LONG-RANGE TDM PLAN-APPENDIX B

RIDEFINDERS FUTURE SERVICE AREA PROFILE

RIDEFINDERS IS
A DIVISION OF GRTC TRANSIT SYSTEM

prepared by

Cambridge Systematics, Inc.

with

Center for Urban Transportation Research
LDA Consulting
Southeastern Institute of Research, Inc.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 RideFinders Future Service Area Profile

RideFinders' service area will undergo significant changes over the next 25 years. Many of trends and forces that will reshape the region are already at work. This section of RideFinders' Long-Range TDM Plan details these trends and forces and presents potential implications for RideFinders. RideFinders also expects more involvement and TDM implementation in the Tri-cities Region as determined by the Crater Planning District's Transit Development Plan that is currently underway

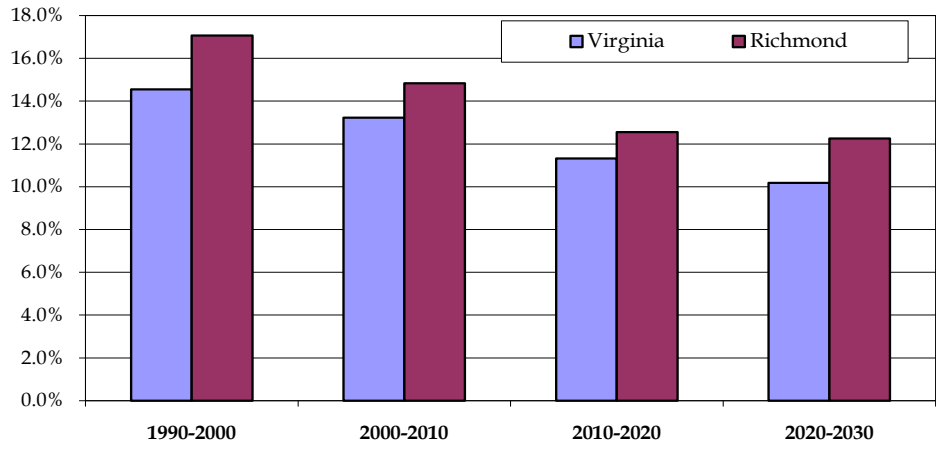
The information in this section comes from multiple sources, including the 2031 RAMPO Long-Range Transportation Plan, RideFinders' 2009 Performance Review – Trends & Future Conditions, the Greater Richmond Partnership, and SIR's Future Trends Research.

1.1 PROJECTED DEMOGRAPHICS

The Richmond region is a growth market. The U.S. Census projects that the Richmond region will add 250,000 new residents to the area by 2030, bringing the total regional population to more than 1,250,000 residents.

Metro Richmond's regional population is projected to grow at the same rate as the population growth rate for the state as a whole during the 2010-2030 period. This is also shown in Figure 1.1.

Figure 1.1 Projected Population Growth in Richmond and Virginia



Sources: Virginia Employment Commission and US Census Bureau.

In addition to sheer population growth, the demographic makeup of the region is projected to shift to greater number of minorities and to an older population as shown in Table 1.1.

Table 1.1 Projected Demographic Changes (2010 - 2030)

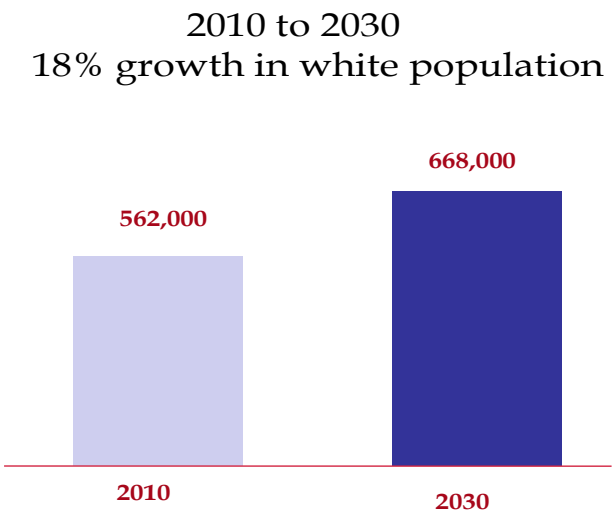
	2010	2020	2030
Total Pop.	994,425	1,119,227	1,256,434
% Growth	14.8%	12.6%	12.3%
Age Groups (%):			
Under 20	258,137 (26%)	283,660 (25%)	322,593 (26%)
30 to 64	621,745 (63%)	663,640 (59%)	701,818 (56%)
65 and Over	114,543 (13%)	171,927 (15%)	232,023 (18%)

Sources: Virginia Employment Commission and US Census Bureau.

1.1.1 Minority Population Growth

The expected increase of 250,000 residents over the next twenty years will usher in a shift in racial makeup. While the region is expected to grow at a rate of 28%, Figure 1.2 shows that the white population will grow at a rate of 18%.

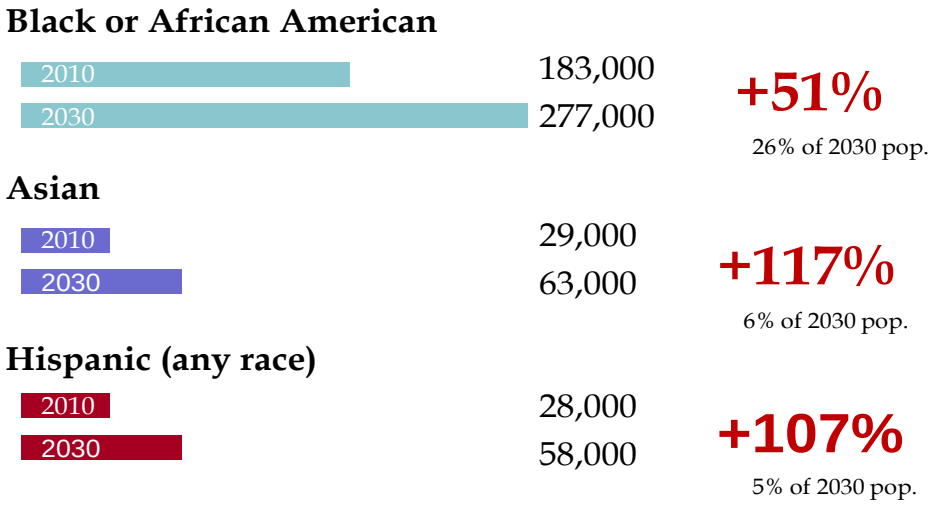
Figure 1.2 Projected Richmond Region – White Population 2010-2030



Source: US Census Bureau.

As depicted on Figure 1.3, the non-while population is projected to grow at a rate of 66%, more than twice as fast as the overall market growth. Asians and Hispanics will lead this growth.

Figure 1.3 Projected Richmond Region Non-White Population 2010-2030

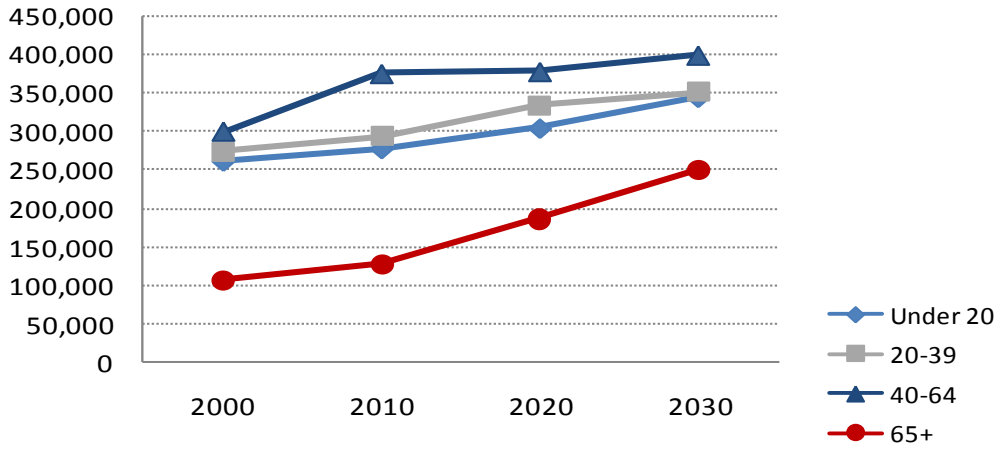


Source: US Census Bureau.

1.1.2 Older Adult Population Growth

Figure 1.4 shows the relative population increases by age segment. Over the next twenty years, Baby Boomers are projected to increase the percentage of area residents over age 65 from its current level of 12% today to 18% by 2030.

Figure 1.4 Projected Regional Population by Age 2000 - 2030



Source: Virginia Employment Commission.

Other than the sheer size of the age wave, one of the most interesting aspects of the "graying" of the RideFinders region will be the degree in which each local jurisdiction will experience this demographic shift. According to Virginia Employment Commission data, the City of Richmond will actually see a decline in the number of seniors while suburban and semi-rural counties like Henrico and New Kent County, respectively, will see dramatic increases in their senior population. Without adequate transit services, these areas will, therefore, see unprecedented demands transportation services. This "age wave" effect may, in fact, create new service opportunities for RideFinders.

Table 1.2 shows projected employment level change, 2006 to 2016.

1.2 PROJECTED EMPLOYMENT

Table 1.2 shows the projected employment in the region will grow by a quarter of a million workers from 2006 to 2016.

Table 1.2 Projected Employment Level

	Estimated 2006	Estimated 2016	Change	% Change	Annual Growth
Total Employment*	1,237,233	1,500,526	263,293	21.3%	1.9%

Source: Virginia Employment Commission.

1.3 EXPECTED GEOGRAPHICAL AREAS OF GROWTH

1.3.1 Future Transportation Facilities

Major transportation infrastructure improvements are being considered to support future growth:

- Bus Rapid Transit (BRT) service along Broad Street between Willow Lawn and Rockett's Landing, including bus lanes between 2nd St. and 14th St.
- Construction of a downtown transfer station (site undetermined at this time)
- Commuter bus service added along major routes by 2016 as proposed in the regional mass transit study
- Transit Information Software to be developed for GRTC
- High Speed Rail

Like all transportation systems across the country, the lack of available funding to build new facilities and services for the Richmond region is an issue. RAMPO and other organizations such as the Greater Richmond Chamber of Commerce are working diligently to point out the need for additional funding.

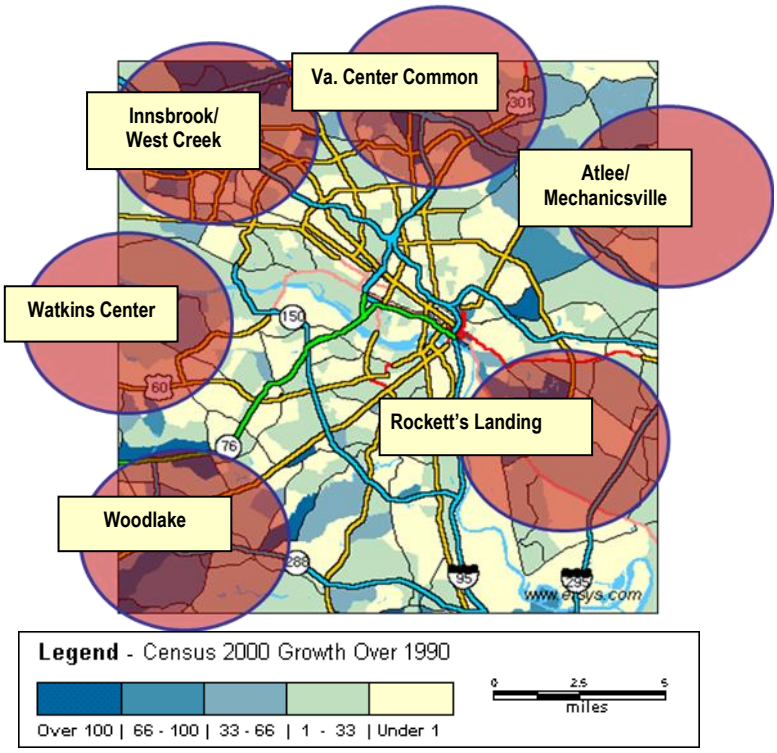
1.3.2 Future Activity Centers

- Downtown Richmond: The Richmond downtown area currently has the greatest concentration of jobs in the region and it is poised for future growth. A well-thought out master blue print plan was completed recently for the downtown area, and the city has been moving toward the first stages of implementation. Many of the traditional elements that made the city a vibrant place decades ago will be restored. Most of the two-way streets that were converted to one-way to increase vehicular traffic will revert back to their original form. The streetcar system may be resurrected and pedestrian movement will be facilitated. Main Street Station, Richmond's iconic architectural asset looming over I-95, has the potential to be transformed into a multi-modal hub.
- Suburban Activity Centers: In addition to the downtown area, future residential and employment growth are projected to take place in and around the region's suburban business activity centers that are already defined today – Innsbrook and Westcreek in Metro Richmond's far West End, Watkins Centre in Chesterfield/Powhatan area, Rockett's Landing in the east end, etc.
- Fort Lee: The Federal Base Realignment and Closure (BRAC) program selected Fort Lee as a major military logistics and supply center. Consequently, Fort Lee is now expected to double in size from the time of the BRAC announcement in 2005 until the project is complete in 2011 – representing approximately 11,000 new jobs in the area. This growth will fuel residential growth in RideFinders' Southside service area, attract additional employers, and necessitate regional retail and commercial growth to serve the growing population.

- Tri-cities area within the scope of its most recent Transit Development Plan surrounding counties.

Figure 1.5 depicts these growing activity centers, with the exception of Fort Lee and the Tri-Cities area, which is further to the south. The map graphically displays the level of growth these activity centers experienced in the past as in indicator of expected future growth. Growth on this map is the number of people living in the area in the year 2000 as a percent of the number of people living in that same area in 1990. The dark blue areas show the highest growth, where the light yellow areas represent no growth or an actual decrease in population. The darker areas are expected to continue their evolution into Richmond's future urban villages.

Figure 1.5 Emerging Activity Centers in the Richmond Region



Sources: US Census Bureau and Synergies Technologies, Inc.

1.4 PROJECTED TRAVEL PATTERNS

Based on demographic projections, VMT is projected to increase by 72% between 2000 and 2025. Increase in VMT and growth in key activity centers will impact travel patterns in a number of ways:

- Congestion in downtown areas and in the aforementioned high density activity centers: The resident and employer-based population growth in RideFinders' service area over the next 20-25 years is significant from both a percentage growth and sheer growth perspective – 25% growth or 250,000 more people. Impact of this growth is more likely to be felt, over the long-term, in the activity centers – in the downtown areas and in higher density activity centers.

- Greater number of longer distance commuters: Job growth may actually outpace population growth, suggesting that some workers will commute from outside the region to work in the RideFinders service area.
- Increase in aging population: A growing aging population will result in an increase in non-work related travel.
- Increase in freight traffic: Growth in shipping is expected on I-64 and I-95. This will increase commercial travel through and around the region.
- Increase in biking-walking: Current interest in bicycling and pedestrian walkways will continue, particularly due to concern about energy and commitment to sustainable lifestyle. The region's efforts in supporting these modes should attract greater usage.

1.5 FUTURE EXTERNAL FORCES

In addition to the projected demographic trends, there are a number of external market forces that will influence and shape RideFinders' future. These forces include:

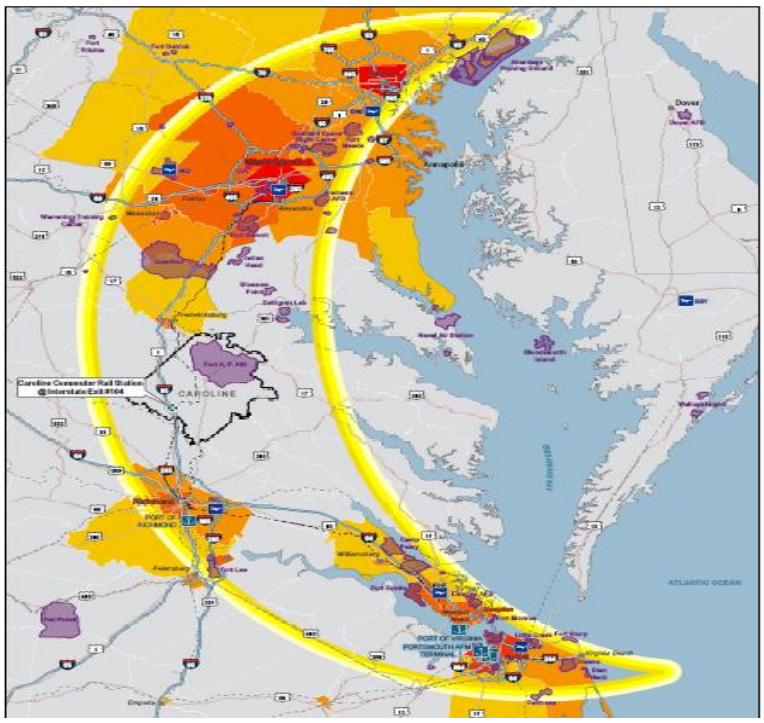
1.5.1 A Growing and Changing Population and Workforce

Growth of Virginia's Total Population:

By 2030, Virginia's total population will approach 10 million people. The vast majority of this growth will take place in the I-95 and I-64 corridor known as the "Golden Crescent." This population corridor stretches from Northern Virginia down Interstate 95 to Richmond and then east on Interstate 64 to Hampton Roads. Success begets success, demographers project the vast majority of the population gains and business expansion will settle in this area. From a long-term perspective – 25 years – this population crescent will begin to fill in with the potential of becoming a major megalopolis.

What does growth in the "Golden Crescent," illustrated in Figure 1.6, mean for RideFinders? Simply put – expansion. In the future, most of the jurisdictions in the RideFinders' market area will expand. Counties along the northern and eastern edges of the "Golden Crescent" will start to see economic connections and work commutes headed to Richmond's activity centers, as well as emerging activity centers in nearby markets such as Fredericksburg and Williamsburg. RideFinders may ultimately need satellite offices.

Figure 1.6 Virginia's "Golden Crescent"



Sources: Environmental Research Systems Institute 2008.

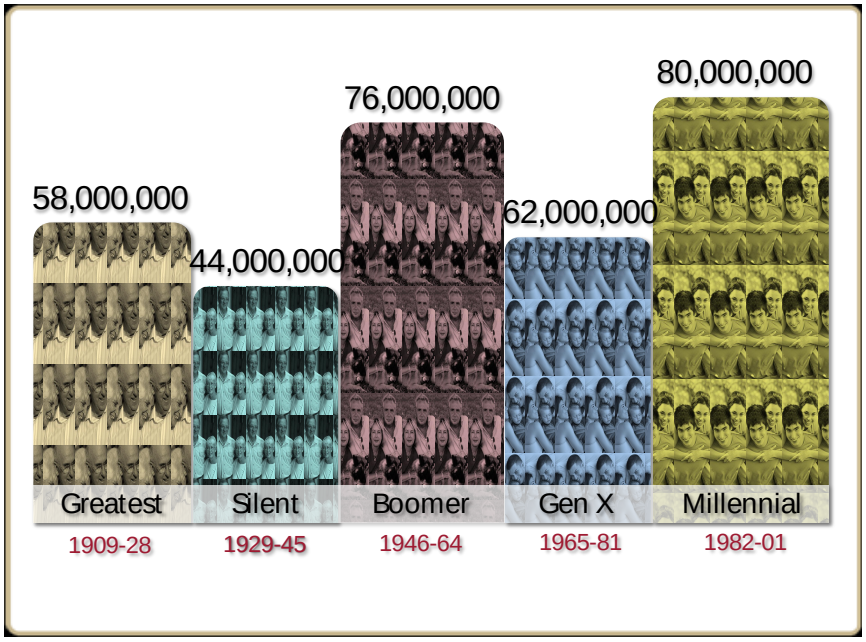
Virginia Economic Development Partnership 2009.

New Generation of Workers – The Millennials

America's youngest generation, the Millennials (sometimes called Gen Ys or Echo Boomers), are poised to make a huge impact on ridesharing modes and ridesharing support services for years to come. There are two primary factors that will fuel this change.

First and foremost, the sheer size of the Millennial population, as reflected in Figure 1.7, suggests that they will influence society, just as the unusually large Baby Boomer generation did and still does. When compared to the other generations, Millennials represent the largest generation alive today – 80 million strong.

Figure 1.7 Size & Age Profile of U.S. Generations



Source: SIR Boomer Project.

The second factor is related to Millennials' innate generational traits that were influenced by the shared experiences of age cohort. Unlike older generations, Millennials are a digital native nation. Their neural pathways are actually different from Baby Boomers. When Boomers came of age, their minds were shaped by print and standard broadcast media, and they consumed one medium at a time. Millennials hyper-exposure to technology has resulted in hyper-connectivity – they are always seeking personal connections and linkages.

Another important generational trait that Millennials have over older generations is their support for and active involvement in social causes. Millennials are taught at an early age and through school to volunteer, and this "whole person" approach is the path to human development. Older generations had to figure this out on their own time. Consequently, Millennials are redefining social engagement and social movements. The campaign of President Obama is a case in point.

Given the technological savvy and cause-oriented generational values and sheer size of this generation, Millennials will have a big impact on ridesharing and may represent a tremendous opportunity to shift significantly America's modal split. There are already signs of this today. Over the past two years, Millennials, at a greater rate than any older

generation, have shifted to and remained in non-SOV work commute modes. Even the recent fall in gas prices has not reversed this promising trend among Millennials.

Millennials are also leading the way in reshaping rideshare support services. Just three years ago, most ridematching was done through large government-sponsored, centralized databases. Today, many commercial enterprises are apping into commuters' need for hyper-social connectivity by offering ridematching as part of a social network – Craigslist, Facebook, Goloco.org, Ridebuzz.org, and Greenyour.com. Millennials (8-28 year olds) are leading the adoption curve of this new technology and new way to share a ride.

While Millennials make up a small percentage of the workforce now, they will make up the majority of the work force in years to come, surpassing the smaller Gen X and Baby Boomers – the older generations just ahead of them. It will be these future workers – 10 and 20 years from now – that will shape how our companies, cities, and transportation systems of the future will run.

1.5.2 Developing Industries and the Changing Nature of Work

Distributed Workforce

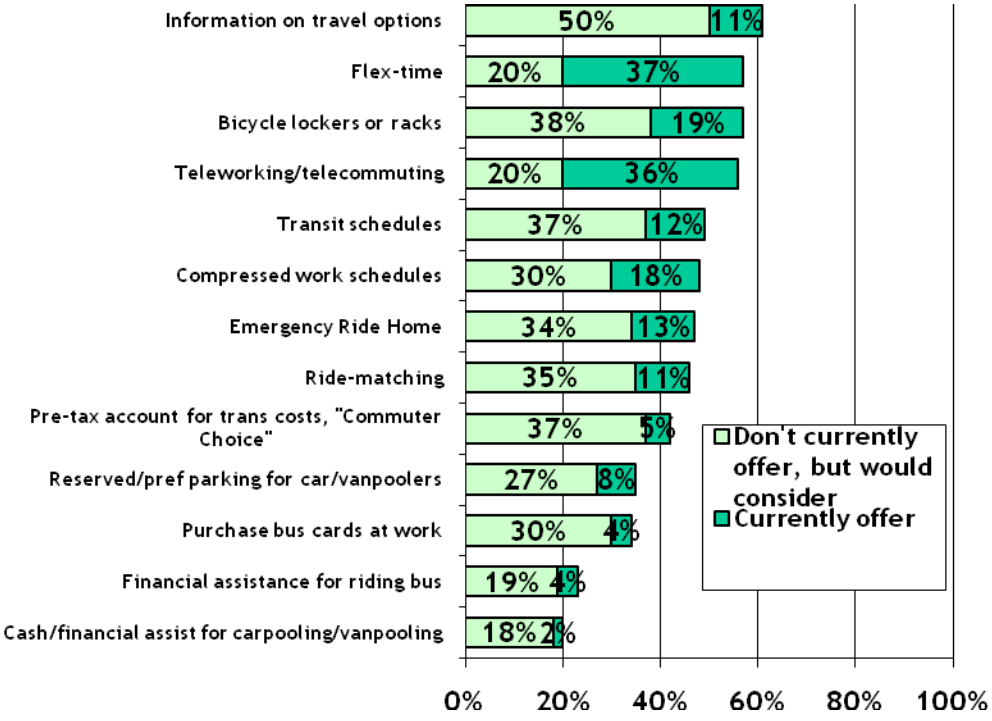
Technology in the workplace has helped employers recognize that work is not some place you go, but rather something you do. One of the more subtle reasons behind employers' relatively recent acceptance of employer-based TDM services is the changing nature of work. Enlightened employers are measuring employee productivity not by time clocks but rather by outcomes – they are slowly evolving to a distributed workforce model.

This realization has been fueled by the pre-recession 2009 labor shortage and will be accelerated, again, by the significant labor shortages projected in the coming decade when millions of Baby Boomers slow down or exit the labor market altogether. Employers desire to cater to their labor forces' physical work space desires often translates into compressed work weeks, greater flexibility to come and go, and the ability to work from off site locations.

Growing Involvement of Employers in TDM

Over the past few years, the labor shortage prior to this 2009 recession, green movement, and corporate experiences with TDM have helped the TDM cause reach the tipping point in employer appreciation and use. Corporate America has now realized that it is in their enlightened self-interest to embrace TDM programs to boost recruitment, retention, employee productivity, etc. Consequently, more and more companies are offering TDM services and programs and/or considering launching additional TDM services in the future. This is true for many of the companies in RideFinders' market. As depicted in Figure 1.8, there is great opportunity to grow use of TDM-related services and practices beyond the current level. The dark green bar shows current penetration of TDM services among employers. The lighter bar shows interest in considering these services.

Figure 1.8 Richmond Area Employers Use of and Interest in TDM-Related Practices



Q22. Following is a list of transportation information services or benefit programs that your organization or another organization might make available to employees at the worksite to help with their travel to work. In the first column, select all the services or benefits that are currently available to your employees. For those that are not available now, indicate if you would consider or would not consider offering that service or benefit.

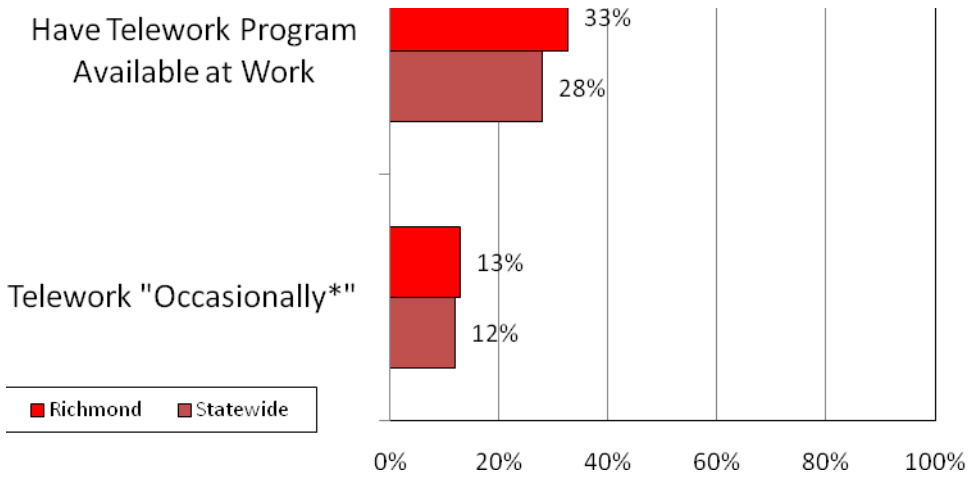
Source: 2009 RideFinders Business Leaders Study.

When combining the dark and light bar for each TDM activity (the number of Richmond region companies that currently offer any one TDM-related service with companies who are interested in offering that service), a picture of potential penetration or market share emerges. The market penetration opportunity suggests that RideFinders' business outreach efforts will be selling TDM services to a receptive audience and additional impact can be realized.

The Growth of Telework

An early indicator of the powerful impact that the changing nature of work will have on Richmond work commute patterns is the rise in popularity of telework. One cannot discuss the future of the Richmond region's work commute without including the current impact and future promise of telework. As depicted in Figure 1.9, today, 13% of the working residents telework at least occasionally, making the incidence of Telework slightly higher than the statewide average.

Figure 1.9 The Incidence of Telework – Workers



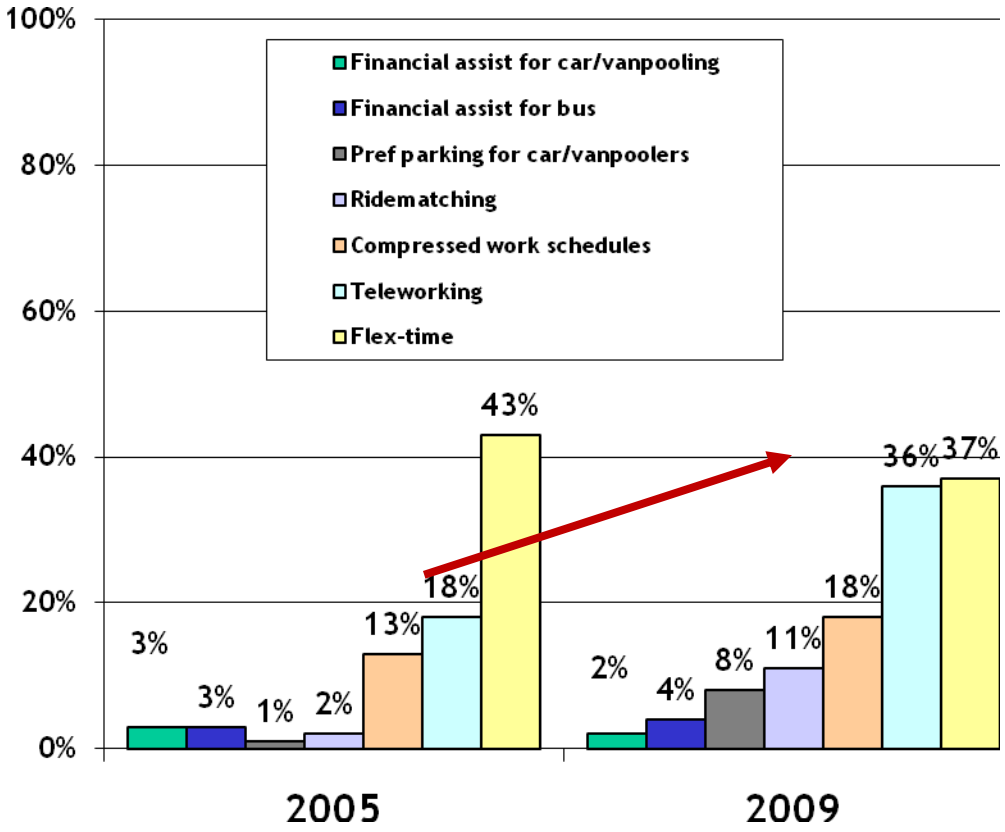
VASOC – question 13: Telecommuters are defined as "wage and salary employees who at least occasionally work at home or at a telework or satellite center during an entire work day instead of traveling to their regular workplace." Based on this definition, are you a telecommuter?

VASOC – question 13a/14d: Does your employer have a formal telecommuting program at your workplace or (do you/permit employees to) telecommute under an informal arrangement between you and your supervisor?

Source: 2007 Virginia State of the Commute.

While information on the incidence of telework in RideFinders' market is not available prior to the 2007 Virginia State of the Commute Study, RideFinders recently conducted study among the region's business leaders pointed to tremendous growth of telework. The proportion of companies offering Teleworking has effectively doubled since 2005, while the levels of other employer-based transportation programs are about the same today as they were in 2005. See Figure 1.10.

Figure 1.10 The Incidence of Telework – Employers



Q22. Following is a list of transportation information services or benefit programs that your organization or another organization might make available to employees at the worksite to help with their travel to work. In the first column, select all the services or benefits that are currently available to your employees. For those that are not available now, indicate if you would consider or would not consider offering that service or benefit.

Source: RideFinders 2005 and 2009 Business Leaders Studies.

Teleworking offers the biggest opportunity to reduce vehicle miles traveled across the region as it basically eliminates the need for the trip altogether. How much impact can it have? The Northern Virginia market may be a good benchmark to watch. In 2004, 11% of the Northern Virginia workforce telecommuted (source: Washington Metropolitan Council of Government 2004 State of the Commute Survey). In 2007, this number rose to 20% (source: Virginia State of the Commute Survey).

The telework-related trends among employers and workers will require RideFinders to develop and deliver greater telework-related expertise and portfolio of telework services.

Growth of the Port of Hampton Roads:

While located 100 miles to the east of RideFinders' service area, the Port of Virginia (Hampton Roads) must be recognized as force that will impact the Richmond region. Hampton Roads' Port of Virginia is the third largest container port on the U.S. east coast and is a hub for the world's leading international shipping companies. With global service from more than 75 international shipping lines and 3,000 sailings annually to 100 countries, the Port offers multiple direct sailings to and from Asia, Europe, South America, and the Indian Subcontinent on a weekly basis. The Hampton Roads Port is projected to experience dramatic growth, which will ultimately increase commercial traffic driving through the Richmond region.

Growth of Richmond as a Distribution & Logistics Hub:

One of the impacts from the dramatic growth in the region's population, growth in the "Golden Crescent," and the increased Port of Hampton Roads' traffic is continued growth of the region as a major mid-East Coast distribution center. According to the Greater Richmond Partnership, Richmond's location has already made it a natural transportation and logistics center. Federal Express has a regional hub, and UPS has a district headquarters in the area. CSX, Norfolk Southern, and AMTRAK provide rail service and 64 Express barge service and Eimskip serve the Port of Richmond. Greater Richmond is also a major military logistics center and home to the U.S. Army Logistics University at Fort Lee and to Defense Supply Center Richmond. Richmond's ideal logistics location is often referenced in economic development circles. In 2007, Expansion Management and Logistics Today magazines gave the region a five-star metro area rating for logistics operations.

1.5.3 Sustainability and the Green Movement

One of the most recent social movements that is being fueled by Millennials, as well as older generations, is the green or sustainability movement. When it comes to TDM, there are both consumer-driven and business-driven forces at work.

SIR's research among Richmond area ridesharers reveals that money savings is the most important benefit that motivate commuters to switch from drive alone to alternative modes. Lowering one's personal impact on the environment – *helping to decrease pollution* – however, plays a secondary role. While RideFinders should not lead with a green message as the primary benefit of ridesharing, the fact that this secondary benefit is rated so highly does offer promise as "being green" grows in importance.

In the Richmond region, the green benefit in advancing TDM may have greater value among business audiences. More and more companies want to be perceived as being green. In a recent SIR Study for the *Older Dominion Partnership*, 50% of the CEO's in Virginia want their companies to be perceived as *"being green."* Local companies are embracing green practices and looking for ways to showcase their corporate greenness.

Regional TDM-Mobility Advocacy Groups

GRTC recently launched "Friends of Transit" advocacy group. In less than four months, the number of advocates that have signed up exceeded 1,700. Members of this group will advance the community conversation on the benefits of transit.

A second advocacy group, STIR - Sustainable Transportation Initiative of Richmond, wants the Richmond area to be a national model on green mobility. The group helped convince Ford that Virginia should be in the top list of introductory markets for electric vehicles (EVs) . Ford selected Richmond as one of 19 cities around the country to launch Ford electric vehicles, and supported the City of Richmond in its commitment to purchasing four EVs. Ford's Urban Mobility Network project is experimenting with various modes of transportation, from buses to bicycles, to move people more efficiently in urban areas and Richmond has been chosen for this project.

Stricter Clean Air Standards

Consideration for Change in the Area's Air Quality Status- Based on the revised (lowered) 8-hour ozone air quality standard of 0.075 parts million (ppm; previously set at 0.084) and air quality readings for 2006, 2007, and 2008, the Richmond Area is in the process of begin redesignated to nonattainment air quality status. EPA is also giving consideration to an even lower standard of 0.065 ppm to 0.070 ppm. As a result, a number of additional CMP requirements will apply to the Richmond Area MPO (see Section 450.320 (d) and (e) of the MPO planning regulations). Richmond Area MPO jurisdictions covered by EPA nonattainment area designation include the counties of Charles City, Chesterfield, Hanover (including Ashland), and Henrico. This area extends into and includes several jurisdictions in the Tri-Cities Area MPO.

Source: FY 12 UWP Summary, page 19, Richmond Region Planning District Commission.

The new federal transportation authorization bill draft has a greater emphasis on reducing greenhouse gas emissions. This may create another benefit RideFinders' services and programs can offer.

1.5.4 Automobile Cost of Ownership

Discussing the future of roads and highways most often leads to some form of user fees – tolls, increased gas taxes, or the latest revenue-generating user fee called congestion pricing or VMT tax. VMT tax is basically charging road users a user fee based on their usage level. Regardless of what form user fees take in the future, the one thing appears a little more certain is that one day it will cost more to operate an automobile.

RideFinders, as all rideshare agencies across the country, saw a dramatic increase in inquiries and ridematching activities when gas prices hit $4 per gallon. While prices have fallen off this mark, most predictions on the long-term price of gas call for much higher prices in the future. If the reaction to the 2008 spike in gasoline prices was any indicator, the arrival of higher fuel costs, user fees, or simply more tolls will have an impact on the choice and use of

work commute modes. The rising gas prices in early 2011 as a result of the crisis in Libya are impacting ownership costs once gain.