URBANISM NEXT
RESIDENTIAL PREFERENCE
Alison Bowers and Nico Larco

SUSTAINABLE CITIES INITIATIVE

urbanism
NEXT SCI

O UNIVERSITY OF OREGON | PORTLAND

For more information on Urbanism Next, Please contact:
Nico Larco (nlarco@uoregon.edu)

A&AA   AECOM   TRIMET   ARROWSTREET ARCHITECTURE & DESIGN   Stantec   otak
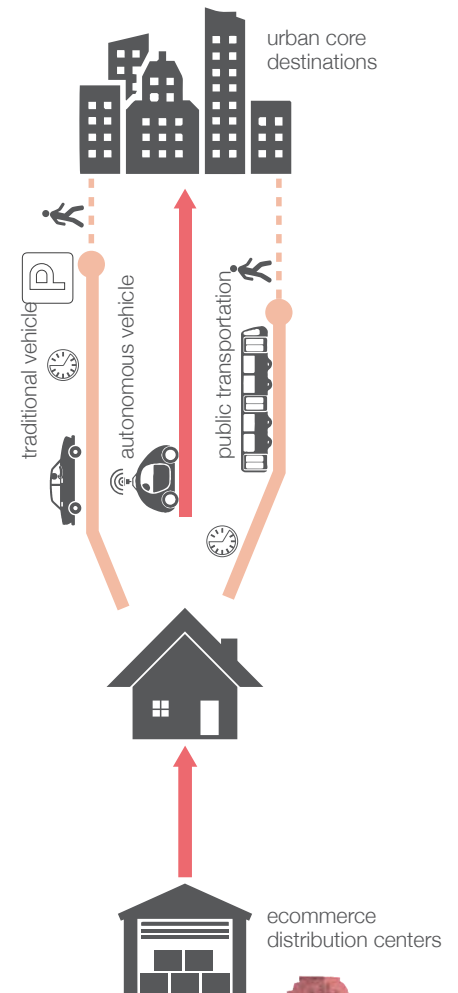
RESIDENTIAL PREFERENCE

ALISON BOWERS AND NICO LARCO | URBANISM NEXT | SPRING 2017

Residential Preference: the social, environmental, and physical preferences that affect a person or family's choice of residential location (for our purposes, in relation to the urban core and other amenities offered as a part of living in density)

The introduction of autonomous vehicles and the comprehensive integration of E-commerce into the urban and suburban fabric will have a widespread effect on the factors the influence a resident's location preference.

- Autonomous vehicles have the potential to be faster, easier and more efficient than other forms of transportation. **"workers will have more freedom in terms of residential location choices, i.e. they can live closer to other education facilities and infrastructures that they need to consume, rather than being constrained by the location of their offices"** (Zhang)

- Ecommerce nearly eliminates one of the major forces of migration to cities (proximity to resources) **"Some analysts predict nearly 33 percent will be closed within the next few years"** - Supply Chain 247 (2016)

- Differences in residential preference between generations will be a determining factor in the vitality and viability of urban cores. **62% of millennials prefer to live in mixed-use communities found in urban centers, closer to shops, restaurants, and the office** (NAR 2013)

urban core destinations

traditional vehicle

autonomous vehicle

public transportation

ecommerce distribution centers

1: WHAT EXISTS NOW

Why do people choose to live in cities over rural areas in the first place?

- ECONOMIC OPPORTUNITY: As the U.S. shifts from an economy of manufacturing to an **economy of innovation**, cities will continue to attract those looking for competitive job markets and better long-term economic opportunities.
- SOCIAL OPPORTUNITY: Urban centers have naturally more consistent, diverse, and customizable **opportunities for social interaction** with people that have similar interests and lifestyles.
- CULTURAL EXPERIENCES/EXPOSURE: A naturally diverse population and the **emphasis on arts and culture** creates an atmosphere of inclusion, curiosity, and understanding.
- PROXIMITY: Whether its work, businesses, groceries, schools, or hospitals, cities offer a density and diversity of uses no other type of civilization can offer.

Why do people choose to live in certain areas of the city and the factors that keep them from living in other areas? How will the integration of autonomous vehicles and ecommerce cause new patterns to emerge?

Top factors affecting residential preference (% listed as very or somewhat important):

     87% : amount of **privacy** from neighbors

     78% : being within a 30-minute **commute to work**

     77% : access to **sidewalks** and places to take walk

     75% : proximity to quality public **schools**

     (2011 NAR survey)

Other Important Push/Pull factors:

- RENT COSTS: 59% would rather stay within their budget, even if it meant they could not live in their desired community, compared to 39% who would stretch their budgets. (NAR 2011)
- HOUSING TYPE AVAILABILITY: 80% of people would prefer to live in a single-family home if no other factors were affecting their residential location (NAR)
- CONVENIENCE OF SHOPPING: 60% of those surveyed that prefer the community described with "smart growth" characteristics chose it because of the walking distance to shops and restaurants (NAR)
- ACCESS TO PUBLIC TRANSPORTATION: 19% of survey respondents prioritized building new roads, while 50% prioritized improvements to public transportation
- QUALITY OF COMMUNITY: 35% say that the quality of their community has decreased in the past 3 years (strongest among elderly and lower-income) (NAR 2013) and this often leads to migration from cities to suburbs

"**A GROWING BODY OF RESEARCH SUGGESTS THAT CITIES ARE NOT JUST A COLLECTION OF INDIVIDUALS BUT COMPLEX, INTERRELATED ENVIRONMENTS THAT FOSTER THE GENERATION OF NEW IDEAS AND NEW WAYS OF DOING BUSINESS.**"

- The Economic Development Curmudgeon, 2012
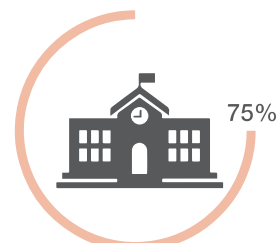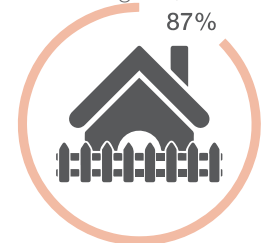
87%

78%

77%

75%

Source: NAR

2: PERTINENT PARAMETERS

AUTONOMOUS VEHICLE TECHNOLOGY

"...younger households (<40 years old) will move further away from downtown for cheaper housing units and better education resources. Meanwhile, elder households will move towards the downtown area to avoid long average waiting time. However, all workers will move further away from their working places." (Zhang)

Ownership vs. Fleet: If personal ownership of AVs is financially feasible and socially acceptable, street congestion could remain a major infrastructural obstacle. If fleets of AVs similar to existing Transportation Network Companies are developed in an economical and environmentally sensitive way, wait times and coordination of rides could reduce the amount of dispersion and keep residents closer to the urban core.

ECOMMERCE

As the widespread adoption of ecommerce expands, one of the most prominent elements that originally attracted people to cities (access to goods and commodities) is no longer a pull factor for cities to rely on. The worst effects of this may be most prominent in suburban areas in which infilling abandoned shopping districts, redefining whole neighborhoods and drawing residents and smaller business to the area are not as economically or logistically feasible.

LATENT DESIRE FOR DENSITY

One of the greatest shifts in housing preferences between recent generations is the **desire for walkability and mixed use neighborhoods**. A neighborhood with a mix of houses, stores and businesses that are easy to walk to (60%) is preferred over a neighborhood with houses only that requires driving to stores and businesses (35%). (NAR survey)

"AT THIS RATE, NEARLY HALF OF ALL NEW DWELLING UNITS BUILT BETWEEN 2010 AND 2030 WILL NEED TO BE FOR RENTERS; EXISTING OWNER-OCCUPIED UNITS WILL NEED TO BE CONVERTED INTO RENTALS; OR OWNERS WILL RENT PORTIONS OF THEIR HOMES TO OTHERS[...]" (Arthur Nelson, University of Arizona)

3: OUTCOME SCENARIOS & LOGISTICS

SCENARIO 1: EXPANDING SPRAWL

Causes:

- widespread use and range of autonomous vehicle technology reduces need for proximity to the urban core

- ecommerce eliminates "proximity to commodities" as a significant residential preference factor

Resulting Conditions:

- those that can afford regular AV use, but prefer the lifestyle offered by single-family, large-lot homes move to the peripheral neighborhoods

- competition between AV's and public transportation cause mass transit lines to close down, potentially intensifying economic inequality problems and increasing congestion
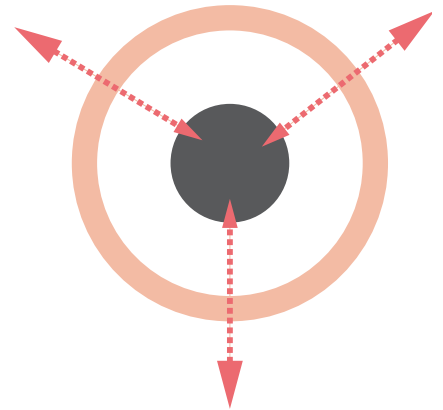
SCENARIO 2: DENSIFIED CORE

Causes:

- autonomous vehicles greatly reduce the amount of parking necessary in downtown areas, creating a boom in residential and business construction in dense urban areas

- increased availability and potentially decreased housing costs create massive shifts in zoning and development

Resulting Conditions:

- construction of family-oriented apartment units and buildings are more feasible and add to the dense and diverse urban fabric

- elimination of strip malls and large shopping areas in peripheral communities causes widespread losses in revenue as well as a deteriorated sense and quality of community

- those living in areas once labeled "suburbs" do not receive the same level of convenience offered by autonomous vehicles since the lack of density does not allow for timely and effective service of transportation network companies

- distribution centers run by ecommerce companies and service centers for autonomous vehicles are placed around the edges of cities, potentially
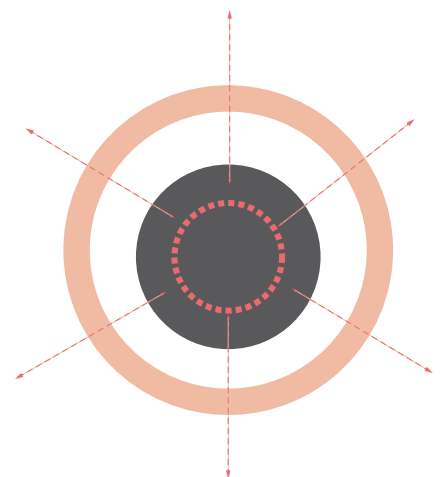
increasing job availability but reducing the vitality and livability of the area

SCENARIO 3: PERIPHERAL NODE REDEVELOPMENT

Causes:

- carefully implemented regulations on the use and management of autonomous vehicles

- latent desire for density, community and the "buzz" of a place along with smart development of the kinds of places that offer this in a compact package

- consideration of the existing and potential public transit systems in large scale urban planning moves

- reduced need for parking allows semi-urban nodes to develop in areas previously developed by sprawl

Resulting Conditions:

- a slow and deliberate integration of autonomous vehicles and advanced public transit systems into the urban fabric

- with a wider variety of options available within urban housing markets, people flock to the areas previously noted for their uncontrolled sprawl, but that have been re-developed as important nodes of vitality around urban cores

- smaller nodes of concentrated housing and commercial mixed-use areas open up opportunities for a new kind of retail with fine grain shops and an emphasis on the experience of shopping and allow for local and entrepreneurial businesses to develop without high overhead costs
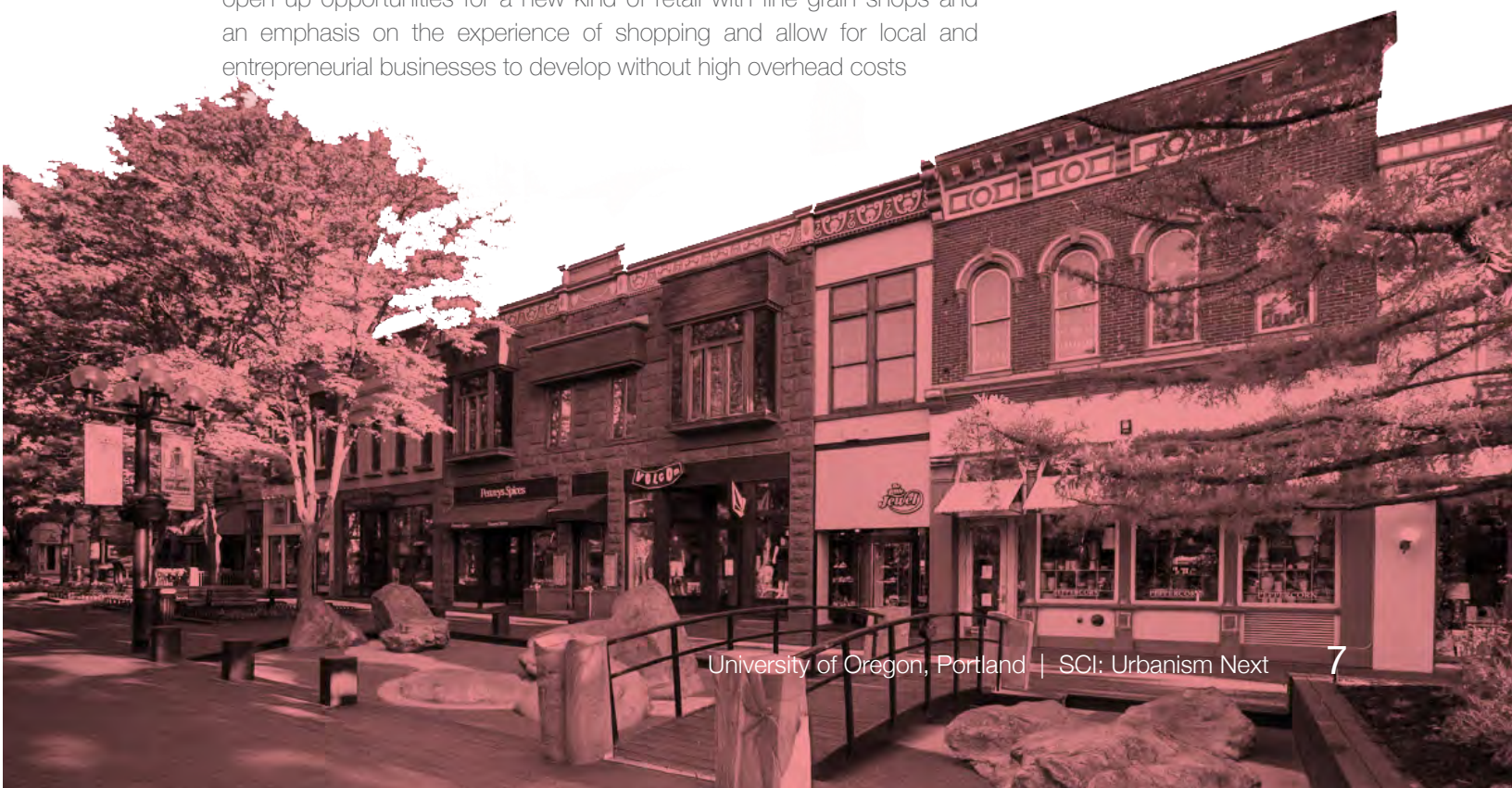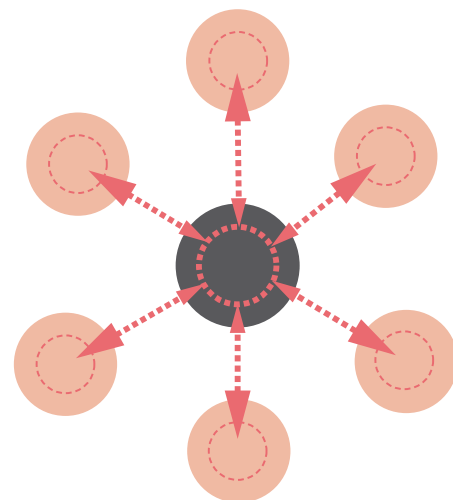
URBAN CORE

SHORT COMMUTE TO WORK

87% of people in cities rate a short commute to work as very or somewhat important [NAR]

EASE OF ACCESS TO PUBLIC TRANSPORT

INCREASED/ DIVERSE SOCIAL OPPORTUNITIES

REDUCED IMPACT ON THE ENVIRONMENT

In 2013, 57% of people ranked protecting the environment as a top priority for government. [Belden]

ABILITY TO WALK TO NEARBY AMENITIES

A neighborhood with a **mix of houses, stores and businesses** that are easy to walk to is preferred (60%) over a neighborhood with houses only that requires driving to stores and businesses (35%) [NAR]

PROXIMITY TO NEIGHBORS, SENSE OF COMMUNITY

DRIVING ALTERNATIVES

Strong preference for walking, biking, and public transportation (increasing 8% per generation. [NAR]

COMPETITIVE JOB MARKET

Urban cores have had a 0.5 percent per year growth in jobs since 2007, while suburbs have suffered a 0.1 percent drop. [City Observatory]

PROXIMITY TO CULTURAL EVENTS AND VENUES

ENERGETIC STREET LIFE

This factor driven largely by the Millennial population, which will continue to increase until 2024. [City Observatory]

RESIDENTIAL PREFERENCE

ALISON BOWERS | URBANISM NEXT | SPRING 2017

PERIPHERY

Americans still prefer to live in **single-family, detached homes** (57%) over an attached home in a mixed-use neighborhood (39%) even if that requires a longer commute to the office. [NAR]

PRIVACY FROM NEIGHBORS

Increased overall in priority by 8% between 2001 and 2013 [NAR]

SIDEWALKS, PLACES TO TAKE WALKS

FAMILY HOUSING AVAILABILITY

LOWER RATES OF VIOLENT CRIME

From 2011 to 2013, affordable housing increased in priority from 51% to 59% (percentage of people placing as high or extremely high priority [NAR]

AFFORDABLE HOUSING OPTIONS

75% of people indicated this as a somewhat or very important factor when deciding where to live [NAR]

QUALITY OF PUBLIC SCHOOLS

PREFERENCE FOR OWNING A VEHICLE VS. SHARING

18% of those that prefer a suburban-style community rank this as the most appealing characteristic. [NAR]

EASE OF PARKING AT DESTINATIONS

4: TRANSITION PERIOD CONSIDERATIONS

Will the existing regions and neighborhoods of traditional metropolitan areas be redefined and offer housing typologies not currently available? Will families have opportunities to live closer to urban cores?

Will public transit systems remain relevant and economically viable enough for cities to maintain at a frequency of operation that still properly serves all communities? How will the general stigma of using public transportation adapt to the availability of new transit options?

"WHEN YOU GET TO SELF-DRIVING CARS AND YOU DON'T NEED TO HAVE A PERSON ANY MORE, AND [WHEN] A SELF-DRIVING CAR CAN RUN 24/7 AND IS USED MORE EFFICIENTLY, THE COST PER MILE IS ANYTHING BETWEEN 30 AND 60 CENTS. NOW IF THAT HAPPENS, NOBODY WILL TAKE THE SUBWAY." (BLEBY, AUSTRALIAN FINANCIAL REVIEW)

How will differences in generational preferences affect how strongly any of these factors affects residential preference? Will millennials still prefer walking over driving if driving no longer requires the user's full attention?

5: EXTERNALITIES
- Quality of Schools: not just a factor for those with children, but also affects property values so even those without children are sensitive to this need
- Quality of Community: which communities will benefit and which will suffer?
- Land Availability and Pricing: how will changes in zoning and availability of parking affect the housing options available to those that choose to live in cities?
- Development of Family Housing: will any part of the technological advances encourage or allow for a more diverse array of housing sizes to accommodate families?
- Character of Place: will residents flock to the city core for the buzz of city life without the burden that transportation puts on urban life?
- What is the future of the peripheral neighborhood?

Overall use of public transportation by generation:
40% millennials
28% Gen X
19% baby boomers
8% silent generation
(NAR-2015)
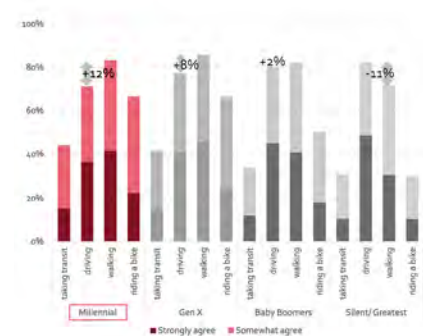
Source: NAR

RESIDENTIAL PREFERENCE

SOURCES:

1.   Bleby, Michael. (2017). Planners beware: ride sharing could destroy public transport. Australian Financial Review. Retrieved from http://www.afr.com/real-estate/planners-beware-car-sharing-could-destroy-public-transport-carlo-ratti-says-20170320-gv2c28

2.   Cortright, Joe. (2016). Not peak Millennial: the coming wave. City Observatory. Retrieved from http://cityobservatory.org/not-peak-millennial-the-coming-wave/

3.   The Economic Curmudgeon. (2012)"The New Geography of Jobs (Enrico Moretti). Journal of Applied Science in Economics. Volume 9 Nov 2012 Issue. Retrieved from http://journal.c2er.org/2012/11/the-new-geography-of-jobs-enrico-moretti/

4.   NAR: National Association of Realtors and the Transportation Research and Education Center at Portland State University. (2015) National Community and Transportation Preference Survey." Retrieved from https://www.nar.realtor/reports/nar-2015-community-preference-survey

5.   NAR: National Association of Realtors.(2013). NAR's 2013 Community Preference Survey. Retrieved from https://www.nar.realtor/reports/nar-2015-community-preference-survey

6.   Nelson, Arthur. Reshaping Metropolitan America: Development Trends and Opportunities to 2030.

7.   Supply Chain 24/7. (2016) What's Behind Macy's Closing 100 Stores? Retrieved from http://www.supplychain247.com/article/whats_behind_macys_closing_100_stores

8.   Zhang, Wenwen and Dr. Subhrajit Guhathakurta. "Residential Location Choice for Workers in the Era of Shared Autonomous Vehicles."

University of Oregon | Portland, OR
Sustainable Cities Initiative
Urbanism Next
BLOG: urbanismnext.uoregon.edu