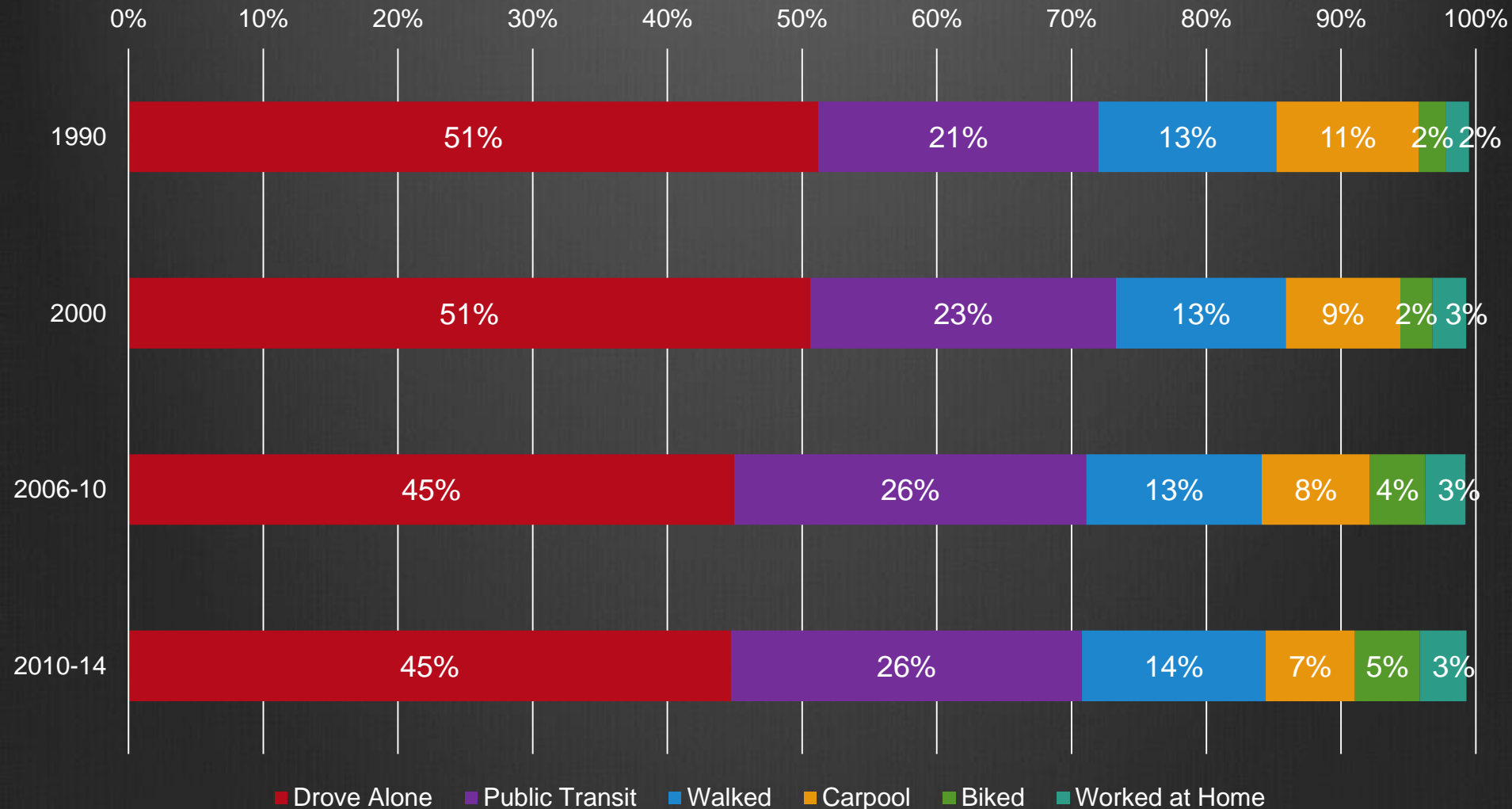


Transportation Trends in Cambridge



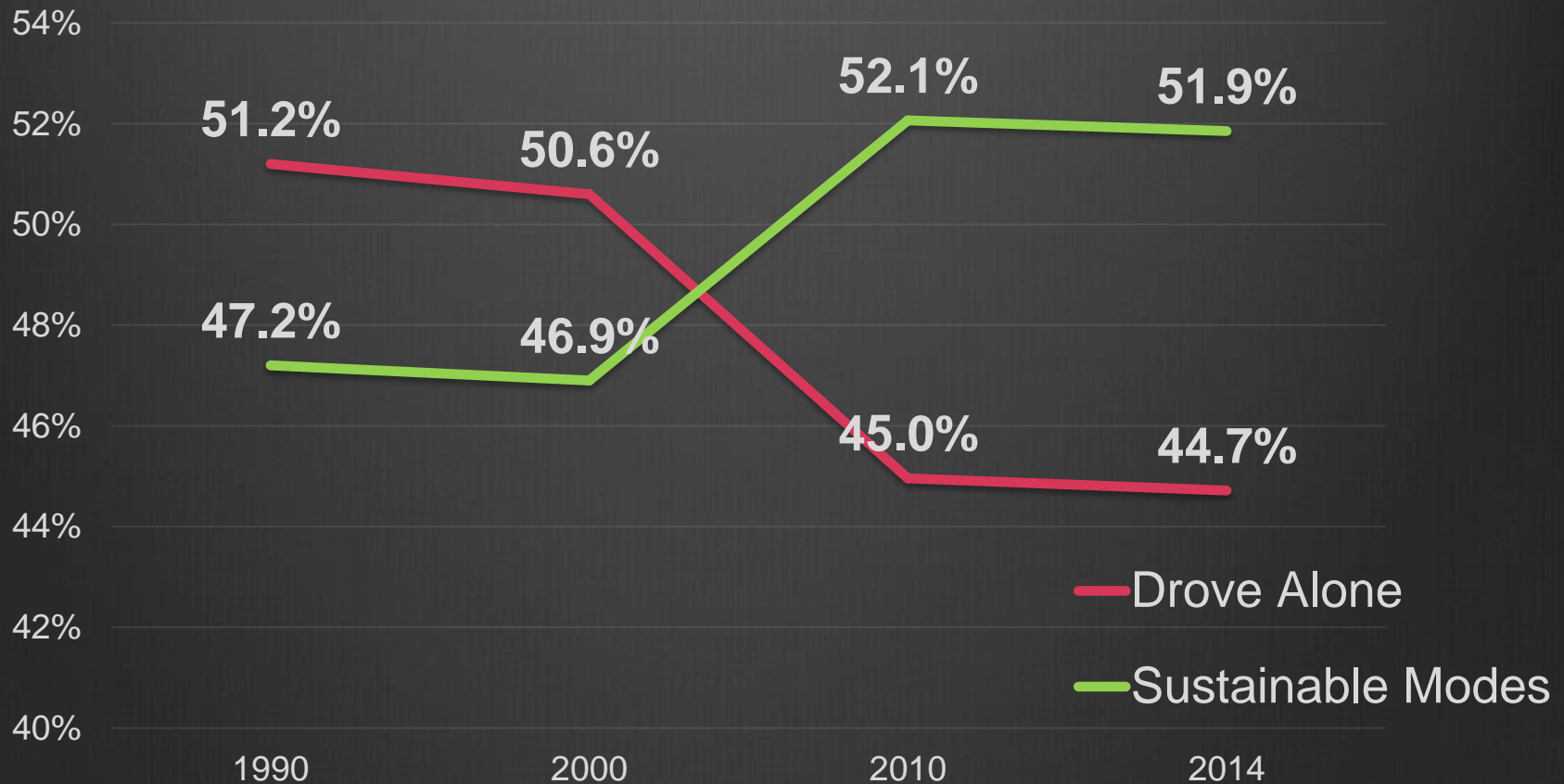
Stephanie Groll
Cambridge PTDM Officer
December 1, 2016

Workers Commute Modes



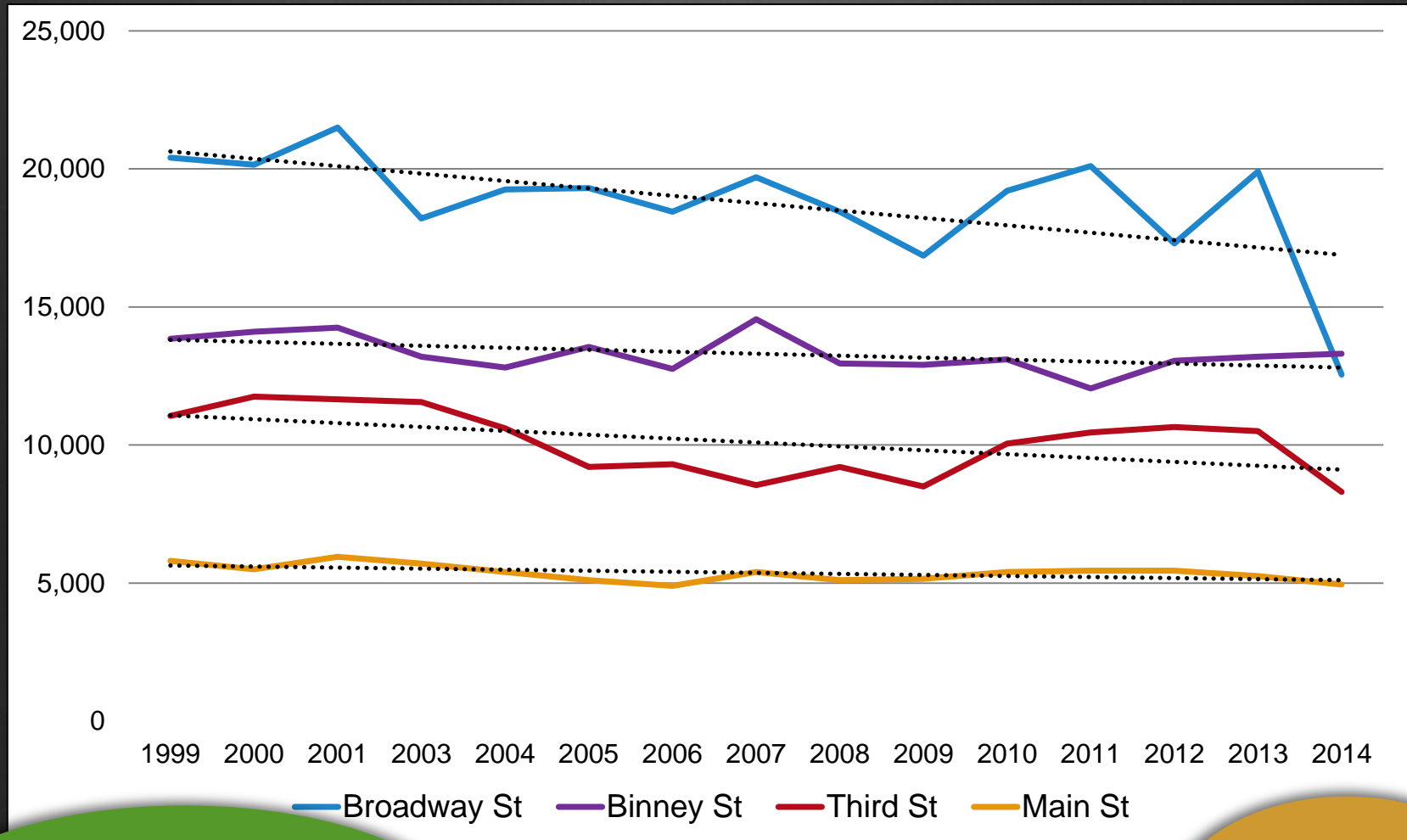
Source: Census 1990, 2000; ACS 2006-2010, 2010-2014

Commute to Work Trend



Source: Census 1990, 2000; ACS 2006-2010, 2010-2014

Kendall Traffic Counts



5% increase in residents
6% increase in employees
2000-2014

Source: Cambridge Redevelopment Authority

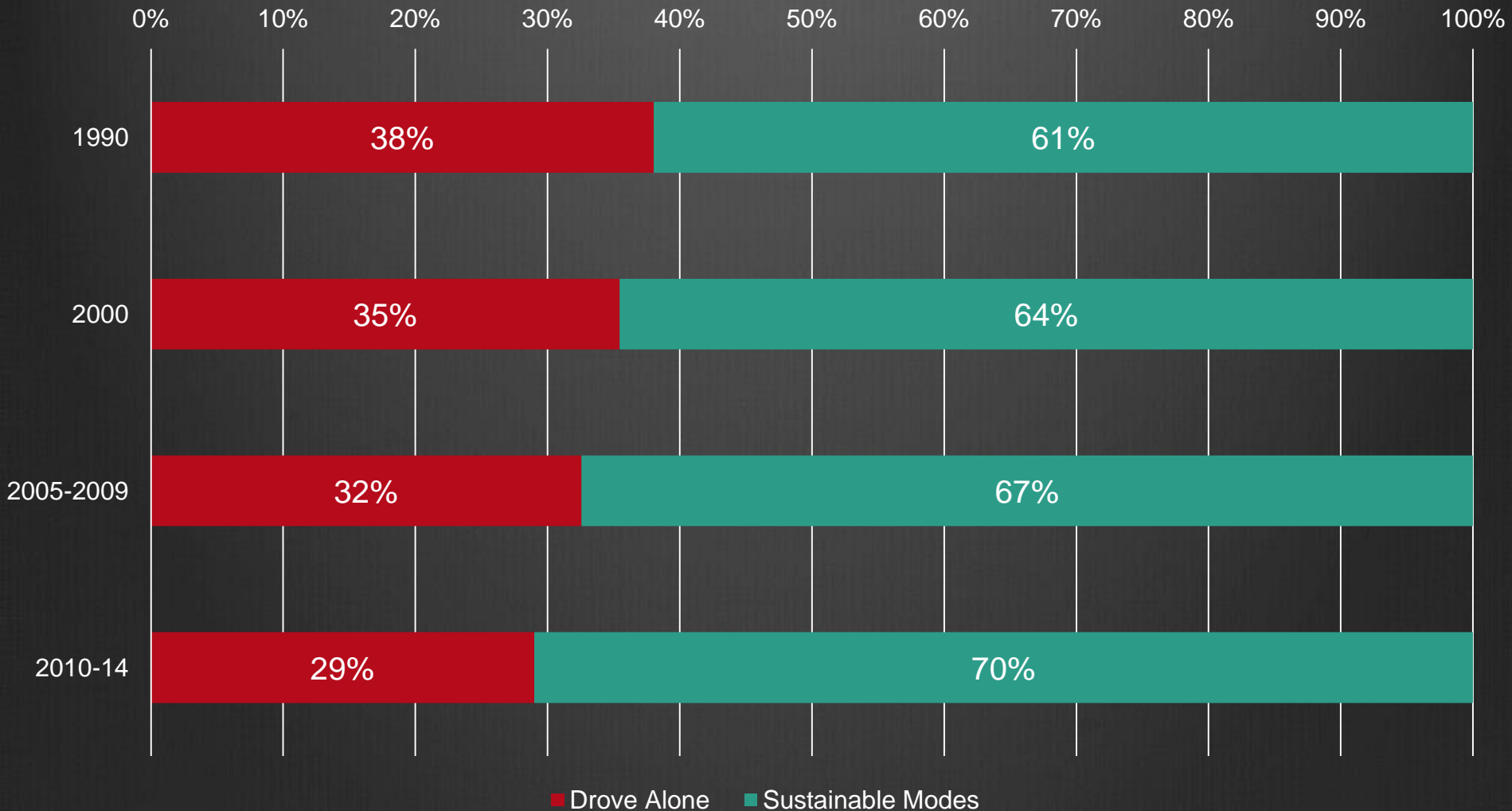
6.5M Sq Ft
added

2001-2014

PTDM: Reported SOV Rate vs Average SOV Goal

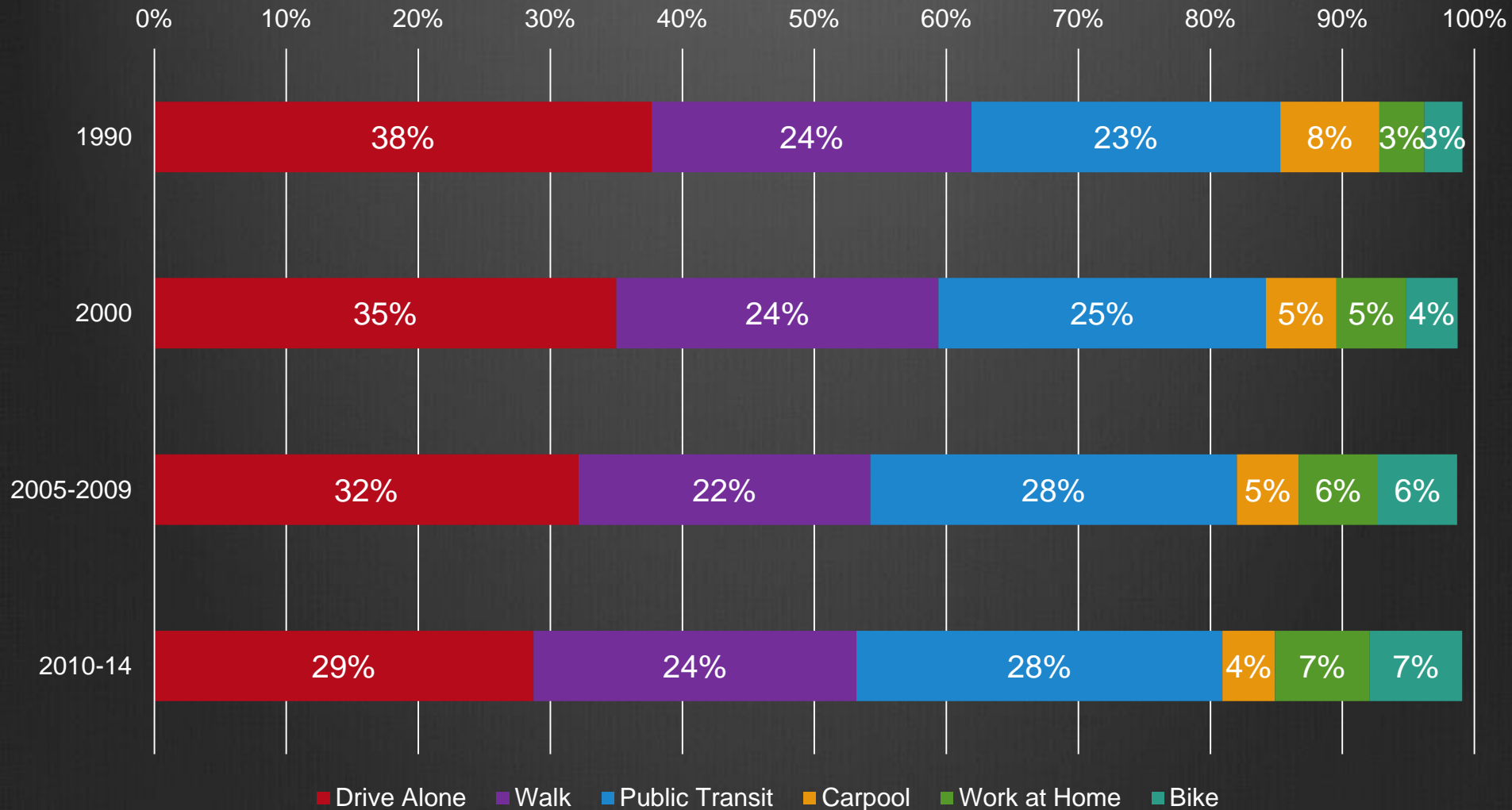


Resident Commute Modes



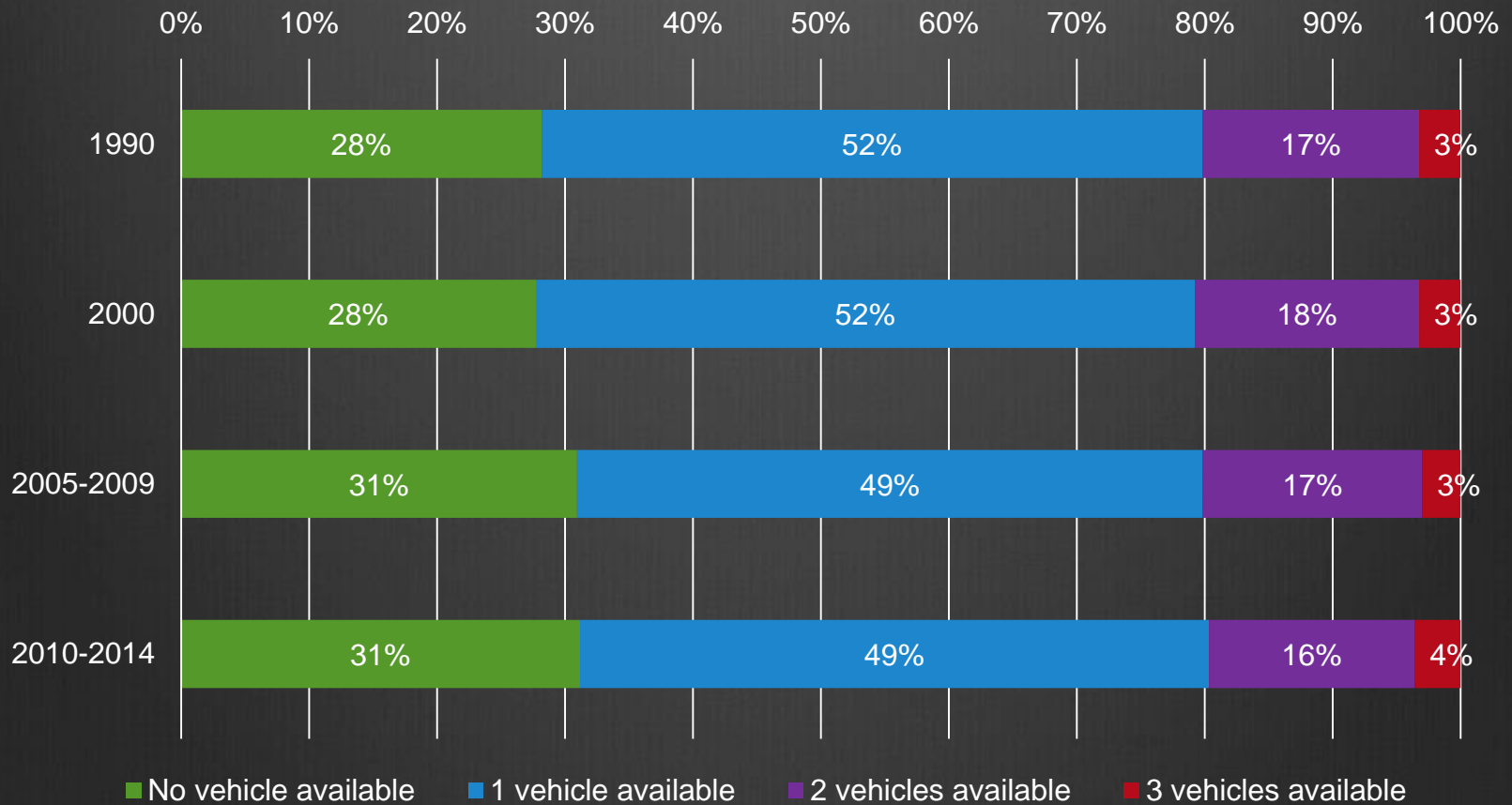
Source: Census 1990, 2000; ACS 2005-2009, 2010-2014

Resident Commute Modes



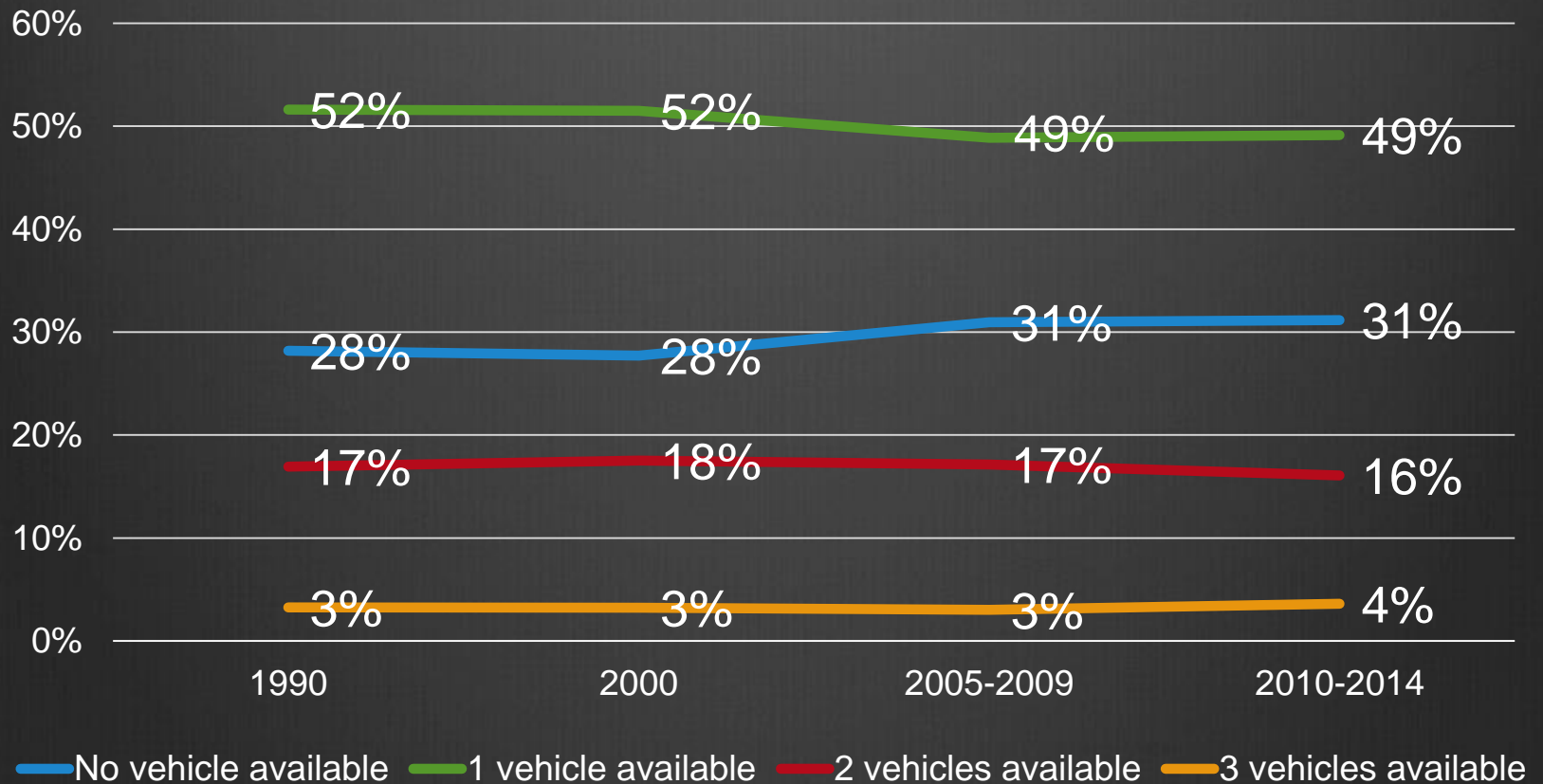
Source: Census 1990, 2000; ACS 2005-2009, 2010-2014

% Zero-Vehicle Households Increased



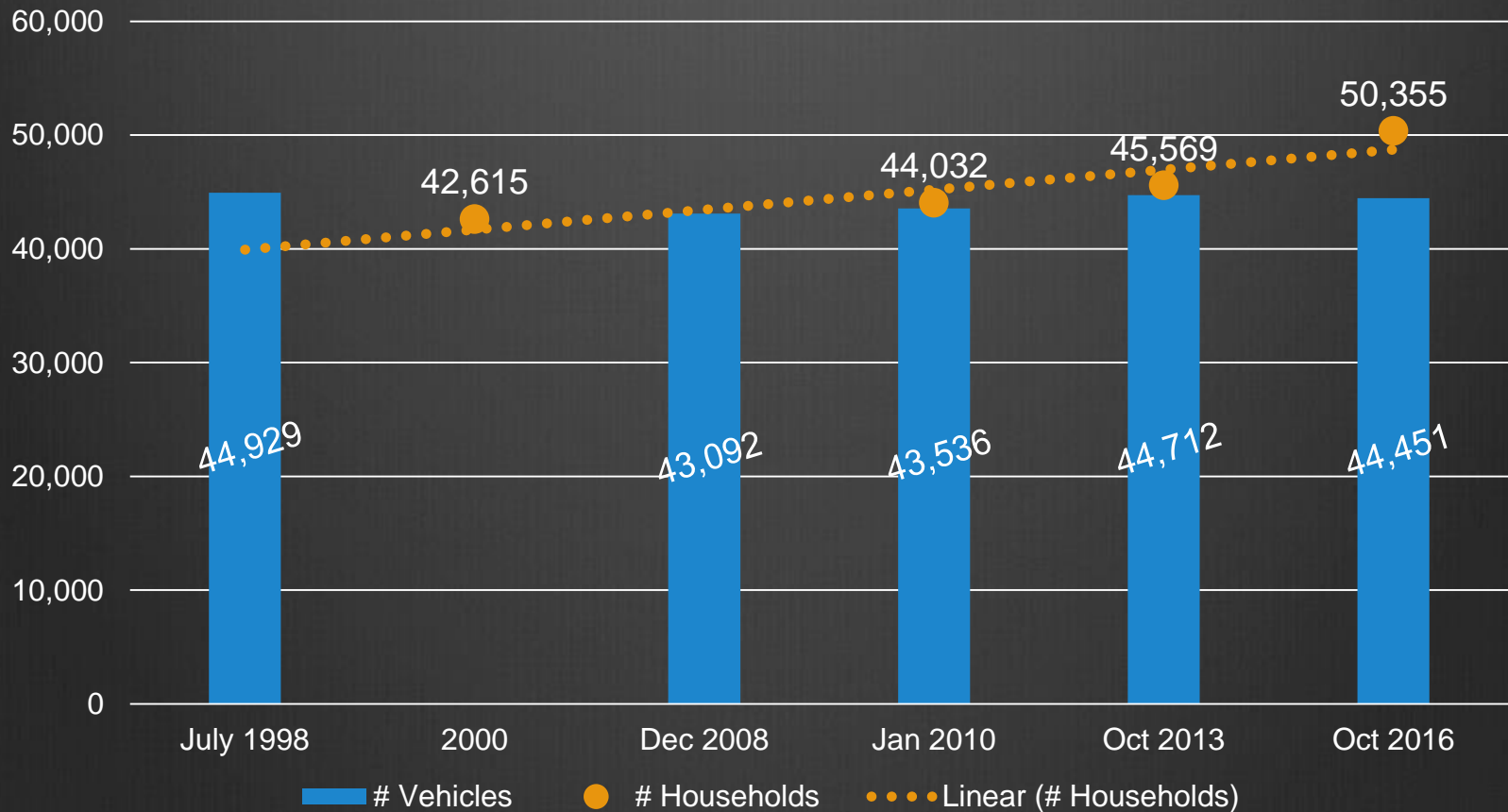
Source: Census 1990, 2000; ACS 2005-2009, 2010-2014

% Zero-Vehicle Households Increased



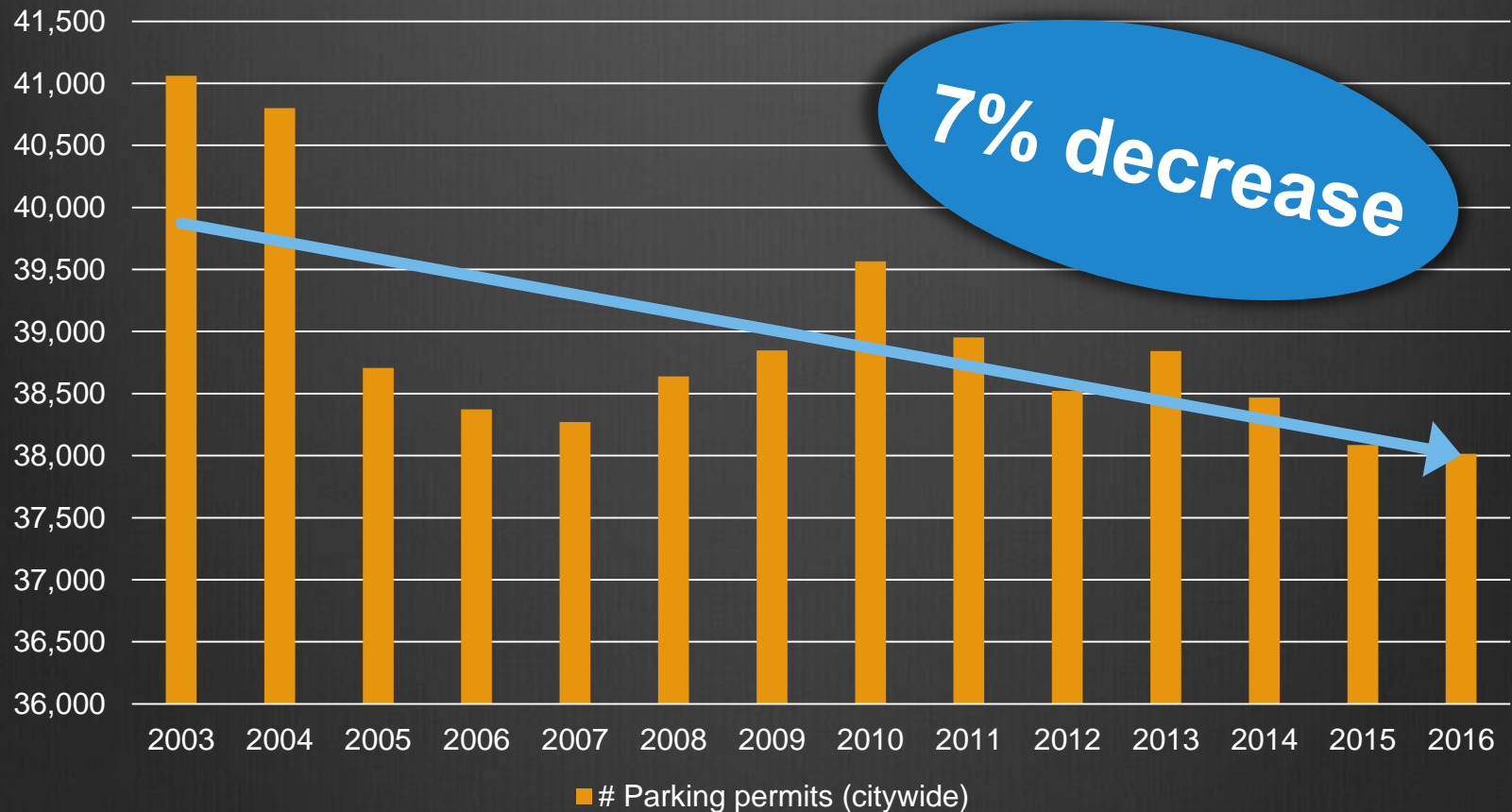
Source: Census 1990, 2000; ACS 2005-2009, 2010-2014

of Registered Vehicles and # of Households



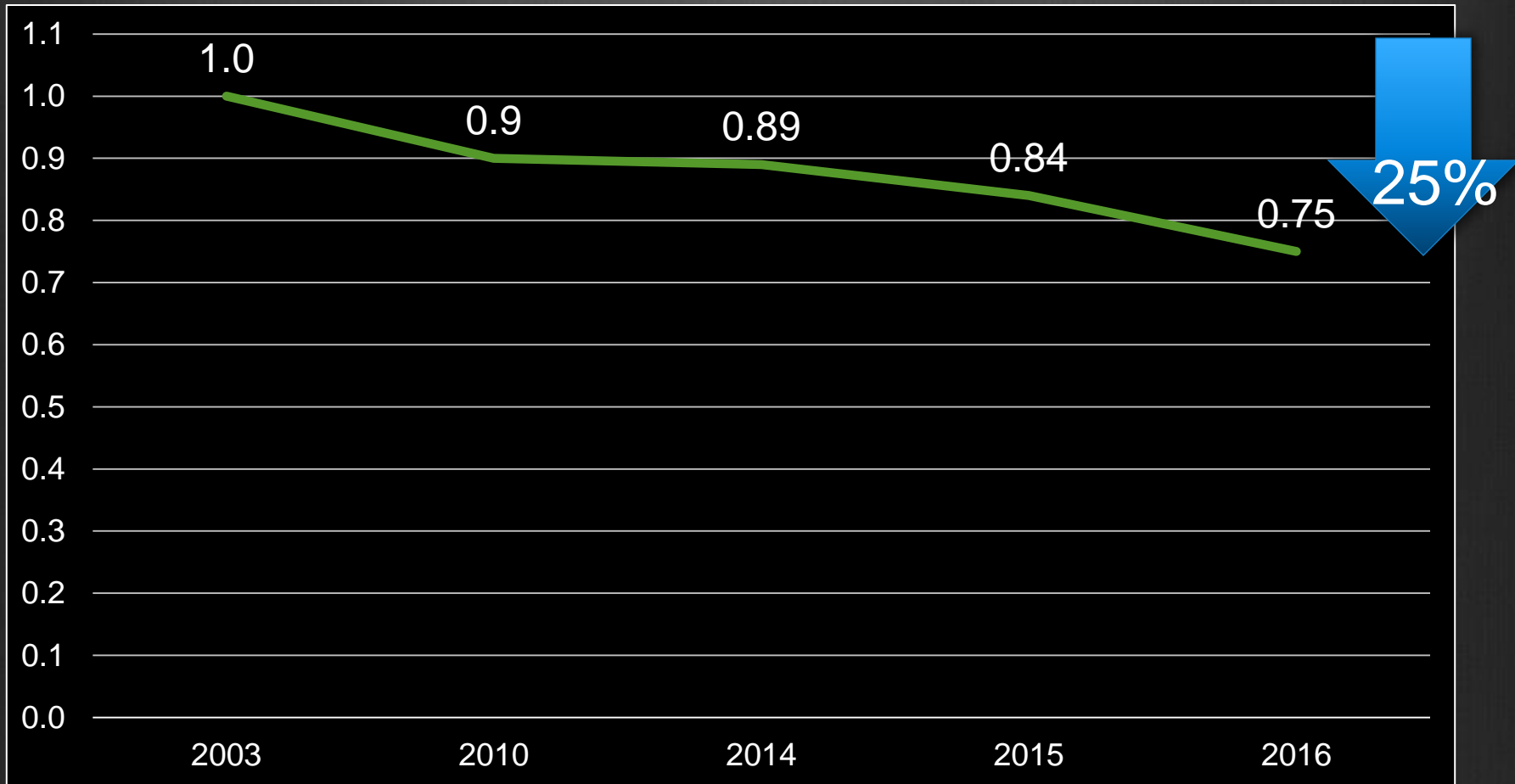
Source: Census, ACS households; RMV registrations

Parking permits (citywide)



Source: Cambridge Traffic, Parking, and Transportation Dept

of Parking Permits per Household



Source: Cambridge Traffic, Parking, and Transportation Dept

Bicycle Counts

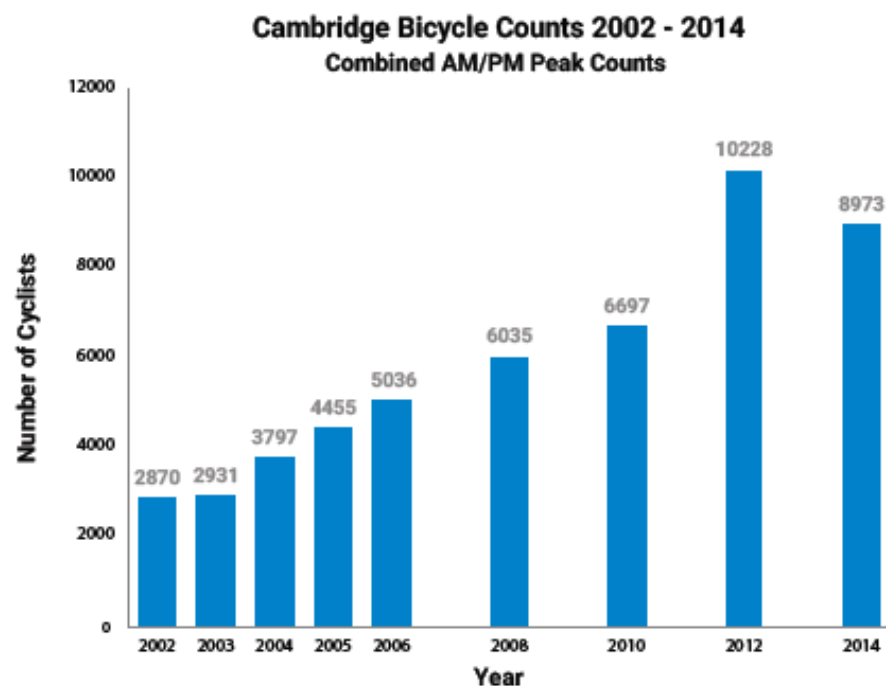


Figure 3.8: Cambridge Bicycle Count Chart, 2002-2014, Combined AM and PM Peak Counts

Impact of Construction on Bicycle Traffic

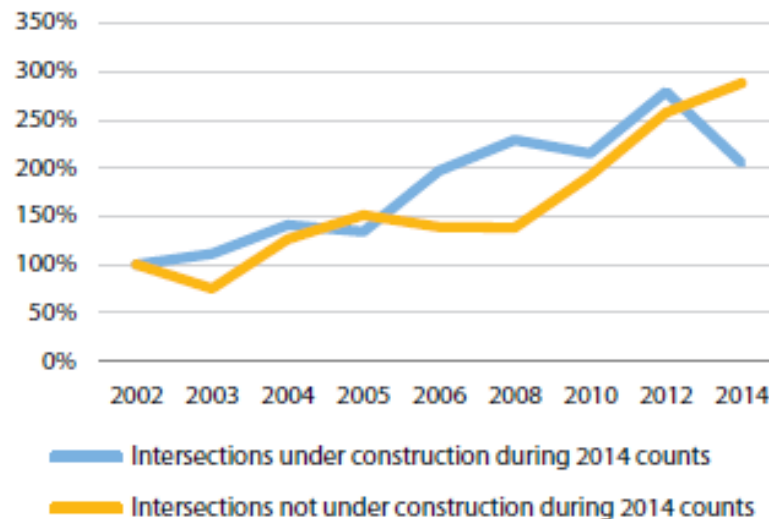


Figure 3.9: Net change in volumes at intersections with and without construction during 2014 counts.

Western Avenue Infrastructure Improvements



Before



After



WESTERN AVENUE – LOOKING WEST

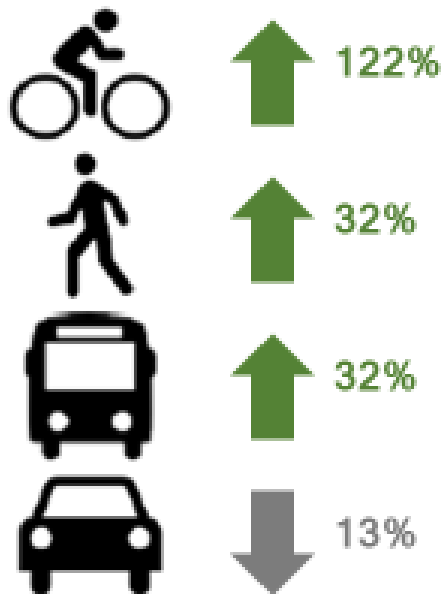


CRONIN PARK

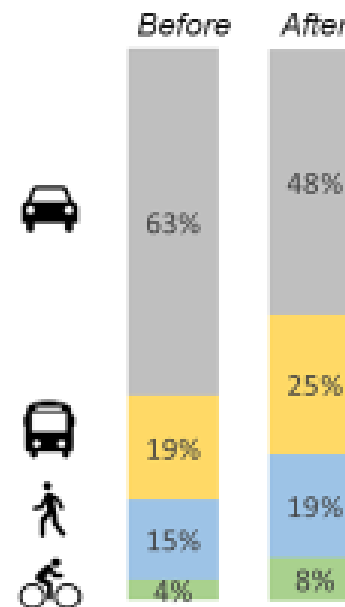
Photo credits: Nichol Figueiredo (Capital Strategic Solutions)

Western Ave Post-Construction Volumes

Percent change in PM peak weekday hourly volumes

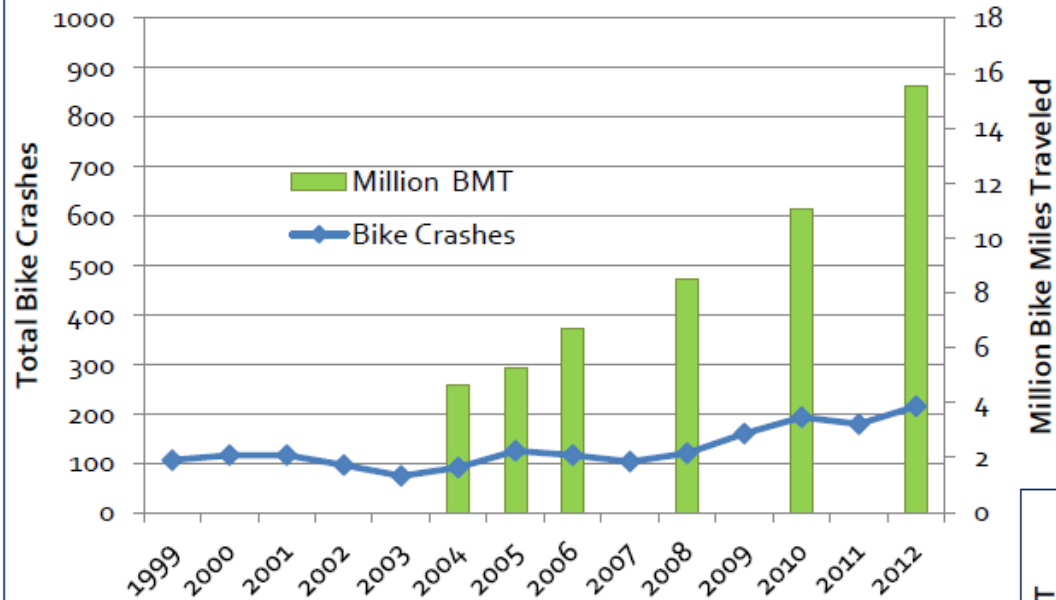


Percent of total weekday PM peak users (Western Ave at Howard or b/n Howard and Kinnaird) by mode before (2007/9) and after (2015/6) construction



Bicycle Crash Rates

Bike Crash and Volume Trends



Bike Crash Rate Trend

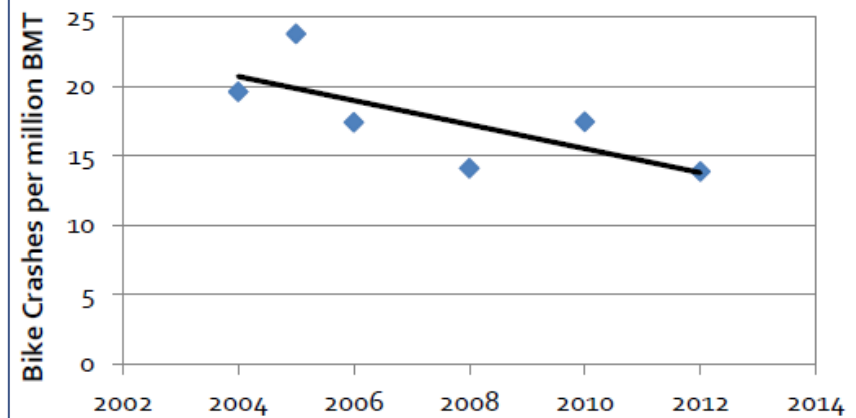
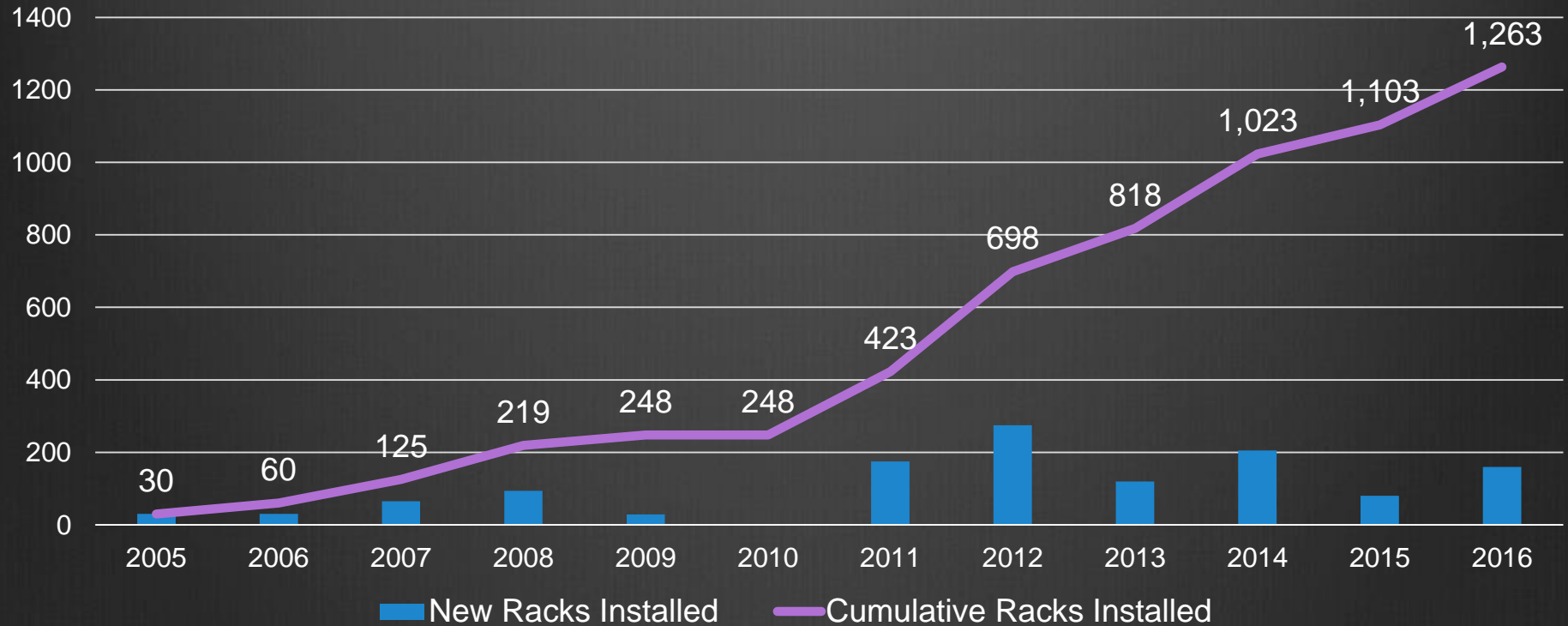


Figure 1 Bicycle Count and Crash Trends

of Bike Racks Installed on Public Property



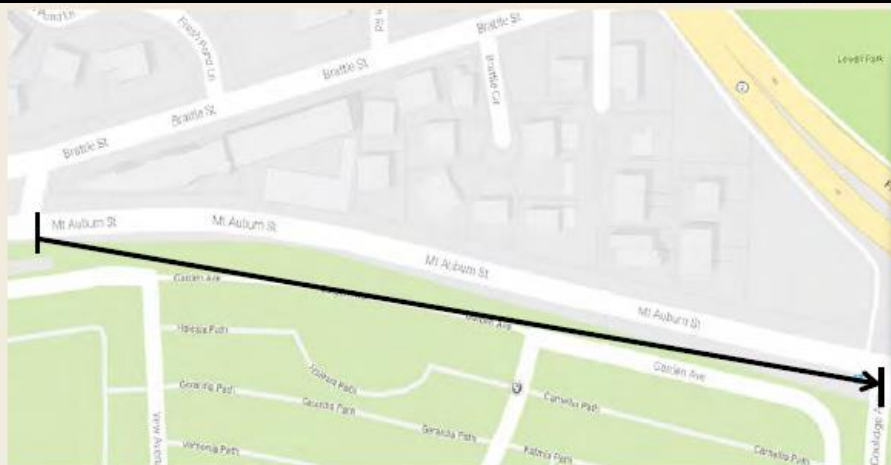
Mt. Auburn St Transit Volumes

Person Throughput Analysis (AM Peak)



Buses: 925 persons / hour
Vehicles: 1,200 persons / hour

Buses carry 43% of people in
2% of vehicles



Buses: 985 persons / hour
Vehicles: 765 persons / hour

Buses carry 56% of people in
3% of vehicles

How many vehicles fit?

People traveling through Central Square toward Harvard Square
Afternoon rush hour

400

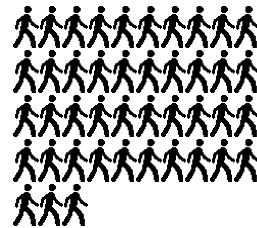
1,345

How many people?

400* people in
355 cars



850+ people
walking



360 people on
14 buses



135+ people
on 135 bikes

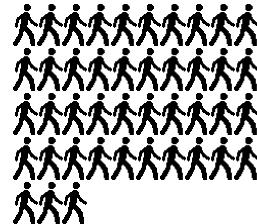


How much space?

400* people in
355 cars



850+ people
walking



360 people on
14 buses



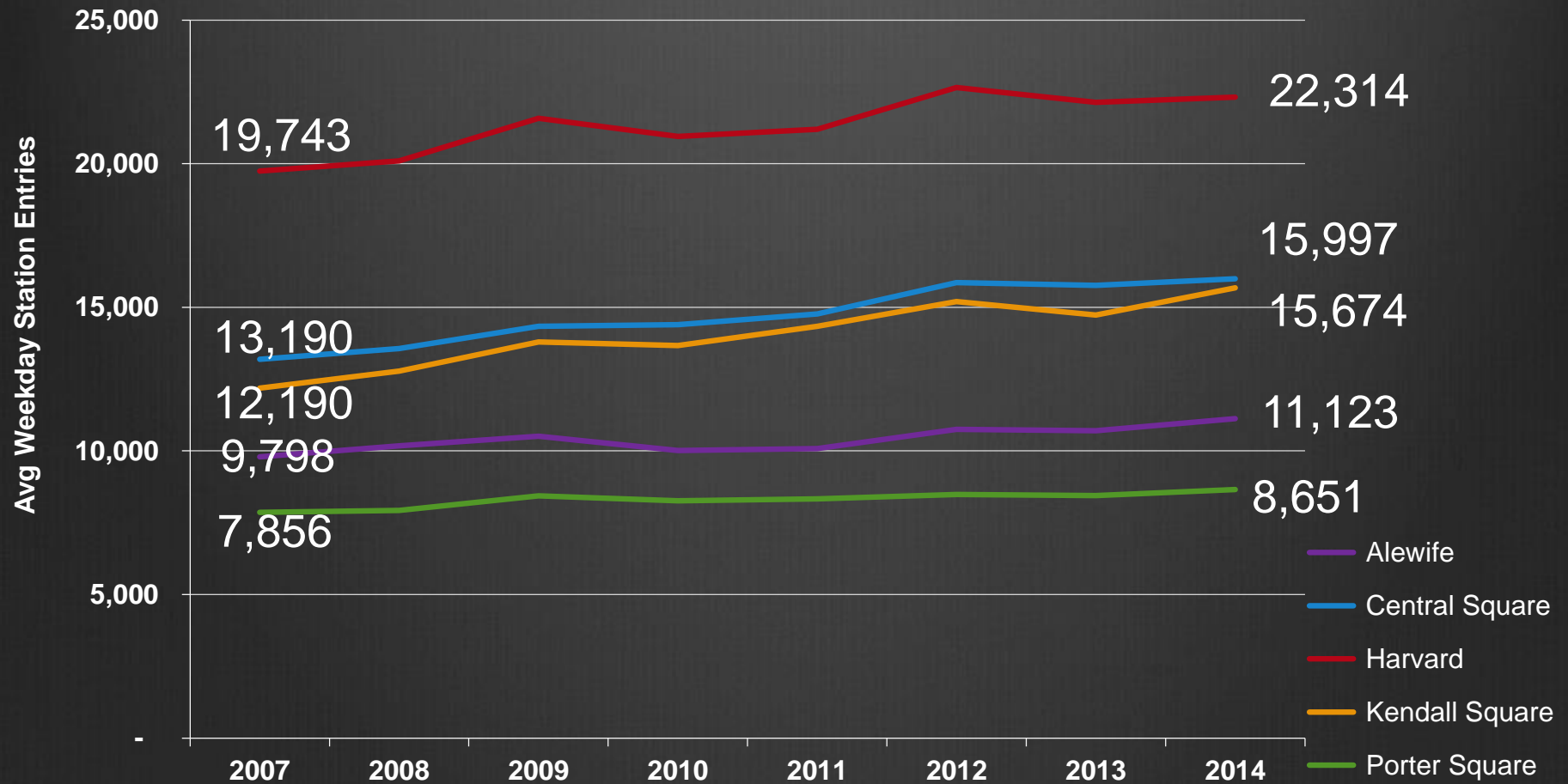
135+ people
on 135 bikes



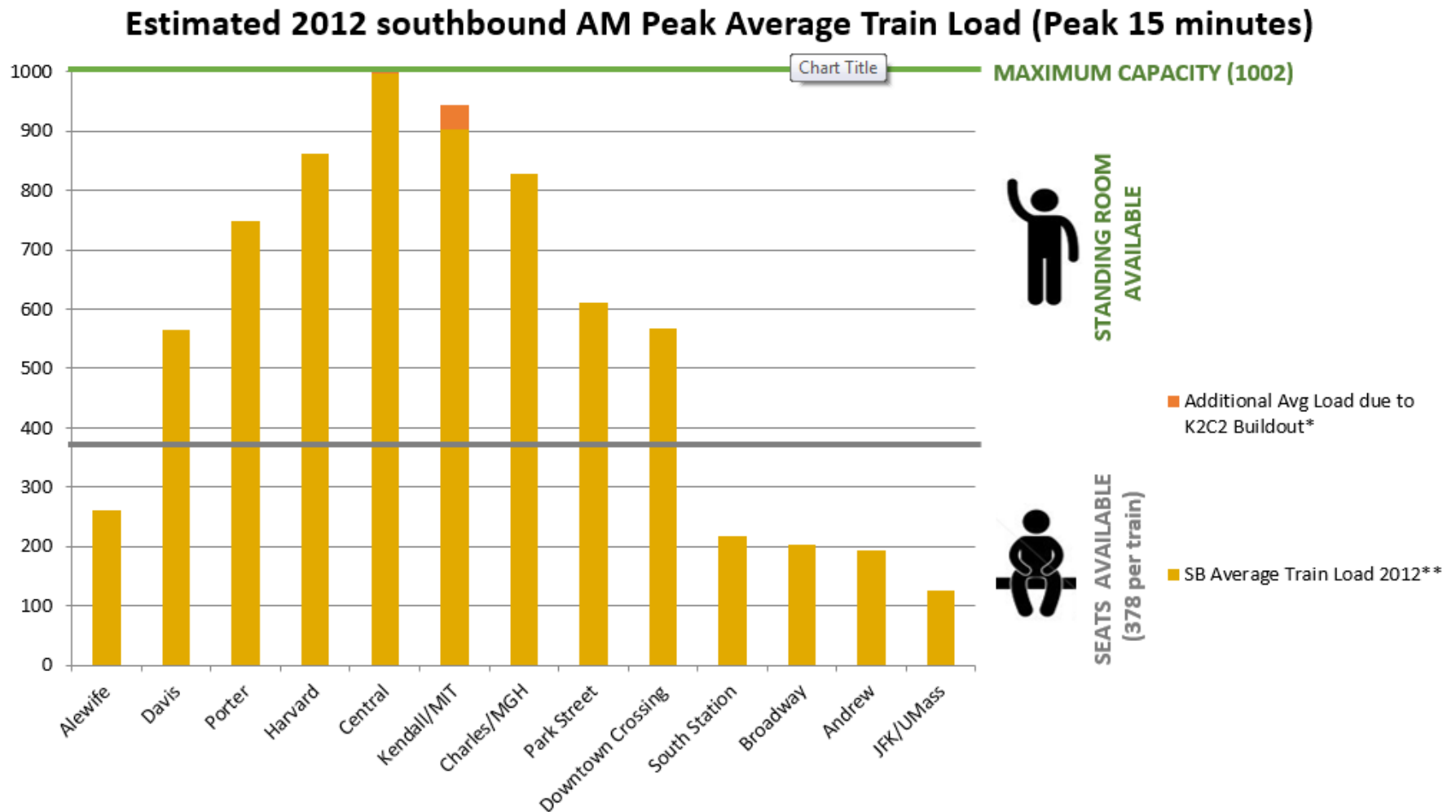
Each icon
represents 20
people/bikes/cars
/buses

*using work-related occupancy of 1.13
(<http://nhts.omni.gov/2009/pub/stt.pdf>)

MBTA Weekday Station Entries

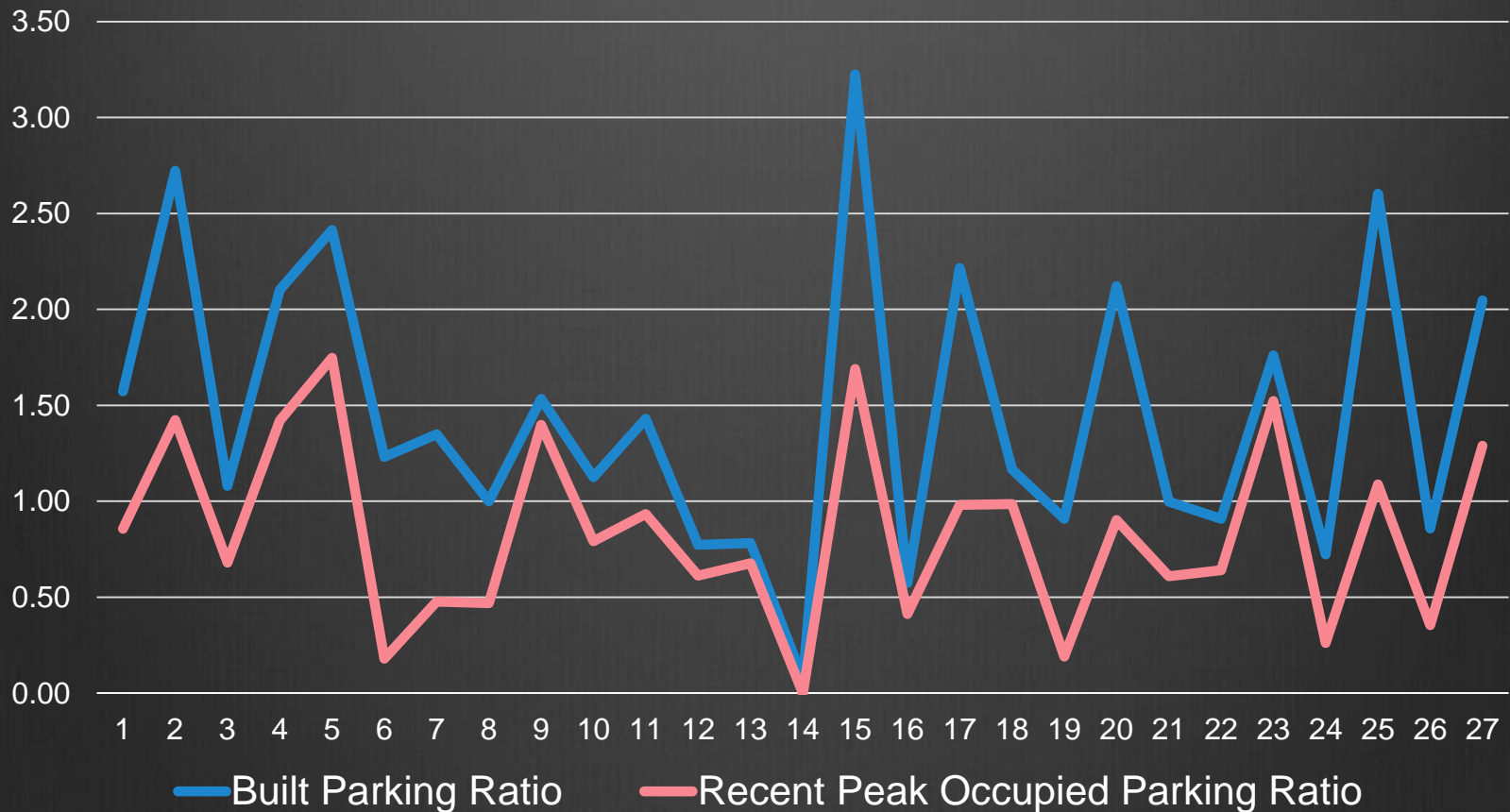


Estimated 2012 SB AM Peak Avg Train Load (Peak 15 mins)



Source: Updated from K2C2 study

Built vs. Occupied Parking Ratio



It's Amazing How Many More Commuters Would Drive Less if They Didn't Get Free Parking

The lure of the space overwhelms almost all other commuter benefits.

ERIC JAFFE | [@e_jaffe](#) | Aug 1, 2014 | 294 Comments



Commuter Mode Choice and Free Car Parking, Public Transportation Benefits, Showers/Lockers, and Bike Parking at Work: Evidence from the Washington, DC Region

Commuter Mode Choice and Free Car Parking, Public Transportation Benefits, Showers/Lockers, and Bike Parking at Work: Evidence from the Washington, DC Region

Andrea Hamre and Ralph Buehler
Virginia Tech

Abstract

Municipalities and employers in the U.S. attempt to reduce commutable through commuter benefits for riding public transportation. Many employers provide a combination of benefits, often including alongside benefits for public transportation, walking, and cycling to work using revealed preference data on 4,630 regular commuters. The relationship between commuter benefits and mode choice at work in the Washington, DC region. Multinomial logistic regression results show that free car parking at work is related to more driving. Commuters offered either public transportation benefits, showers/lockers, or bike parking, but no free car parking, are more likely to either ride public transportation, walk, or cycle to work. The joint provision of benefits for public transportation, walking, and cycling is related to an increased likelihood to commute by all three of these modes and a decreased likelihood of driving. However, the inclusion of free car parking in benefit packages alongside benefits for public transportation, walking, and cycling, seems to

67



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Published online 2015 Mar 28. doi: [10.1016/j.cognition.2015.03.005](#)

Reward and punishment act as distinct factors in guiding behavior

Jan Kubanek,¹ Lawrence H Snyder,¹ and Richard A Abrams²
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The publisher's final edited version of this article is available at *Cognition*

Abstract

Behavior rests on the experience of reinforcement and punishment. It has been unclear whether reinforcement and punishment act as oppositely valenced components of a single behavioral process or whether these two kinds of outcomes play fundamentally distinct behavioral roles.

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NIHMSID: NIHMS67252

Go to: ☒