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Timothy Haahs & Associates, Inc.
NEWSLETTER

TimHaahs

The Debate is On : The Future of Parking

"With the coming of driverless cars and mass success of ride-sharing services such as Uber/Lyft, there will be no need for parking," the technologist entreaties. A realist responds, "That wouldn't happen. America is in love with cars. Hey, it's not just about riding a car. It's about the joy of driving a car." Technologist refutes saying, "Then at least we can agree that parking is in decline." "Well, it all depends on how we look at the big picture," says the realist.

I am a realist and here is the big picture from my perspective:

Technology has arrived. Driverless cars are coming. Ride-sharing is gaining ground. The future is exciting. Perhaps the notion of the "The Jetsons" family living in a utopian future might be closer than we think, as companies like Uber are working on flying aerocars. We are excited about the technology. It will change our lifestyle and bring more comfort, convenience, and safety. Without a doubt, as driverless and ride-sharing systems advance, the need for parking will decline. Particularly in urban areas, night clubs are reporting that about one-half of their customers depend on ride-sharing services as a means of transportation. Restaurants are also seeing a significant reduction in demand for parking. What this means is that parking revenue is down but not necessarily the parking peak demand of the day.

For the last decade, we heard "The millennials are coming...to the city." And they did. Now, the millennials are aging. The lifestyles of older millennials are changing. They are married with kids and want larger living spaces. And they are moving back out to the suburbs. The younger generations, who are in their early twenties, want to go into the city to enjoy the convenience of urban environments. But, there is one problem. It is no longer affordable for them. So, they are staying in the suburbs.

The big picture that trumps all our discourse, whether technology is causing parking to decline, is this: new immigrants are coming – 100 million of them within the next 40 to 50 years. That's a staggering 30% increase in population. To these immigrants, at least initially, having a car is the first step to achieving the American Dream. They will settle in the city but most of them will find a home in the thriving suburbia. There will not be enough parking spaces both in the cities and suburbs to meet the new demand. Yes, more parking will be needed overall.

So, who will win? The technologist saying no more parking or the realist saying we need more parking?

You decide.

Tim Haahs, President

Is this the End of Parking?

YES, technol
These ever advanc
how we communi

Technologists are
And yet, realists s

You decide.

Technologists saying YES

Is parking becoming obsolete

With the steadily rising popular demand for driverless cars, as well as car-sharing and ride-sharing services (i.e. - Uber/Lyft), there will no longer be a need for parking.

Are car-sharing / ride-sharing services taking over car owners

Car-sharing / ride-sharing services will be preferred over car ownership for its conveniences and cost savings (eliminating operation and maintenance costs tied to owning a vehicle).

Is driverless technology eliminating the need fo parking and car owners

Most definitely. Once driverless cars reach automation levels[2] of 4 and 5, there will be no need to park or to own a car.

Is the demand for car ownership reall in decline?

With rapidly evolving new technologies and renewed passion for New Urbanism, attraction of car ownership will rapidly decline.

Will driverless technol become the new, idea mode of transportatio

We will reach automation levels of 4 and 5 within the next 10 to 20 years. This will indefinitely change the landscape of transportaion.

TimHaahs' Trend Analysis

Parking demand in the city will decline by 15% over the next 20 years.

Our cities are becoming more and more walkable and safe. Younger generations living in the cities have less affinity towards car ownership. Yet, we believe this has more to do with affordability issues and not principally against car ownership. For example, in the City of Philadelphia, the combined public and private parking occupancy rate in 1990 was 70.3%. It peaked in 2005 at 77.7%. And in 2015, the occupancy rate went down to 73.9% (Source: Philadelphia Parking Authority).

Parking demand in urban/suburban areas will increase by 15% in the next 20 years.

- Millennials and the next generation will find the city life not affordable, causing them to migrate back to the suburbs and thus requiring car ownership.
- New, incoming waves of immigration will have a major impact. The Pew Research Center states that future immigration will change the face of America by 2065. We will have over 100 million more people than today. Culturally speaking, one of the common desires of these immigrants will be to own a car. A big change will be coming. And a big change to parking needs.

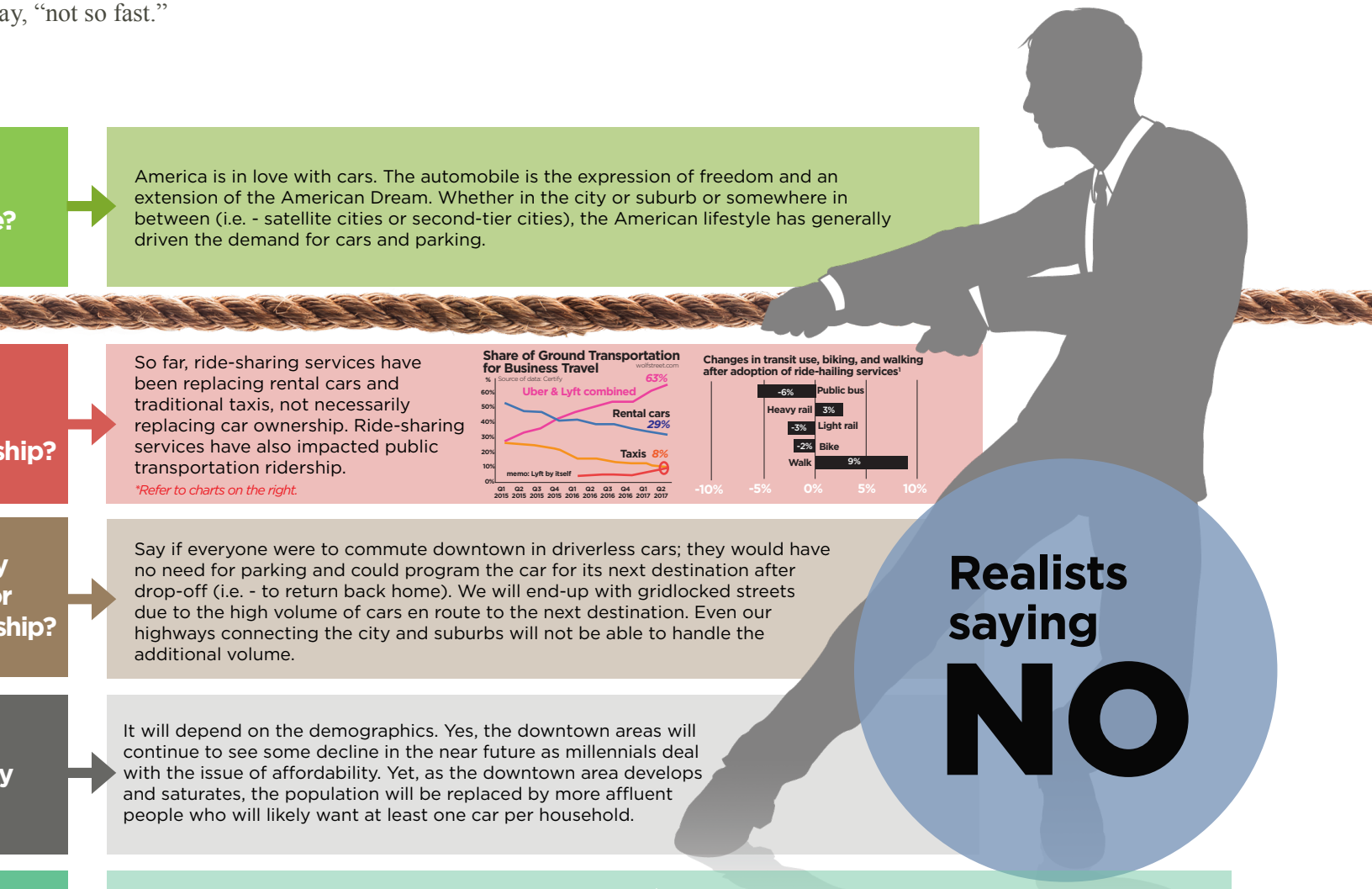
Share of Immigrants a Their Children on the

	2015	2
Total population (in millions)	324	4
Foreign born	14%	1
Second generation	12%	1

Note: "Second generation" are born in the U.S. with at least o foreign-born parent.
Source: Pew Research Center projections

ogy continues to impact the future of parking needs, driverless vehicles, and ride-sharing services.
cing data-driven technologies will inevitably change our daily lives. This includes how we travel;
cate; and how we even park...or not park.

saying much of the parking demand and car ownership will decline.
ay, "not so fast."



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America is in love with cars. The automobile is the expression of freedom and an extension of the American Dream. Whether in the city or suburb or somewhere in between (i.e. - satellite cities or second-tier cities), the American lifestyle has generally driven the demand for cars and parking.

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So far, ride-sharing services have been replacing rental cars and traditional taxis, not necessarily replacing car ownership. Ride-sharing services have also impacted public transportation ridership.

**Refer to charts on the right.*

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Say if everyone were to commute downtown in driverless cars; they would have no need for parking and could program the car for its next destination after drop-off (i.e. - to return back home). We will end-up with gridlocked streets due to the high volume of cars en route to the next destination. Even our highways connecting the city and suburbs will not be able to handle the additional volume.

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It will depend on the demographics. Yes, the downtown areas will continue to see some decline in the near future as millennials deal with the issue of affordability. Yet, as the downtown area develops and saturates, the population will be replaced by more affluent people who will likely want at least one car per household.

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Advancements in technology may be a reality, but real life applications and day-to-day situations must be addressed. Some critical concerns yet to be resolved are:

1) Impacts on public transportation demand and infrastructure (i.e. - how to bridge the user gap between public mass transit and convenience of privately owned autonomous vehicles).

2) Impacts on existing urban infrastructure (i.e. - Every major building and destination point will need to provide pick-up/drop-off areas. This is contrary to goals of New Urbanism, like promoting walkable streets).
3) Lack of highway capacity and infrastructure.
4) Lack of input from insurance companies.
5) Cyber-hacking (which is not only a tremendous threat to human safety but also to data and identity security).

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8%
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The average living room area will continue to diminish, compelling people to extend the comfort of their personal space into luxury autonomous cars.[3]

More people will desire to own the comfort of driverless cars.

There will be a hot trend to own automobiles - the true "auto" mobiles. The comfort, the convenience, and the amenities of the futuristic car will make it irresistible not to own one. The era of desiring a car will hearken back to the glory days of car ownership in the 50's.

Adaptive reuse of spaces into non-parking land use will be done on a very selective basis.

Designing garages for adaptive reuse require flat floors; external speed ramps; higher ceiling clearance; and almost twice the amount of loading requirements. Incorporating these features would increase average costs by at least 25%. For a standalone parking garage, this is not economically practical considering its standard life-cycle. However, accommodating the ground level with higher clearance can be done at a minimal, additional cost.

[1]Chart Survey Question: "Since you started using on-demand mobility services such as Uber and Lyft, do you find that you use the following transportation option more or less?"
[2]Footnote: Under SAE International's J3016 standard (known as the: Taxonomy and Definitions for Terms Related to On-Road Motor Vehicle Automated Driving Systems), there are six levels of driving automation.
[3]Image Source: Rinspeed AG

AWARDS

2017 Florida Parking Association Awards of Excellence

Sawgrass Mills Colonnade Parking Garage
- Award Category I: Parking Structure – Design
- Award Category II: Parking Structure – Architecture

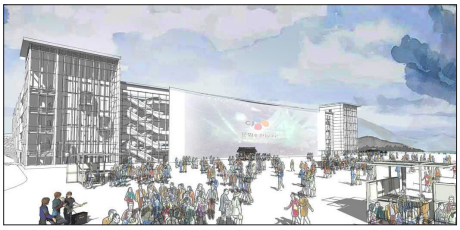
2017 New Jersey Future Smart Growth Award

Metuchen TOD Pearl Street Parking Garage

2017 IPI Award of Merits

Temple University Hospital New East Garage
Square Parking at Overton Square

NEW PROJECTS



CJ K-Culture Valley Consulting Parking Garage Design
Goyang City, Korea

Green Street Mixed-Use Development
Newark, NJ

Fort Lee Mixed-Use Project
Fort Lee, NJ

FEATURED

BlueOne LuxTower Mixed-Use Parking Garage

TimHaahs is serving as the Prime Architect, providing Functional, Schematic, and Design Development Services for the BlueOne Waterpark Mixed-Use Parking Garage. The 500-space, 7-level mixed-use facility is being designed to serve the Waterpark visitors, as well as the proposed Retail, Office, and Wedding Hall spaces.

Through our functional design analyses, *TimHaahs* developed a mixed-use design that would not only activate the transition space between the garage and Waterpark, but would also generate diverse streams of revenue. Effectively, our mixed-use "Welcome Tower" facility concept and central "Welcome Plaza" design provide a safe pedestrian connection and fun, exciting destination for users throughout all times of the day and seasons of the year.

PROGRESS REPORT

Miami Museum Garage

As the Prime Architect and Engineer of Record, *TimHaahs* celebrates the vibrancy of the Miami Museum Garage. Now nearing construction, the garage is truly coming to life, along with the fast developing Design District. We are proud to be collaborating with the following artists and firms:

Façade Designers
- WORKac (New York, NY)
- Jürgen Mayer H (Germany)
- Nicolas Buffe (France)
- Manuel Clavel (Spain)
- K/R (Miami, FL)

Façade Fabricators
- A. Zahner Co (Kansas City, MO)
- Entech Innovative (Rockledge, FL)

Design Team
- Ford Engineers (Civil Engineers)
- Florida Engineering Services (MEP)
- TLC Engineering (Technology/LV Engineers)
- Speirs + Major (Lighting Consultants)
- Green Space Strategies (Landscape Designers)

General Contractor
- KVC

PARKSMART

TimHaahs employs the most advanced and recent sustainability initiatives. Over 25 *TimHaahs* staff members have completed the International Parking Institute's Parksmart Advisor Training course. As *TimHaahs* continues to advance our practices in environmental stewardship, the Parksmart Certification serves as a great tool for industry-wide application.

Administered by the U.S. Green Business Council (USGBC), Parksmart is a rating system that measures the knowledge and application of a client's parking structure design in relation to minimizing waste and reducing energy consumption. Many facets of completing a parking structure are reviewed for the certification: energy-efficient lighting systems; effective guidance systems to reduce time it takes to park; parking lot layout and proximity to roadways; storm water management; and other variables.

Our *TimHaahs* Parksmart Advisors assure optimal energy consumption levels and long-term, cost-efficient operations in parking structures. As part of our mission to help those in need, *TimHaahs* identifies areas in which we can assist clients in implementing sustainable practices. As we build these relationships from the ground up, together we can apply all aspects of the environmental benefits to extend into providing for clients' needs and charitable organizations.

For more information, please visit:
http://parksmart.gbci.org/

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