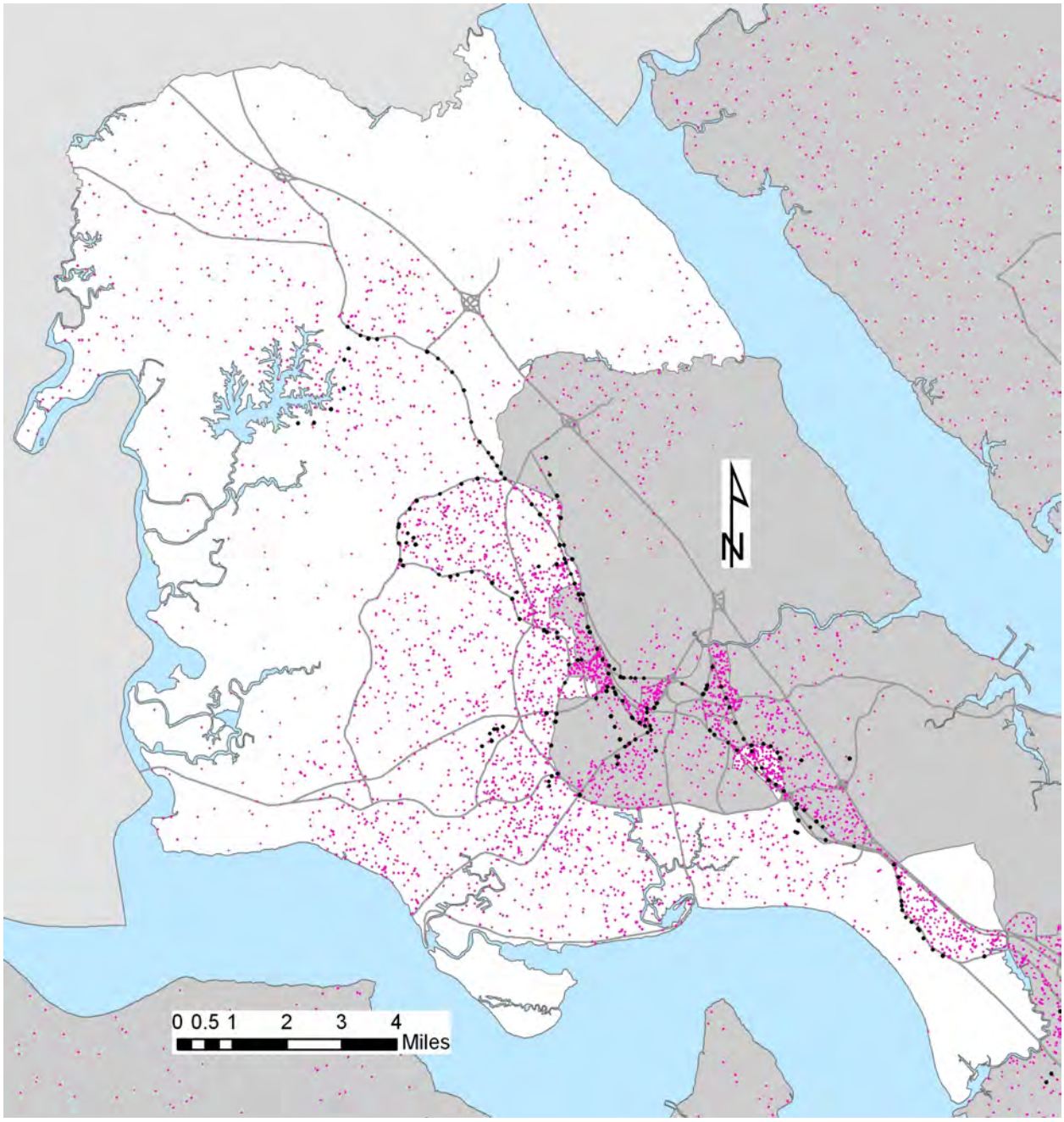
Legend: 1 non-driver per dot

Source: district 151.jpg

The 826 non-drivers 18+ in the 5,400 households in District 151 shown above (which generally comprises the portion of James City just west and south of Williamsburg) represent 31% of James City's 2,652 non-drivers 18+ in households and 28% of its 19,003 households.

Proximity of Residences and Bus Stops

Bus Stops & Non-Drivers, 2000- James City



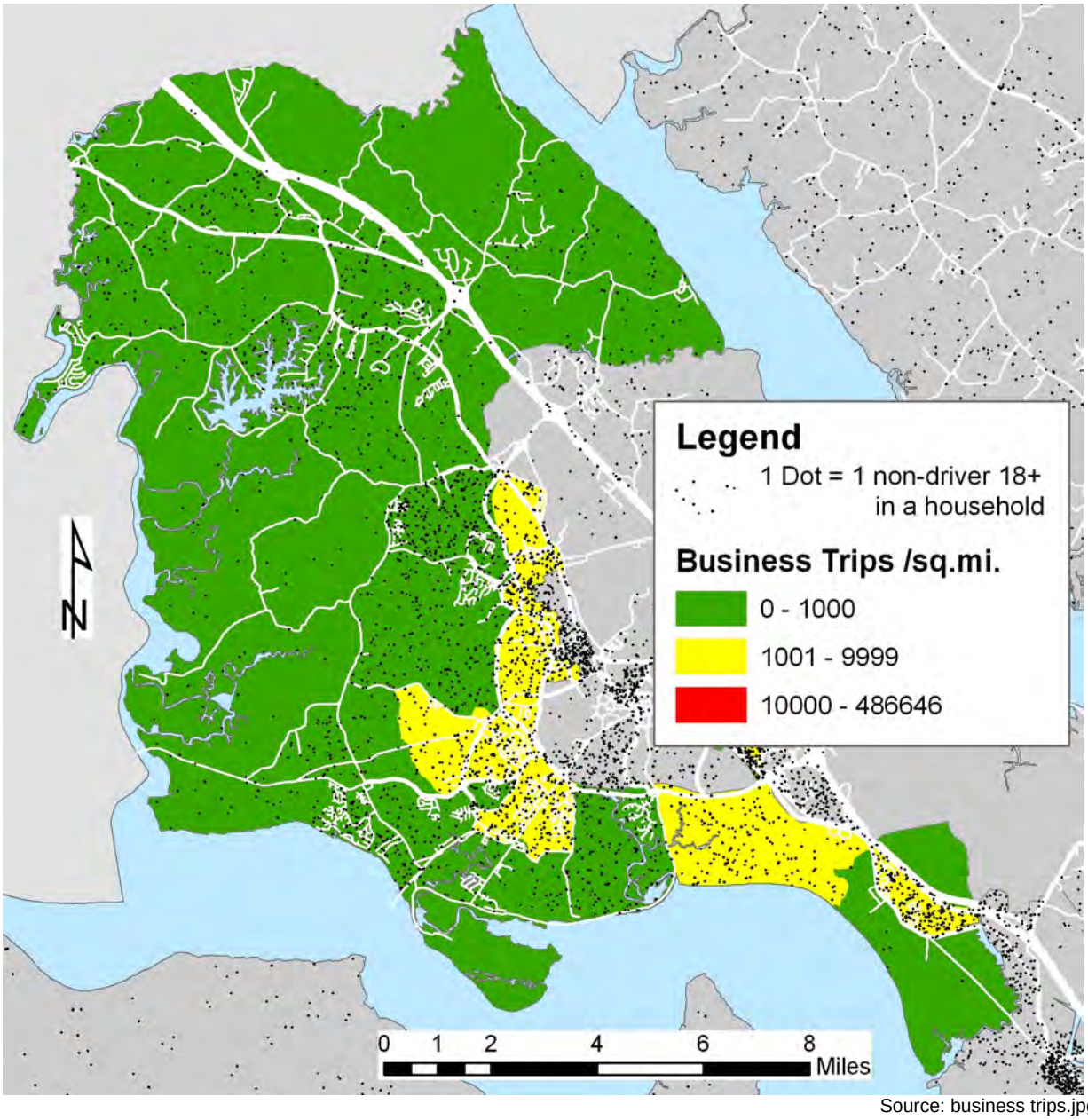
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: bus.jpg

The bus stops in James City appear to provide many local non-drivers with service within walking distance. With fixed-route service, it would be difficult to serve the non-drivers scattered throughout the county.

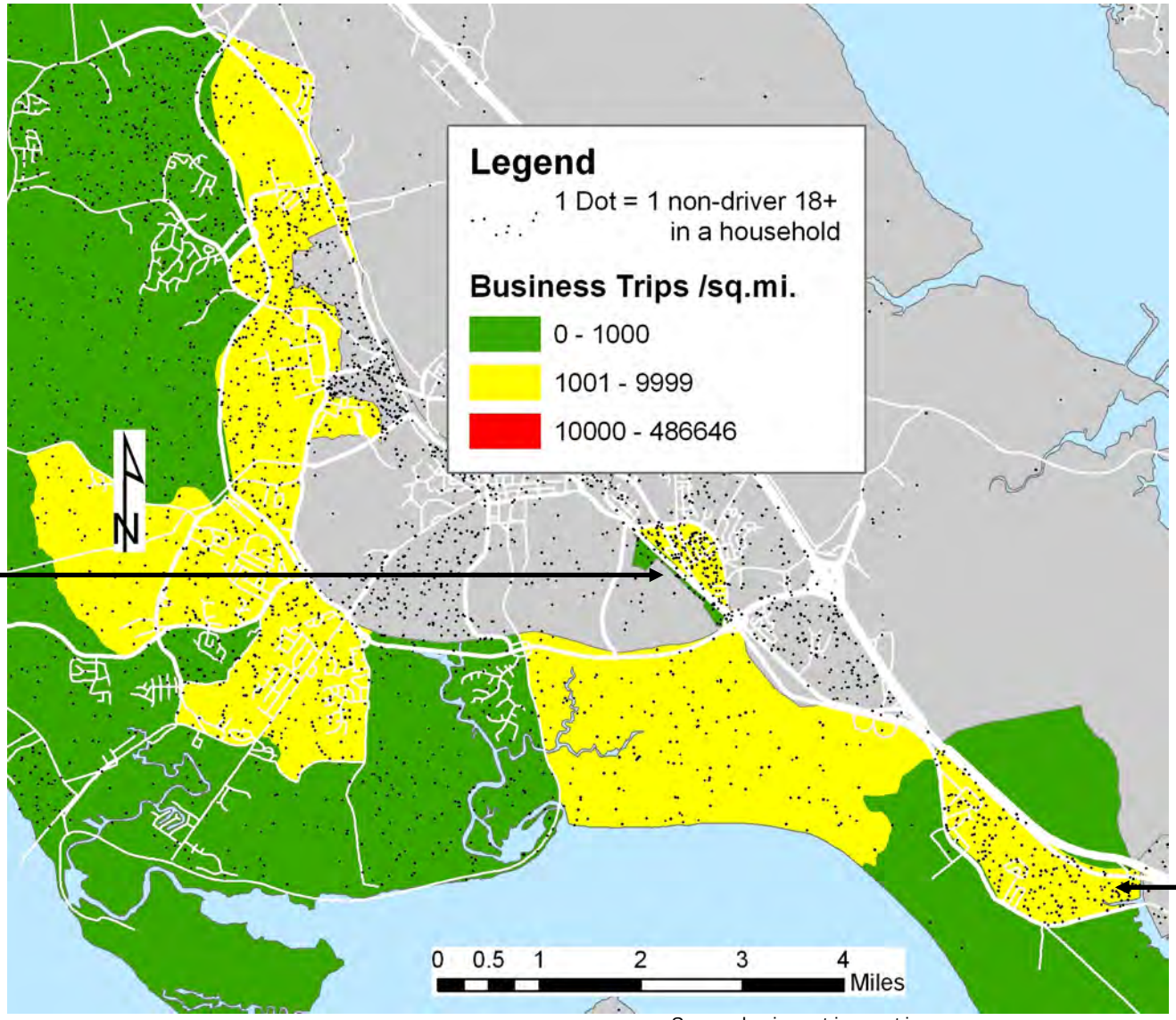
Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- James City



Source: business trips.jpg

Business Activity & Non-Drivers, 2000- James City- Findings



Source: business trips east.jpg

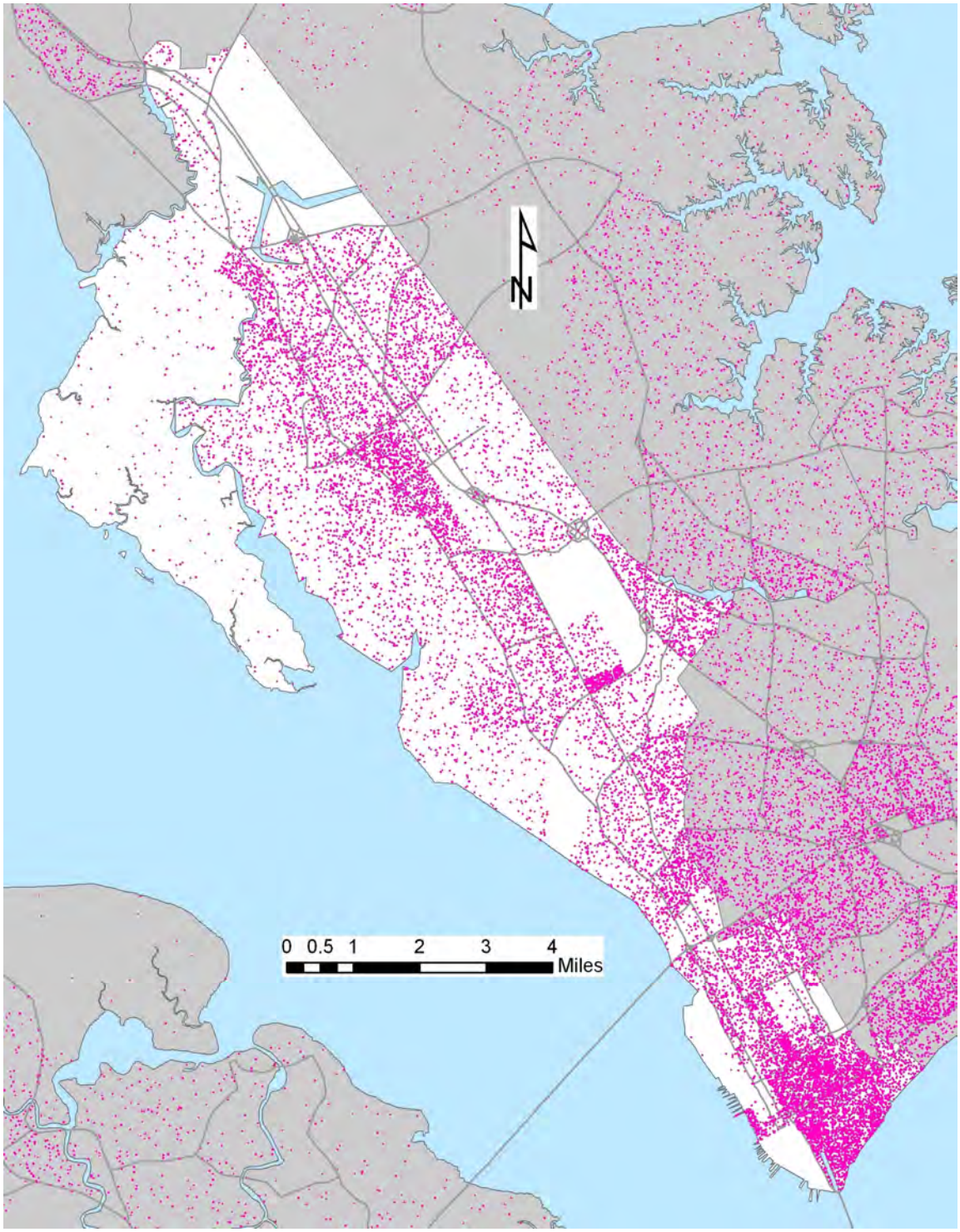
Non-drivers in the (yellow) area between Penniman Rd and the CSX railroad live within walking distance of many business activities.

Although some of the non-drivers in the (yellow) area between Pocahontas Trail and the CSX railroad live within walking distance of business activities, non-drivers in the large mobile home park (MHP) in the middle of this area (Country Vill MHP) live far from business activities.

Newport News

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Newport News

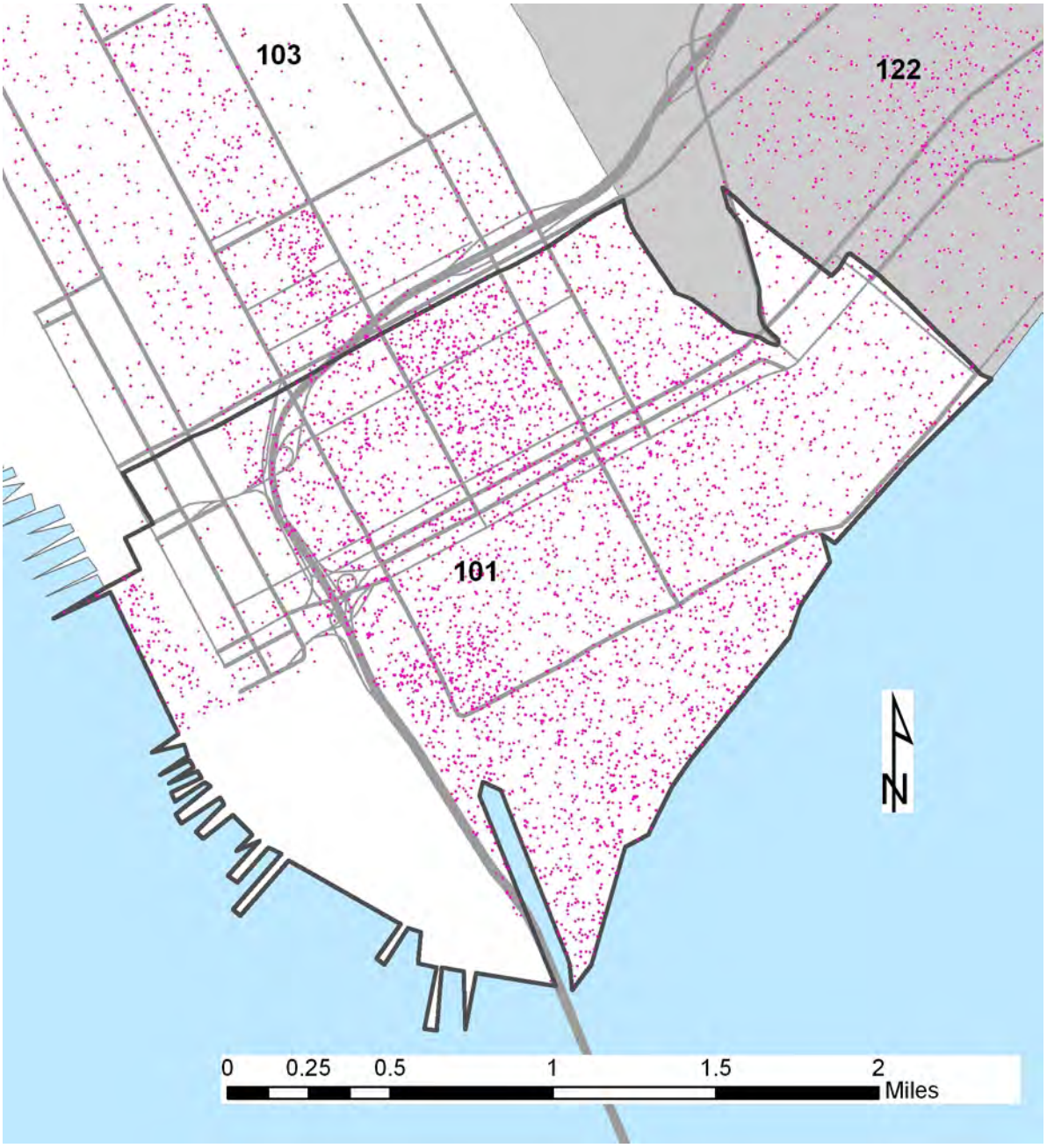


Legend: 1 non-driver per dot

Source: Newport News.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Newport News, District 101



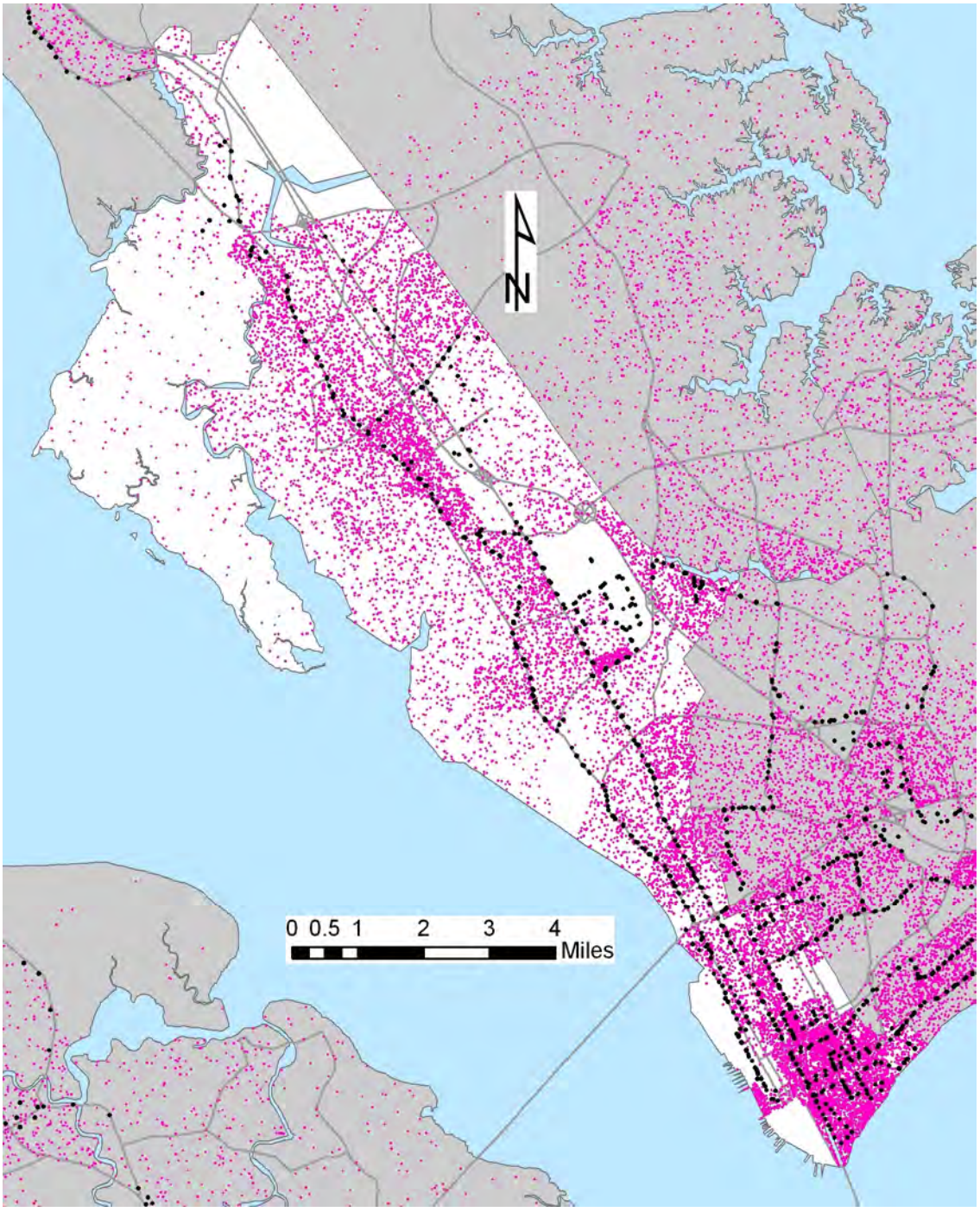
Legend: 1 non-driver per dot

Source: District 101.jpg

The 3,951 non-drivers 18+ in the 7,685 households in District 101 shown above (which generally comprises the portion of Newport News south of 39th Street) represent 26% of Newport News's 15,412 non-drivers 18+ in households and only 11% of its 69,686 households.

Proximity of Residences and Bus Stops

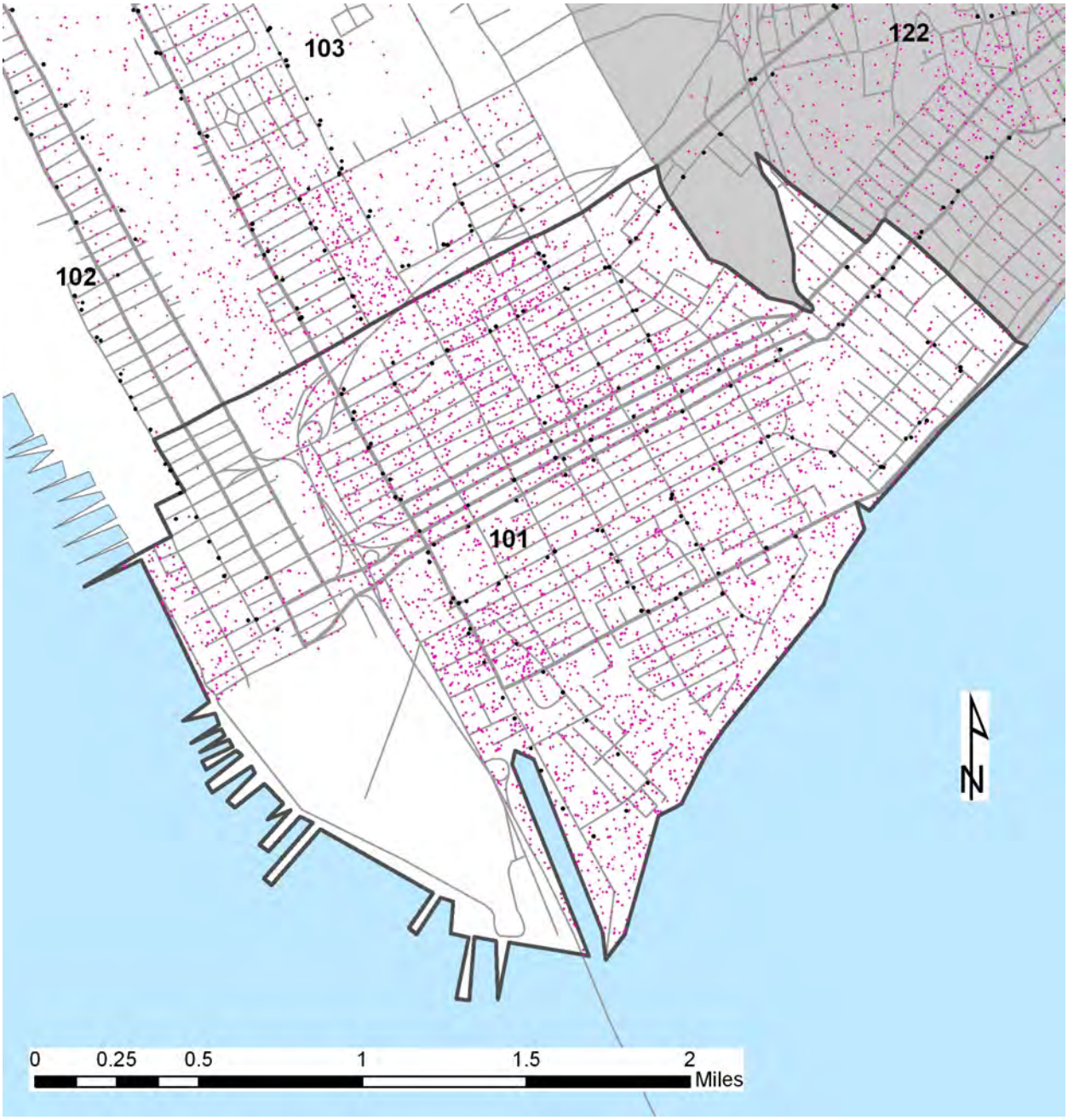
Bus Stops & Non-Drivers, 2000- Newport News



Legend: 1 non-driver per pink dot; 1 bus stop per black dot Source: bus.jpg

The bus stops in Newport News appear to provide most local non-drivers with service within walking distance.

Bus Stops & Non-Drivers, 2000- Newport News, District 101



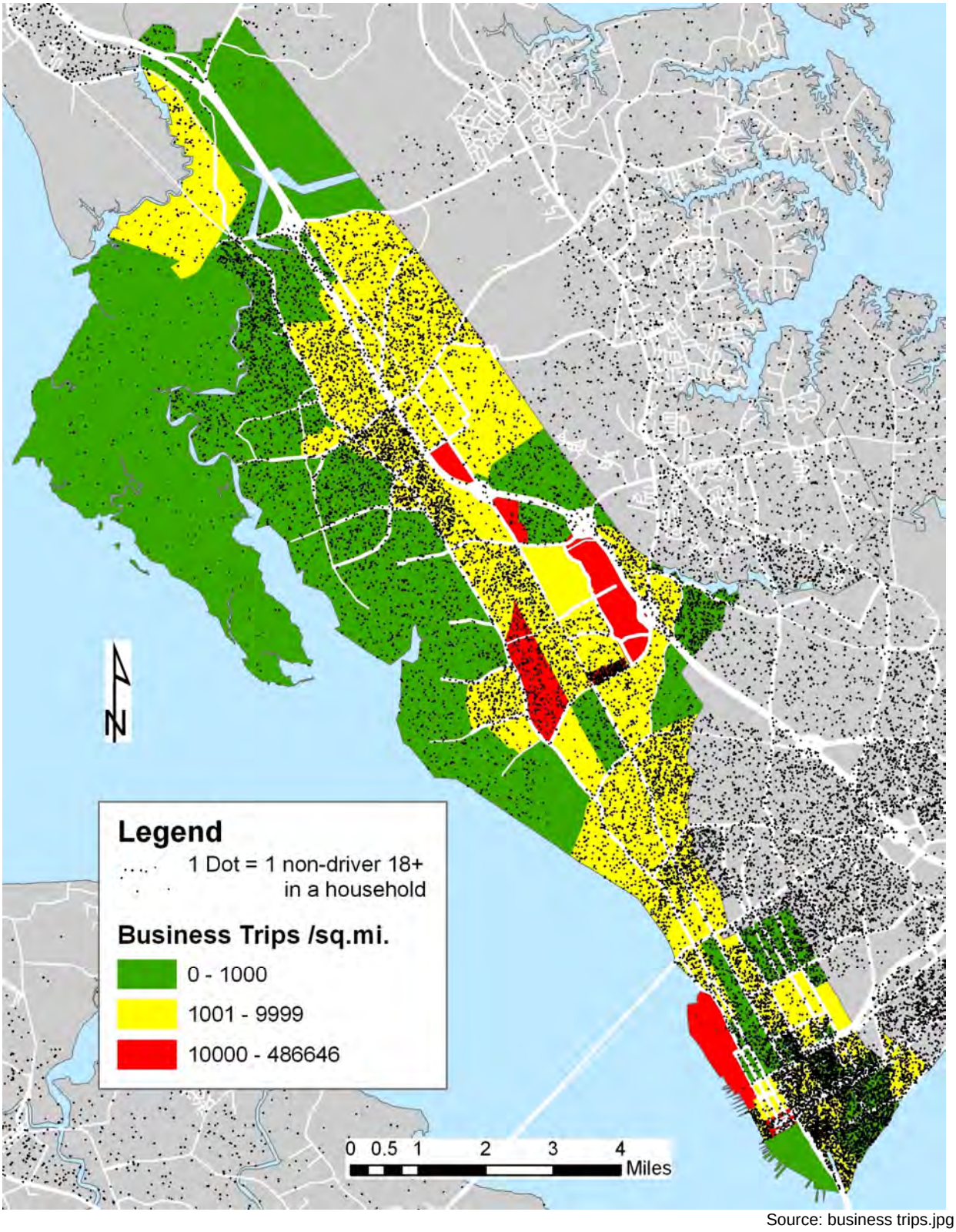
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: District 101 w bus.jpg

Bus stop coverage is particularly dense in southeast Newport News (District 101) where the concentration of non-drivers is most dense.

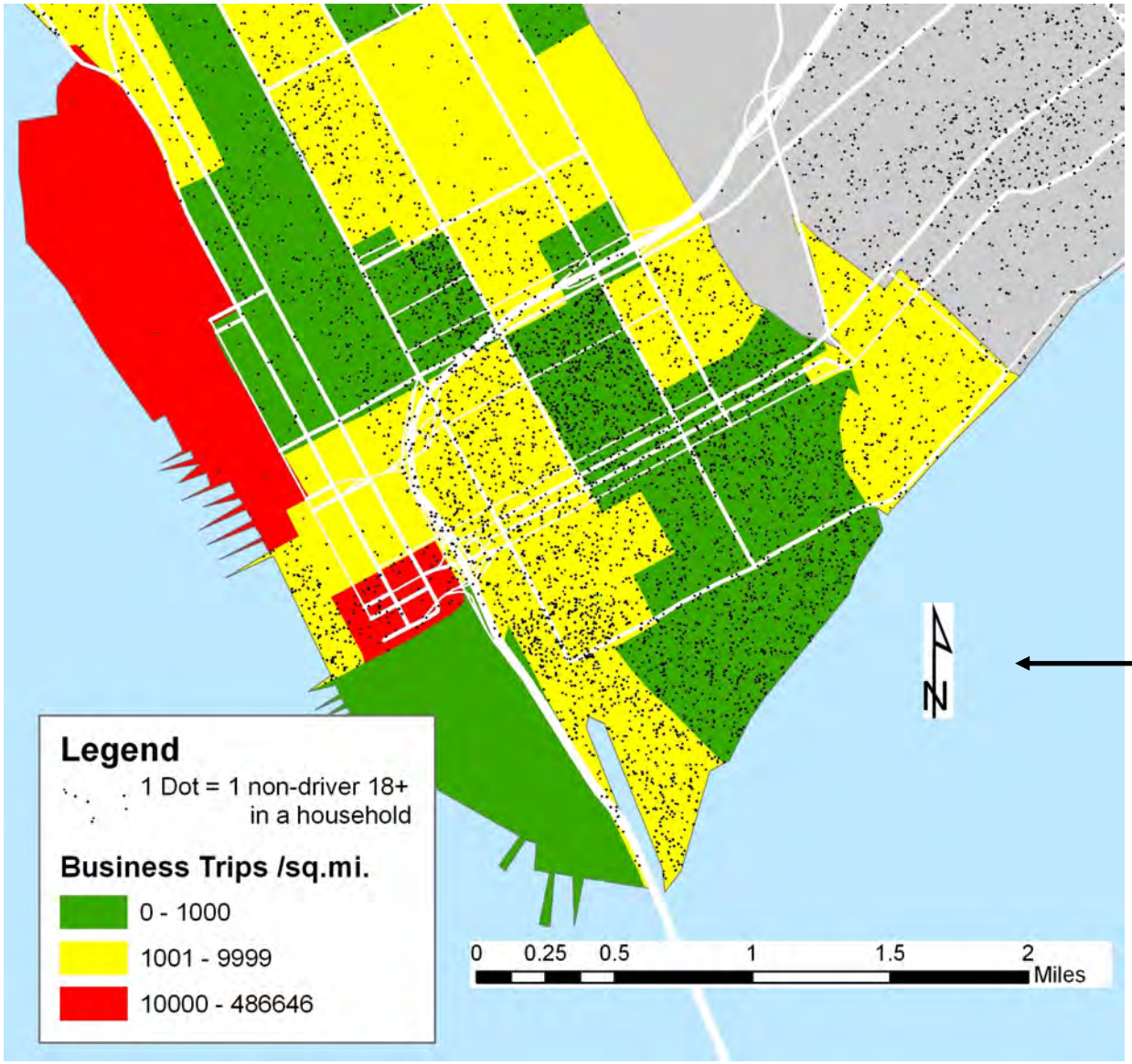
Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Newport News



Source: business trips.jpg

Business Activity & Non-Drivers, 2000- Newport News, Southeast- Findings



The non-drivers living in Southeast Newport News live within walking distance of a moderate number of business activities.

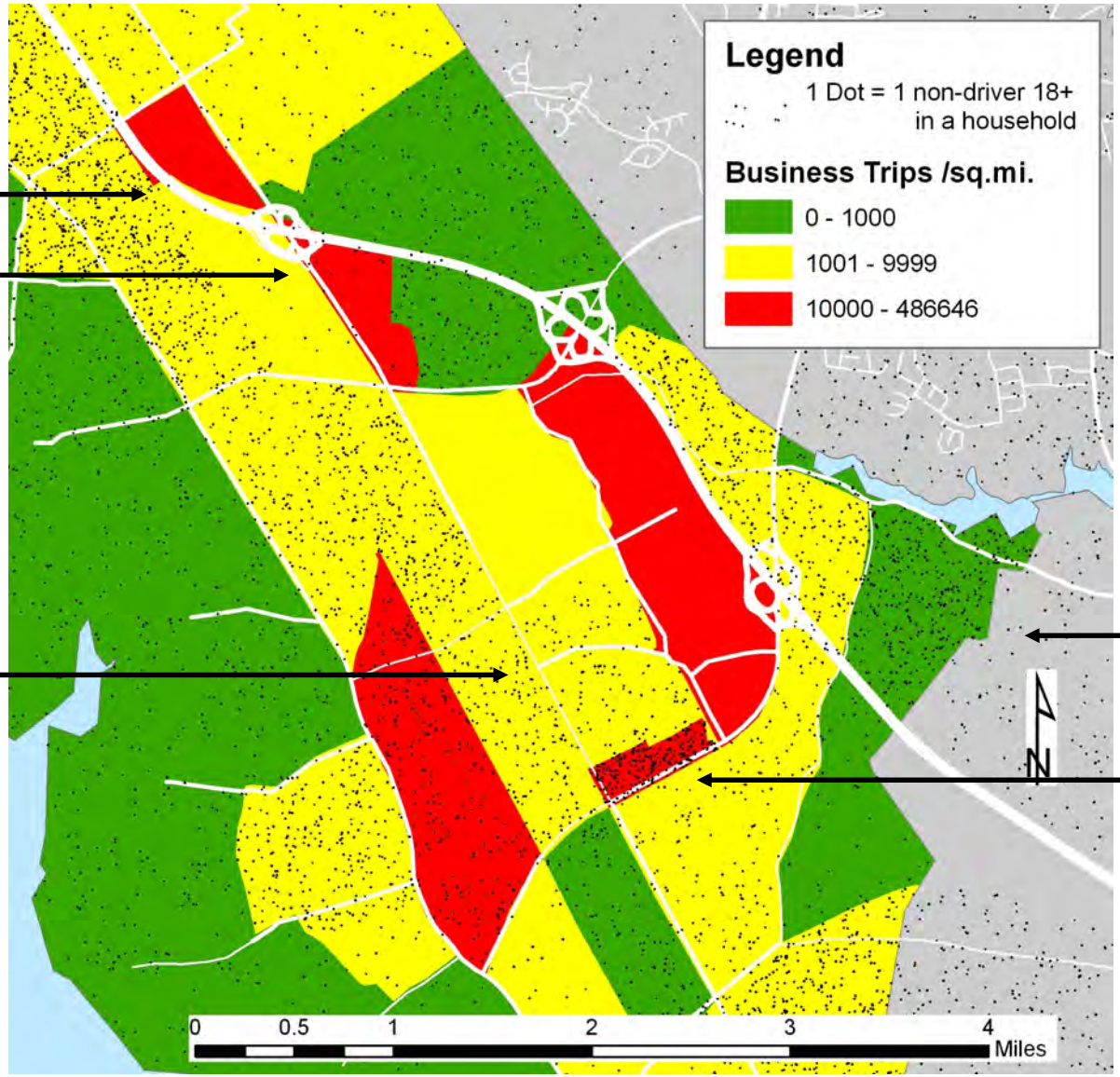
Source: business trips SE.jpg

Non-drivers may benefit from more residential oppor-tunities near the business activities in the Bland Blvd, Jefferson Ave, I-64 (red) triangle.

Non-drivers may benefit from more residential opportunities near the business activities in the Patrick Henry Mall (red) area.

Non-drivers moving into new housing at Oyster Point (built after the 2000 Census and therefore not reflected here) live within walking distance of many business activities.

Business Activity & Non-Drivers, 2000- Newport News, Mid Section- Findings



Source: business trips mid.jpg

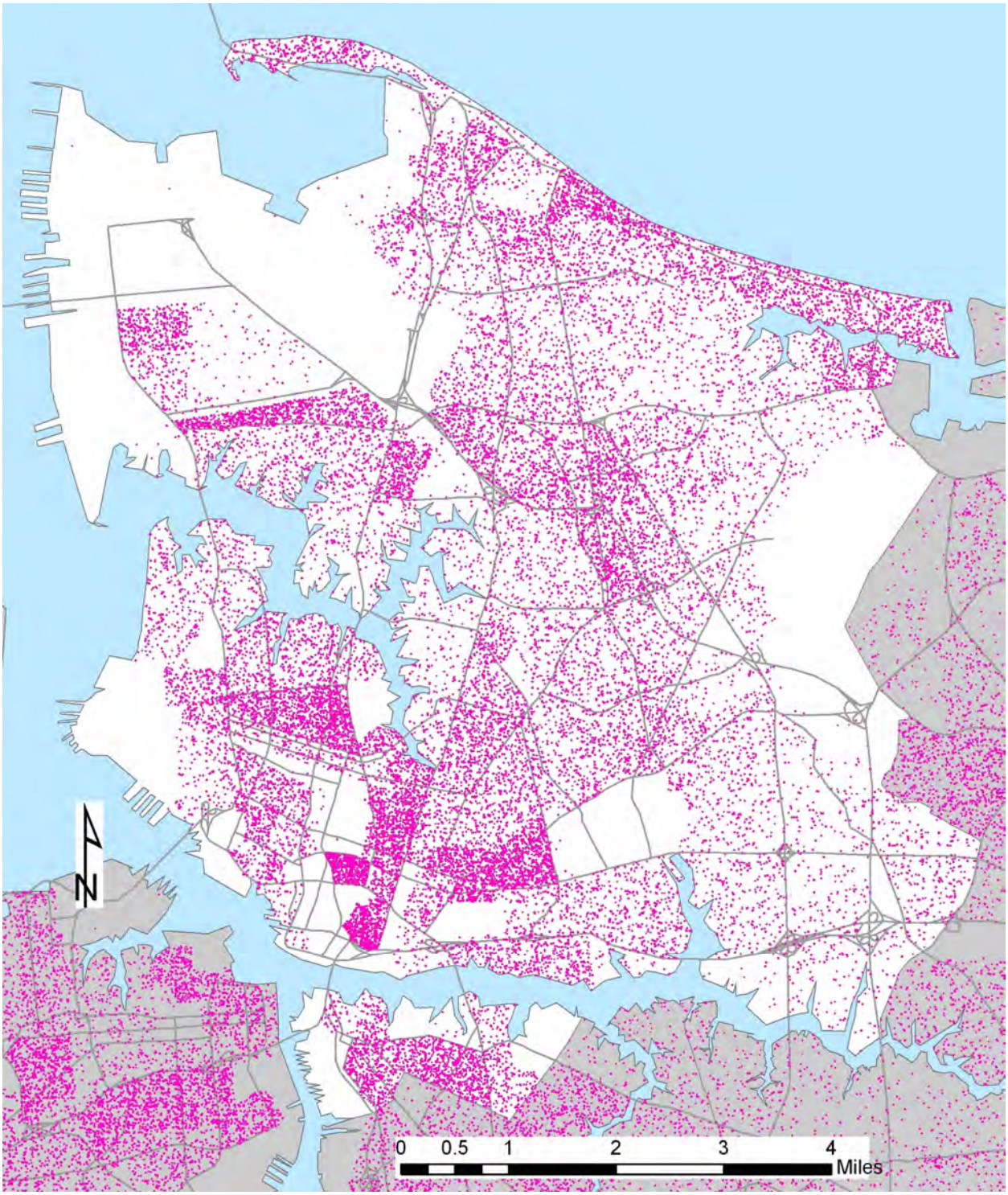
Non-drivers in the (green) area bounded by Saunders Rd, Hampton corp. limit, I-64, and Harpersville Rd live far from business activities.

Non-drivers in the (red) area along J Clyde Morris Blvd between Jefferson Ave and Thimble Shoals Blvd live within walking distance of many business activities.

Norfolk

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Norfolk

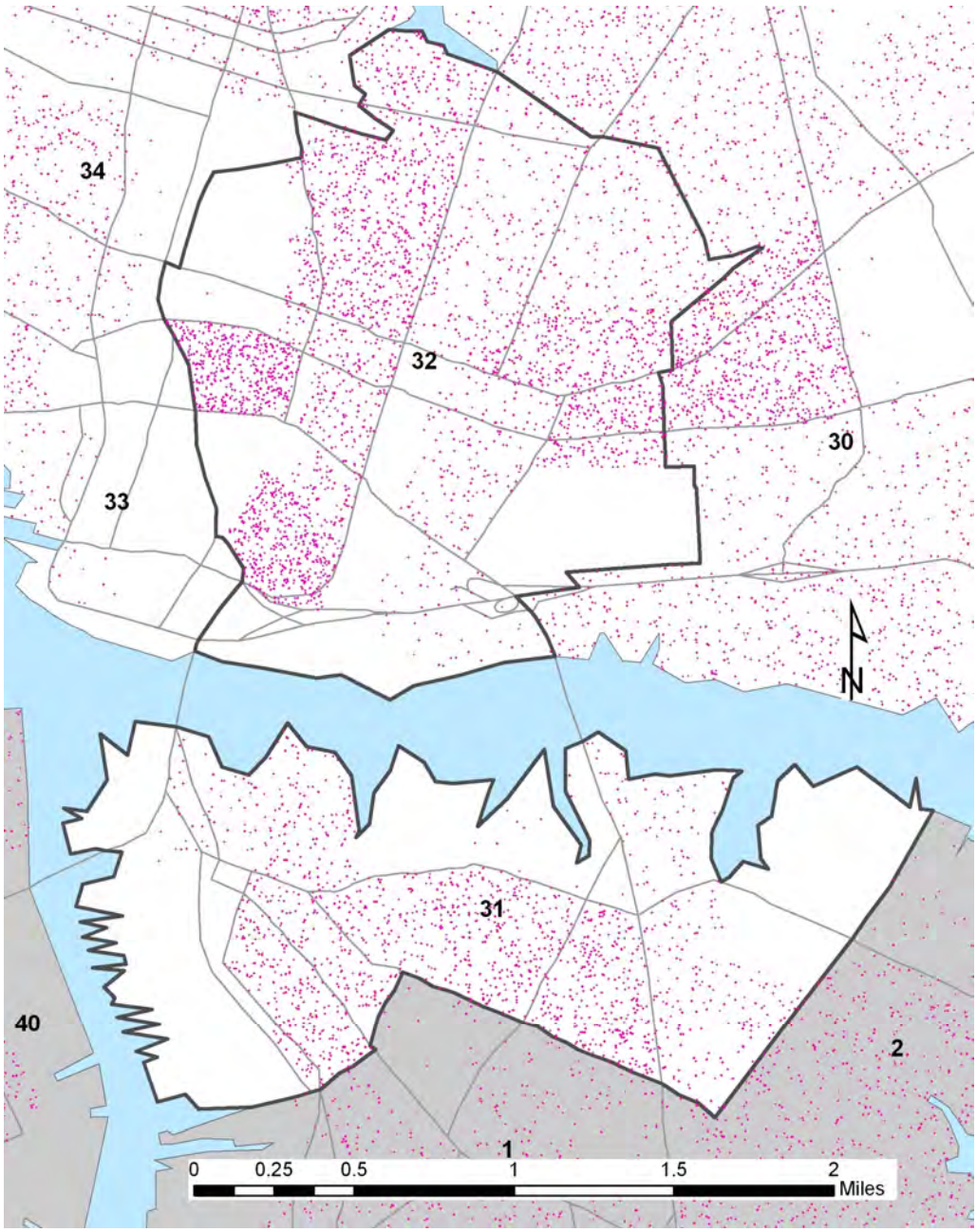


Legend: 1 non-driver per dot

Source: Norfolk.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Norfolk, Districts 31 and 32



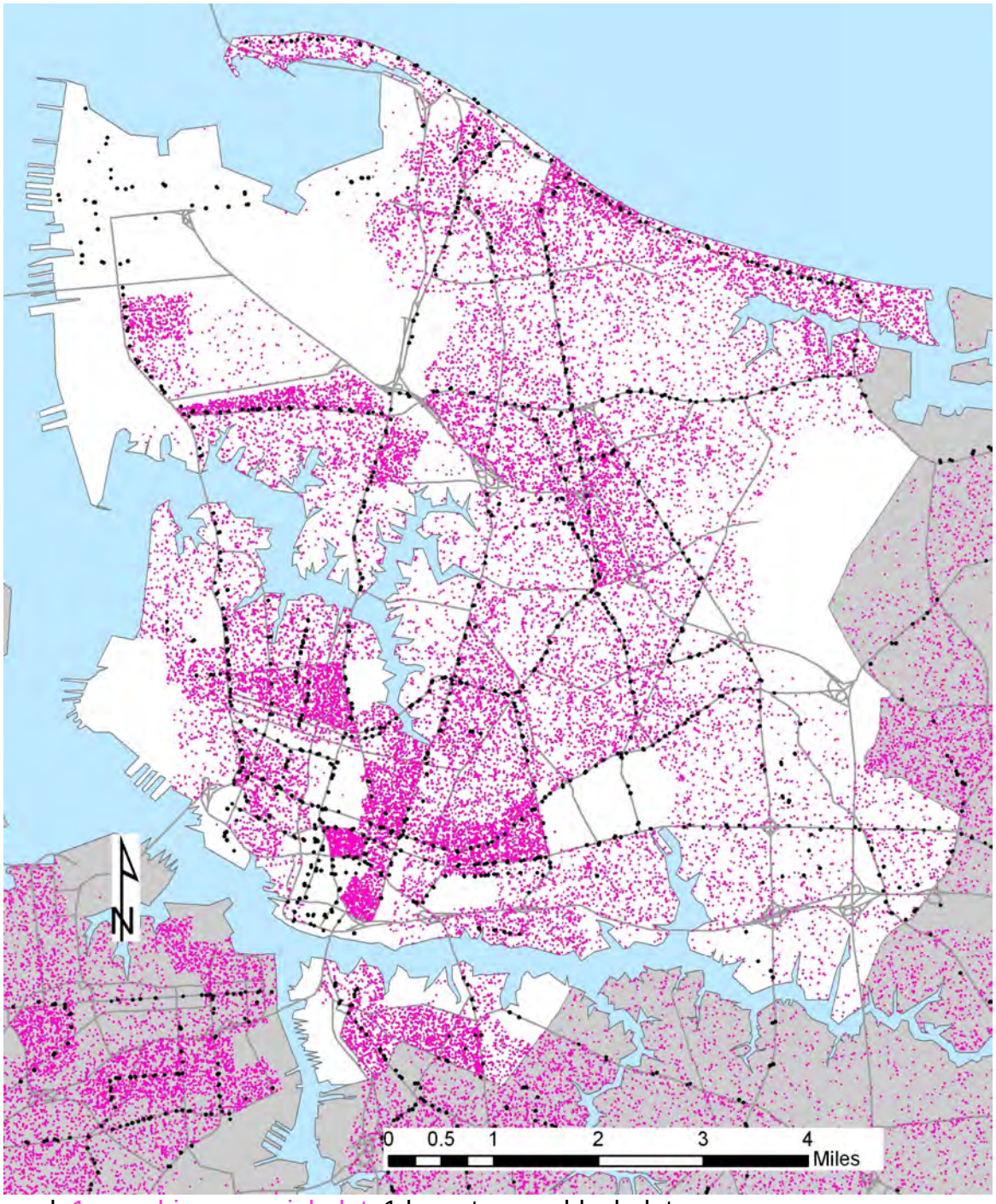
Legend: 1 non-driver per dot

Source: Districts 31 and 32.jpg

The 4,784 non-drivers 18+ in the 7,969 households in Districts 31 and 32 shown above (which comprise the “Southside” area of Norfolk and generally the area within 1 mile of the intersection of Tidewater Dr and Princess Anne Rd) represent 18% of Norfolk’s 26,276 non-drivers 18+ in households and only 9% of its 86,210 households.

Proximity of Residences and Bus Stops

Bus Stops & Non-Drivers, 2000- Norfolk



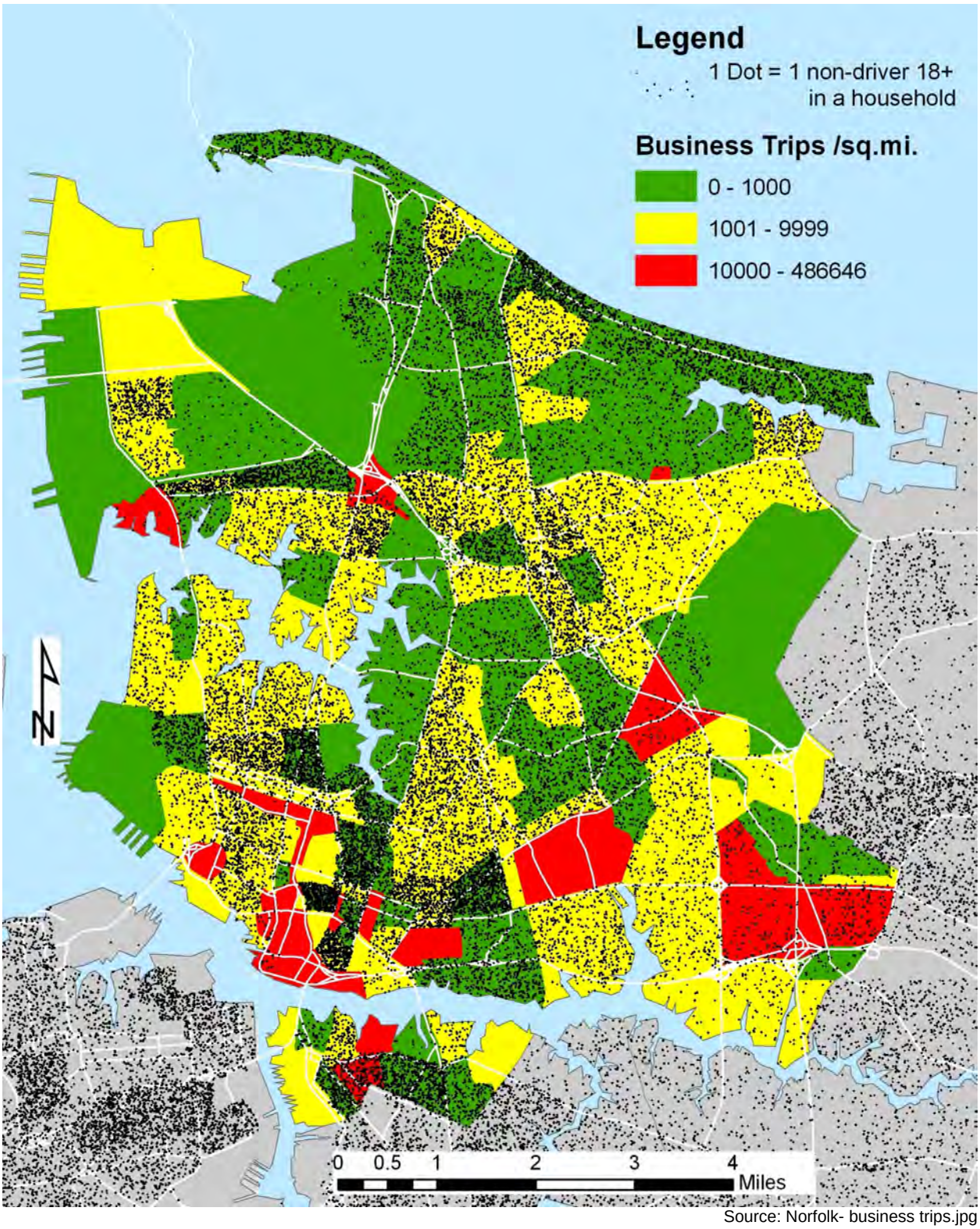
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: Norfolk- bus.jpg

The bus stops in Norfolk appear to provide most local non-drivers with service within walking distance.

Proximity of Residences and Business Activities

Business Activity & Non-Drivers, 2000- Norfolk



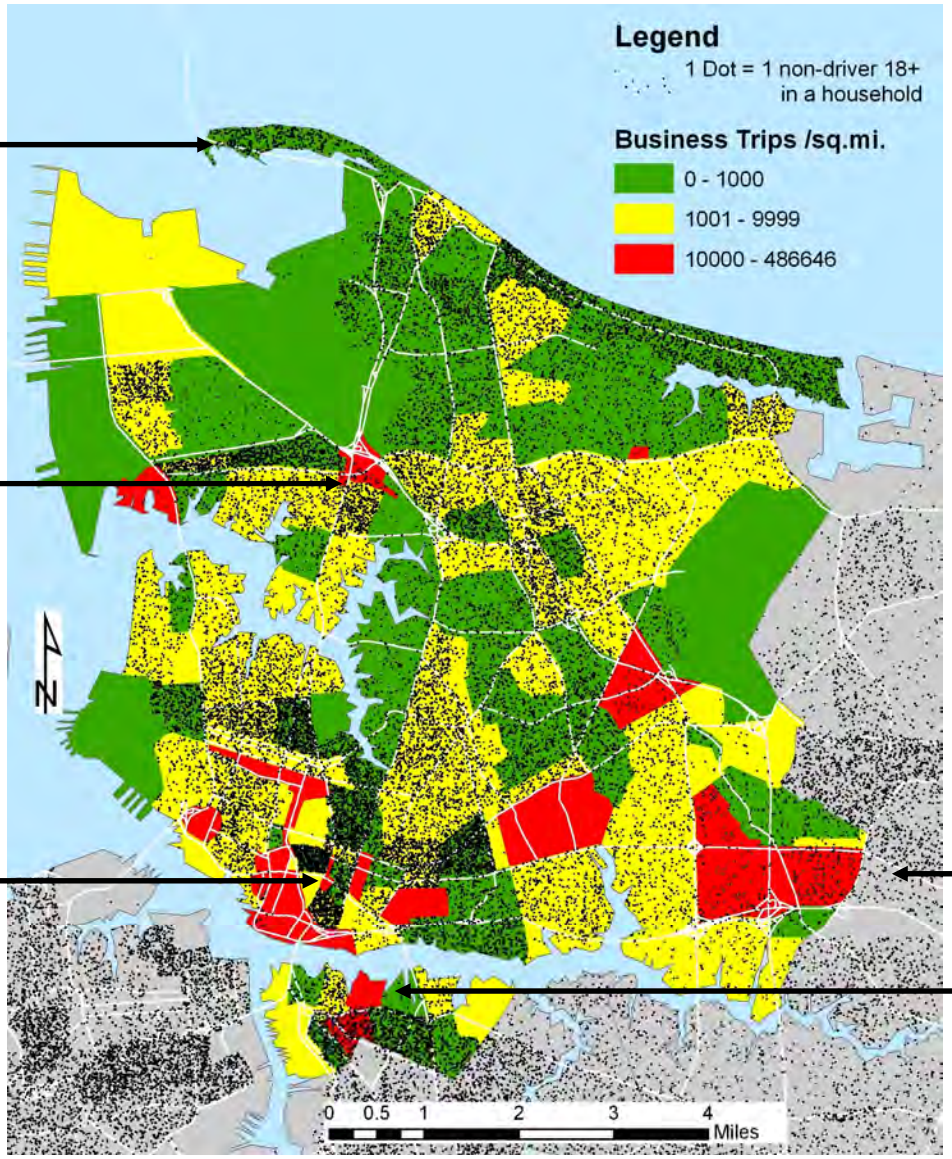
Source: Norfolk- business trips.jpg

Business Activity & Non-Drivers, 2000- Norfolk- Findings

There are few business activities near non-drivers in Willoughby.

Non-drivers in Wards Corner neighborhoods (Suburban Park, Bondale, and Denby Park) live within walking distance of many business activities.

Non-drivers in Young Park and Tidewater Park live within walking distance of many business activities.



Source: Norfolk- business trips.jpg

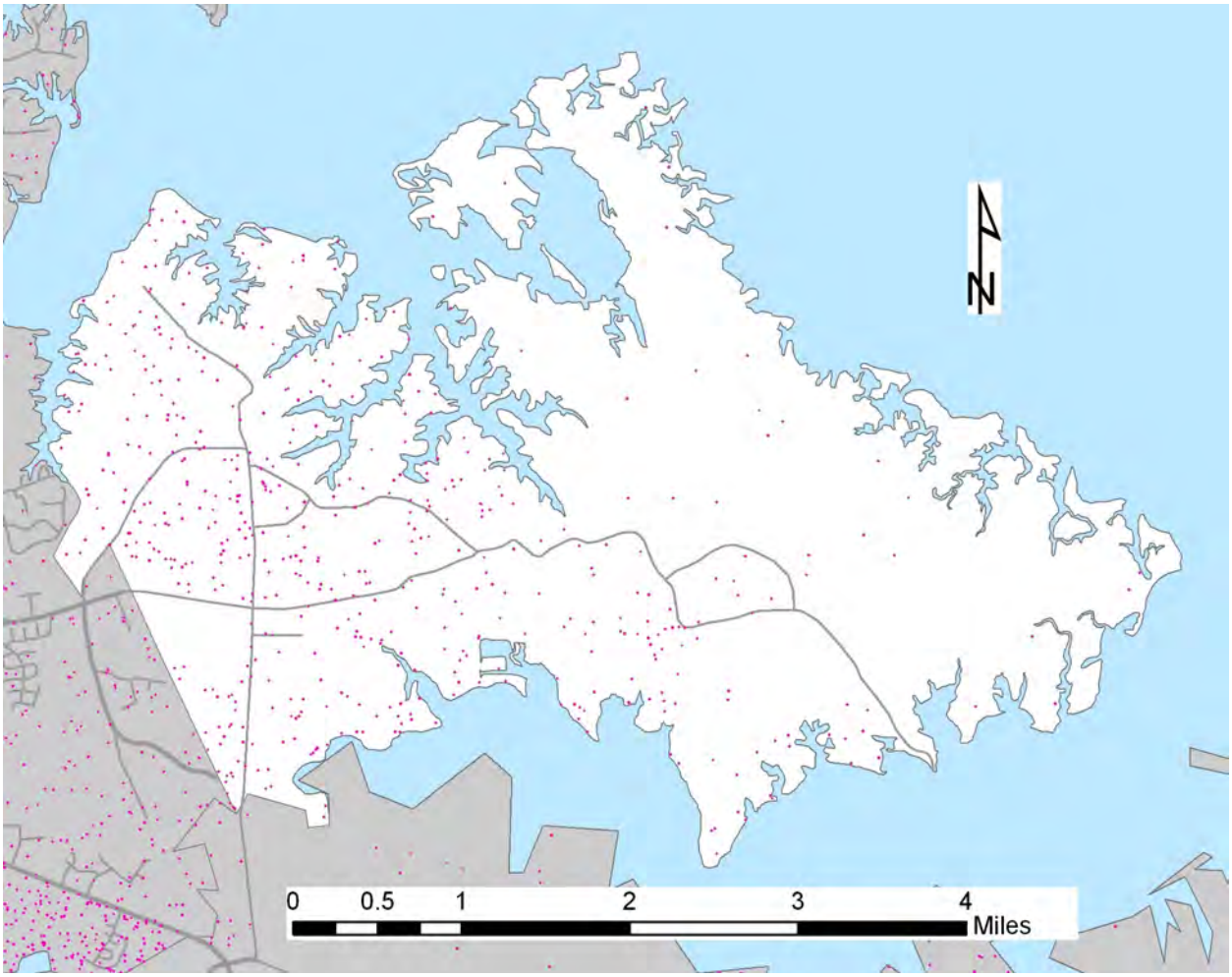
Non-drivers may benefit from more residential opportunities near the business activities between I-264 and VB Blvd. east of Military Hwy.

Non-drivers in Campostella and Berkeley live within walking distance of many business activities.

Poquoson

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Poquoson

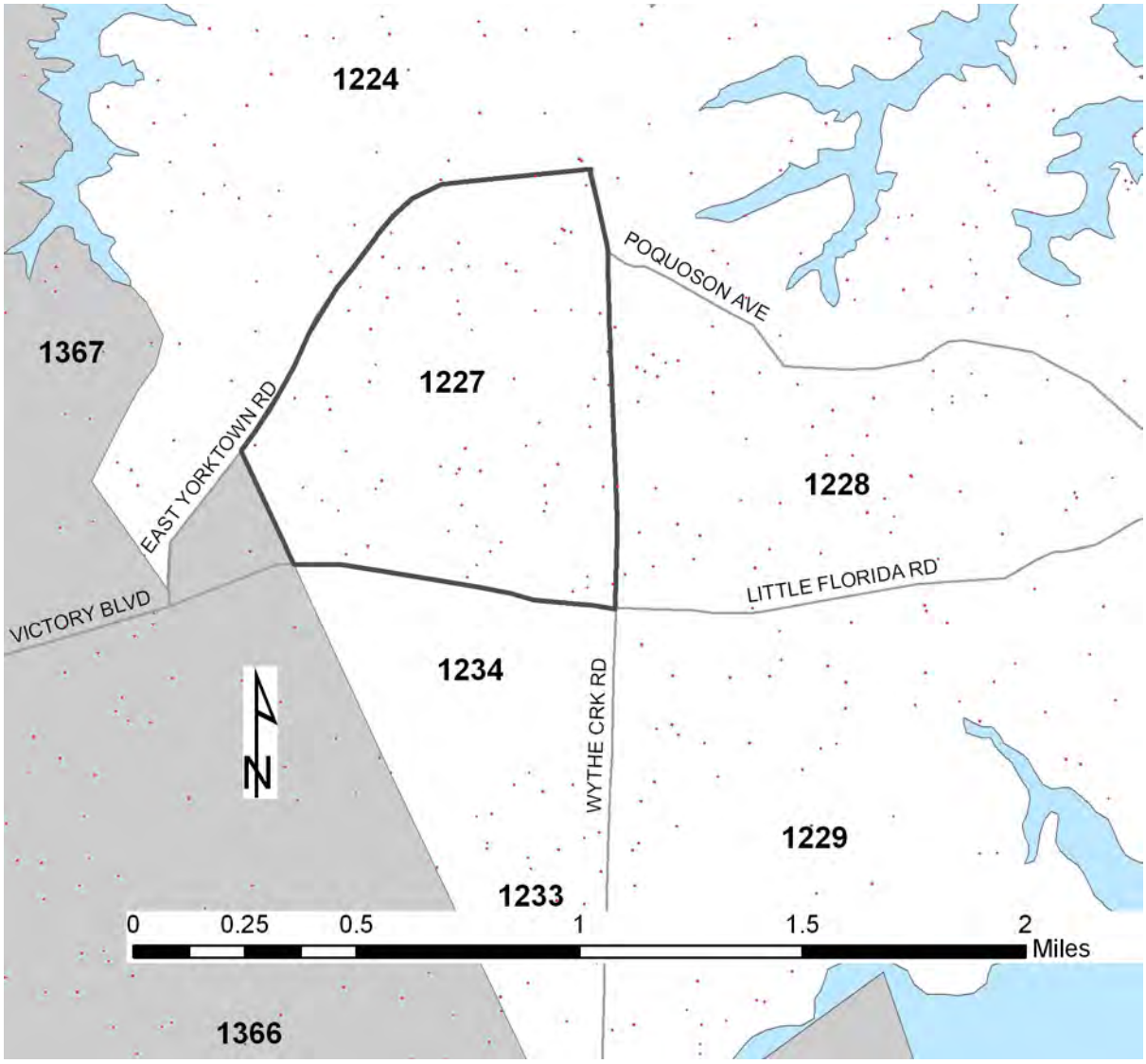


Legend: 1 non-driver per dot

Source: Poquoson.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Poquoson, TAZ 1227



Legend: 1 non-driver per dot

Source: TAZ 1227.jpg

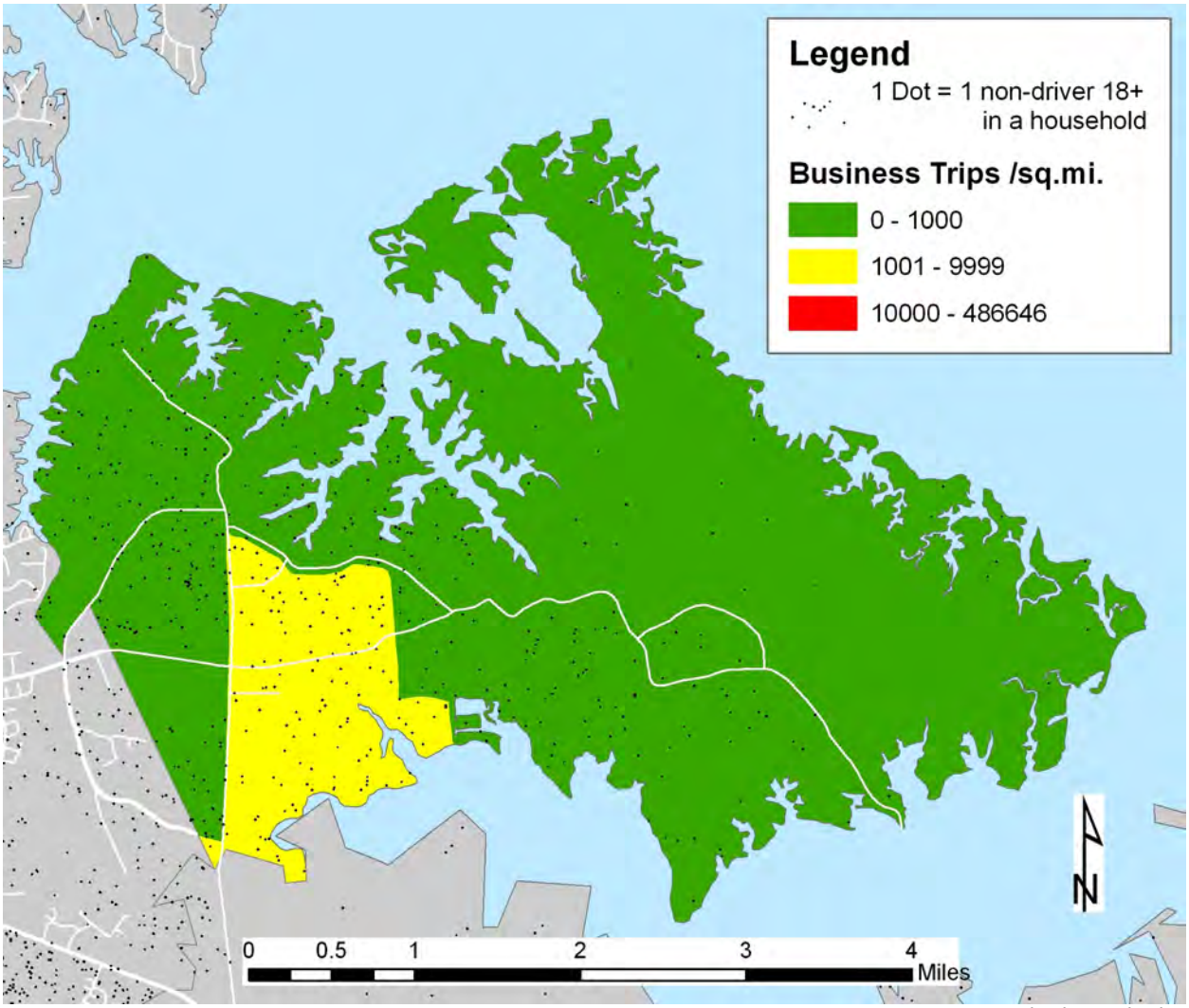
The 69 non-drivers 18+ in the 535 households in TAZ 1227 (above) represent 13% of Poquoson's 526 non-drivers 18+ in households and 13% of its 4,166 households.

Proximity of Residences and Bus Stops

There being no fixed-route bus service in Poquoson, no bus stop analysis was done.

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Poquoson



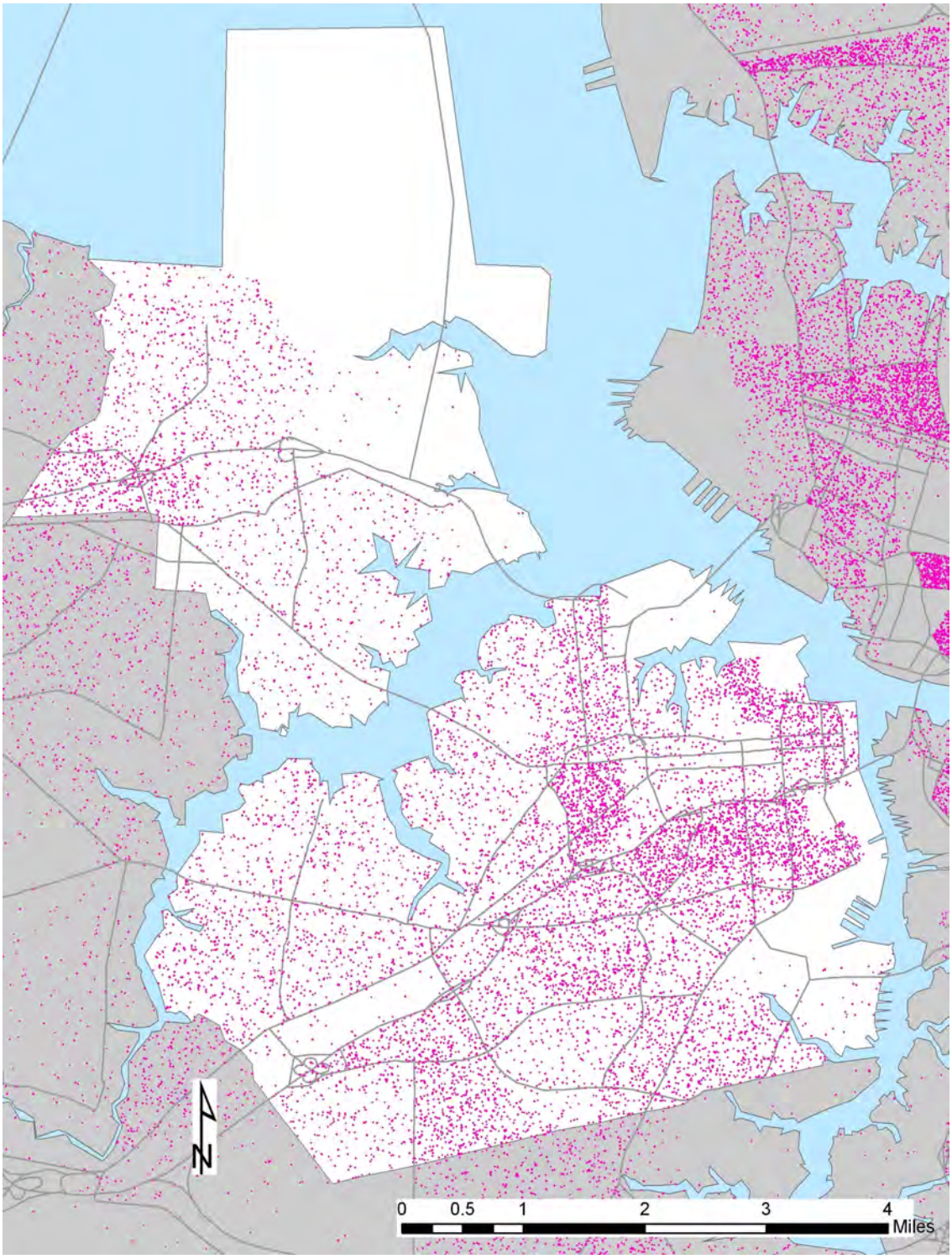
Source: business trips.jpg

The non-drivers along Wythe Creek Rd live within walking distance of many business activities.

Portsmouth

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Portsmouth

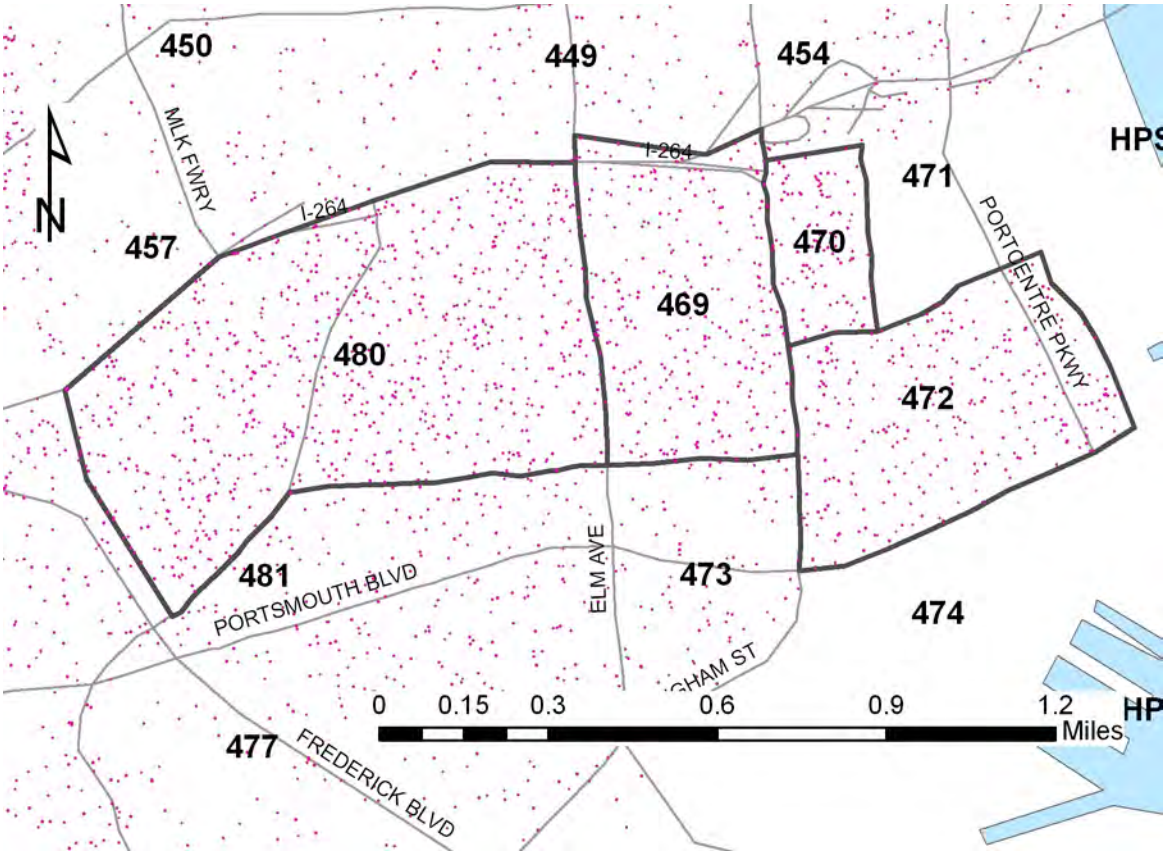


Legend: 1 non-driver per dot

Source: Portsmouth.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Portsmouth, TAZs 469, 470, 472, and 480



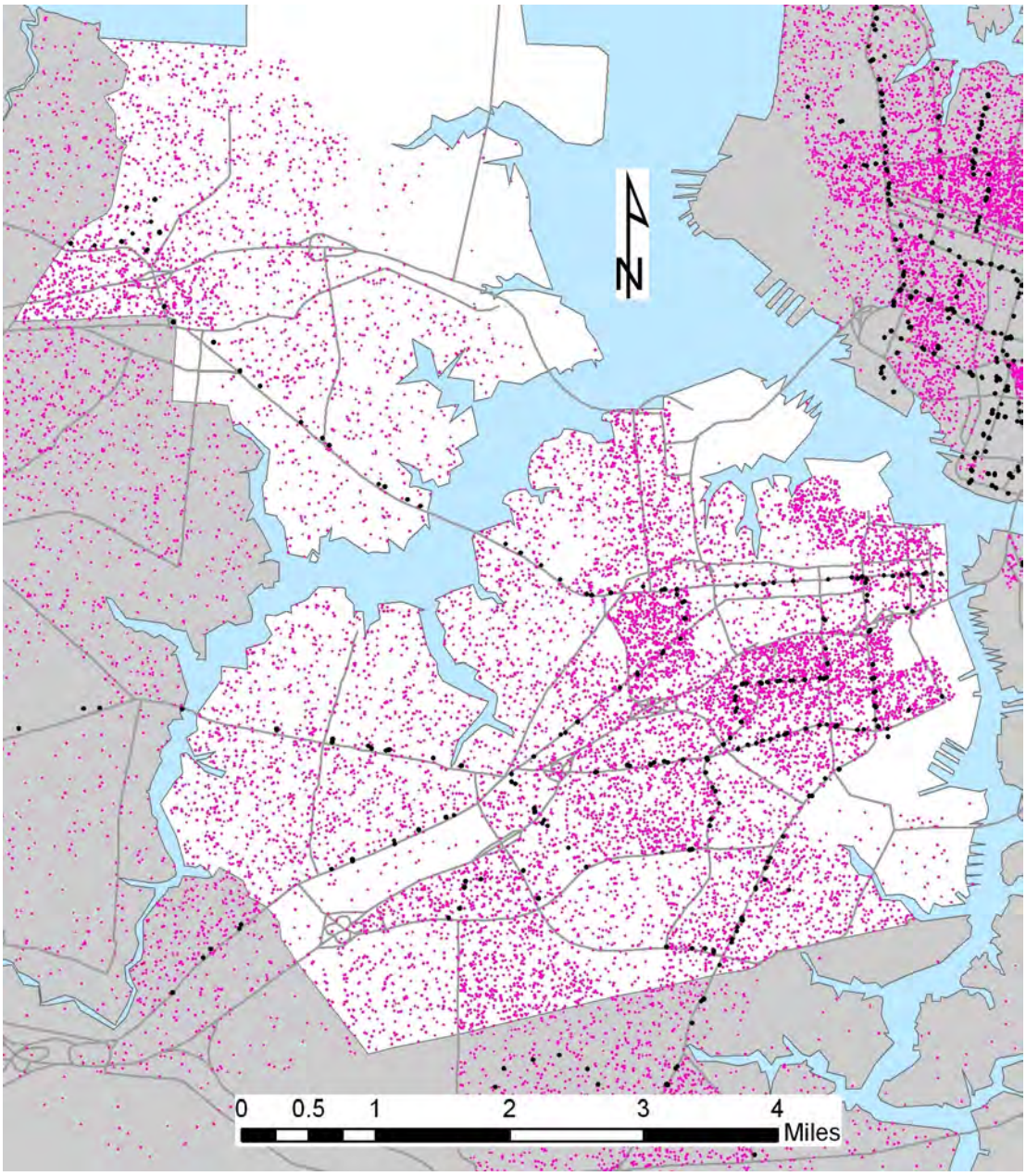
Legend: 1 non-driver per dot

Source: TAZs w street names.jpg

The 1,414 non-drivers 18+ in the 2,505 households in the above TAZs (which generally comprise the portion of Portsmouth bounded by I-264, Portcentre Pkwy, Portsmouth Blvd, and Frederick Blvd) represent 13% of Portsmouth's 10,979 non-drivers 18+ in households and only 7% of its 38,170 households.

Proximity of Residences and Bus Stops

Bus Stops & Non-Drivers, 2000- Portsmouth



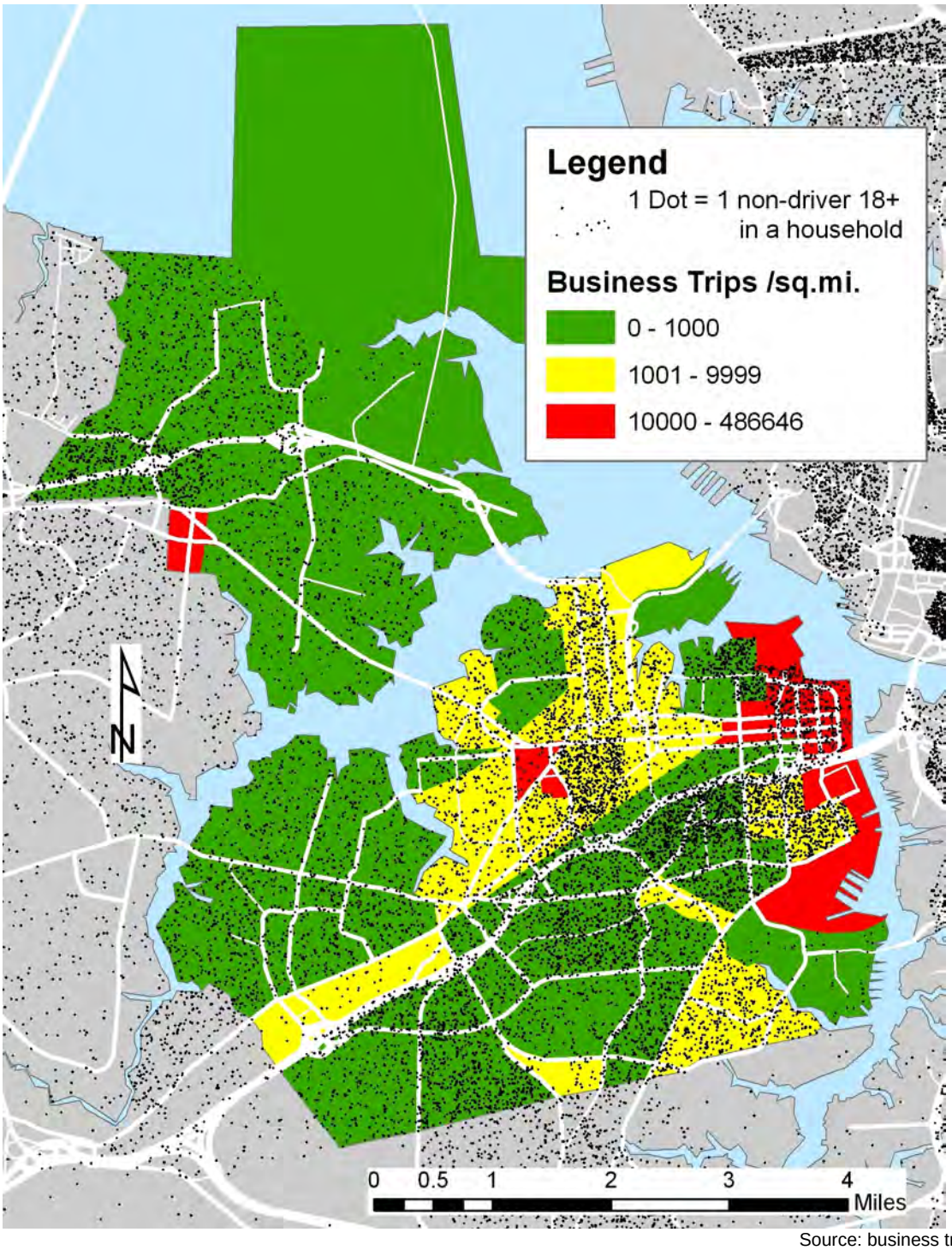
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: bus.jpg

The bus stops in Portsmouth appear to provide most local non-drivers with service within walking distance.

Proximity of Residences and Business Activity Locations

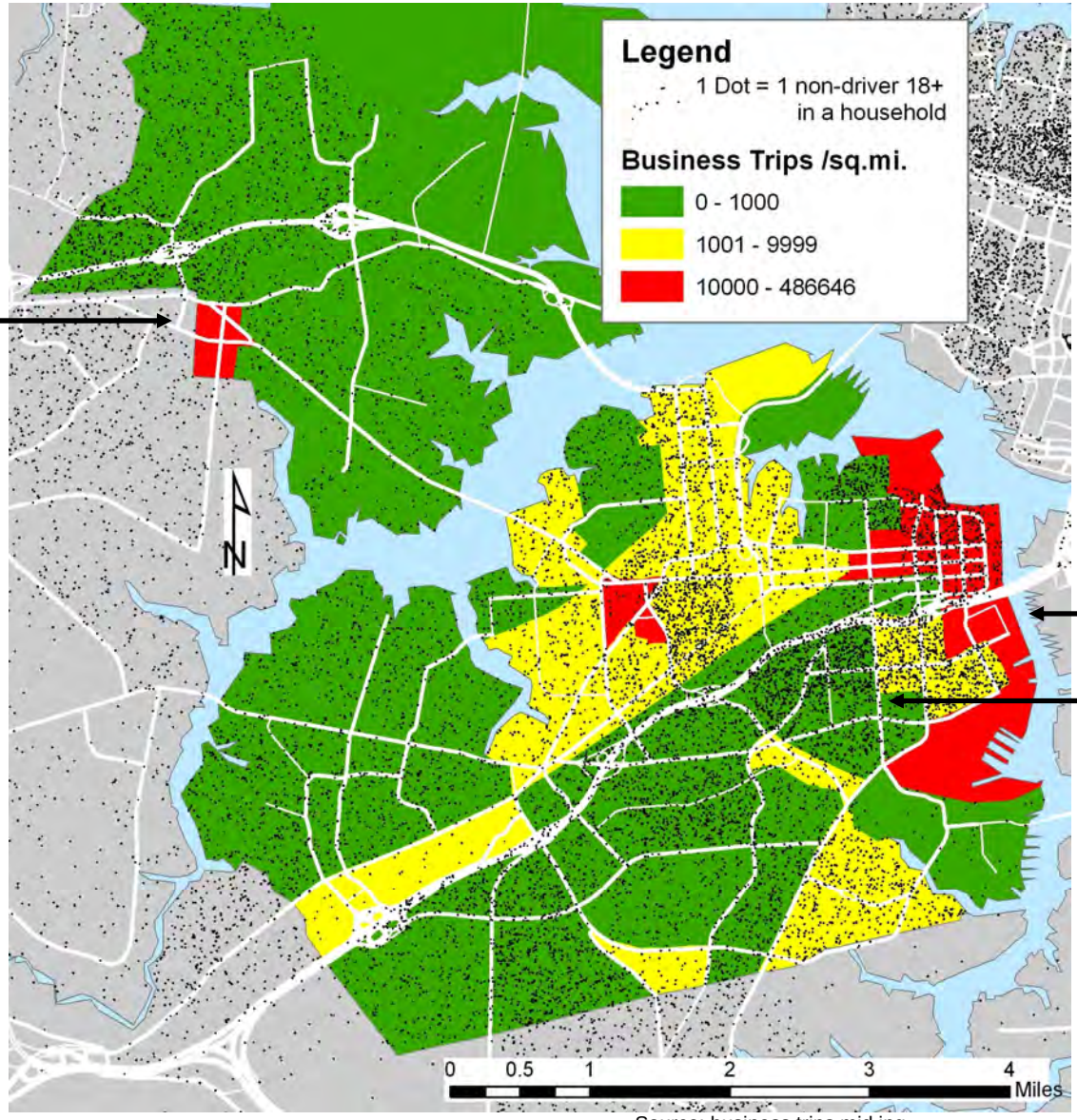
Business Activity & Non-Drivers, 2000- Portsmouth



Source: business trips.jpg

Business Activity & Non-Drivers, 2000- Portsmouth- Findings

Non-drivers may benefit from more residential opportunities near the business activities in central Churchland (red area).



Source: business trips mid.jpg

Non-drivers located east of Elm Ave live within walking distance of many business activities.

There are few business activities near non-drivers living in the area bounded by I-264, Elm Ave, Portsmouth Blvd, and the Norfolk & Portsmouth Belt Line railroad.

Southampton

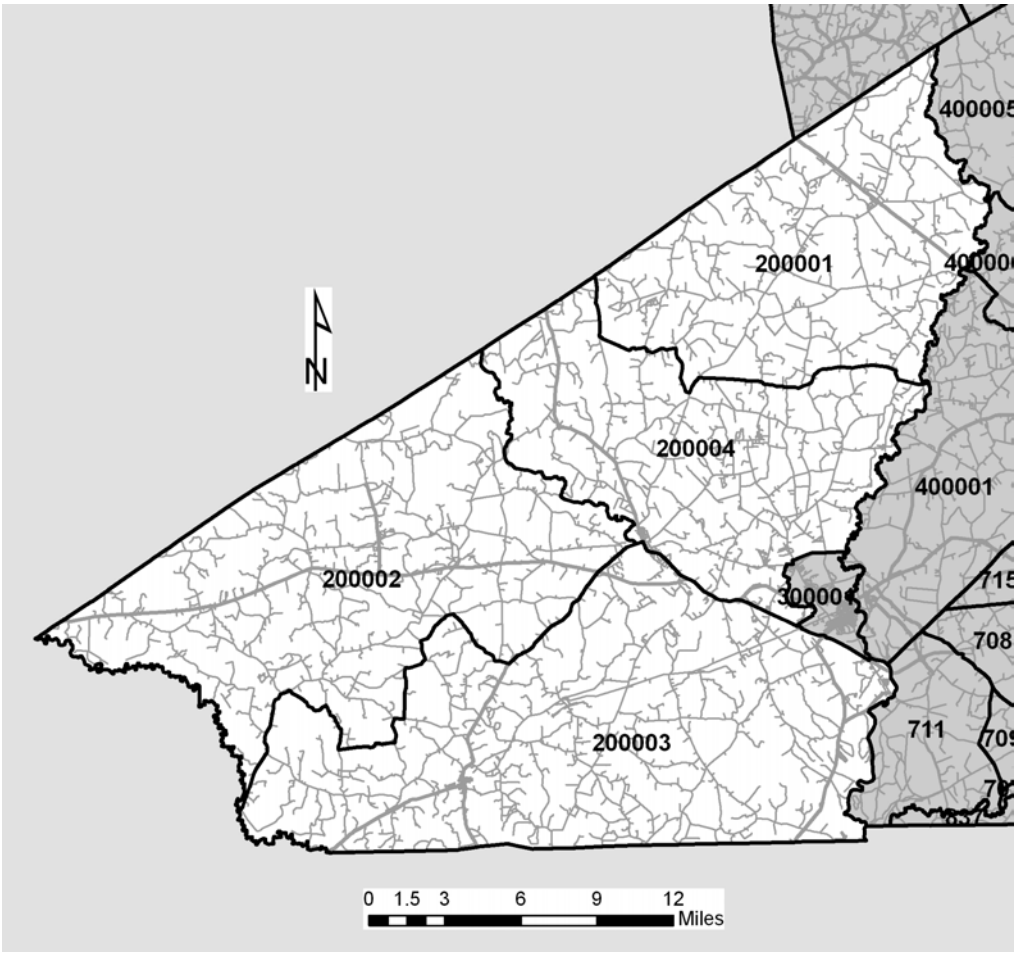
As shown below, an estimate of the number of non-drivers 18+ in households in the four (4) Southampton TAZs has been calculated. Each TAZ being very large (average size: 150 sq. mi.), and no knowledge being available of where non-drivers are located within each TAZ, a TAZ-based dot map for Southampton could be misleading. Therefore, no non-driver maps for Southampton are provided.

Non-Drivers 18+ in Households, 2000- Southampton

TAZ	Households, 2000	Non-Drivers 18+ in Households, 2000
200001	880	176
200002	1,075	278
200003	2,460	527
200004	1,885	326
	6,300	1,307

Source: data_by_TAZ.xls

TAZ Boundaries- Southampton

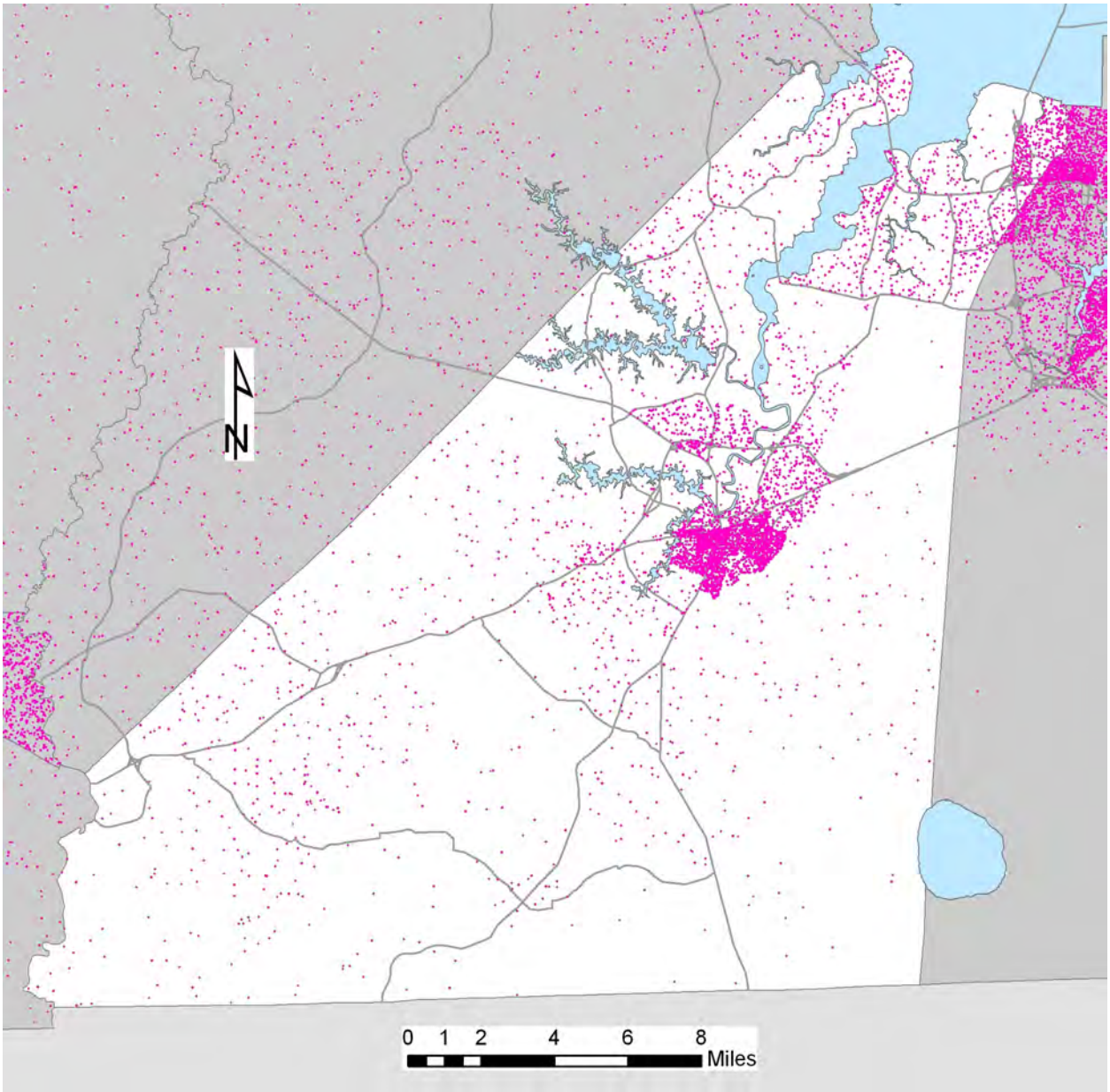


Source: TAZs.jpg

Suffolk

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Suffolk

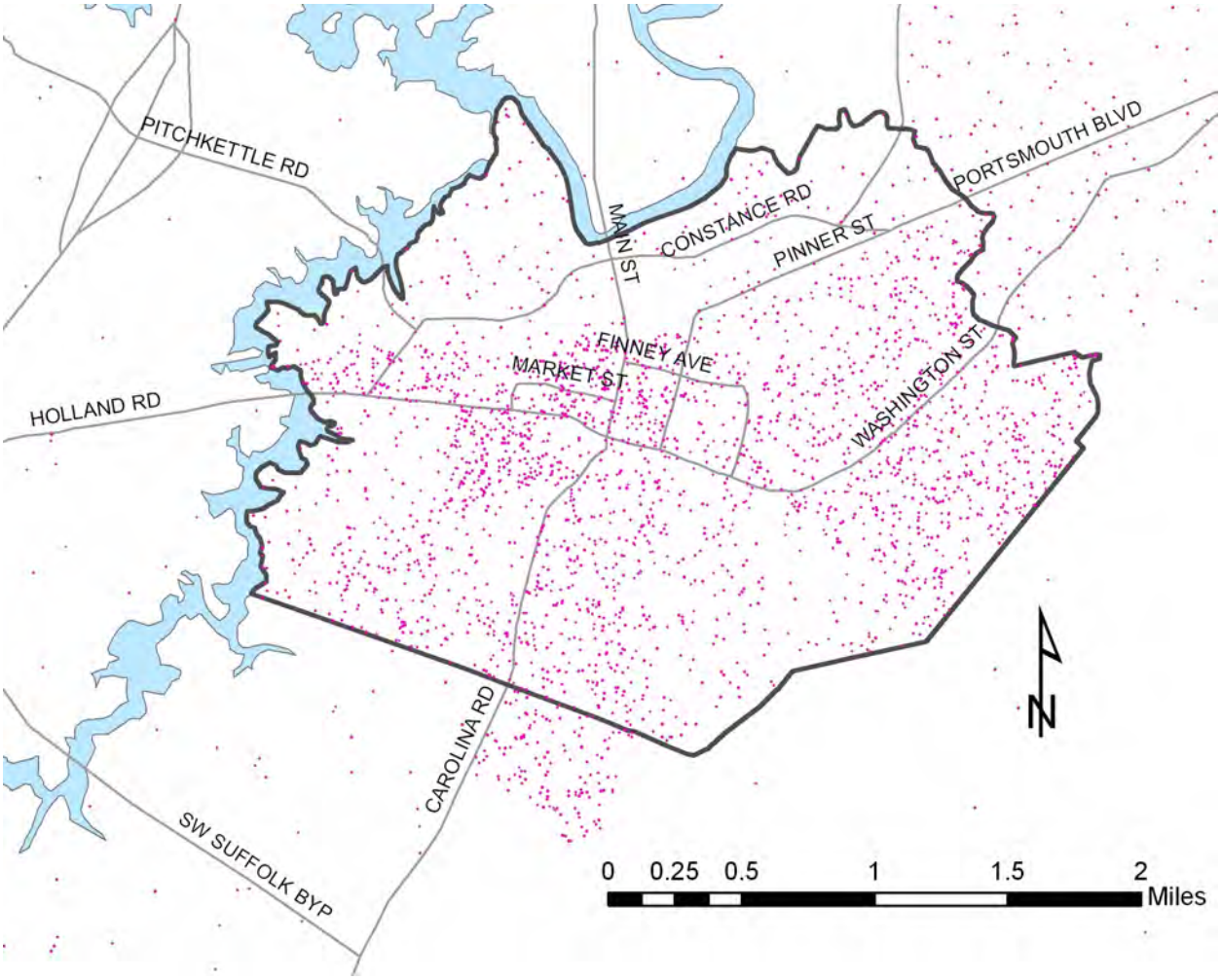


Legend: 1 non-driver per dot

Source: Suffolk.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- Suffolk, Downtown



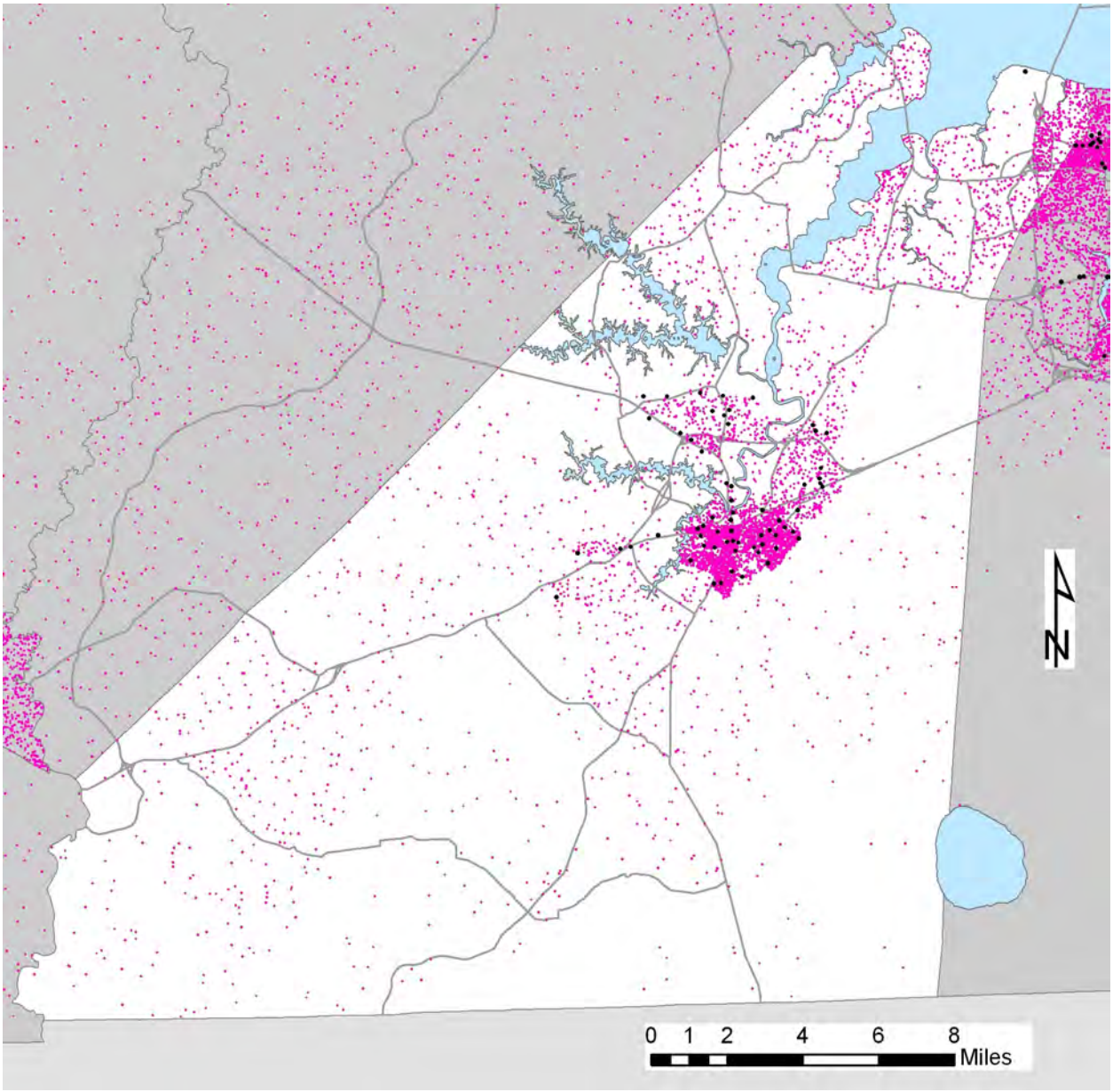
Legend: 1 non-driver per dot

Source: Suffolk- downtown w rd names.jpg

The 2,444 non-drivers 18+ in the 6,455 households in the downtown portion of Suffolk represent 45% of Suffolk's 5,396 non-drivers 18+ in households and only 28% of its 23,283 households.

Proximity of Residences and Bus Stops

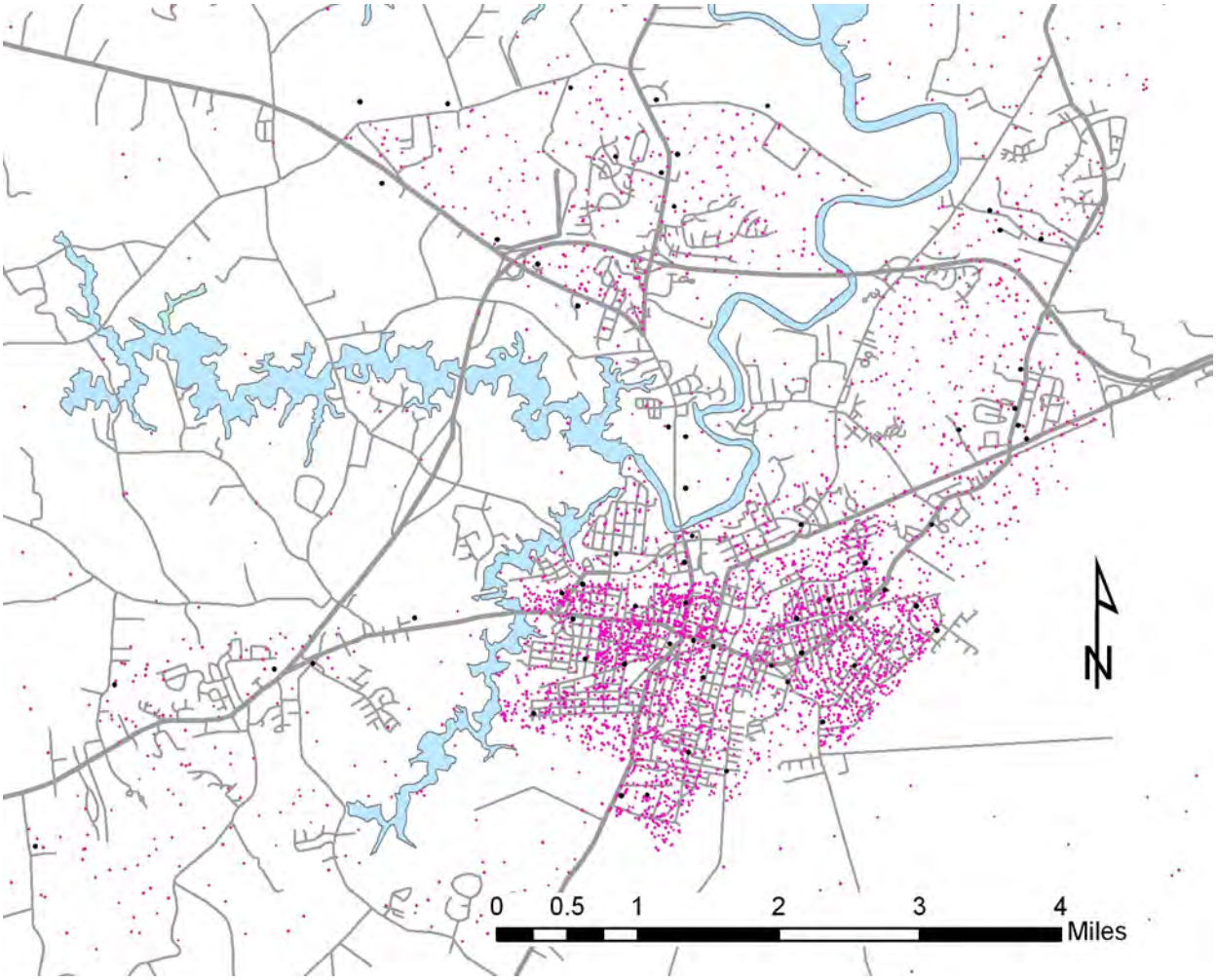
Bus Stops & Non-Drivers, 2000- Suffolk



Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: bus.jpg

Bus Stops & Non-Drivers, 2000- Suffolk, Downtown



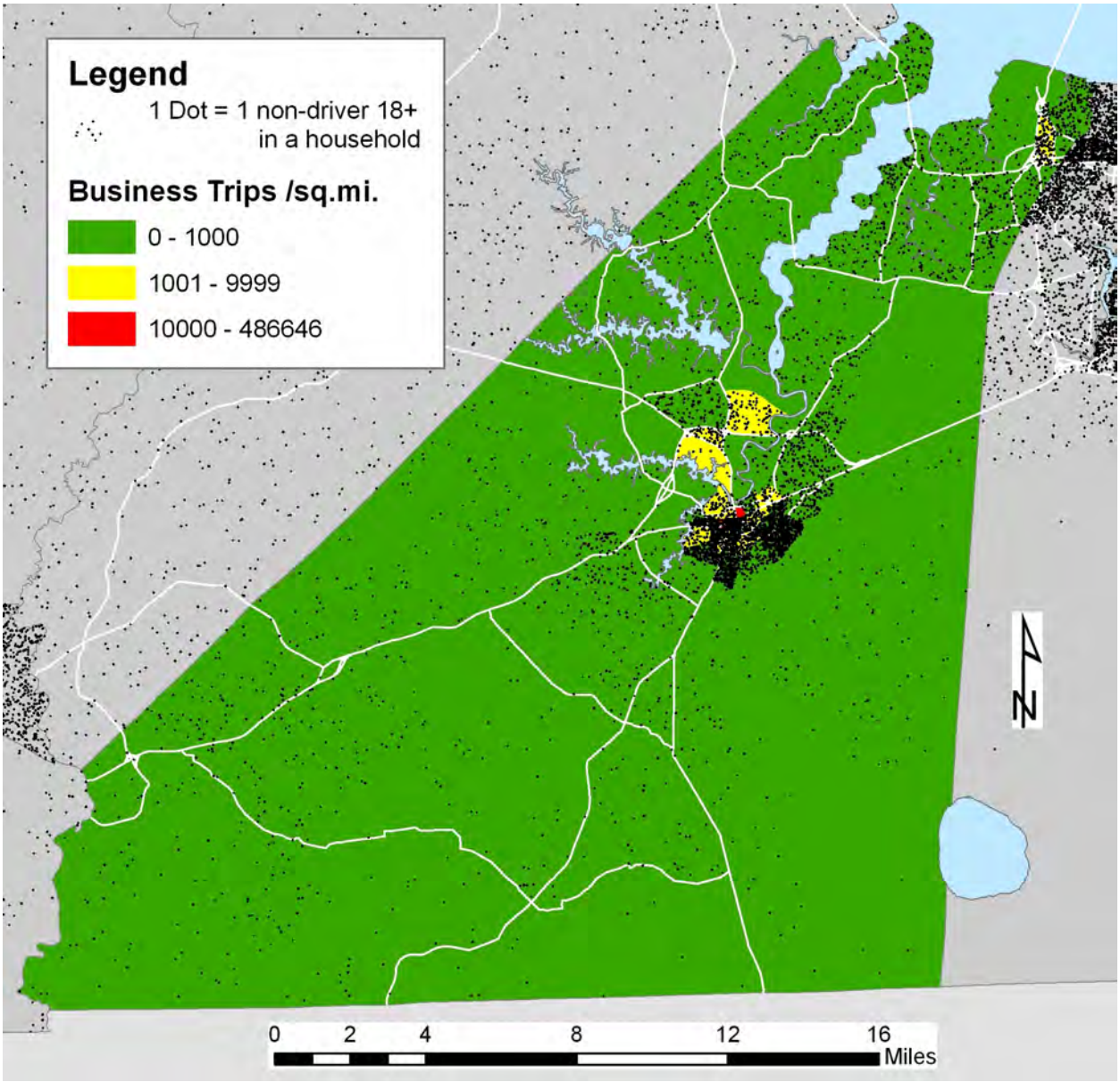
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: bus downtown.jpg

The bus stops in Suffolk appear to provide most local non-drivers with service within walking distance.

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Suffolk

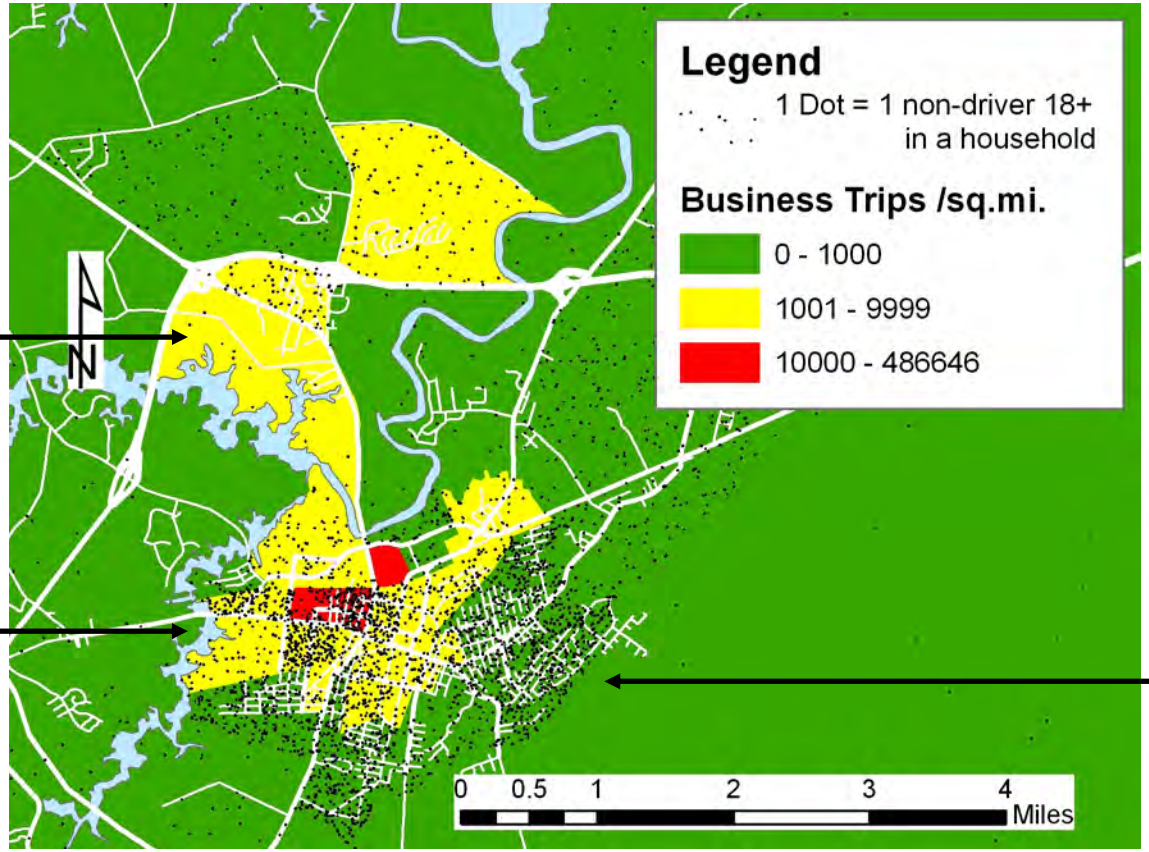


Source: business trips.jpg

Non-drivers may benefit from more residential opportunities in the (yellow) triangle formed by US 58, Main Street, and Lake Meade, an area of significant business activity.

Non-drivers located near downtown live within walking distance of many business activities.

Business Activity & Non-Drivers, 2000- Suffolk- Findings



Source: business trips mid.jpg

There are few business activities near non-drivers living in the area bounded by E Washington St, the Jericho Ditch, the Great Dismal Swamp, and White Marsh Rd.

Surry

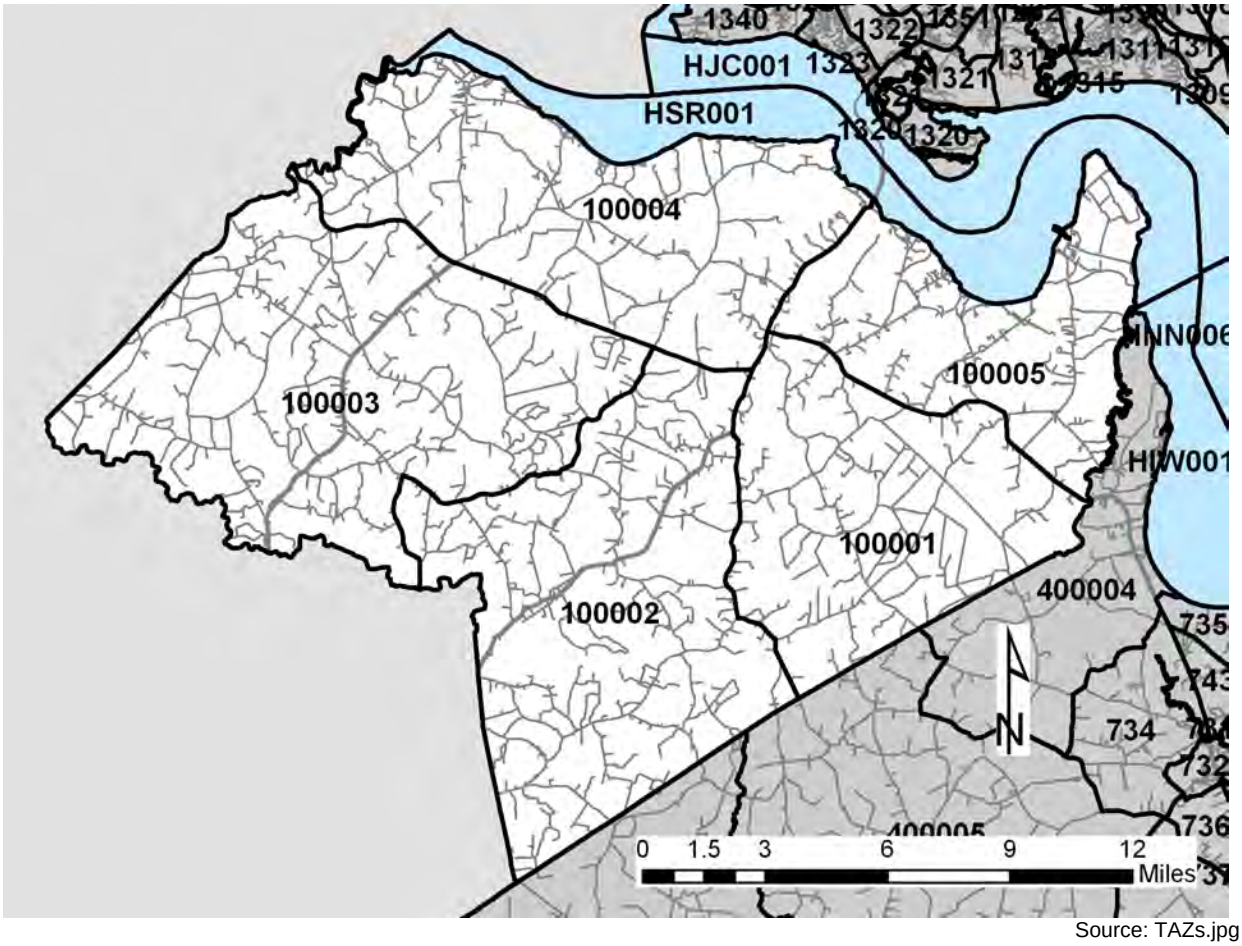
As shown below, an estimate of the number of non-drivers 18+ in households in the five (5) Surry TAZs has been calculated. Each TAZ being very large (average size: more than 50 sq. mi.), and no knowledge being available of where non-drivers are located within each TAZ, a TAZ-based dot map for Surry could be misleading. Therefore, no non-driver maps for Surry are provided.

Non-Drivers 18+ in Households, 2000- Surry

TAZ	Households, 2000	Non-Drivers 18+ in Households, 2000
100001	385	79
100002	575	108
100003	335	74
100004	755	174
100005	550	106
	2,600	541

Source: data_by_TAZ.xls

TAZ Boundaries- Surry

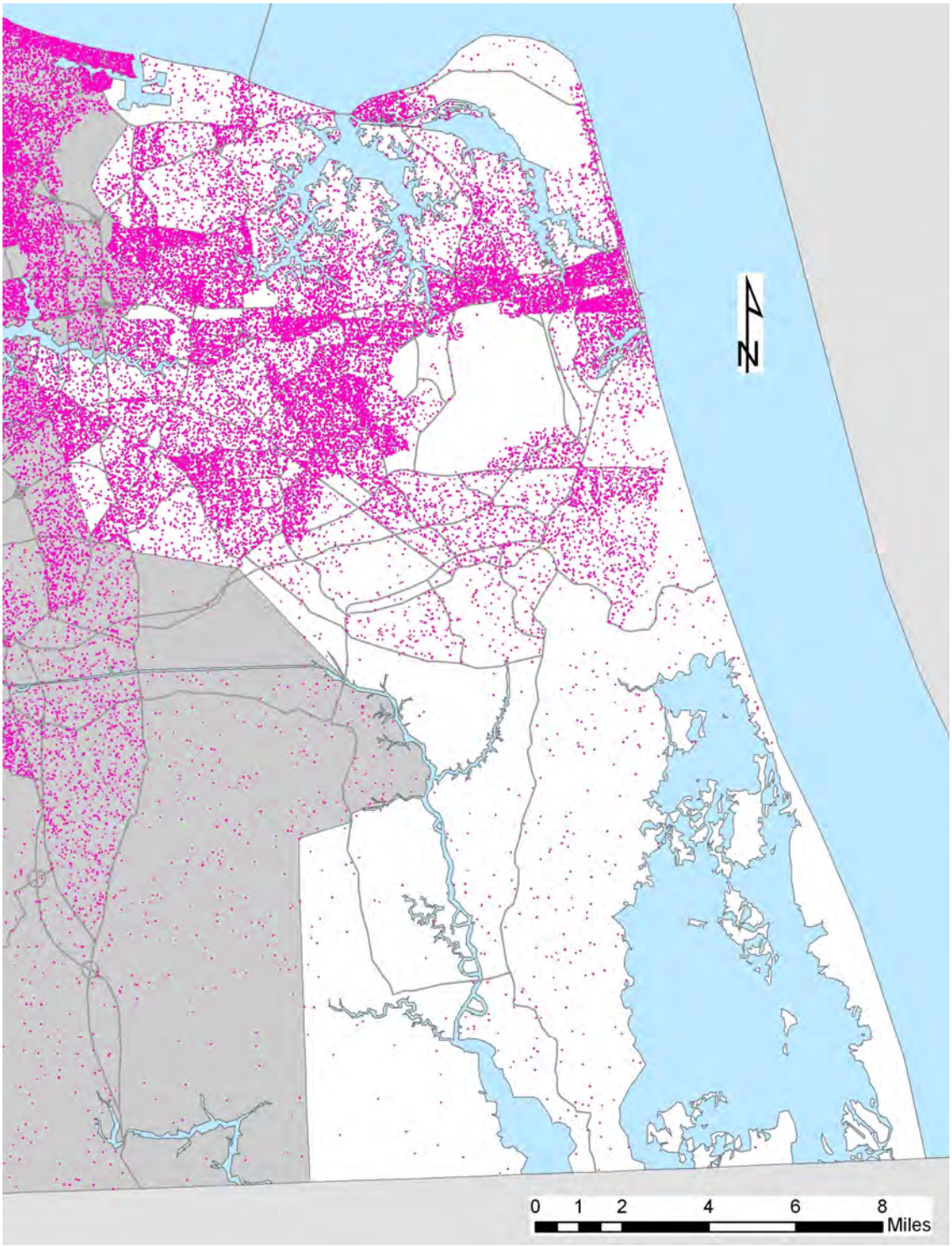


Source: TAZs.jpg

Virginia Beach

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Virginia Beach

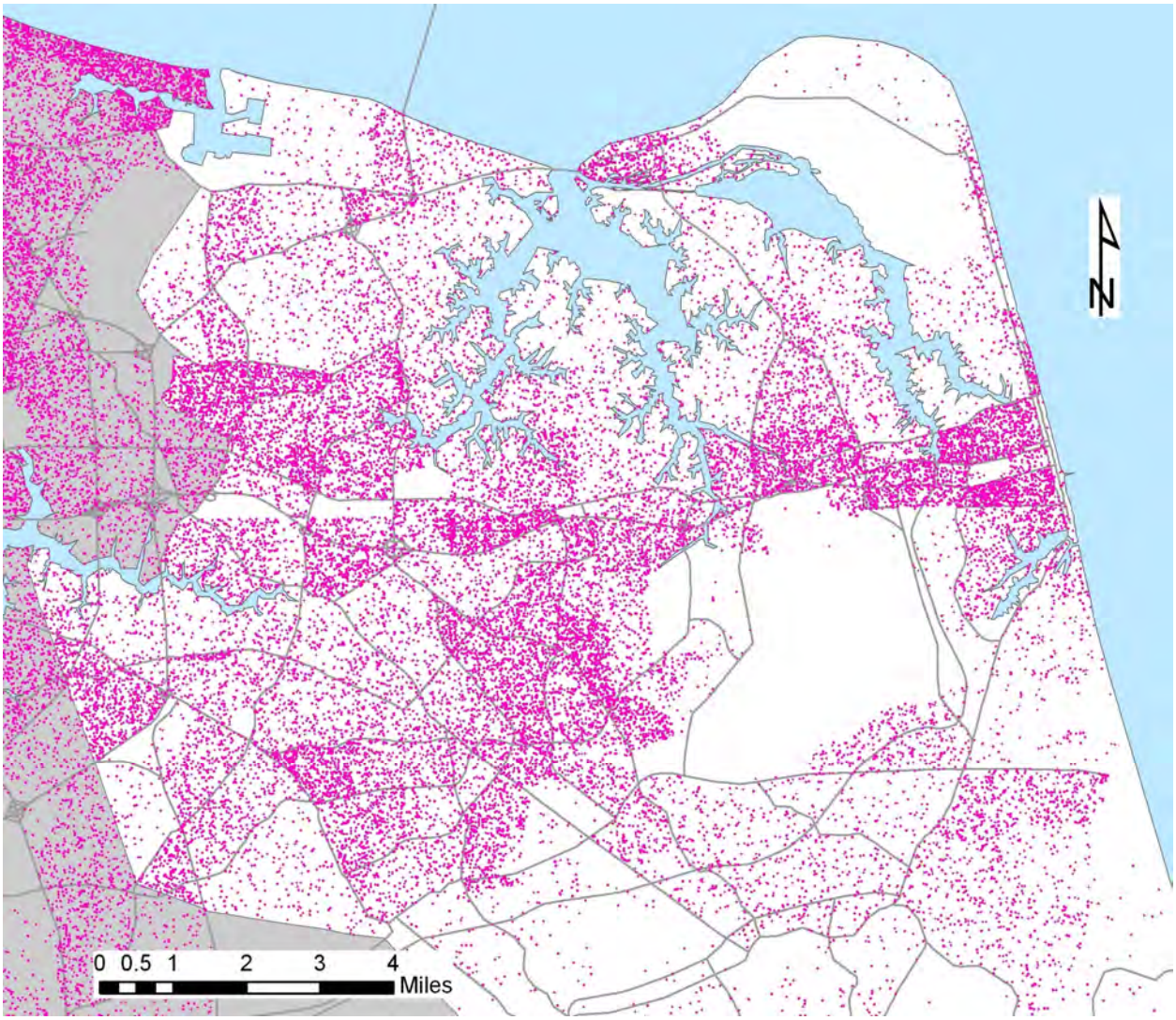


Legend: 1 non-driver per dot

Source: Virginia Beach.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

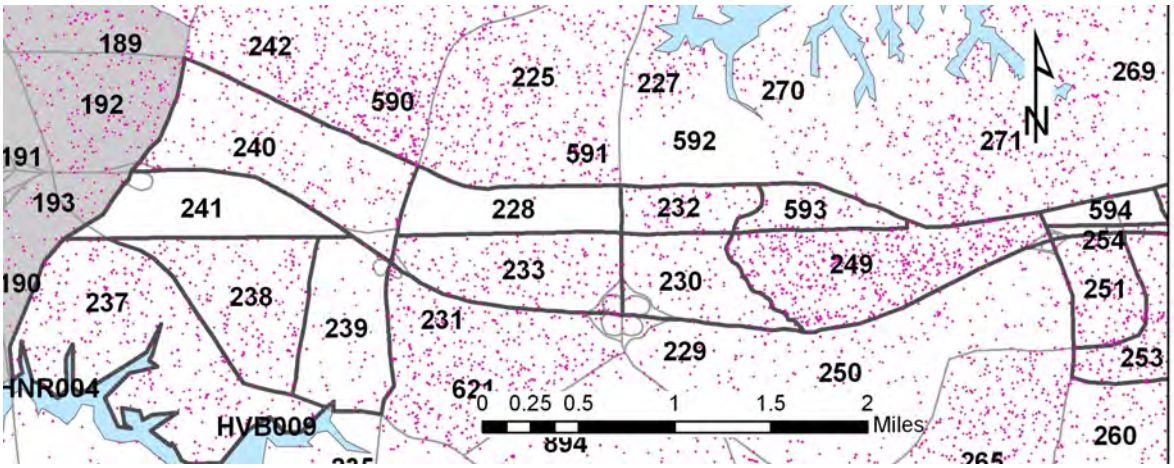
Non-Drivers 18+ in Households, 2000- Virginia Beach, North



Legend: 1 non-driver per dot

Source: VB North.jpg

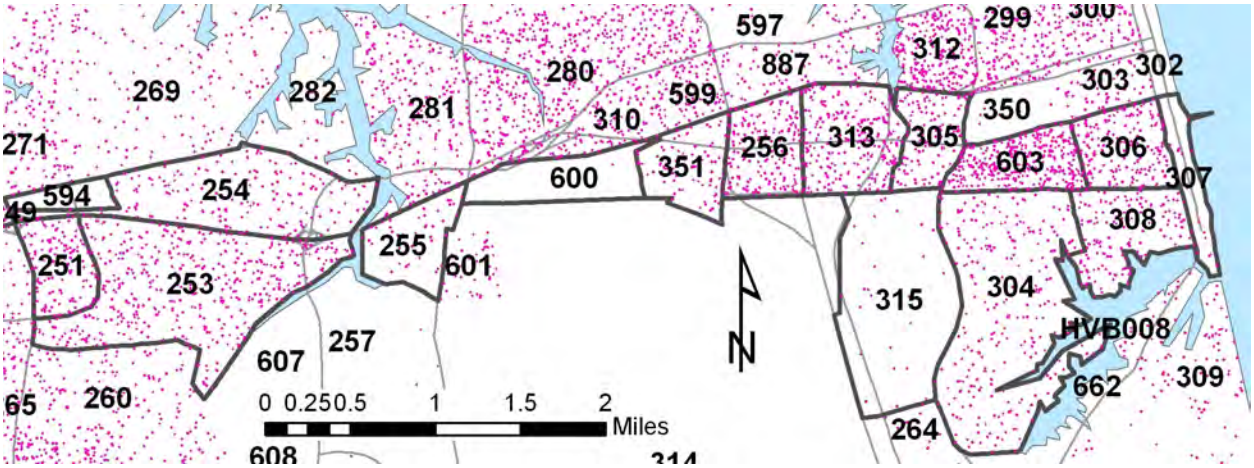
Non-Drivers 18+ in Households, 2000- Virginia Beach,
TAZs Along Norfolk Southern Right-of-Way- West



Legend: 1 non-driver per dot

Source: VB NS West.jpg

Non-Drivers 18+ in Households, 2000- Virginia Beach,
TAZs Along Norfolk Southern Right-of-Way- East



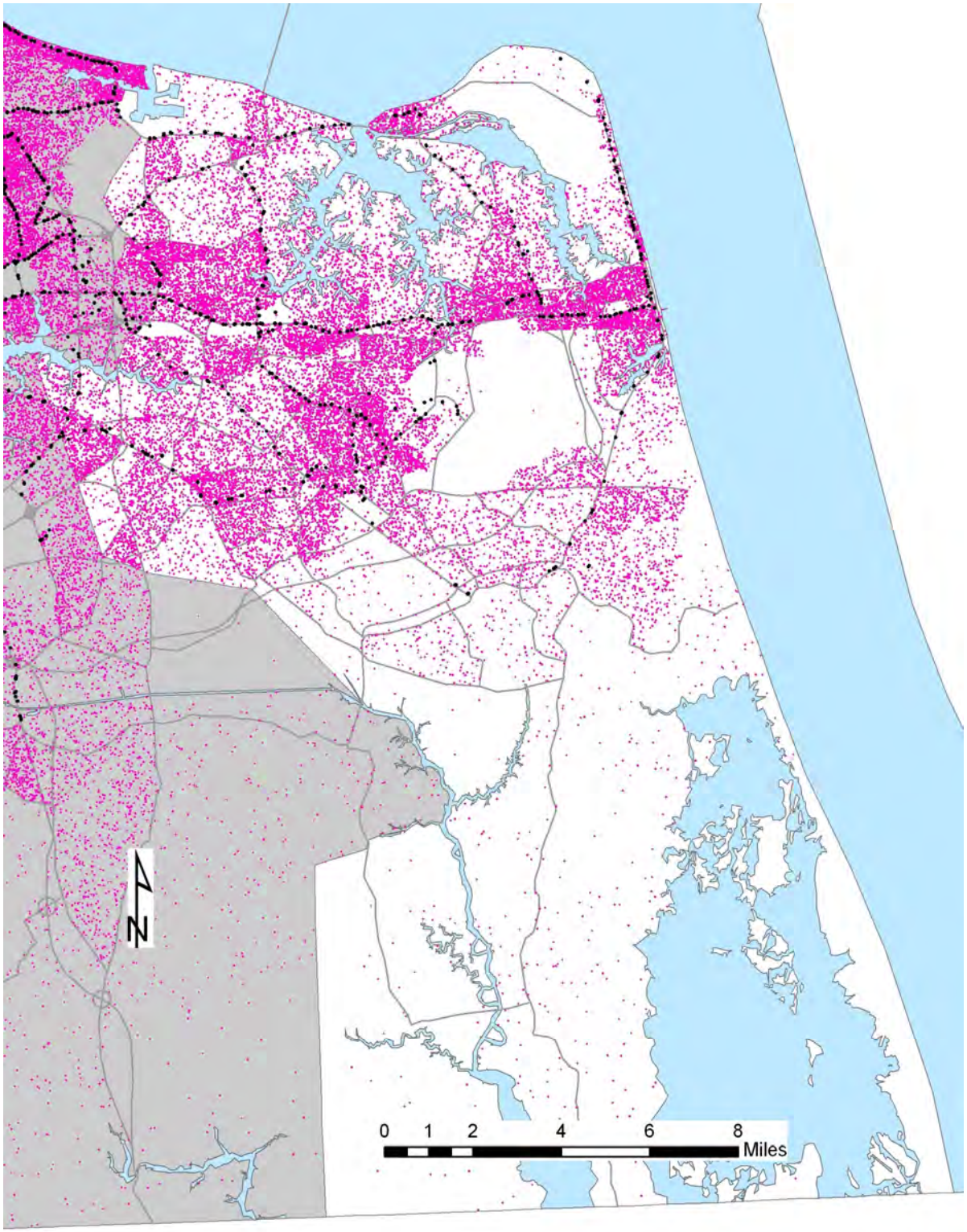
Legend: 1 non-driver per dot

Source: VB NS East.jpg

The 4,063 non-drivers 18+ in the 17,550 households in the TAZs of Virginia Beach which lie along the Norfolk Southern right-of-way (outlined above) represent 16% of Virginia Beach's 26,160 non-drivers 18+ in households and 11% of its 154,455 households.

Proximity of Residences and Bus Stops

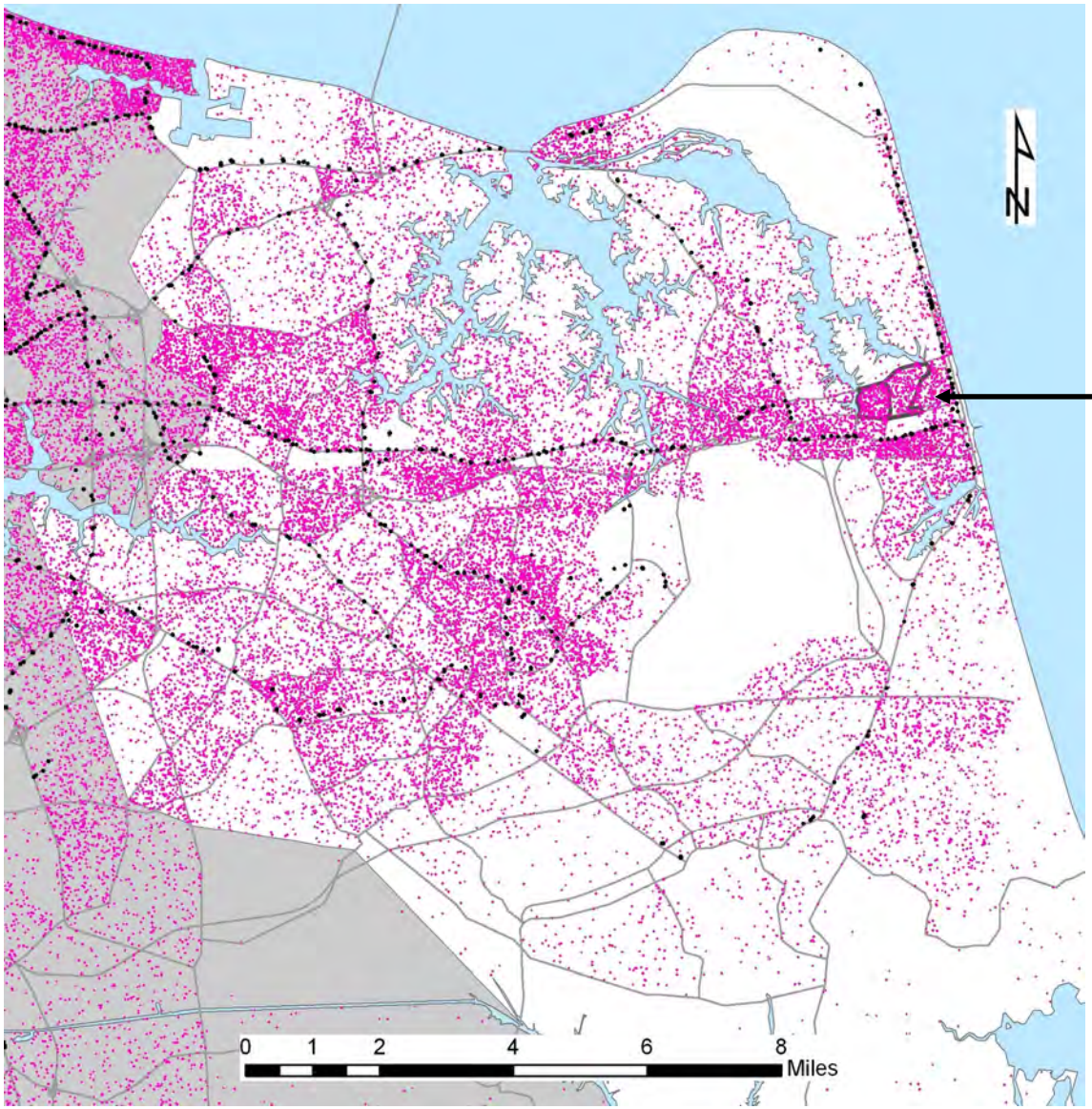
Bus Stops & Non-Drivers, 2000- Va. Beach



Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: Va Beach- bus.jpg

Bus Stops & Non-Drivers, 2000- Va. Beach, North

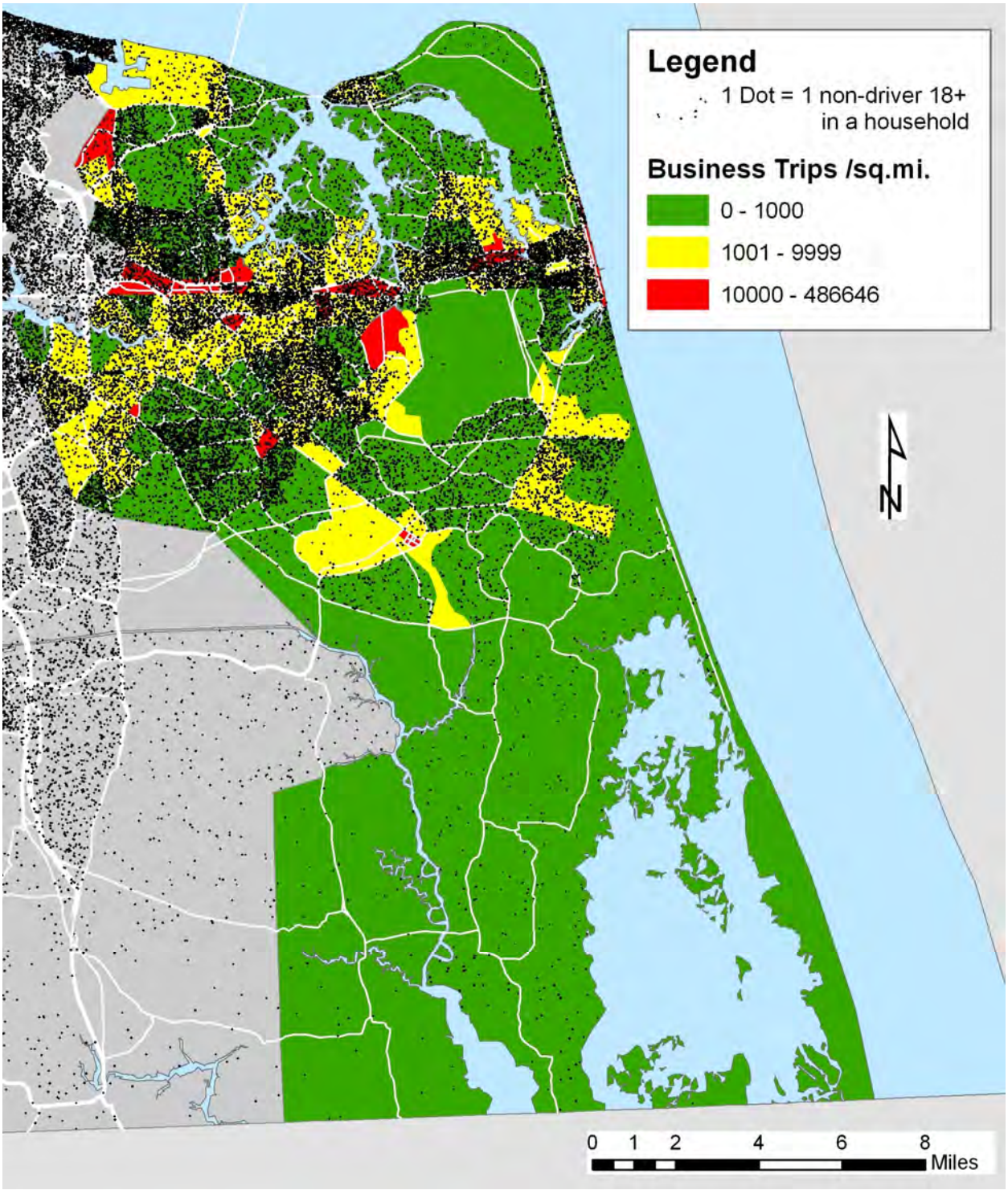


Source: bus north.jpg

The closest bus stops for many of the 490 adult non-drivers living in this outlined area (bounded by Laskin Rd, Little Neck Creek, I-264, and Great Neck Creek) are more than 1 mile away. Access to the bus stops on VB Blvd is limited by the intervening interstate.

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Va. Beach

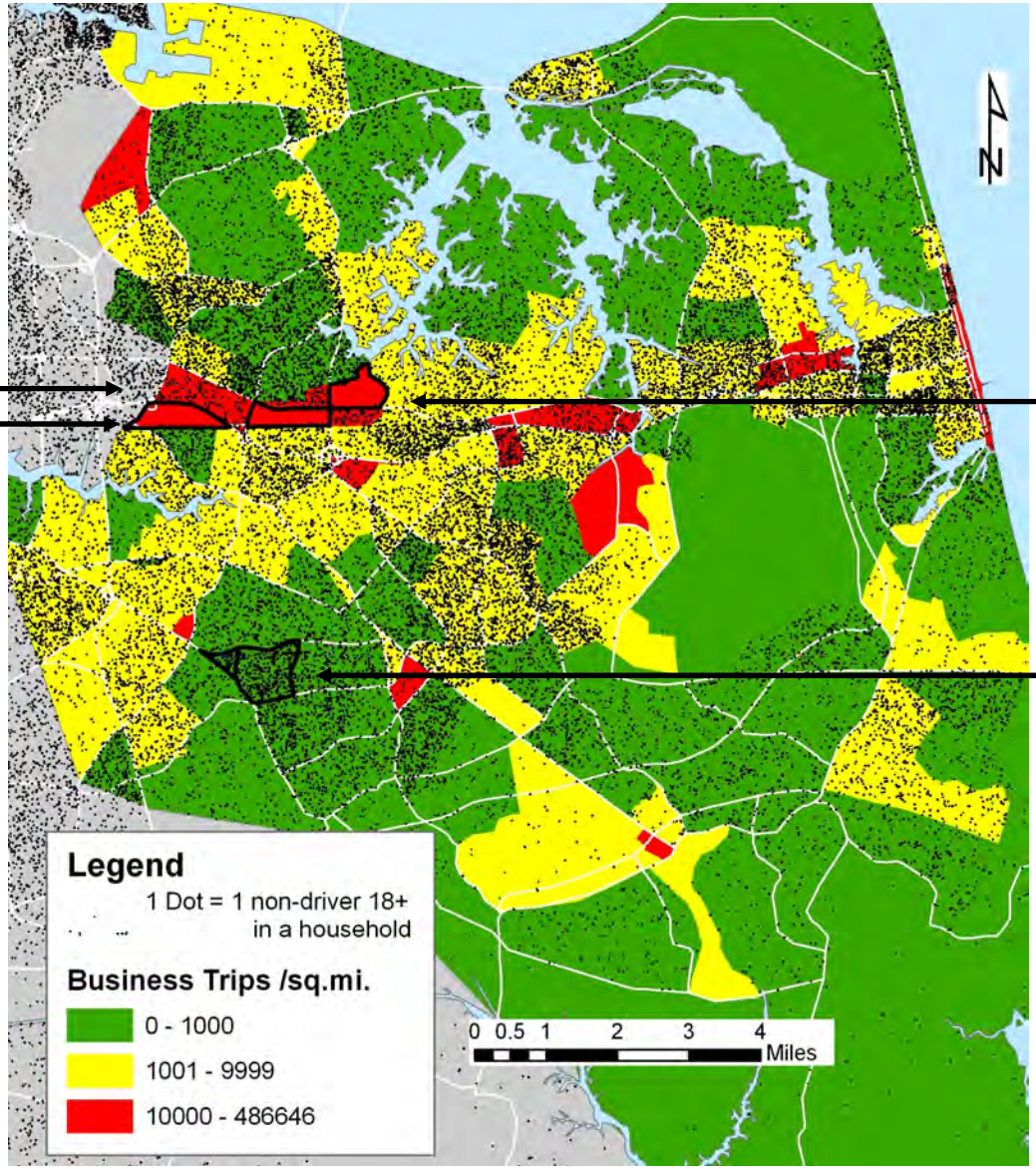


Source: business trips.jpg

Business Activity & Non-Drivers, 2000- Va. Beach, North- Findings

Non-drivers located along the entire VB Blvd / Laskin Rd corridor live within walking distance of many business activities.

Non-drivers may benefit from more residential opportunities in the (red, outlined) triangle formed by the Norfolk Southern railroad (NS r/r), Newtown Rd, and I-264 (i.e. along Greenwich Rd) and in the (red, outlined) rectangle bounded by VB Blvd, Indep-endence Blvd, NS r/r, and Witchduck Rd,- two areas of significant business activity.



Source: business trips north3.jpg

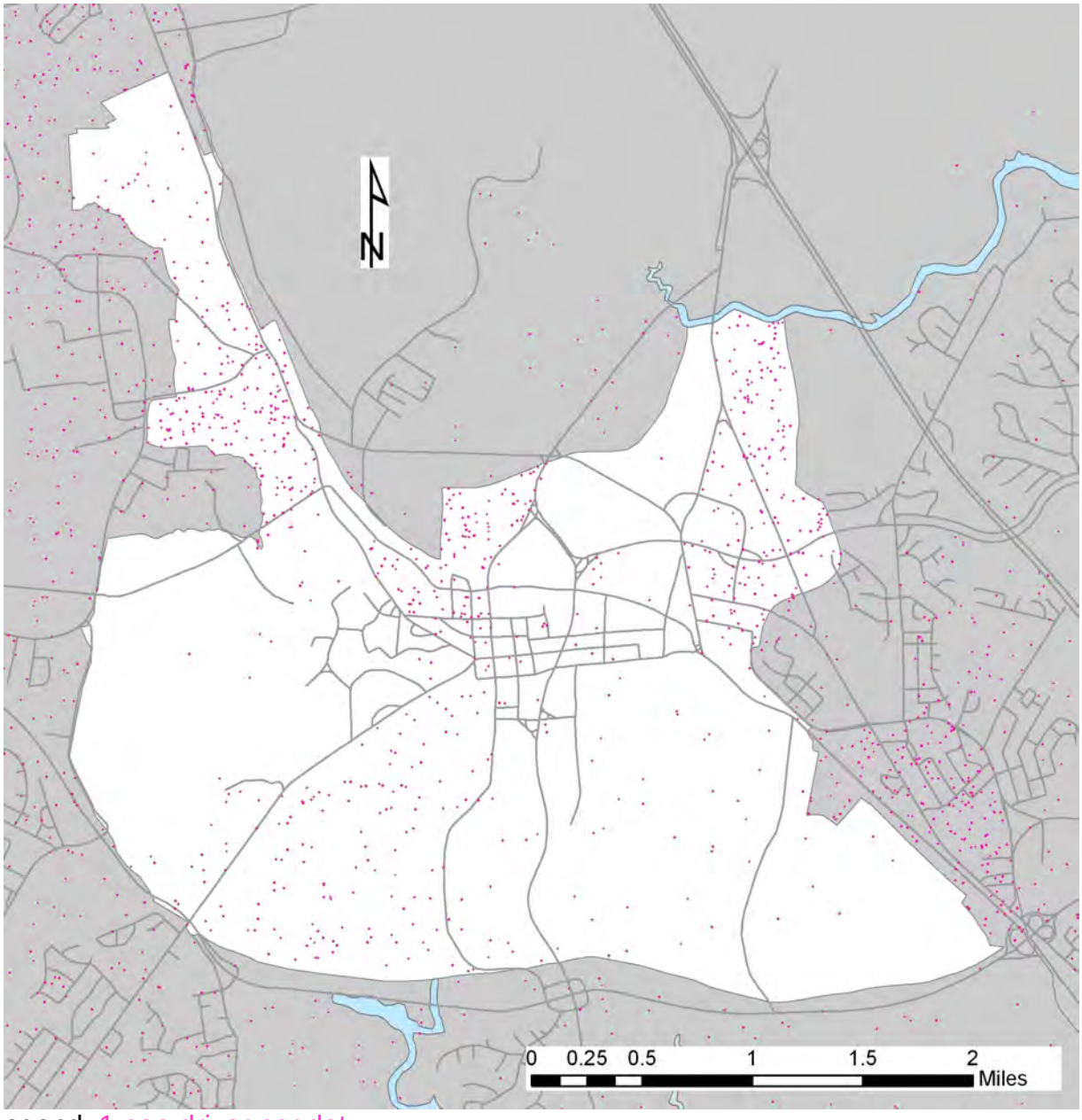
Non-drivers may benefit from more residential opportunities in the (red, outlined) rectangle bounded by VB Blvd, Indep-endence Blvd, Jeanne St, and Thalia Creek, an area of significant business activity.

In 2000, there were few business activities near non-drivers living in the area bounded by Ferrell Pkwy, Pleasant Valley Rd, Lynnhaven Pkwy, and Indian River Rd. Several businesses have been added in recent years.

Williamsburg

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- Williamsburg



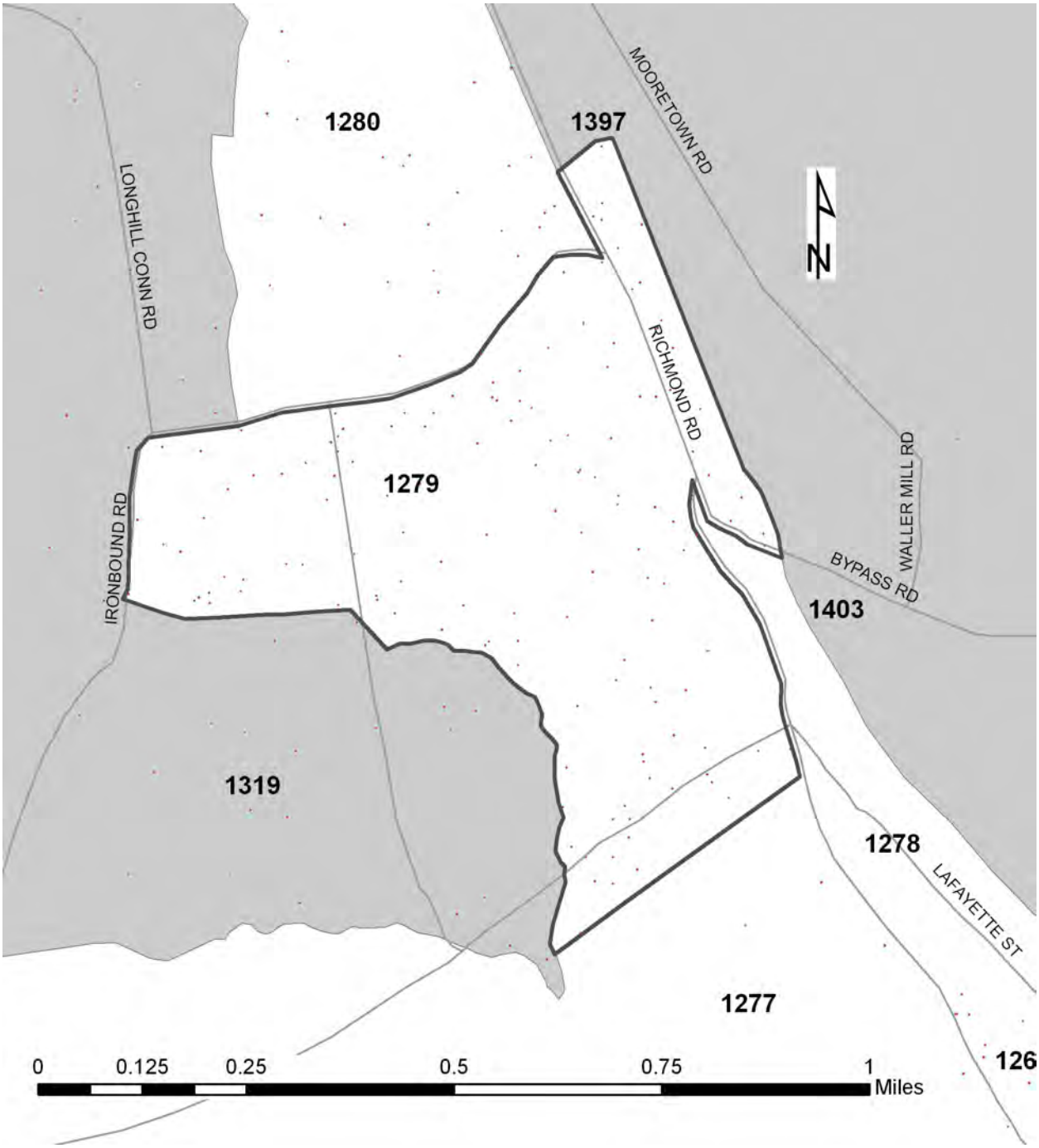
Legend: 1 non-driver per dot

Source: Williamsburg.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Note that most local college students do not live in households and therefore are not represented here.

Non-Drivers 18+ in Households, 2000- Williamsburg, TAZ 1279



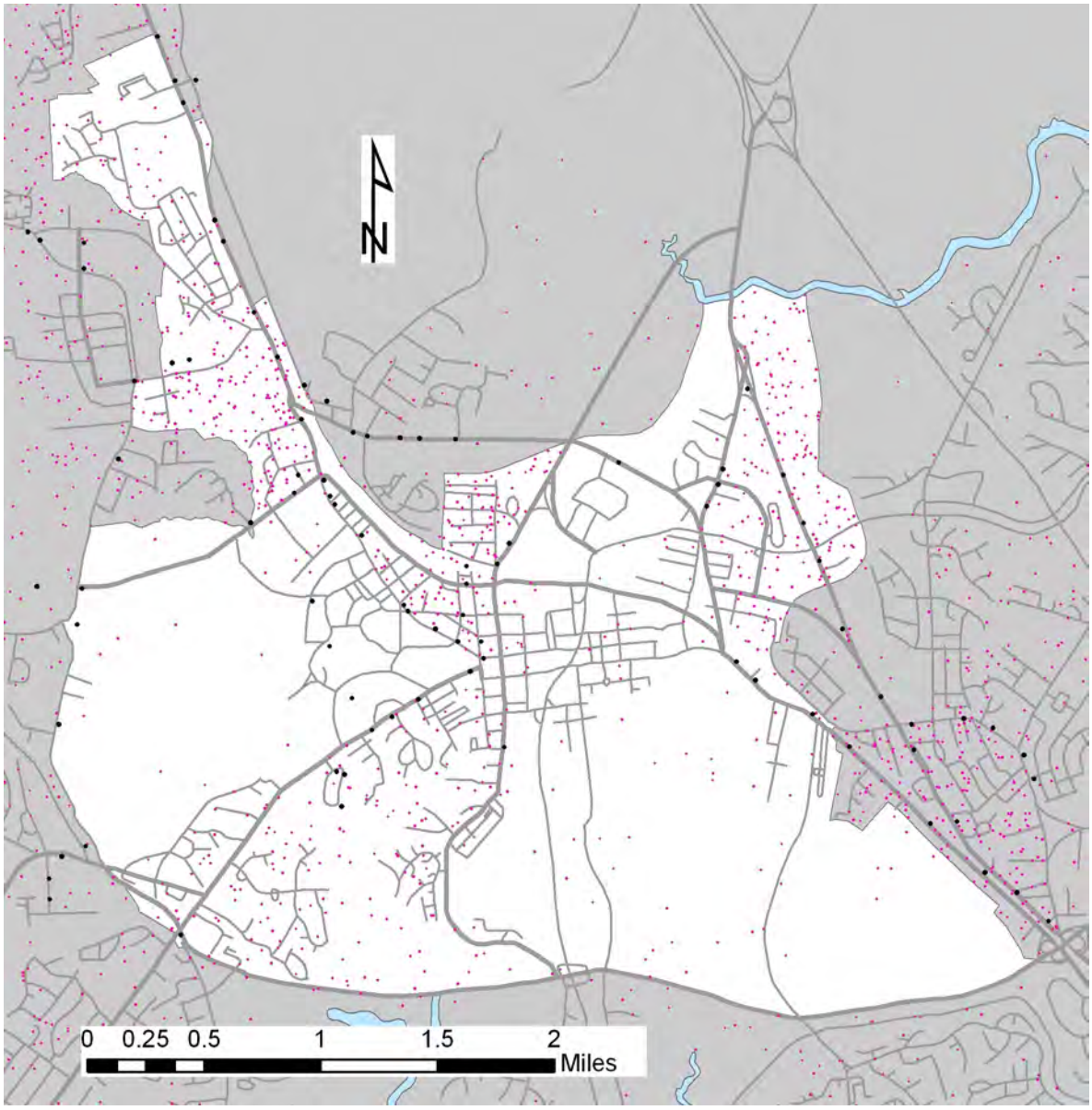
Legend: 1 non-driver per dot

Source: TAZ.jpg

The 139 non-drivers 18+ in the 450 households in the portion of Williamsburg covered by TAZ 1279 represent 19% of Williamsburg's 743 non-drivers 18+ in households and only 12% of its 3,619 households.

Proximity of Residences and Bus Stops

Bus Stops & Non-Drivers, 2000- Williamsburg



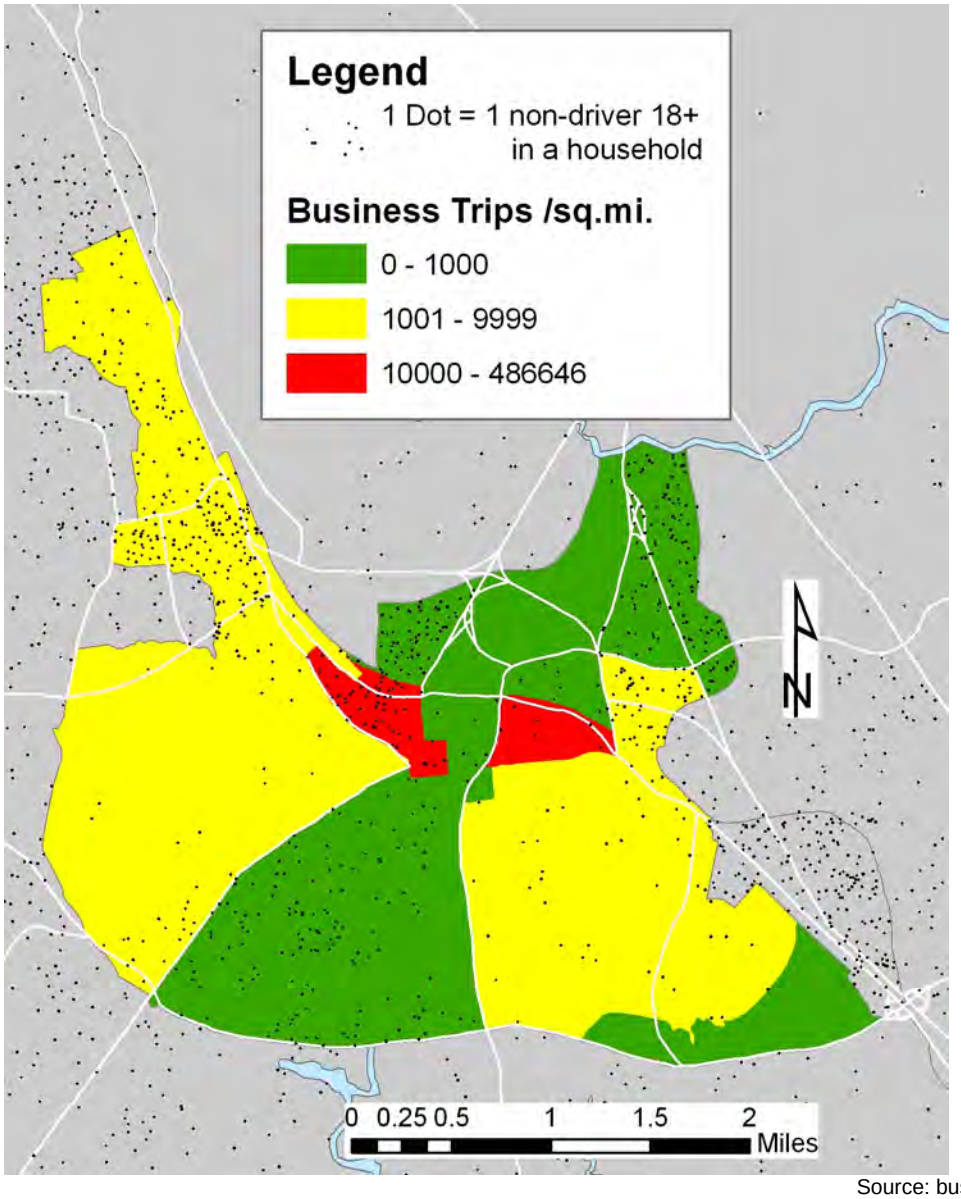
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: bus.jpg

The bus stops in Williamsburg appear to provide most local non-drivers with service within walking distance.

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- Williamsburg



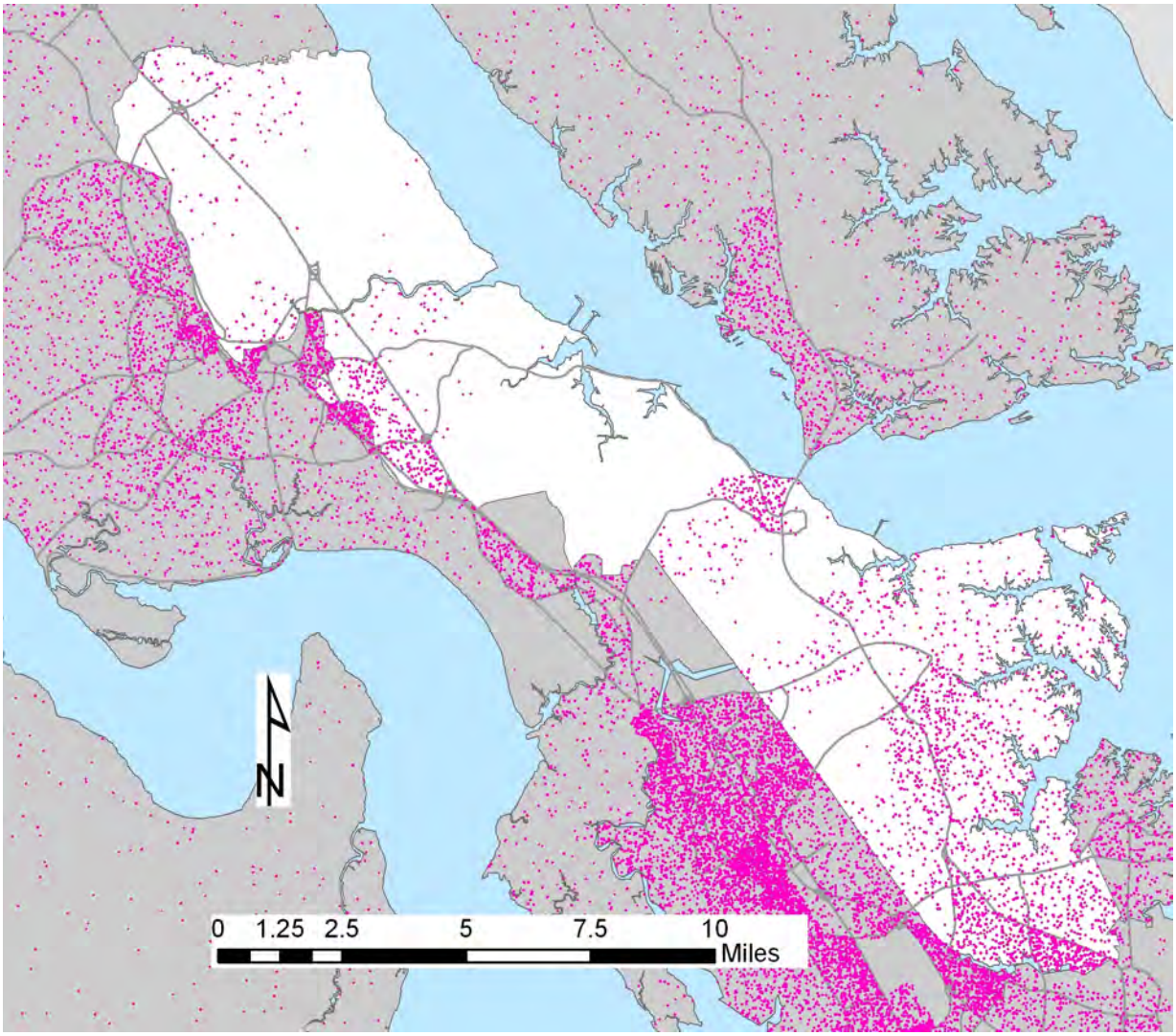
Source: business trips.jpg

Most non-drivers in Williamsburg live within walking distance of many business activities.

York

Non-Driver Locations

Non-Drivers 18+ in Households, 2000- York

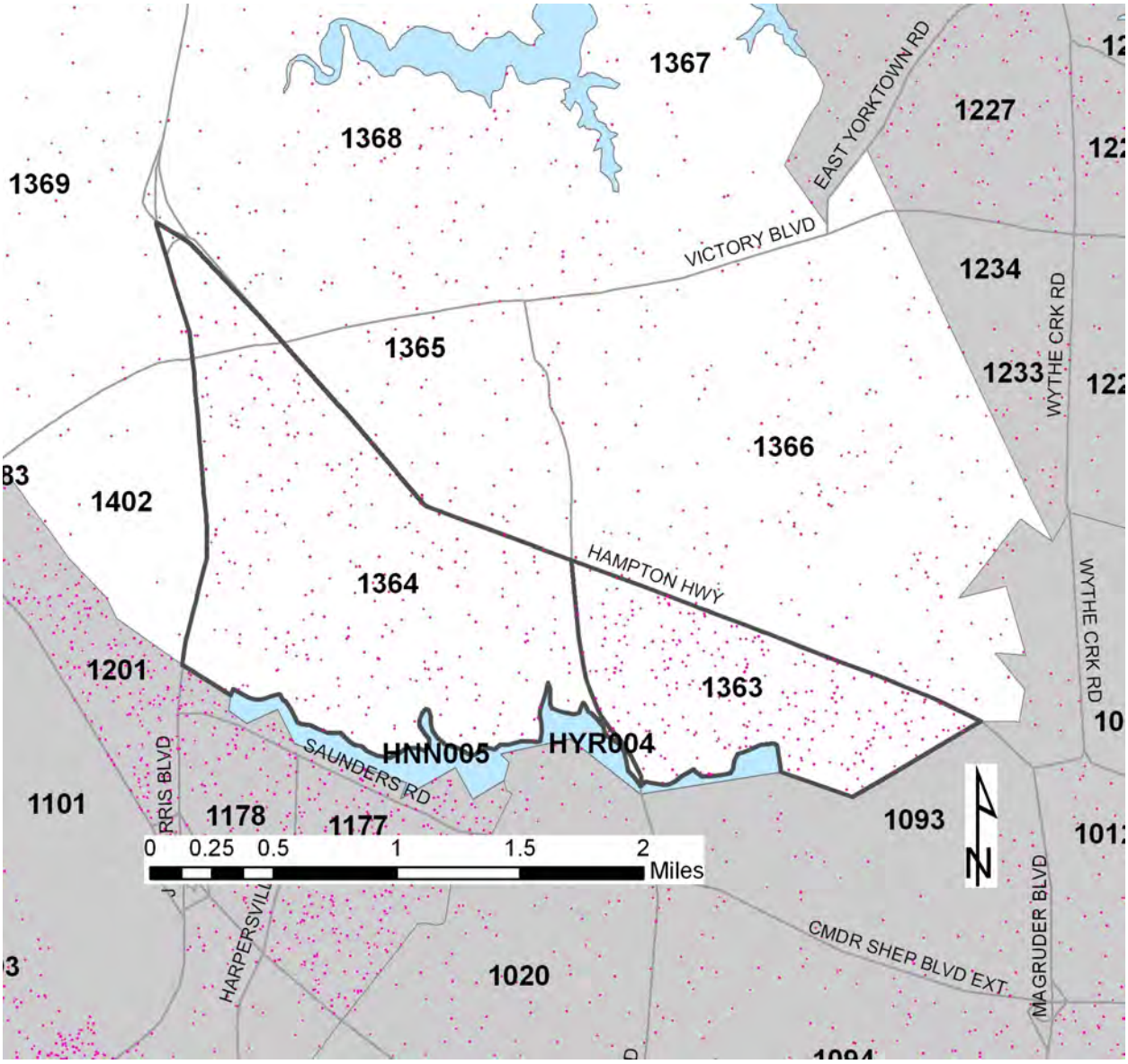


Legend: 1 non-driver per dot

Source: York.jpg

It is expected that accommodating bicycle riding and walking near residences of large numbers of non-drivers will increase the safety and mobility of those non-drivers.

Non-Drivers 18+ in Households, 2000- York, TAZs 1363 and 1364



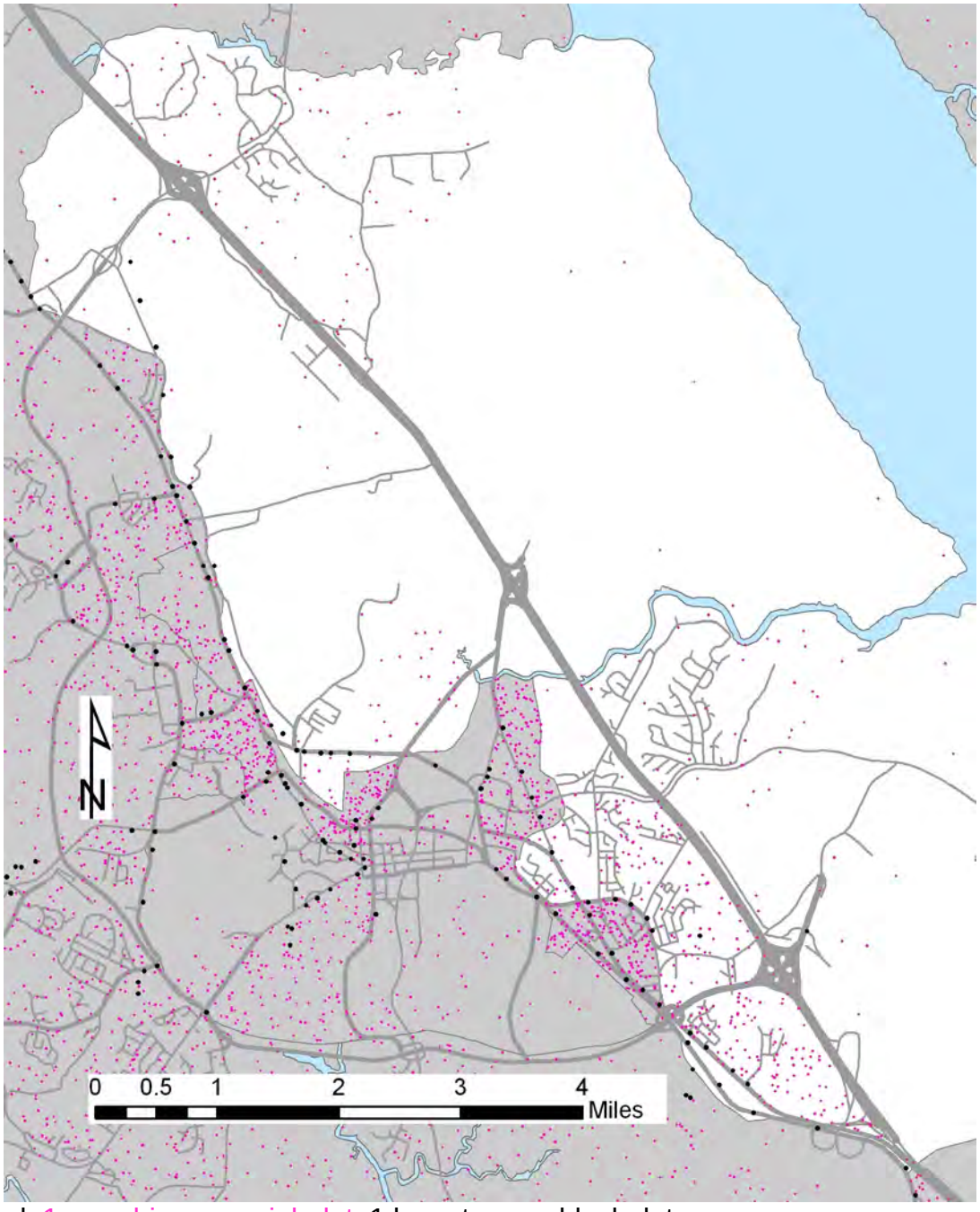
Legend: 1 non-driver per dot

Source: TAZ.jpg

The 496 non-drivers 18+ in the 3,620 households in the portion of York south of Hampton Highway and east of US 17 (TAZs 1363 and 1364) represent 20% of York's 2,465 non-drivers 18+ in households and 18% of its 20,000 households.

Proximity of Residences and Bus Stops

Bus Stops & Non-Drivers, 2000- York



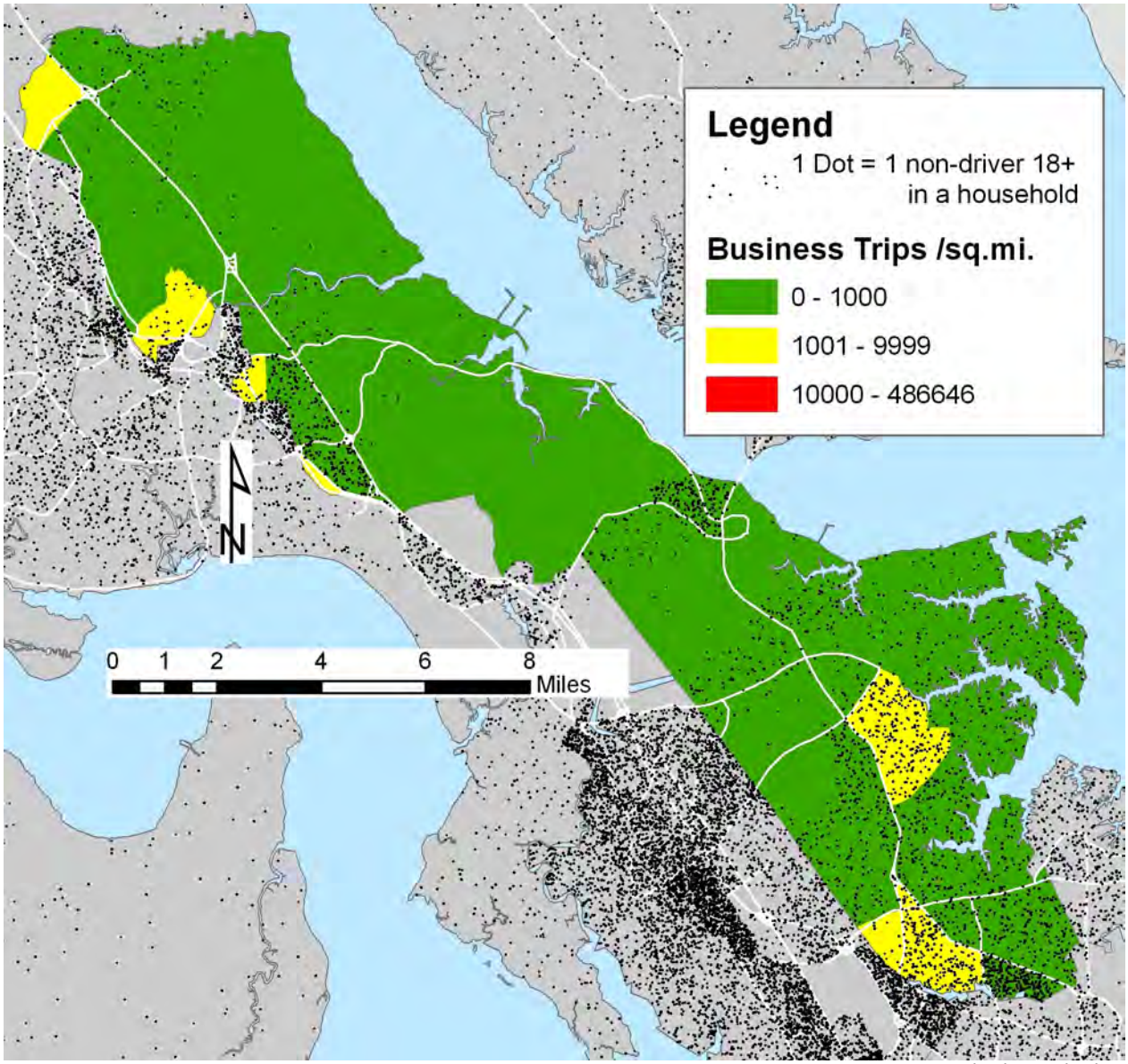
Legend: 1 non-driver per pink dot; 1 bus stop per black dot

Source: bus.jpg

The bus stops at or near York's border with Williamsburg and James City appear to provide most non-drivers in the upper half of the county with service within walking distance. There is, however, no bus service in the lower half of the county where the majority of non-drivers live.

Proximity of Residences and Business Activity Locations

Business Activity & Non-Drivers, 2000- York



Source: business trips.jpg

Many non-drivers in York live within walking distance of a moderate number of business activities. Although the non-drivers near Yorktown live in an area which had with less than 1,000 business trips per sq. mi. in 2005, more businesses have been added since that time.

SUMMARY

In this sixth non-driver report, a method of determining the residential locations of non-drivers was developed and applied to the Hampton Roads region. Local government can use the resulting non-driver maps to accommodate walking and bicycle riding near non-driver homes. Using maps of non-drivers superimposed with bus stops and a measure of business activity, the geographic relationship of these three elements was assessed. Instances of good proximity of non-drivers to bus stops and business activity were noted. In addition, situations wherein local government can use its zoning authority, general funds, and capital improvement plan to affect were residences are built, buses are run, and municipal facilities are built were identified. Based on earlier HRPDC/HRMPO non-driver research, increasing the proximity of non-drivers to bus stops and business activity locations will measurably increase the mobility of these non-drivers.

APPENDIX A – TABLE, NON-DRIVERS BY TAZ

Note: To determine location of TAZs, see “Hampton Roads 2000 Transportation Analysis Zones” (HRPDC, revised Aug. 2003).

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
1	33	Norfolk	0	0	0.00
2	33	Norfolk	0	4	0.00
4	33	Norfolk	0	0	0.00
5	33	Norfolk	13	55	0.24
6	34	Norfolk	25	190	0.13
8	34	Norfolk	0	10	0.00
16	34	Norfolk	8	75	0.11
17	26	Norfolk	138	315	0.44
18	34	Norfolk	21	50	0.42
19	32	Norfolk	225	390	0.58
20	32	Norfolk	395	610	0.65
21	32	Norfolk	258	435	0.59
22	32	Norfolk	1	20	0.05
23	32	Norfolk	92	175	0.53
24	32	Norfolk	186	375	0.50
25	32	Norfolk	439	555	0.79
26	32	Norfolk	0	0	0.00
28	32	Norfolk	474	735	0.64
31	32	Norfolk	56	55	1.02
33	32	Norfolk	84	130	0.65
34	32	Norfolk	70	95	0.74
35	32	Norfolk	190	355	0.54
36	32	Norfolk	104	165	0.63
37	32	Norfolk	296	510	0.58
38	32	Norfolk	72	145	0.50
39	32	Norfolk	302	500	0.60
40	30	Norfolk	748	1095	0.68
41	30	Norfolk	6	35	0.17
42	30	Norfolk	179	410	0.44
45	30	Norfolk	457	830	0.55
46	34	Norfolk	1	70	0.01
47	33	Norfolk	25	250	0.10
48	33	Norfolk	14	265	0.05
49	34	Norfolk	171	1020	0.17
50	34	Norfolk	53	465	0.11
51	34	Norfolk	1	15	0.07
52	34	Norfolk	91	490	0.19
53	34	Norfolk	61	375	0.16
54	34	Norfolk	0	4	0.00
55	34	Norfolk	217	1245	0.17
57	34	Norfolk	2	4	0.50
58	34	Norfolk	95	275	0.35
60	34	Norfolk	66	535	0.12
61	34	Norfolk	91	800	0.11
62	23	Norfolk	225	1180	0.19
63	23	Norfolk	57	420	0.14
65	26	Norfolk	348	635	0.55
68	23	Norfolk	151	980	0.15
69	26	Norfolk	273	815	0.33
70	26	Norfolk	309	1410	0.22
71	26	Norfolk	474	850	0.56

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
72	26	Norfolk	628	900	0.70
73	34	Norfolk	88	190	0.46
74	34	Norfolk	89	150	0.59
75	26	Norfolk	66	315	0.21
78	24	Norfolk	40	150	0.27
79	23	Norfolk	372	865	0.43
80	23	Norfolk	33	290	0.11
81	23	Norfolk	100	520	0.19
82	23	Norfolk	315	1150	0.27
85	23	Norfolk	84	500	0.17
86	23	Norfolk	23	235	0.10
87	23	Norfolk	10	180	0.06
88	23	Norfolk	280	725	0.39
89	23	Norfolk	104	605	0.17
90	23	Norfolk	232	580	0.40
91	23	Norfolk	202	840	0.24
92	20	Norfolk	0	0	0.00
96	20	Norfolk	93	405	0.23
97	20	Norfolk	133	555	0.24
98	20	Norfolk	396	1225	0.32
99	20	Norfolk	2	70	0.03
100	20	Norfolk	0	10	0.00
101	20	Norfolk	18	95	0.19
102	24	Norfolk	287	765	0.38
103	24	Norfolk	58	120	0.48
104	24	Norfolk	257	640	0.40
105	24	Norfolk	158	385	0.41
106	24	Norfolk	148	360	0.41
108	21	Norfolk	309	1100	0.28
109	22	Norfolk	7	40	0.18
110	21	Norfolk	327	1360	0.24
111	21	Norfolk	67	360	0.19
112	21	Norfolk	72	455	0.16
113	21	Norfolk	94	395	0.24
114	21	Norfolk	115	485	0.24
115	22	Norfolk	313	1480	0.21
116	22	Norfolk	86	605	0.14
117	22	Norfolk	40	335	0.12
118	22	Norfolk	59	355	0.17
119	22	Norfolk	26	95	0.27
120	21	Norfolk	321	1140	0.28
121	21	Norfolk	120	730	0.16
122	22	Norfolk	228	675	0.34
123	21	Norfolk	317	1480	0.21
124	21	Norfolk	218	855	0.25
125	22	Norfolk	526	1530	0.34
126	22	Norfolk	291	1125	0.26
127	21	Norfolk	63	445	0.14
128	21	Norfolk	95	485	0.20
129	21	Norfolk	118	575	0.21
130	21	Norfolk	183	695	0.26

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
131	23	Norfolk	82	510	0.16
132	23	Norfolk	86	575	0.15
133	27	Norfolk	67	450	0.15
134	27	Norfolk	67	325	0.21
135	24	Norfolk	150	455	0.33
136	24	Norfolk	438	980	0.45
137	24	Norfolk	149	615	0.24
138	28	Norfolk	218	1045	0.21
139	28	Norfolk	8	35	0.23
140	28	Norfolk	131	590	0.22
141	28	Norfolk	149	670	0.22
142	28	Norfolk	213	840	0.25
143	28	Norfolk	68	225	0.30
144	28	Norfolk	324	1400	0.23
145	28	Norfolk	45	135	0.33
146	28	Norfolk	175	650	0.27
147	27	Norfolk	363	865	0.42
148	27	Norfolk	365	1160	0.31
149	27	Norfolk	437	995	0.44
150	28	Norfolk	147	360	0.41
152	28	Norfolk	149	475	0.31
153	28	Norfolk	152	705	0.22
154	29	Norfolk	3	4	0.75
155	28	Norfolk	17	30	0.57
156	29	Norfolk	196	690	0.28
157	29	Norfolk	24	55	0.44
158	29	Norfolk	51	385	0.13
159	29	Norfolk	49	250	0.20
160	29	Norfolk	36	60	0.60
161	29	Norfolk	69	275	0.25
162	29	Norfolk	99	735	0.13
163	30	Norfolk	32	125	0.26
164	29	Norfolk	18	245	0.07
165	29	Norfolk	240	990	0.24
166	30	Norfolk	412	1210	0.34
167	28	Norfolk	103	450	0.23
168	25	Norfolk	96	405	0.24
169	25	Norfolk	12	40	0.30
172	24	Norfolk	345	845	0.41
173	24	Norfolk	147	615	0.24
174	28	Norfolk	136	630	0.22
176	25	Norfolk	458	1830	0.25
177	25	Norfolk	126	655	0.19
178	21	Norfolk	127	830	0.15
179	21	Norfolk	152	825	0.18
180	22	Norfolk	350	1050	0.33
181	22	Norfolk	490	1325	0.37
182	21	Norfolk	117	625	0.19
183	22	Norfolk	314	845	0.37
184	25	Norfolk	194	1105	0.18
185	21	Norfolk	2	15	0.13

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
187	29	Norfolk	0	0	0.00
188	29	Norfolk	87	505	0.17
189	29	Norfolk	9	65	0.14
190	29	Norfolk	25	185	0.14
192	29	Norfolk	150	360	0.42
193	29	Norfolk	36	130	0.28
196	31	Norfolk	232	430	0.54
197	31	Norfolk	58	90	0.64
198	31	Norfolk	152	285	0.53
200	31	Norfolk	220	395	0.56
201	31	Norfolk	11	45	0.24
202	31	Norfolk	620	950	0.65
204	31	Norfolk	0	4	0.00
205	31	Norfolk	0	10	0.00
207	31	Norfolk	176	245	0.72
208	31	Norfolk	70	265	0.26
209	60	Virginia Beach	0	10	0.00
210	60	Virginia Beach	95	505	0.19
211	60	Virginia Beach	91	455	0.20
212	61	Virginia Beach	80	700	0.11
213	61	Virginia Beach	98	645	0.15
214	61	Virginia Beach	79	1080	0.07
215	61	Virginia Beach	78	550	0.14
216	61	Virginia Beach	111	860	0.13
217	61	Virginia Beach	28	185	0.15
218	61	Virginia Beach	28	135	0.21
219	61	Virginia Beach	272	1615	0.17
220	61	Virginia Beach	56	170	0.33
221	61	Virginia Beach	402	1285	0.31
222	61	Virginia Beach	608	2715	0.22
223	61	Virginia Beach	190	895	0.21
224	61	Virginia Beach	356	1725	0.21
225	61	Virginia Beach	345	1900	0.18
226	61	Virginia Beach	131	605	0.22
227	61	Virginia Beach	96	520	0.18
228	61	Virginia Beach	2	30	0.07
229	66	Virginia Beach	39	135	0.29
230	62	Virginia Beach	76	620	0.12
231	67	Virginia Beach	153	675	0.23
232	62	Virginia Beach	66	250	0.26
233	61	Virginia Beach	166	835	0.20
235	67	Virginia Beach	4	65	0.06
236	67	Virginia Beach	113	910	0.12
237	67	Virginia Beach	303	1695	0.18
238	67	Virginia Beach	175	980	0.18
239	67	Virginia Beach	48	285	0.17
240	61	Virginia Beach	156	340	0.46
241	67	Virginia Beach	0	10	0.00
242	61	Virginia Beach	208	1195	0.17
243	60	Virginia Beach	232	1515	0.15
244	60	Virginia Beach	104	1510	0.07

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
245	61	Virginia Beach	43	435	0.10
246	61	Virginia Beach	162	1430	0.11
247	60	Virginia Beach	71	315	0.23
248	61	Virginia Beach	201	1375	0.15
249	62	Virginia Beach	553	2020	0.27
250	66	Virginia Beach	201	1445	0.14
251	66	Virginia Beach	130	515	0.25
252	67	Virginia Beach	97	695	0.14
253	66	Virginia Beach	454	2430	0.19
254	62	Virginia Beach	188	700	0.27
255	63	Virginia Beach	42	270	0.16
256	63	Virginia Beach	179	665	0.27
259	66	Virginia Beach	270	1610	0.17
260	66	Virginia Beach	162	1000	0.16
261	66	Virginia Beach	119	655	0.18
262	66	Virginia Beach	507	2135	0.24
263	66	Virginia Beach	315	1745	0.18
264	64	Virginia Beach	14	20	0.70
265	66	Virginia Beach	445	2645	0.17
266	66	Virginia Beach	47	335	0.14
267	62	Virginia Beach	47	430	0.11
268	62	Virginia Beach	61	750	0.08
269	62	Virginia Beach	207	1635	0.13
270	62	Virginia Beach	159	1120	0.14
271	62	Virginia Beach	411	1825	0.23
272	62	Virginia Beach	204	1445	0.14
273	63	Virginia Beach	15	185	0.08
274	63	Virginia Beach	58	555	0.10
275	63	Virginia Beach	42	105	0.40
276	63	Virginia Beach	96	755	0.13
277	63	Virginia Beach	186	1205	0.15
278	63	Virginia Beach	100	550	0.18
279	63	Virginia Beach	220	1480	0.15
280	63	Virginia Beach	568	2470	0.23
281	63	Virginia Beach	248	1850	0.13
282	62	Virginia Beach	27	365	0.07
283	63	Virginia Beach	109	1085	0.10
284	63	Virginia Beach	49	550	0.09
285	63	Virginia Beach	39	275	0.14
286	60	Virginia Beach	270	2110	0.13
287	60	Virginia Beach	43	400	0.11
288	60	Virginia Beach	67	840	0.08
290	60	Virginia Beach	29	205	0.14
291	64	Virginia Beach	48	595	0.08
292	64	Virginia Beach	45	515	0.09
293	64	Virginia Beach	48	800	0.06
294	64	Virginia Beach	54	630	0.09
295	63	Virginia Beach	17	355	0.05
296	64	Virginia Beach	53	490	0.11
297	64	Virginia Beach	58	275	0.21
298	64	Virginia Beach	34	435	0.08

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
299	64	Virginia Beach	231	1355	0.17
300	64	Virginia Beach	206	810	0.25
301	64	Virginia Beach	3	30	0.10
303	64	Virginia Beach	73	405	0.18
304	64	Virginia Beach	270	1290	0.21
305	64	Virginia Beach	127	285	0.45
306	64	Virginia Beach	186	815	0.23
307	64	Virginia Beach	17	110	0.15
308	64	Virginia Beach	154	1085	0.14
309	64	Virginia Beach	91	690	0.13
310	63	Virginia Beach	122	395	0.31
312	64	Virginia Beach	259	1190	0.22
313	63	Virginia Beach	256	540	0.47
314	66	Virginia Beach	3	115	0.03
315	64	Virginia Beach	25	95	0.26
317	65	Virginia Beach	48	425	0.11
318	65	Virginia Beach	5	45	0.11
319	65	Virginia Beach	271	1870	0.14
320	65	Virginia Beach	311	1565	0.20
321	65	Virginia Beach	152	950	0.16
323	65	Virginia Beach	56	620	0.09
324	65	Virginia Beach	0	0	0.00
325	65	Virginia Beach	163	1330	0.12
326	65	Virginia Beach	6	55	0.11
327	65	Virginia Beach	58	670	0.09
328	65	Virginia Beach	38	225	0.17
329	65	Virginia Beach	75	360	0.21
330	65	Virginia Beach	115	1110	0.10
331	65	Virginia Beach	6	55	0.11
332	66	Virginia Beach	29	345	0.08
333	67	Virginia Beach	165	1100	0.15
334	67	Virginia Beach	131	1295	0.10
335	67	Virginia Beach	39	360	0.11
336	67	Virginia Beach	132	900	0.15
337	67	Virginia Beach	243	1450	0.17
338	67	Virginia Beach	259	1620	0.16
340	67	Virginia Beach	129	860	0.15
341	67	Virginia Beach	199	1115	0.18
342	67	Virginia Beach	185	1235	0.15
343	67	Virginia Beach	291	1515	0.19
344	67	Virginia Beach	64	230	0.28
345	67	Virginia Beach	606	3100	0.20
346	67	Virginia Beach	137	865	0.16
347	67	Virginia Beach	62	225	0.28
348	61	Virginia Beach	38	105	0.36
350	64	Virginia Beach	10	80	0.13
351	63	Virginia Beach	84	390	0.22
352	1	Chesapeake	136	395	0.34
353	1	Chesapeake	7	15	0.47
354	1	Chesapeake	294	860	0.34
355	1	Chesapeake	30	95	0.32

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
356	1	Chesapeake	63	175	0.36
358	1	Chesapeake	68	175	0.39
360	2	Chesapeake	487	1560	0.31
361	2	Chesapeake	33	235	0.14
362	2	Chesapeake	106	565	0.19
363	2	Chesapeake	139	845	0.16
365	2	Chesapeake	136	950	0.14
366	2	Chesapeake	105	820	0.13
367	2	Chesapeake	100	355	0.28
368	1	Chesapeake	619	1580	0.39
369	2	Chesapeake	365	2035	0.18
370	1	Chesapeake	20	55	0.36
371	1	Chesapeake	10	15	0.67
372	1	Chesapeake	137	420	0.33
373	1	Chesapeake	123	855	0.14
374	1	Chesapeake	130	590	0.22
375	1	Chesapeake	262	615	0.43
376	1	Chesapeake	14	70	0.20
377	1	Chesapeake	415	1295	0.32
378	1	Chesapeake	187	735	0.25
379	4	Chesapeake	122	790	0.15
381	5	Chesapeake	306	720	0.43
382	7	Chesapeake	29	315	0.09
383	7	Chesapeake	309	875	0.35
384	7	Chesapeake	84	460	0.18
385	7	Chesapeake	56	350	0.16
386	7	Chesapeake	216	1230	0.18
387	7	Chesapeake	18	35	0.51
388	8	Chesapeake	204	820	0.25
389	8	Chesapeake	7	10	0.70
390	8	Chesapeake	352	1370	0.26
392	8	Chesapeake	29	140	0.21
393	9	Chesapeake	191	560	0.34
397	9	Chesapeake	90	980	0.09
402	9	Chesapeake	56	540	0.10
403	9	Chesapeake	412	2185	0.19
404	9	Chesapeake	22	170	0.13
405	7	Chesapeake	13	65	0.20
406	9	Chesapeake	8	50	0.16
407	10	Chesapeake	27	145	0.19
409	10	Chesapeake	47	240	0.20
410	10	Chesapeake	4	55	0.07
411	3	Chesapeake	2	30	0.07
413	7	Chesapeake	98	545	0.18
414	10	Chesapeake	168	1075	0.16
415	10	Chesapeake	167	995	0.17
416	7	Chesapeake	76	495	0.15
417	10	Chesapeake	140	1000	0.14
418	10	Chesapeake	6	50	0.12
419	10	Chesapeake	10	65	0.15
420	6	Chesapeake	107	1020	0.10

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
421	6	Chesapeake	58	685	0.08
422	6	Chesapeake	124	920	0.13
423	10	Chesapeake	29	160	0.18
424	6	Chesapeake	395	3045	0.13
425	6	Chesapeake	52	350	0.15
426	5	Chesapeake	234	1865	0.13
427	5	Chesapeake	131	435	0.30
429	4	Chesapeake	183	835	0.22
434	3	Chesapeake	76	270	0.28
435	3	Chesapeake	55	195	0.28
436	5	Chesapeake	101	775	0.13
437	4	Chesapeake	91	680	0.13
438	3	Chesapeake	61	655	0.09
439	6	Chesapeake	103	710	0.15
440	6	Chesapeake	129	1005	0.13
441	6	Chesapeake	193	1200	0.16
444	6	Chesapeake	130	1000	0.13
446	3	Chesapeake	2	40	0.05
447	1	Chesapeake	97	290	0.33
448	1	Chesapeake	198	420	0.47
449	40	Portsmouth	71	125	0.57
450	40	Portsmouth	50	95	0.53
451	40	Portsmouth	76	110	0.69
452	40	Portsmouth	101	265	0.38
453	40	Portsmouth	40	230	0.17
454	40	Portsmouth	23	130	0.18
455	40	Portsmouth	275	765	0.36
456	40	Portsmouth	603	955	0.63
457	40	Portsmouth	99	240	0.41
459	40	Portsmouth	118	445	0.27
460	40	Portsmouth	54	340	0.16
461	41	Portsmouth	264	1050	0.25
463	40	Portsmouth	2	4	0.50
464	41	Portsmouth	151	805	0.19
465	40	Portsmouth	0	0	0.00
466	40	Portsmouth	228	980	0.23
467	40	Portsmouth	268	530	0.51
468	41	Portsmouth	445	1675	0.27
469	40	Portsmouth	273	525	0.52
470	40	Portsmouth	105	135	0.78
472	40	Portsmouth	290	620	0.47
473	40	Portsmouth	80	245	0.33
474	40	Portsmouth	0	10	0.00
475	40	Portsmouth	43	110	0.39
476	41	Portsmouth	545	1250	0.44
477	41	Portsmouth	53	110	0.48
478	41	Portsmouth	110	285	0.39
479	41	Portsmouth	303	670	0.45
480	40	Portsmouth	746	1225	0.61
481	40	Portsmouth	257	520	0.49
482	41	Portsmouth	252	355	0.71

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
483	41	Portsmouth	174	720	0.24
484	41	Portsmouth	272	935	0.29
485	41	Portsmouth	32	135	0.24
488	41	Portsmouth	132	645	0.20
489	41	Portsmouth	11	70	0.16
490	41	Portsmouth	72	480	0.15
491	41	Portsmouth	231	1240	0.19
494	41	Portsmouth	404	2200	0.18
495	41	Portsmouth	692	3145	0.22
496	42	Portsmouth	610	3425	0.18
498	42	Portsmouth	24	130	0.18
499	42	Portsmouth	12	95	0.13
501	42	Portsmouth	100	950	0.11
502	42	Portsmouth	0	10	0.00
503	42	Portsmouth	554	1975	0.28
506	40	Portsmouth	47	75	0.63
507	40	Portsmouth	0	0	0.00
508	40	Portsmouth	0	0	0.00
511	53	Suffolk	182	1390	0.13
513	50	Suffolk	211	415	0.51
515	50	Suffolk	15	55	0.27
516	50	Suffolk	32	160	0.20
517	50	Suffolk	237	475	0.50
518	51	Suffolk	98	290	0.34
519	50	Suffolk	519	1305	0.40
520	50	Suffolk	133	400	0.33
522	50	Suffolk	95	345	0.28
525	52	Suffolk	5	40	0.13
526	52	Suffolk	24	160	0.15
527	52	Suffolk	32	160	0.20
528	52	Suffolk	29	200	0.15
529	52	Suffolk	21	60	0.35
530	52	Suffolk	3	65	0.05
531	52	Suffolk	5	35	0.14
533	51	Suffolk	7	80	0.09
535	52	Suffolk	29	280	0.10
537	51	Suffolk	13	115	0.11
538	51	Suffolk	13	50	0.26
540	51	Suffolk	93	535	0.17
542	51	Suffolk	56	360	0.16
543	51	Suffolk	27	190	0.14
544	51	Suffolk	5	35	0.14
545	51	Suffolk	7	40	0.18
546	51	Suffolk	2	40	0.05
547	53	Suffolk	55	480	0.11
548	53	Suffolk	87	565	0.15
550	51	Suffolk	5	35	0.14
551	52	Suffolk	80	200	0.40
552	53	Suffolk	60	400	0.15
553	53	Suffolk	32	345	0.09
554	53	Suffolk	158	675	0.23

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
555	53	Suffolk	8	20	0.40
556	50	Suffolk	110	185	0.59
557	50	Suffolk	123	225	0.55
558	50	Suffolk	57	165	0.35
559	50	Suffolk	112	230	0.49
560	50	Suffolk	45	115	0.39
561	50	Suffolk	19	85	0.22
562	50	Suffolk	128	255	0.50
563	50	Suffolk	54	170	0.32
564	50	Suffolk	193	380	0.51
565	50	Suffolk	59	420	0.14
566	50	Suffolk	70	435	0.16
567	50	Suffolk	47	250	0.19
568	50	Suffolk	53	160	0.33
569	50	Suffolk	7	20	0.35
570	50	Suffolk	0	0	0.00
571	50	Suffolk	104	150	0.69
572	50	Suffolk	21	55	0.38
573	51	Suffolk	8	25	0.32
574	51	Suffolk	0	10	0.00
575	51	Suffolk	89	290	0.31
576	51	Suffolk	38	265	0.14
577	53	Suffolk	35	45	0.78
578	53	Suffolk	7	95	0.07
579	53	Suffolk	10	130	0.08
581	53	Suffolk	12	125	0.10
582	6	Chesapeake	92	635	0.14
583	6	Chesapeake	407	2930	0.14
584	6	Chesapeake	50	430	0.12
585	60	Virginia Beach	73	810	0.09
586	60	Virginia Beach	71	565	0.13
587	61	Virginia Beach	1	4	0.25
589	61	Virginia Beach	165	955	0.17
590	61	Virginia Beach	207	515	0.40
591	61	Virginia Beach	75	410	0.18
592	61	Virginia Beach	3	40	0.08
593	62	Virginia Beach	51	310	0.16
596	63	Virginia Beach	104	520	0.20
597	63	Virginia Beach	4	35	0.11
599	63	Virginia Beach	104	690	0.15
600	63	Virginia Beach	1	15	0.07
601	63	Virginia Beach	39	190	0.21
603	64	Virginia Beach	353	970	0.36
606	66	Virginia Beach	8	100	0.08
609	66	Virginia Beach	98	685	0.14
610	66	Virginia Beach	37	195	0.19
616	66	Virginia Beach	548	2685	0.20
617	66	Virginia Beach	172	805	0.21
618	66	Virginia Beach	60	335	0.18
620	66	Virginia Beach	134	735	0.18
621	67	Virginia Beach	238	1545	0.15

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
622	66	Virginia Beach	11	245	0.04
623	67	Virginia Beach	190	1110	0.17
625	67	Virginia Beach	76	640	0.12
626	67	Virginia Beach	50	190	0.26
627	67	Virginia Beach	15	15	1.00
628	67	Virginia Beach	112	860	0.13
629	67	Virginia Beach	99	455	0.22
630	67	Virginia Beach	368	2020	0.18
631	67	Virginia Beach	193	1135	0.17
632	67	Virginia Beach	426	2350	0.18
633	67	Virginia Beach	52	575	0.09
634	67	Virginia Beach	118	785	0.15
635	66	Virginia Beach	29	160	0.18
636	66	Virginia Beach	33	165	0.20
637	66	Virginia Beach	170	1195	0.14
638	66	Virginia Beach	258	1740	0.15
639	66	Virginia Beach	6	45	0.13
641	66	Virginia Beach	21	195	0.11
642	66	Virginia Beach	5	40	0.13
645	65	Virginia Beach	57	395	0.14
647	65	Virginia Beach	70	585	0.12
650	65	Virginia Beach	96	580	0.17
651	65	Virginia Beach	1	20	0.05
652	65	Virginia Beach	53	430	0.12
653	65	Virginia Beach	6	60	0.10
654	65	Virginia Beach	217	1525	0.14
655	65	Virginia Beach	61	375	0.16
656	65	Virginia Beach	201	1120	0.18
657	65	Virginia Beach	10	110	0.09
658	65	Virginia Beach	17	230	0.07
661	65	Virginia Beach	21	240	0.09
663	68	Virginia Beach	49	265	0.18
664	68	Virginia Beach	5	130	0.04
665	68	Virginia Beach	47	285	0.16
666	68	Virginia Beach	58	330	0.18
667	68	Virginia Beach	41	235	0.17
668	68	Virginia Beach	6	85	0.07
669	68	Virginia Beach	24	190	0.13
671	68	Virginia Beach	19	195	0.10
672	68	Virginia Beach	1	15	0.07
674	12	Chesapeake	71	400	0.18
675	12	Chesapeake	47	150	0.31
676	12	Chesapeake	1	45	0.02
677	12	Chesapeake	21	90	0.23
678	12	Chesapeake	10	135	0.07
679	12	Chesapeake	24	125	0.19
680	12	Chesapeake	39	140	0.28
681	12	Chesapeake	17	175	0.10
682	12	Chesapeake	145	855	0.17
683	12	Chesapeake	86	345	0.25
684	12	Chesapeake	42	175	0.24

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
687	12	Chesapeake	35	265	0.13
692	54	Suffolk	11	80	0.14
693	54	Suffolk	20	80	0.25
694	54	Suffolk	5	85	0.06
695	54	Suffolk	6	90	0.07
696	54	Suffolk	25	120	0.21
697	54	Suffolk	0	4	0.00
698	54	Suffolk	3	60	0.05
699	54	Suffolk	13	155	0.08
703	54	Suffolk	3	110	0.03
704	54	Suffolk	12	100	0.12
706	54	Suffolk	1	25	0.04
707	54	Suffolk	4	65	0.06
708	54	Suffolk	102	335	0.30
709	54	Suffolk	35	130	0.27
711	54	Suffolk	63	230	0.27
715	54	Suffolk	49	255	0.19
716	54	Suffolk	32	135	0.24
717	54	Suffolk	7	80	0.09
718	54	Suffolk	26	100	0.26
719	54	Suffolk	33	175	0.19
721	54	Suffolk	9	175	0.05
724	54	Suffolk	18	75	0.24
726	70	Isle of Wight	40	465	0.09
727	72	Isle of Wight	278	1550	0.18
728	70	Isle of Wight	50	480	0.10
729	72	Isle of Wight	164	1110	0.15
730	72	Isle of Wight	53	445	0.12
731	71	Isle of Wight	39	90	0.43
732	71	Isle of Wight	237	755	0.31
733	71	Isle of Wight	221	2025	0.11
734	70	Isle of Wight	31	340	0.09
735	70	Isle of Wight	14	220	0.06
736	70	Isle of Wight	82	230	0.36
737	70	Isle of Wight	1	45	0.02
738	70	Isle of Wight	26	240	0.11
739	70	Isle of Wight	14	195	0.07
740	70	Isle of Wight	12	95	0.13
741	70	Isle of Wight	35	210	0.17
742	70	Isle of Wight	79	585	0.14
743	70	Isle of Wight	89	225	0.40
744	72	Isle of Wight	112	595	0.19
745	72	Isle of Wight	84	585	0.14
746	72	Isle of Wight	147	815	0.18
831	54	Suffolk	26	345	0.08
832	52	Suffolk	22	155	0.14
833	52	Suffolk	137	260	0.53
834	54	Suffolk	18	80	0.23
835	54	Suffolk	12	65	0.18
836	54	Suffolk	17	170	0.10
837	54	Suffolk	13	60	0.22

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
839	52	Suffolk	55	460	0.12
840	52	Suffolk	47	395	0.12
841	53	Suffolk	54	315	0.17
842	53	Suffolk	54	355	0.15
843	53	Suffolk	65	370	0.18
844	53	Suffolk	9	70	0.13
845	53	Suffolk	141	525	0.27
846	53	Suffolk	9	65	0.14
847	53	Suffolk	16	85	0.19
849	54	Suffolk	7	70	0.10
850	51	Suffolk	213	885	0.24
851	51	Suffolk	24	355	0.07
852	51	Suffolk	112	710	0.16
853	51	Suffolk	0	20	0.00
854	51	Suffolk	2	15	0.13
855	51	Suffolk	8	115	0.07
856	51	Suffolk	3	80	0.04
857	51	Suffolk	62	205	0.30
859	54	Suffolk	11	130	0.08
860	9	Chesapeake	97	740	0.13
861	8	Chesapeake	101	660	0.15
862	9	Chesapeake	69	710	0.10
863	9	Chesapeake	198	1545	0.13
864	9	Chesapeake	70	600	0.12
865	9	Chesapeake	14	40	0.35
867	9	Chesapeake	73	695	0.11
868	3	Chesapeake	194	1425	0.14
869	3	Chesapeake	135	1245	0.11
870	3	Chesapeake	185	1480	0.13
871	3	Chesapeake	301	2055	0.15
873	3	Chesapeake	80	540	0.15
875	3	Chesapeake	24	120	0.20
876	3	Chesapeake	33	190	0.17
877	3	Chesapeake	87	910	0.10
878	3	Chesapeake	7	10	0.70
879	11	Chesapeake	53	390	0.14
880	4	Chesapeake	84	575	0.15
881	9	Chesapeake	109	770	0.14
887	63	Virginia Beach	97	570	0.17
889	65	Virginia Beach	142	955	0.15
890	66	Virginia Beach	425	2270	0.19
891	65	Virginia Beach	106	515	0.21
892	65	Virginia Beach	227	1755	0.13
893	67	Virginia Beach	91	675	0.13
894	67	Virginia Beach	80	765	0.10
895	66	Virginia Beach	220	1070	0.21
902	23	Norfolk	257	985	0.26
910	41	Portsmouth	24	125	0.19
911	41	Portsmouth	229	1105	0.21
912	41	Portsmouth	481	1365	0.35
913	41	Portsmouth	327	790	0.41

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
914	41	Portsmouth	41	100	0.41
915	42	Portsmouth	187	1170	0.16
916	42	Portsmouth	250	1915	0.13
917	41	Portsmouth	148	530	0.28
1001	125	Hampton	10	155	0.06
1002	125	Hampton	20	200	0.10
1003	125	Hampton	222	1485	0.15
1004	125	Hampton	236	1115	0.21
1005	125	Hampton	53	385	0.14
1006	125	Hampton	350	1625	0.22
1007	125	Hampton	197	1275	0.15
1008	125	Hampton	100	840	0.12
1009	125	Hampton	70	490	0.14
1010	124	Hampton	66	370	0.18
1012	124	Hampton	72	385	0.19
1013	124	Hampton	285	1360	0.21
1014	123	Hampton	198	1205	0.16
1015	123	Hampton	27	100	0.27
1016	123	Hampton	72	245	0.29
1018	123	Hampton	559	3060	0.18
1020	124	Hampton	137	1075	0.13
1021	120	Hampton	284	1965	0.14
1022	120	Hampton	334	2290	0.15
1023	120	Hampton	192	745	0.26
1024	120	Hampton	111	840	0.13
1025	120	Hampton	143	915	0.16
1026	120	Hampton	72	470	0.15
1027	120	Hampton	237	1380	0.17
1028	120	Hampton	0	10	0.00
1029	121	Hampton	265	780	0.34
1030	121	Hampton	211	1115	0.19
1031	121	Hampton	250	820	0.30
1033	121	Hampton	133	680	0.20
1034	121	Hampton	46	280	0.16
1036	121	Hampton	9	40	0.23
1037	121	Hampton	6	65	0.09
1038	122	Hampton	42	150	0.28
1039	121	Hampton	142	650	0.22
1040	121	Hampton	5	105	0.05
1041	123	Hampton	44	430	0.10
1042	122	Hampton	358	845	0.42
1043	122	Hampton	138	320	0.43
1044	122	Hampton	62	225	0.28
1045	122	Hampton	33	230	0.14
1046	122	Hampton	37	175	0.21
1047	122	Hampton	63	215	0.29
1048	122	Hampton	9	60	0.15
1049	125	Hampton	258	665	0.39
1050	125	Hampton	233	570	0.41
1051	125	Hampton	364	1455	0.25
1052	125	Hampton	287	1505	0.19

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
1053	125	Hampton	129	1260	0.10
1054	125	Hampton	31	310	0.10
1055	125	Hampton	72	470	0.15
1056	125	Hampton	63	385	0.16
1058	125	Hampton	206	1040	0.20
1059	126	Hampton	32	175	0.18
1060	126	Hampton	158	580	0.27
1061	125	Hampton	68	185	0.37
1062	125	Hampton	89	555	0.16
1063	126	Hampton	294	1475	0.20
1064	126	Hampton	67	375	0.18
1065	126	Hampton	206	940	0.22
1067	126	Hampton	169	705	0.24
1068	126	Hampton	141	555	0.25
1069	126	Hampton	2	15	0.13
1070	126	Hampton	110	380	0.29
1071	122	Hampton	91	535	0.17
1072	122	Hampton	28	305	0.09
1073	122	Hampton	82	595	0.14
1076	122	Hampton	18	225	0.08
1078	122	Hampton	91	350	0.26
1079	122	Hampton	146	410	0.36
1080	122	Hampton	41	145	0.28
1081	122	Hampton	31	160	0.19
1082	122	Hampton	79	245	0.32
1083	122	Hampton	228	405	0.56
1084	122	Hampton	111	330	0.34
1085	122	Hampton	220	1030	0.21
1086	122	Hampton	245	785	0.31
1087	122	Hampton	106	310	0.34
1088	122	Hampton	96	230	0.42
1089	122	Hampton	136	355	0.38
1090	122	Hampton	167	360	0.46
1091	122	Hampton	143	405	0.35
1093	124	Hampton	2	65	0.03
1094	124	Hampton	228	1290	0.18
1096	122	Hampton	51	400	0.13
1097	121	Hampton	71	235	0.30
1101	109	Newport News	0	20	0.00
1103	109	Newport News	112	675	0.17
1104	103	Newport News	127	460	0.28
1105	103	Newport News	157	720	0.22
1106	105	Newport News	126	645	0.20
1107	105	Newport News	68	640	0.11
1108	109	Newport News	267	1060	0.25
1109	109	Newport News	181	1665	0.11
1110	111	Newport News	129	675	0.19
1111	111	Newport News	111	375	0.30
1112	112	Newport News	70	395	0.18
1113	112	Newport News	61	430	0.14
1114	107	Newport News	353	2060	0.17

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
1115	107	Newport News	319	1885	0.17
1116	107	Newport News	475	2175	0.22
1117	101	Newport News	1	35	0.03
1118	101	Newport News	11	10	1.10
1119	101	Newport News	68	105	0.65
1120	101	Newport News	112	390	0.29
1122	101	Newport News	364	650	0.56
1123	101	Newport News	533	1070	0.50
1124	101	Newport News	173	500	0.35
1125	101	Newport News	61	185	0.33
1126	101	Newport News	305	545	0.56
1127	101	Newport News	160	410	0.39
1128	101	Newport News	188	470	0.40
1129	101	Newport News	244	370	0.66
1130	101	Newport News	229	405	0.57
1131	101	Newport News	223	320	0.70
1132	101	Newport News	260	435	0.60
1133	101	Newport News	166	365	0.45
1134	101	Newport News	439	780	0.56
1135	101	Newport News	415	640	0.65
1136	103	Newport News	190	310	0.61
1137	103	Newport News	179	270	0.66
1138	103	Newport News	118	290	0.41
1139	103	Newport News	43	140	0.31
1141	103	Newport News	40	180	0.22
1142	103	Newport News	198	660	0.30
1143	102	Newport News	33	85	0.39
1144	102	Newport News	4	40	0.10
1145	102	Newport News	57	245	0.23
1146	102	Newport News	170	865	0.20
1147	102	Newport News	9	15	0.60
1150	103	Newport News	459	1905	0.24
1151	104	Newport News	62	270	0.23
1152	104	Newport News	334	990	0.34
1153	104	Newport News	99	550	0.18
1154	104	Newport News	127	590	0.22
1155	105	Newport News	18	35	0.51
1156	105	Newport News	13	135	0.10
1157	105	Newport News	0	15	0.00
1158	105	Newport News	57	415	0.14
1159	105	Newport News	106	705	0.15
1160	106	Newport News	481	1505	0.32
1161	105	Newport News	22	105	0.21
1163	104	Newport News	411	1885	0.22
1164	104	Newport News	38	445	0.09
1165	109	Newport News	239	675	0.35
1166	104	Newport News	166	1250	0.13
1167	104	Newport News	99	670	0.15
1168	105	Newport News	241	1680	0.14
1169	105	Newport News	250	1315	0.19
1170	105	Newport News	13	60	0.22

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
1171	105	Newport News	88	1015	0.09
1172	105	Newport News	63	620	0.10
1173	105	Newport News	231	1900	0.12
1174	105	Newport News	217	1360	0.16
1175	106	Newport News	244	1960	0.12
1176	106	Newport News	226	1495	0.15
1177	108	Newport News	324	1320	0.25
1178	108	Newport News	110	510	0.22
1181	109	Newport News	23	215	0.11
1182	109	Newport News	95	635	0.15
1183	108	Newport News	168	2265	0.07
1184	110	Newport News	174	655	0.27
1185	110	Newport News	86	705	0.12
1187	111	Newport News	576	3750	0.15
1188	111	Newport News	289	2040	0.14
1189	112	Newport News	0	4	0.00
1190	112	Newport News	20	215	0.09
1191	107	Newport News	305	2150	0.14
1192	106	Newport News	162	830	0.20
1193	107	Newport News	468	1575	0.30
1194	107	Newport News	51	210	0.24
1198	113	Newport News	155	965	0.16
1199	106	Newport News	107	1130	0.09
1200	109	Newport News	18	65	0.28
1201	108	Newport News	203	1265	0.16
1202	112	Newport News	7	75	0.09
1203	112	Newport News	38	205	0.19
1205	107	Newport News	181	755	0.24
1224	130	Poquoson	81	745	0.11
1225	130	Poquoson	43	470	0.09
1226	130	Poquoson	50	340	0.15
1227	130	Poquoson	69	535	0.13
1228	130	Poquoson	50	395	0.13
1229	130	Poquoson	78	510	0.15
1230	130	Poquoson	72	655	0.11
1231	130	Poquoson	24	175	0.14
1232	130	Poquoson	32	205	0.16
1233	130	Poquoson	27	130	0.21
1260	140	Williamsburg	41	125	0.33
1261	140	Williamsburg	8	40	0.20
1262	140	Williamsburg	133	790	0.17
1263	140	Williamsburg	19	135	0.14
1264	140	Williamsburg	48	225	0.21
1265	140	Williamsburg	7	20	0.35
1266	140	Williamsburg	6	35	0.17
1267	140	Williamsburg	6	50	0.12
1268	140	Williamsburg	8	85	0.09
1269	140	Williamsburg	45	215	0.21
1270	140	Williamsburg	98	505	0.19
1271	140	Williamsburg	32	160	0.20
1272	140	Williamsburg	1	55	0.02

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
1274	140	Williamsburg	61	160	0.38
1275	140	Williamsburg	11	35	0.31
1276	140	Williamsburg	24	175	0.14
1277	140	Williamsburg	9	50	0.18
1278	140	Williamsburg	2	60	0.03
1279	140	Williamsburg	139	450	0.31
1280	140	Williamsburg	45	240	0.19
1306	150	James City	1	15	0.07
1308	150	James City	204	1040	0.20
1309	150	James City	5	65	0.08
1310	150	James City	11	15	0.73
1311	150	James City	141	1800	0.08
1312	150	James City	39	140	0.28
1313	150	James City	134	430	0.31
1314	151	James City	20	210	0.10
1315	151	James City	112	395	0.28
1316	151	James City	69	795	0.09
1318	151	James City	106	880	0.12
1319	151	James City	156	355	0.44
1321	152	James City	53	550	0.10
1322	152	James City	41	745	0.06
1323	152	James City	92	890	0.10
1324	152	James City	39	225	0.17
1325	152	James City	18	165	0.11
1326	152	James City	55	520	0.11
1327	152	James City	83	830	0.10
1328	152	James City	28	80	0.35
1329	152	James City	12	95	0.13
1330	152	James City	59	440	0.13
1331	153	James City	44	265	0.17
1332	153	James City	47	235	0.20
1333	153	James City	10	205	0.05
1334	153	James City	72	415	0.17
1335	153	James City	114	595	0.19
1336	153	James City	15	125	0.12
1337	153	James City	67	320	0.21
1338	151	James City	148	875	0.17
1339	151	James City	98	895	0.11
1340	152	James City	22	395	0.06
1341	152	James City	243	1315	0.18
1342	152	James City	30	240	0.13
1343	152	James City	35	235	0.15
1344	153	James City	15	200	0.08
1345	153	James City	52	495	0.11
1346	152	James City	24	190	0.13
1347	153	James City	4	95	0.04
1348	153	James City	10	155	0.06
1349	153	James City	10	120	0.08
1350	151	James City	25	290	0.09
1351	151	James City	92	705	0.13
1363	160	York	252	1710	0.15

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
1364	160	York	244	1910	0.13
1365	160	York	76	700	0.11
1366	160	York	183	1675	0.11
1367	160	York	40	350	0.11
1368	160	York	53	425	0.12
1369	161	York	102	845	0.12
1370	161	York	124	805	0.15
1371	161	York	6	110	0.05
1372	161	York	65	735	0.09
1373	160	York	96	1120	0.09
1374	160	York	70	595	0.12
1375	160	York	244	1940	0.13
1376	160	York	21	200	0.11
1377	160	York	66	615	0.11
1378	160	York	46	340	0.14
1379	160	York	123	1280	0.10
1380	162	York	0	0	0.00
1381	162	York	2	4	0.50
1382	162	York	5	135	0.04
1383	162	York	2	15	0.13
1384	162	York	51	210	0.24
1385	162	York	153	495	0.31
1386	163	York	0	25	0.00
1387	163	York	5	15	0.33
1388	163	York	8	95	0.08
1390	164	York	112	475	0.24
1391	164	York	12	25	0.48
1392	164	York	53	460	0.12
1393	164	York	14	115	0.12
1394	164	York	6	195	0.03
1395	164	York	3	70	0.04
1396	164	York	31	500	0.06
1397	164	York	0	0	0.00
1398	164	York	16	145	0.11
1399	164	York	3	20	0.15
1400	164	York	27	220	0.12
1401	164	York	45	405	0.11
1402	161	York	10	120	0.08
1403	164	York	36	355	0.10
1406	164	York	59	460	0.13
1427	170	Gloucester	49	305	0.16
1428	170	Gloucester	28	245	0.11
1429	170	Gloucester	27	195	0.14
1430	170	Gloucester	40	395	0.10
1431	170	Gloucester	48	345	0.14
1432	170	Gloucester	54	290	0.19
1433	170	Gloucester	223	985	0.23
1434	170	Gloucester	210	1465	0.14
1435	170	Gloucester	55	585	0.09
1436	170	Gloucester	87	655	0.13
1437	170	Gloucester	88	630	0.14

TAZ	District	Locality	Non-Drivers, Age 18+, in Households, 2000	Households, 2000	Non-Drivers Age 18+ per Household, 2000
1438	170	Gloucester	48	285	0.17
1439	171	Gloucester	34	200	0.17
1440	170	Gloucester	6	40	0.15
1441	171	Gloucester	17	220	0.08
1442	171	Gloucester	10	135	0.07
1443	170	Gloucester	31	265	0.12
1444	170	Gloucester	38	325	0.12
1445	171	Gloucester	54	580	0.09
1446	171	Gloucester	75	510	0.15
1447	171	Gloucester	66	330	0.20
100001	n.a.	Surry	79	385	0.21
100002	n.a.	Surry	108	575	0.19
100003	n.a.	Surry	74	335	0.22
100004	n.a.	Surry	174	755	0.23
100005	n.a.	Surry	106	550	0.19
200001	n.a.	Southampton	176	880	0.20
200002	n.a.	Southampton	278	1075	0.26
200003	n.a.	Southampton	527	2460	0.21
200004	n.a.	Southampton	326	1885	0.17
300001	n.a.	Franklin	861	3395	0.25
500001	n.a.	Gloucester	267	1955	0.14
500002	n.a.	Gloucester	157	940	0.17
500003	n.a.	Gloucester	95	800	0.12
500004	n.a.	Gloucester	45	445	0.10
			121,070	579,225	0.21