Retail Real Estate in an Age of Disruption

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Metropolitan Washington
Council of Governments

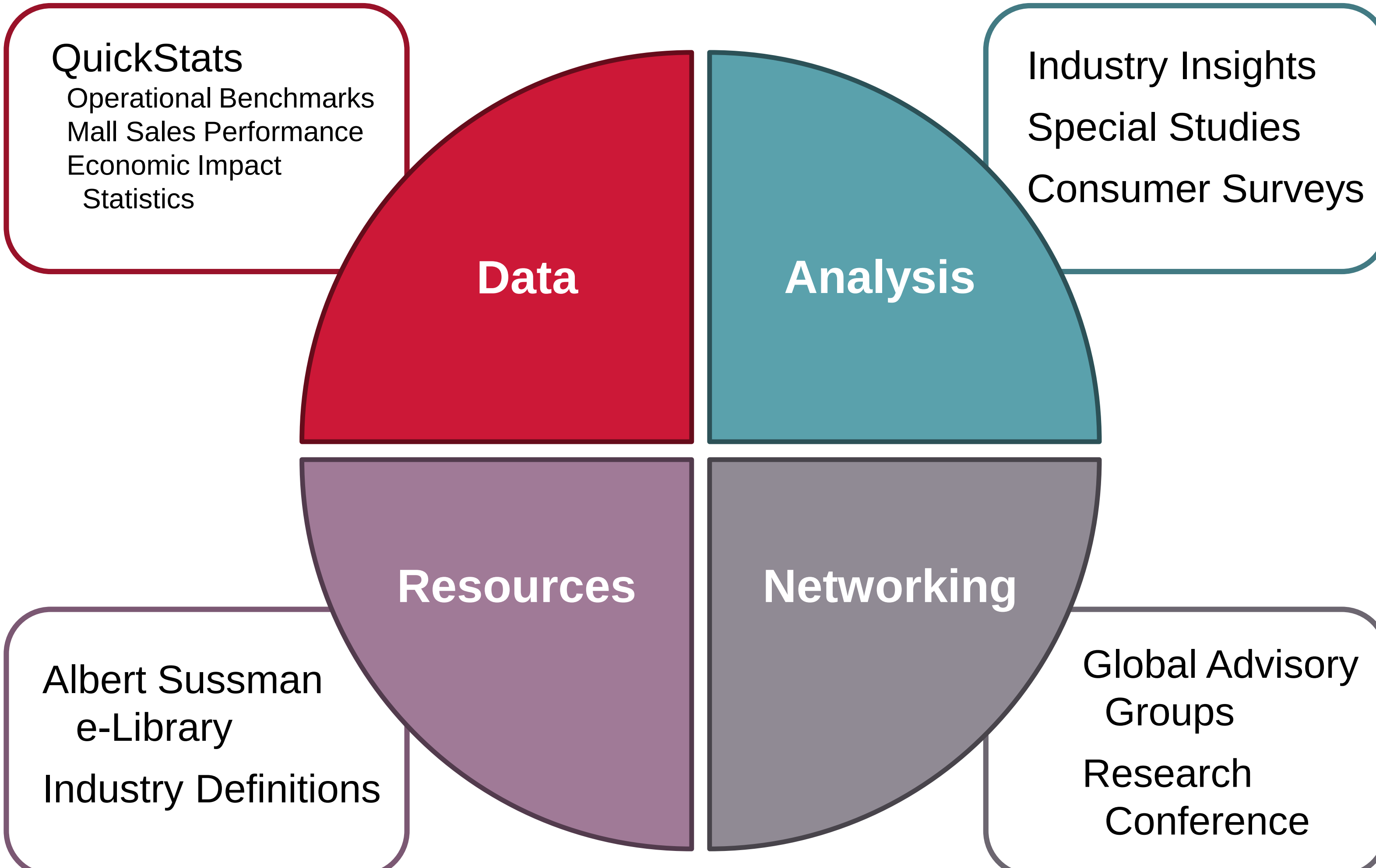
November 13, 2018

ICSC Background

ICSC serves the global retail real estate industry. We provide our 70,000+ member network in over 100 countries with invaluable resources, connections and industry insights and actively work together to shape public policy. For more information about ICSC visit www.icsc.org.

ICSC's mission is to ensure the retail real estate industry is broadly recognized for the integral roles it plays in the social, civic and economic vibrancy of communities across the globe.

ICSC Research



Discussion Roadmap

- Unpacking E-Commerce
- Consumer Trends
- Technology
- Retail Real Estate 2.0
- Performance Metrics

E-Commerce: The Prime Disruptor?

The Internet & E-Commerce

Los Angeles Times

The Internet is mauling America's malls. Is your favorite retailer closing its doors?

Forbes

ECONOMICS & FINANCE

The Shopping Malls Really Are Being Killed By Online Shopping

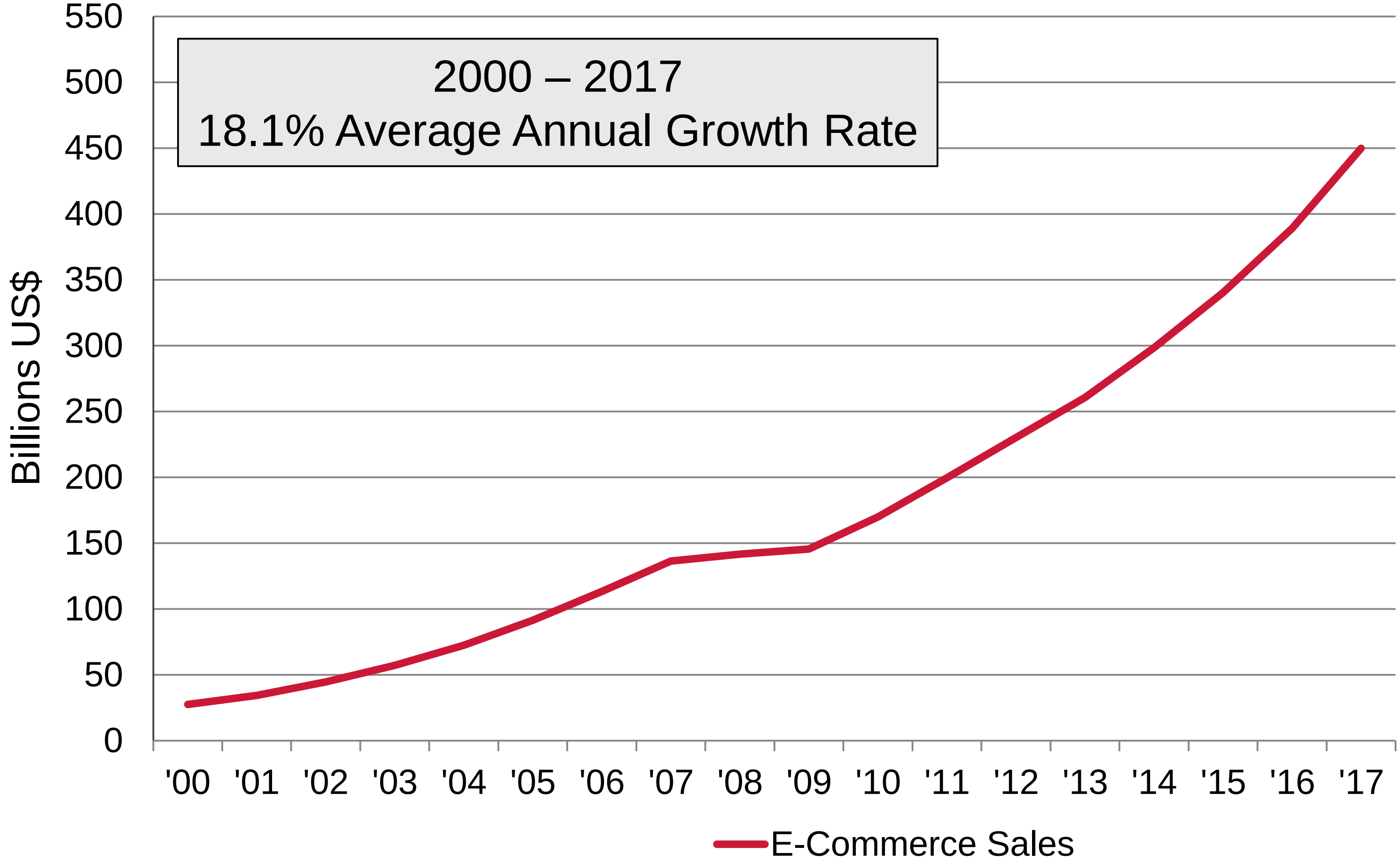
THE WALL STREET JOURNAL.

BUSINESS

Malls Reel as Web Roars

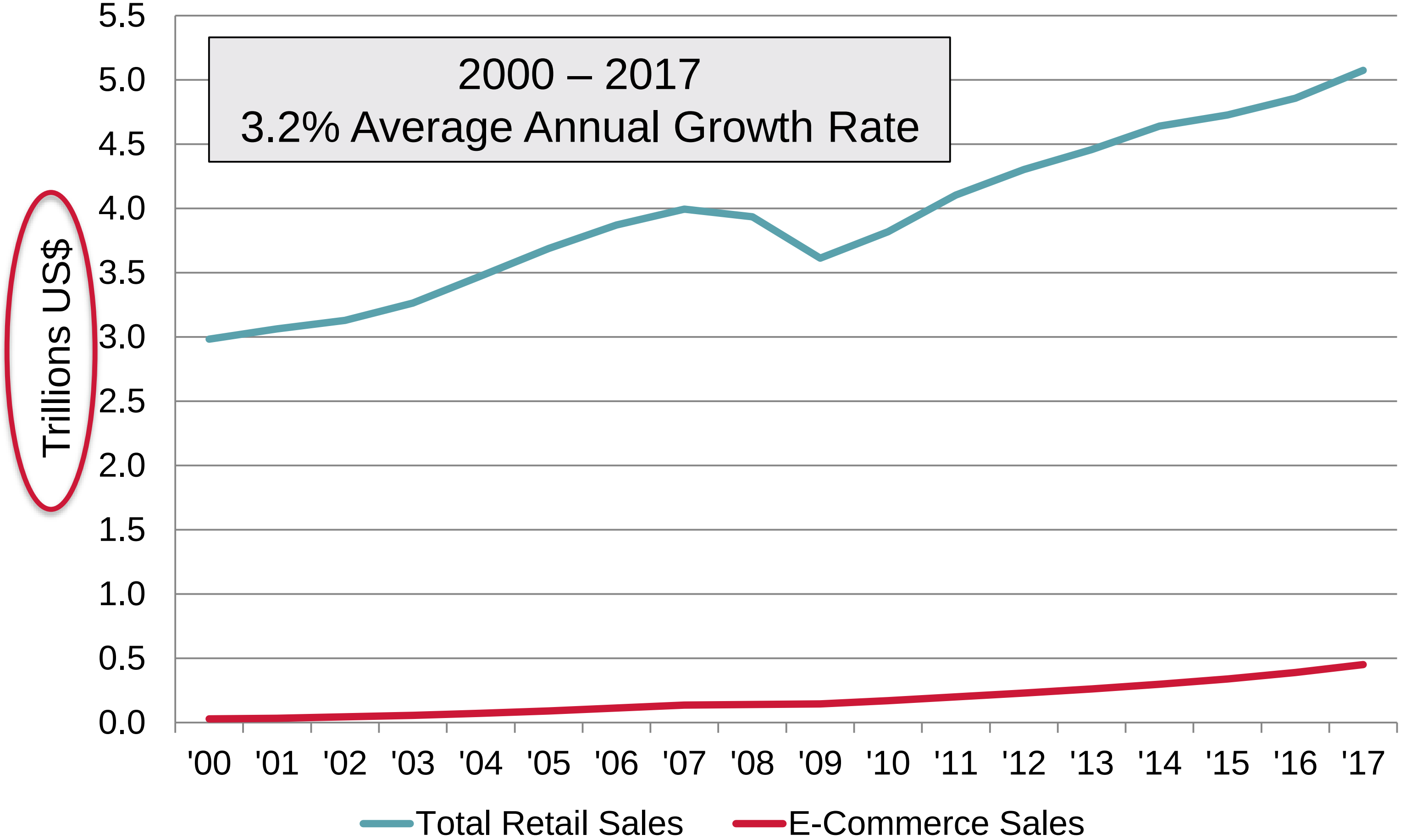
Sources: Time Magazine: August 3, 1998; Los Angeles Times: June 13, 2017; Forbes: January 4, 2015; The Wall Street Journal: December 23, 2015

Unpacking E-Commerce Sales



Source: U.S. Census Bureau: Quarterly E-Commerce Report; ICSC Research

Unpacking E-Commerce Sales



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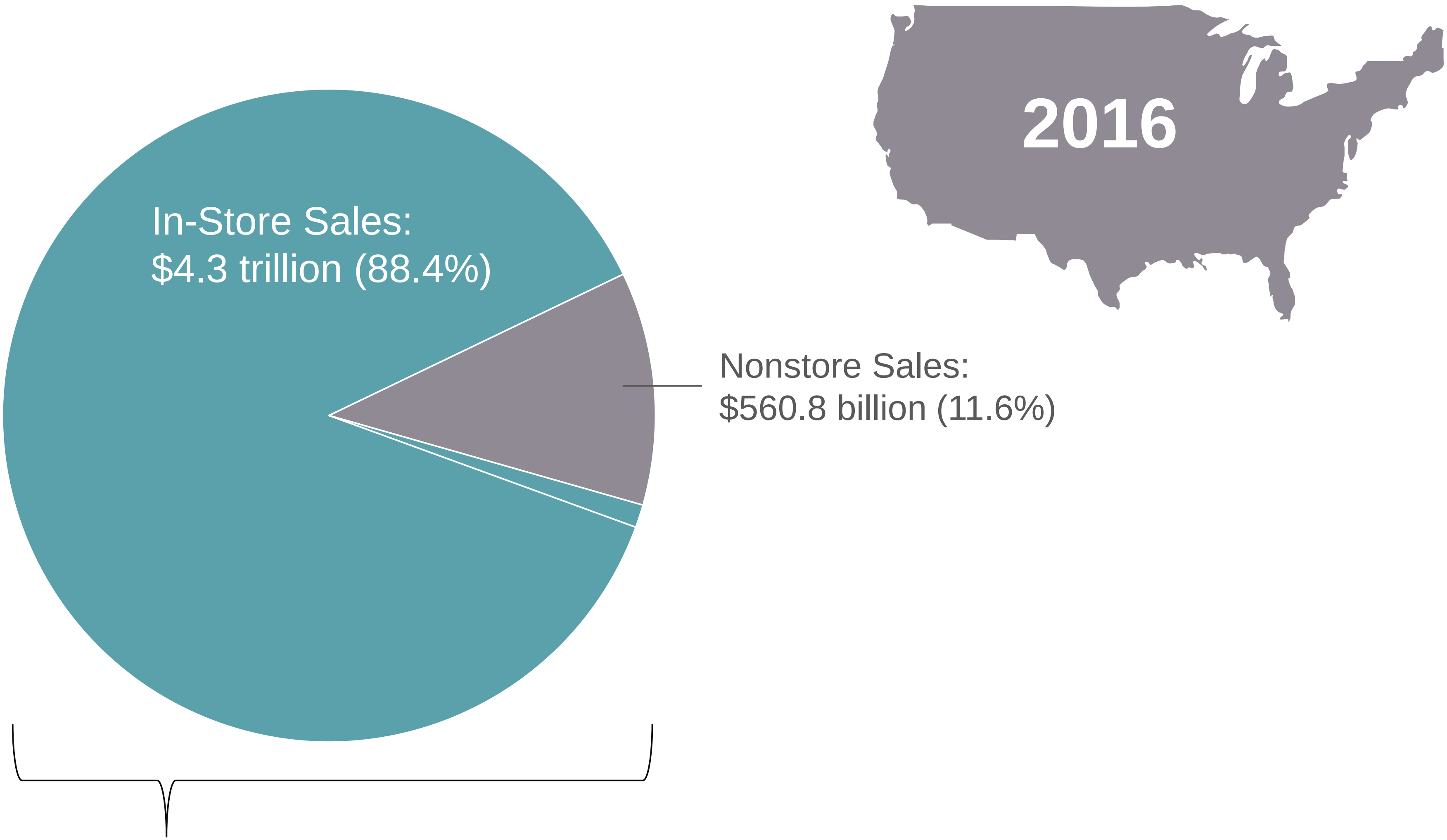
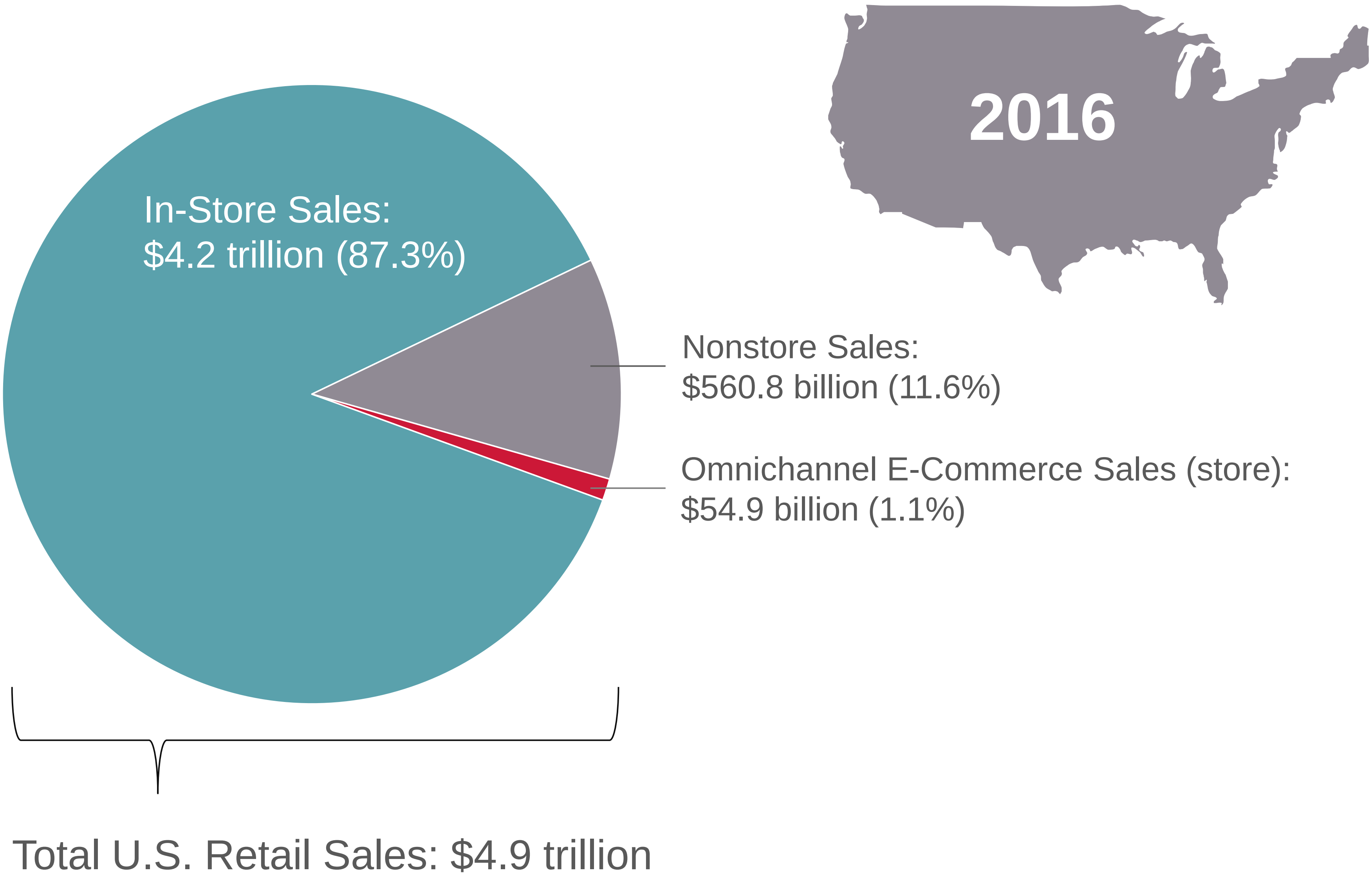
Unpacking E-Commerce Sales



Total U.S. Retail Sales: $4.9 trillion

Source: U.S. Census Bureau: Annual Retail Trade Survey; ICSC Research

Unpacking E-Commerce Sales



Source: U.S. Census Bureau: Annual Retail Trade Survey; ICSC Research

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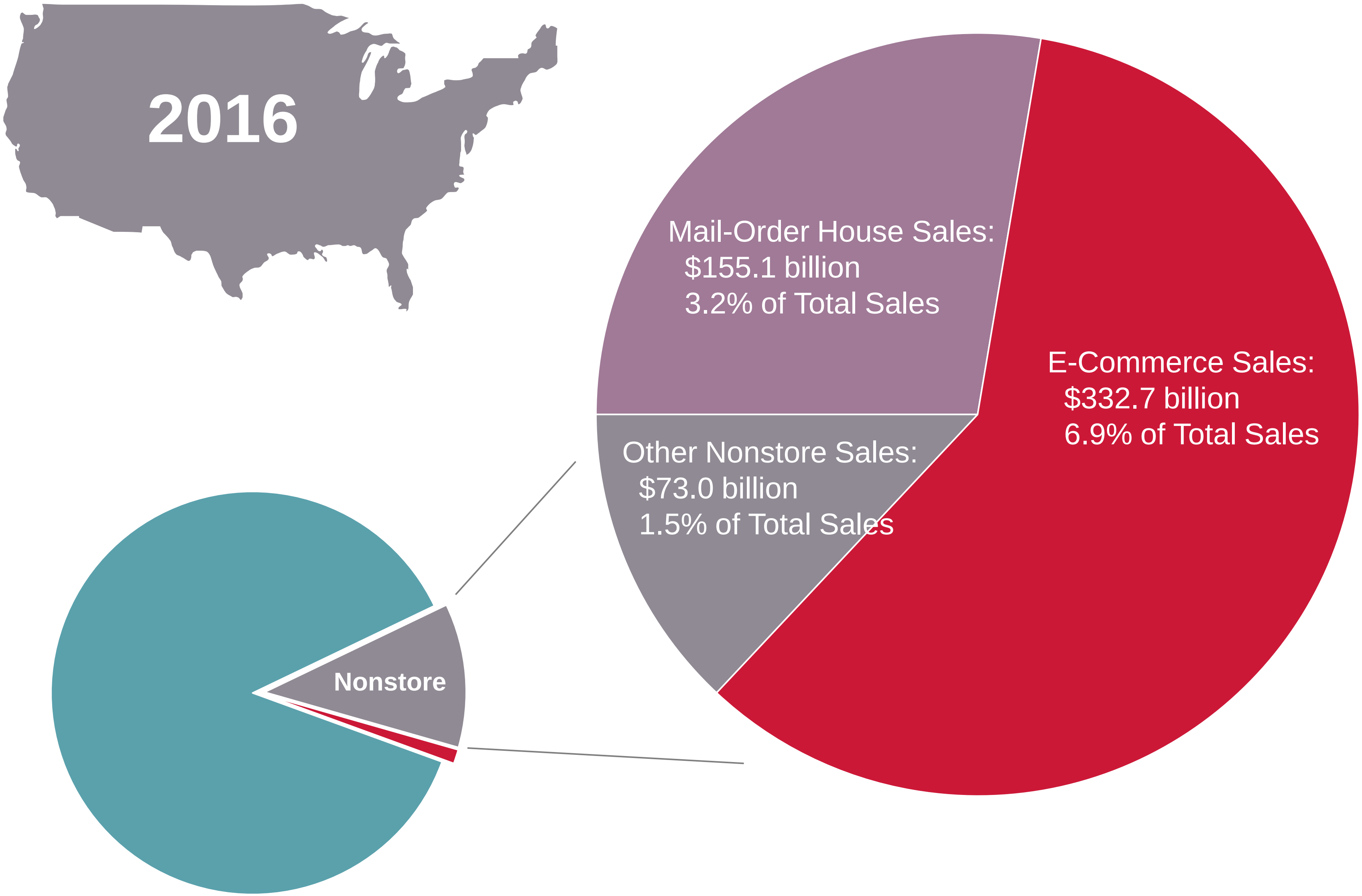
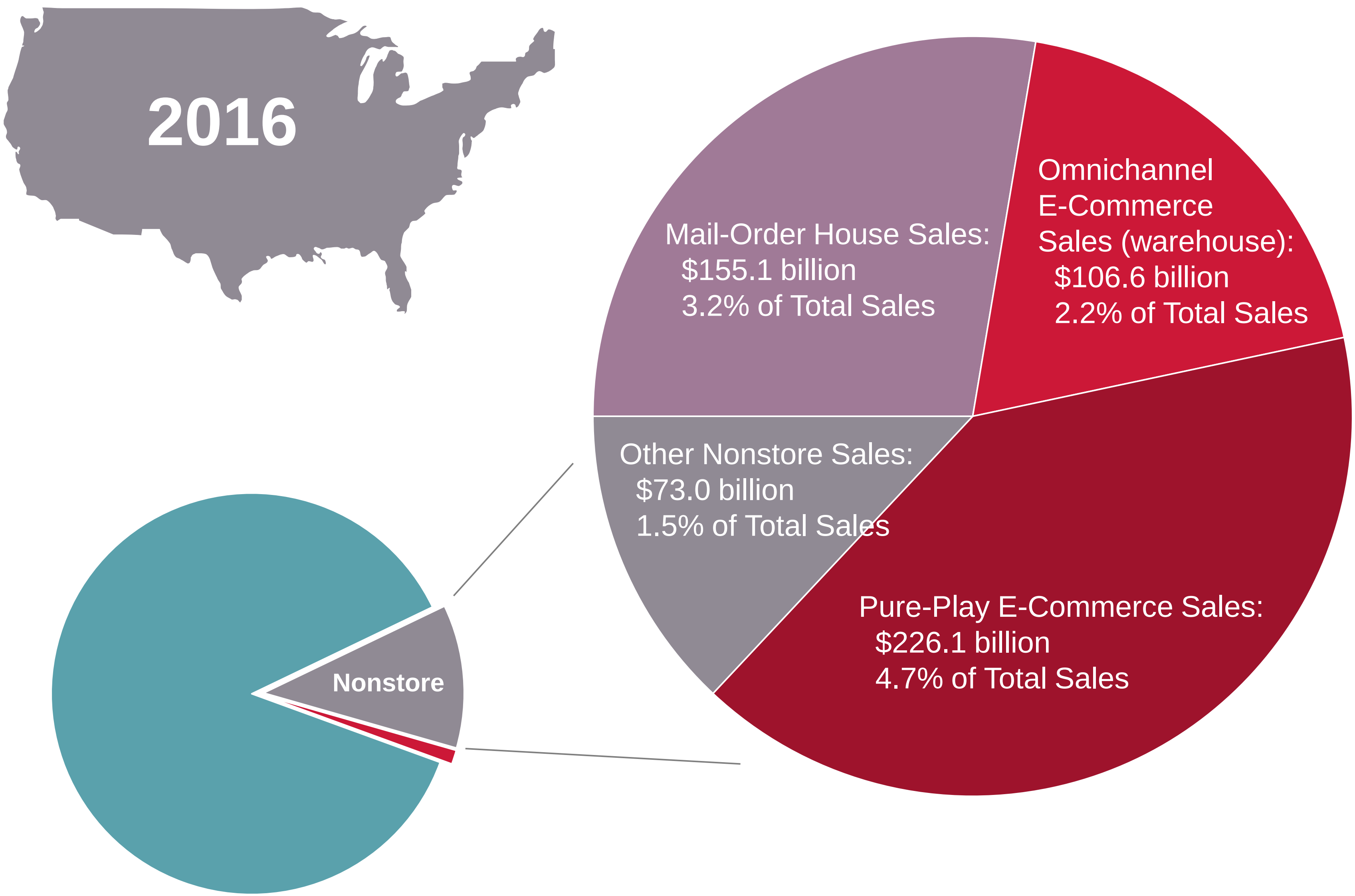


Source: U.S. Census Bureau: Annual Retail Trade Survey; ICSC Research

Unpacking E-Commerce Sales



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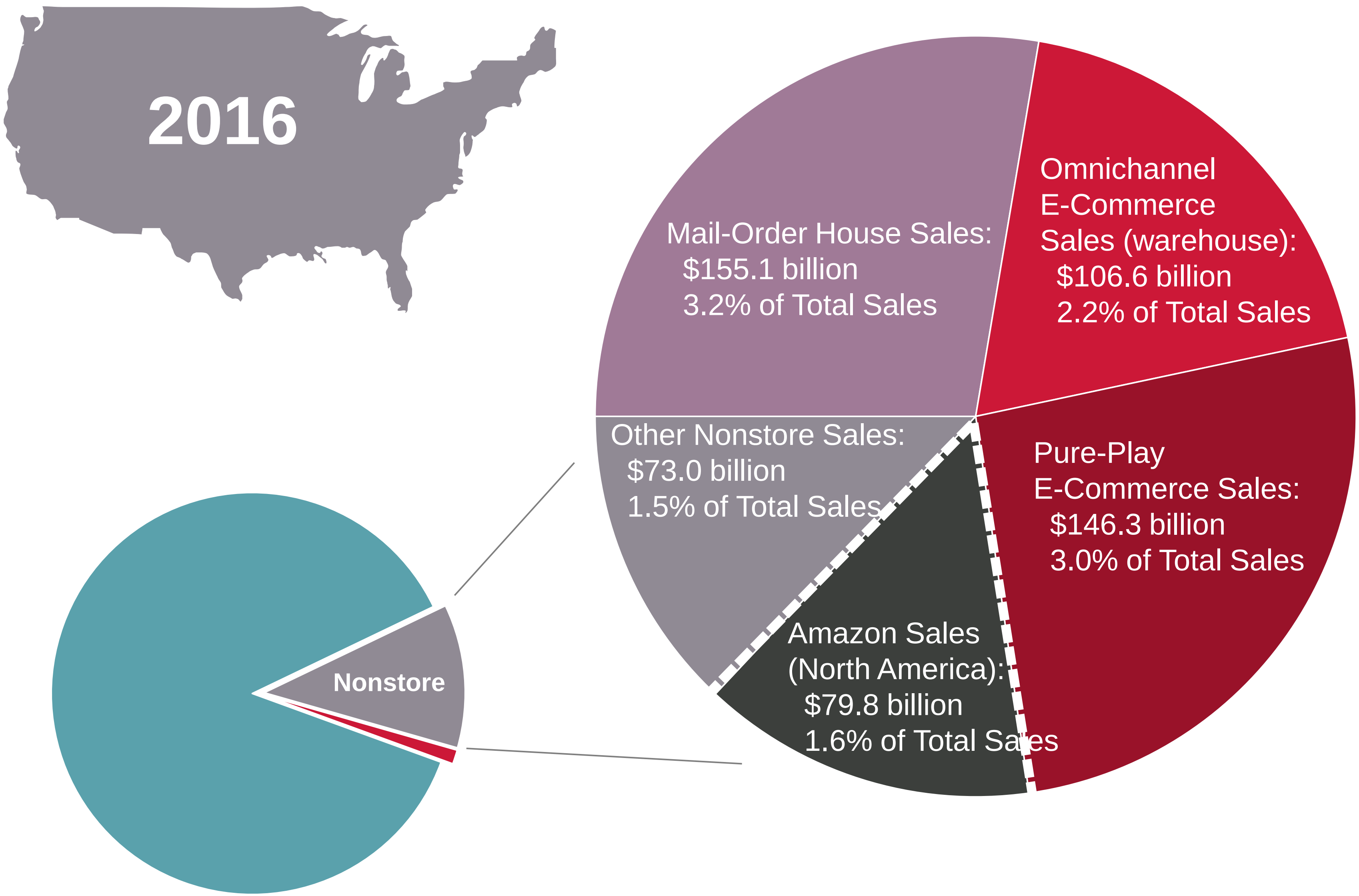
Unpacking E-Commerce Sales



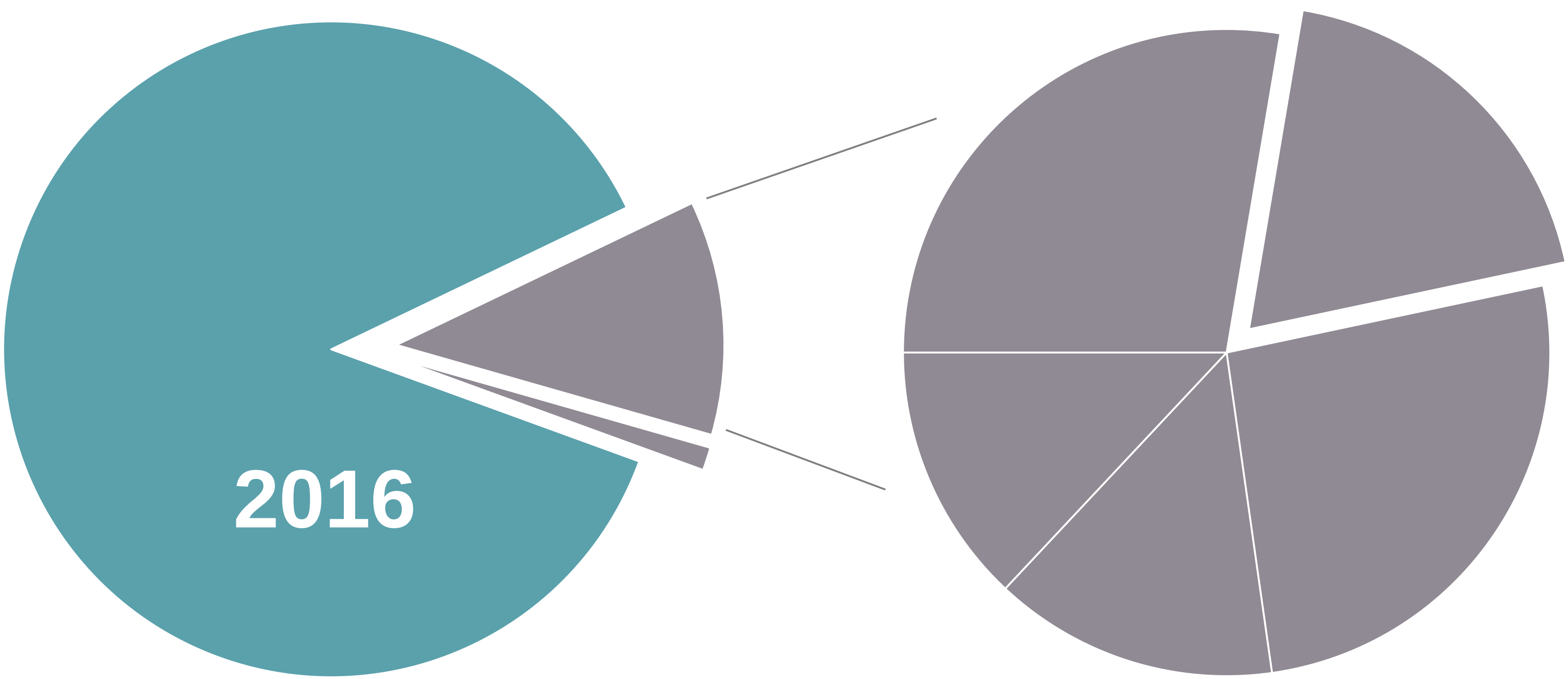
Sources: U.S. Census Bureau: Annual Retail Trade Survey; Amazon.com 2016 Annual Report; ICSC Research

Unpacking E-Commerce Sales

Physical retailers generate 90.6% of all retail sales, either from in-store or online activity:

87.3% + 1.1% + 2.2% = 90.6%

In-Store Sales



Source: U.S. Census Bureau: Annual Retail Trade Survey; ICSC Research

Unpacking E-Commerce Sales

Physical retailers generate 90.6% of all retail sales, either from in-store or online activity:

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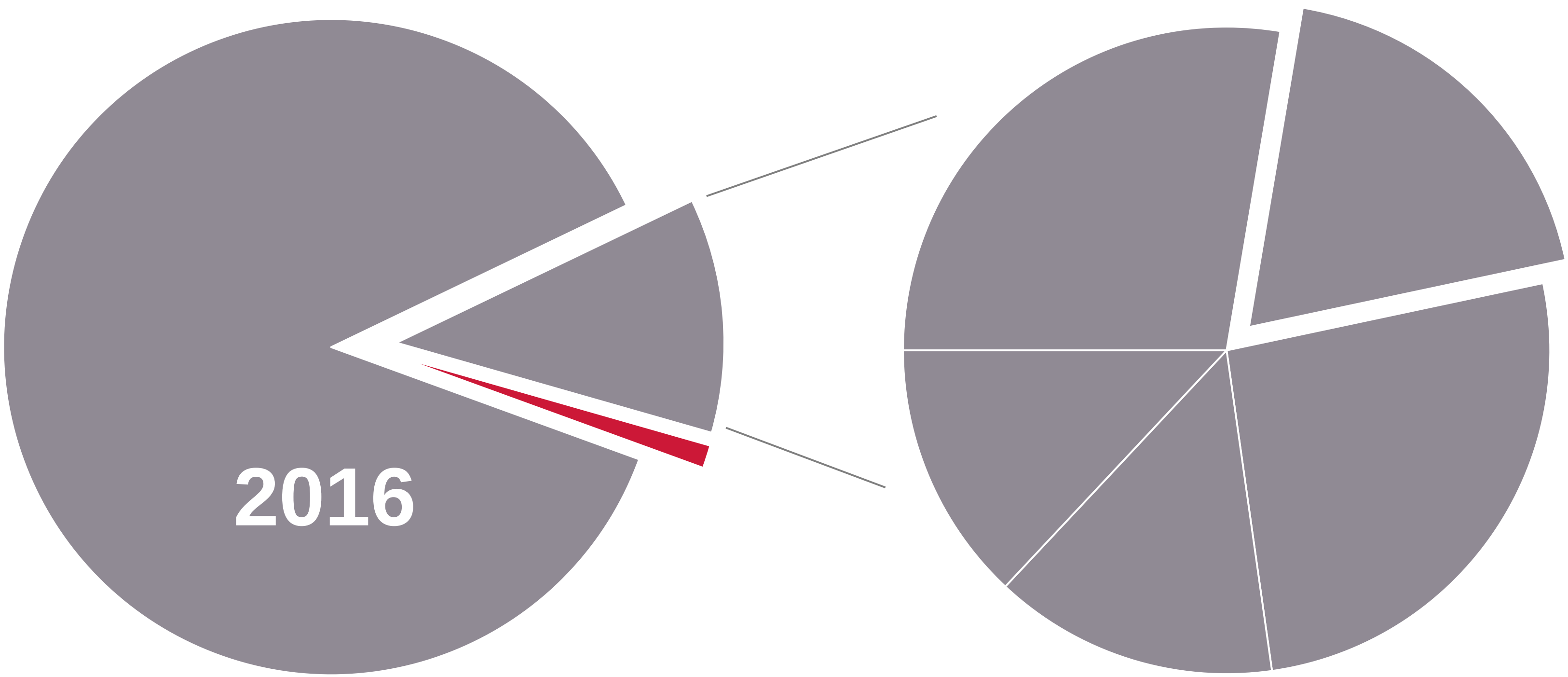
Omnichannel E-Commerce Sales (store)



Source: U.S. Census Bureau: Annual Retail Trade Survey; ICSC Research

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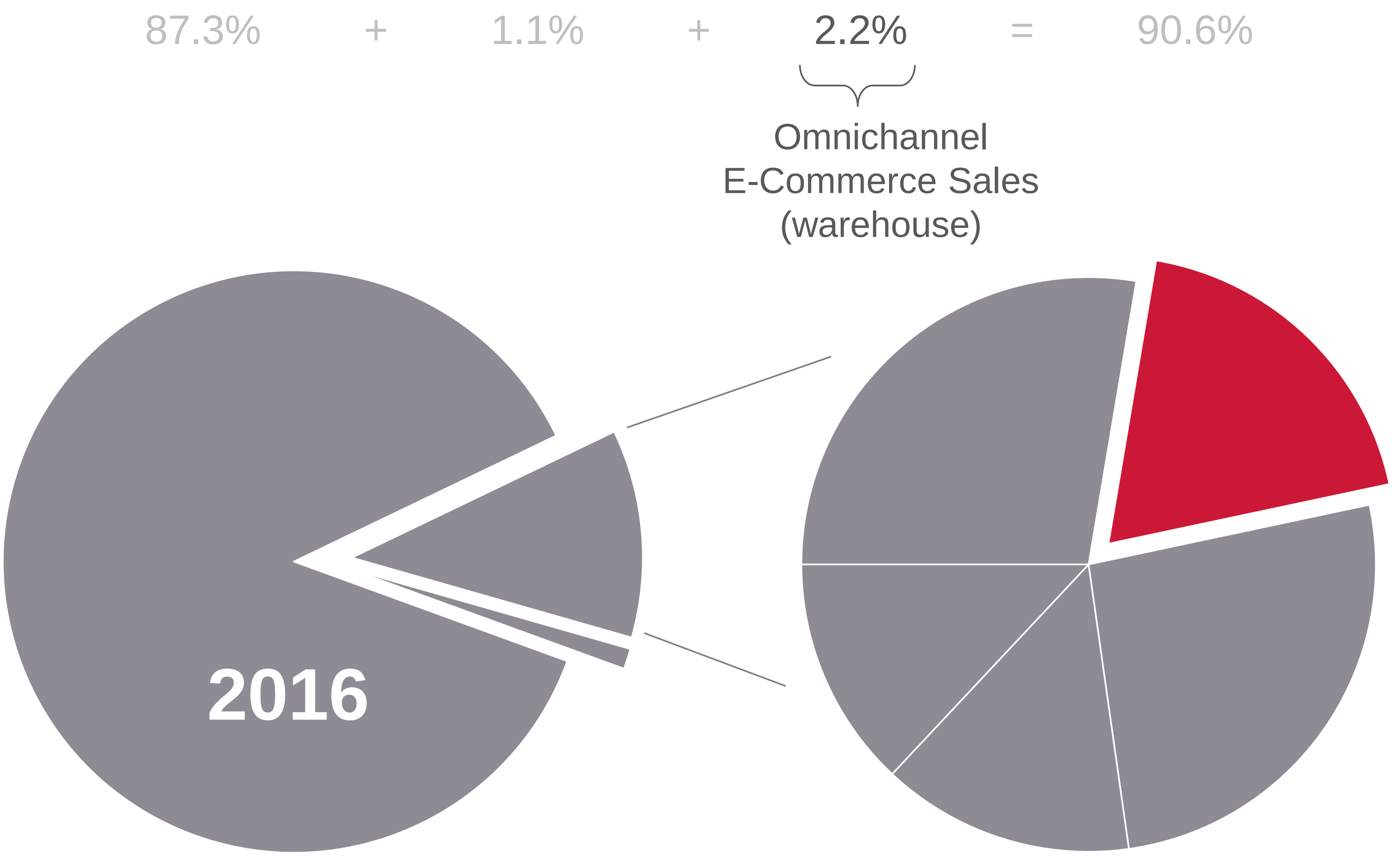

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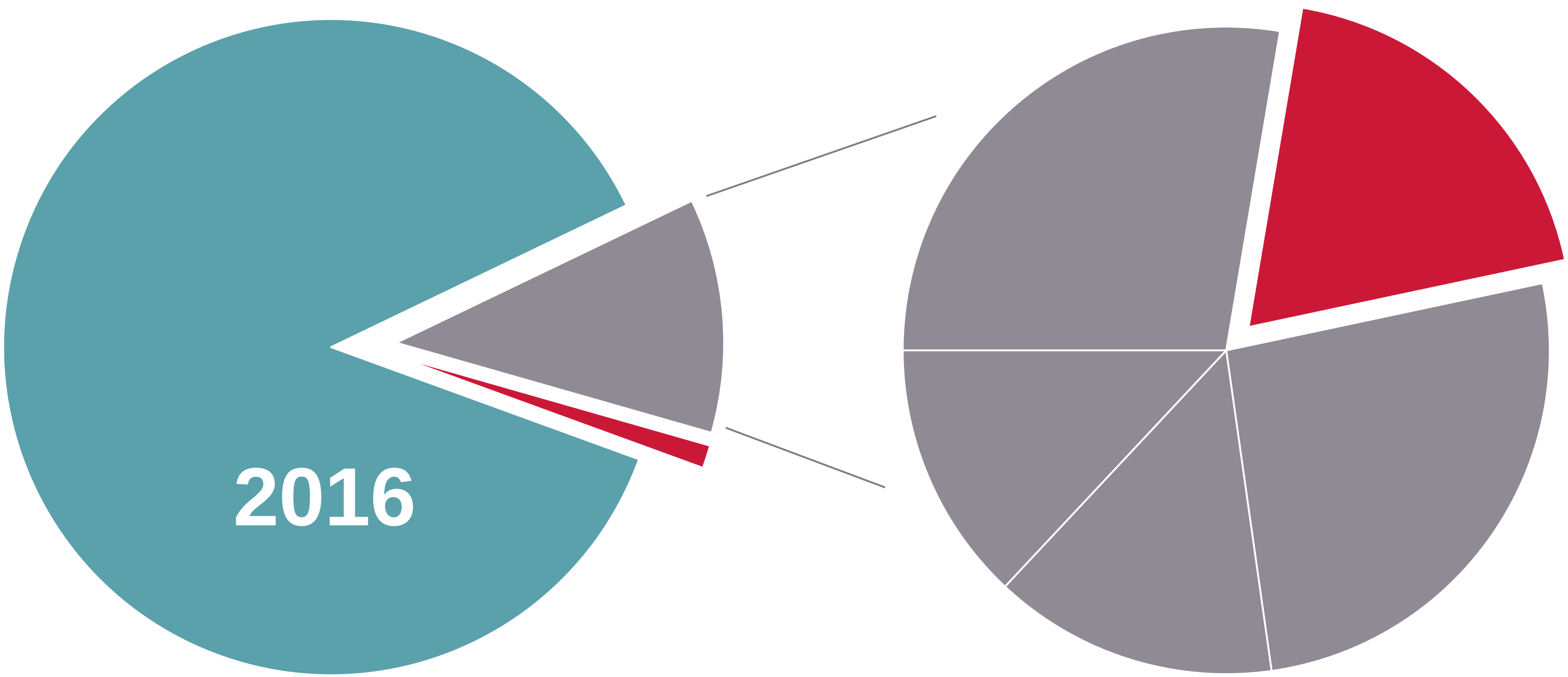
Unpacking E-Commerce Sales

Physical retailers generate 90.6% of all retail sales, either from in-store or online activity:

87.3%	+	1.1%	+	2.2%	=	90.6%
In-Store Sales		Omnichannel E-Commerce Sales (store)		Omnichannel E-Commerce Sales (warehouse)		



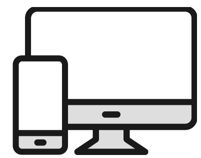
Source: U.S. Census Bureau: Annual Retail Trade Survey; ICSC Research

The "Halo Effect"

Store Value
- Brand Awareness
- Showcase
- Point of Sale
- Fulfillment
- "Halo Effect"

Walmart average annual spend:

In-store only shopper:
$1,400



Online only shopper:
$200

Dual platform shopper:
$2,500

> *"There's a misperception out there that when we close a store, that business transfers online. When we close a store, particularly in a small market, we see our dot-com business go down."*
>
> \- JC Penney's CFO

Sources: Fortune Magazine: October 16, 2015; Wall Street Journal: April 24, 2016

Convergence

Walmart

jet

SHOES.COM

Moosejaw

BONOBOS

Flipkart

amazon

amazon books

amazon go

WHOLE FOODS MARKET

E-Commerce: Grocery

E-Commerce: Grocery

Penetration Rate: 2016

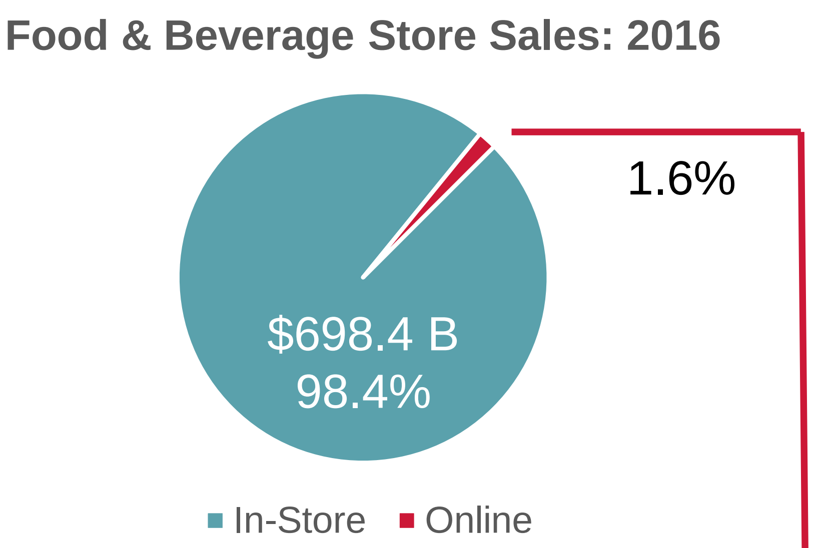
- NAICS 445: Food & Beverage Stores had one of the lowest e-commerce penetration rates of any of the major retail industry sectors.

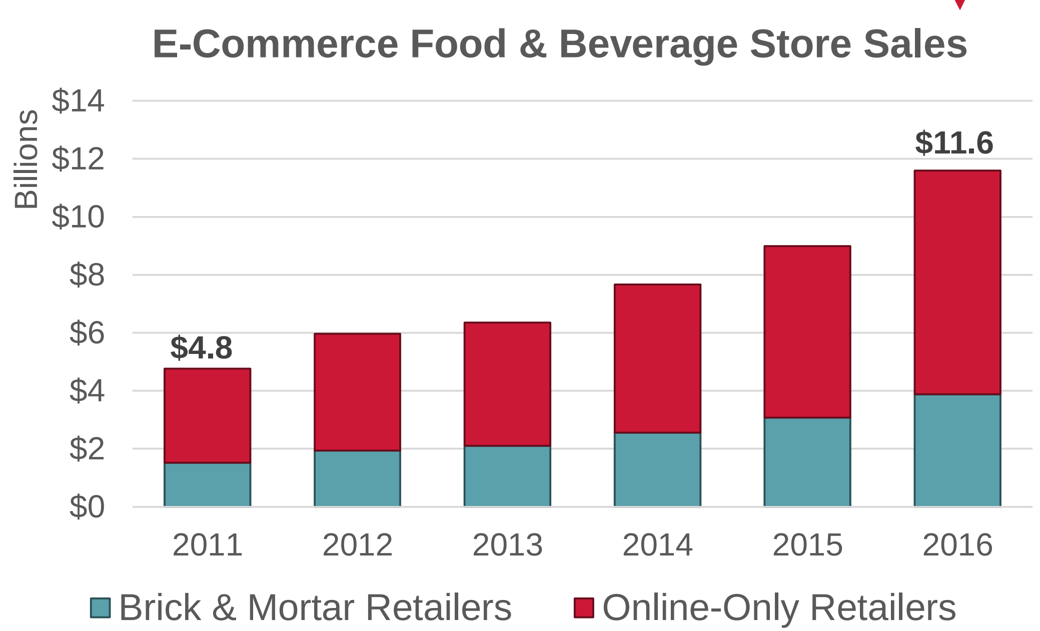
Growth Rates: 2011-2016

- In-Store F&B Sales: 14.8%
- Online F&B Sales: 143.5%

Forecast: 2022

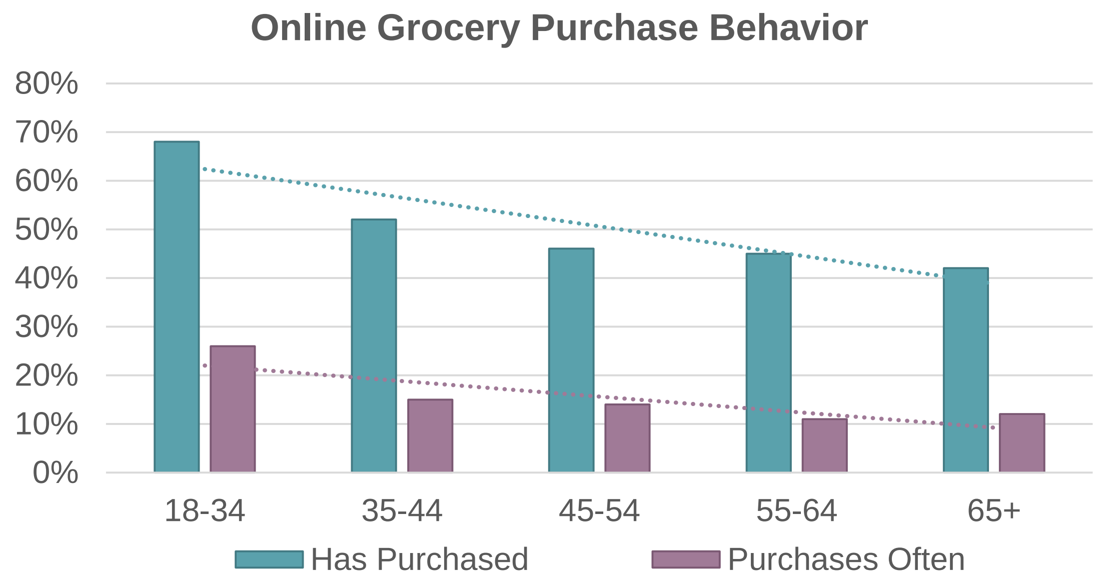
- Euromonitor:
    - Level: $27.4 B
    - Share: ~2.2%
- Food Marketing Institute & Nielsen:
    - Level: $100.0 B
    - Share: ~8.0%

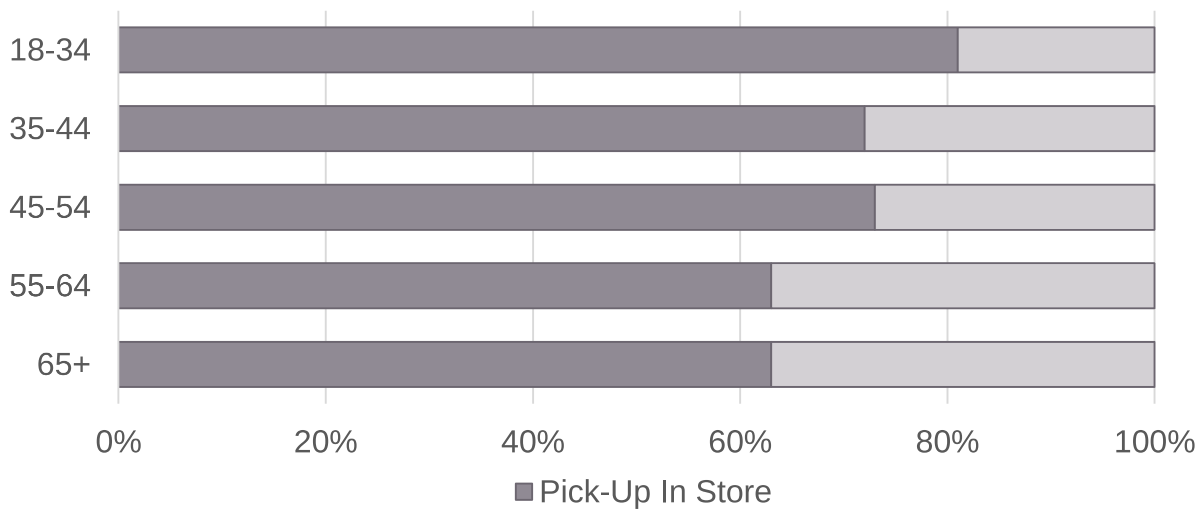




Sources: U.S. Census Bureau: Annual Retail Trade Survey; Euromonitor; Food Marketing Institute; Nielsen; ICSC Research

E-Commerce: Grocery





Sources: ICSC Research

Amazon & Bricks & Mortar: Cost of Last Mile

The last mile accounts for 50% or more of total parcel delivery costs.

amazon

	Year Ended December 31,		
	2014	2015	2016
Outbound Shipping Activity:			
Shipping revenue (1)(2)(3)	$ 4,486	$ 6,520	$ 8,976
Shipping costs (4)	(8,709)	(11,539)	(16,167)
Net shipping cost	$ (4,223)	$ (5,019)	$ (7,191)
Year-over-year Percentage Growth:			
Shipping revenue	45%	45%	38%
Shipping costs	31	32	40
Net shipping cost	19	19	43

(1) Excludes amounts charged on shipping activities by third-party sellers where we do not provide the fulfillment service.
(2) Includes a portion of amounts earned from Amazon Prime memberships.
(3) Includes amounts earned from Fulfillment by Amazon programs related to shipping services.
(4) Includes sortation and delivery centers and transportation costs.

Source: McKinsey & Company; Amazon.com Inc.: 2016 Annual Report

The Prime Disruptor?

The Motley Fool

Everything You Know About the Internet Killing Retail May Be Wrong

Forbes

Five Signs That Stores (Not E-Commerce) Are The Future Of Retail

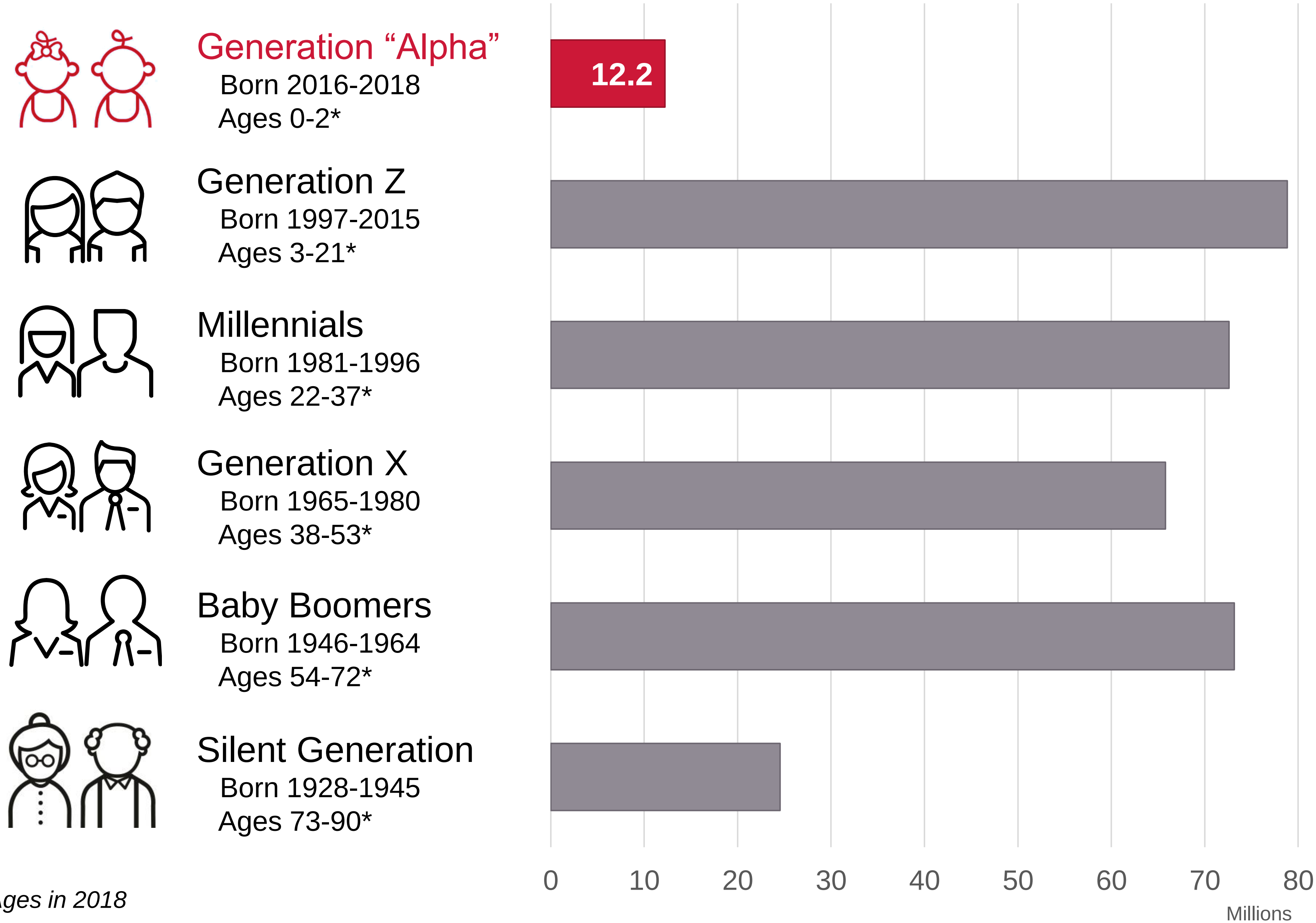
abc NEWS

Online shopping hasn't killed brick-and-mortar retailers

Sources: Motley Fool: April 3, 2017; Forbes: June 27, 2017; ABC News: October 12, 2017

A Consumer-Led Disruption

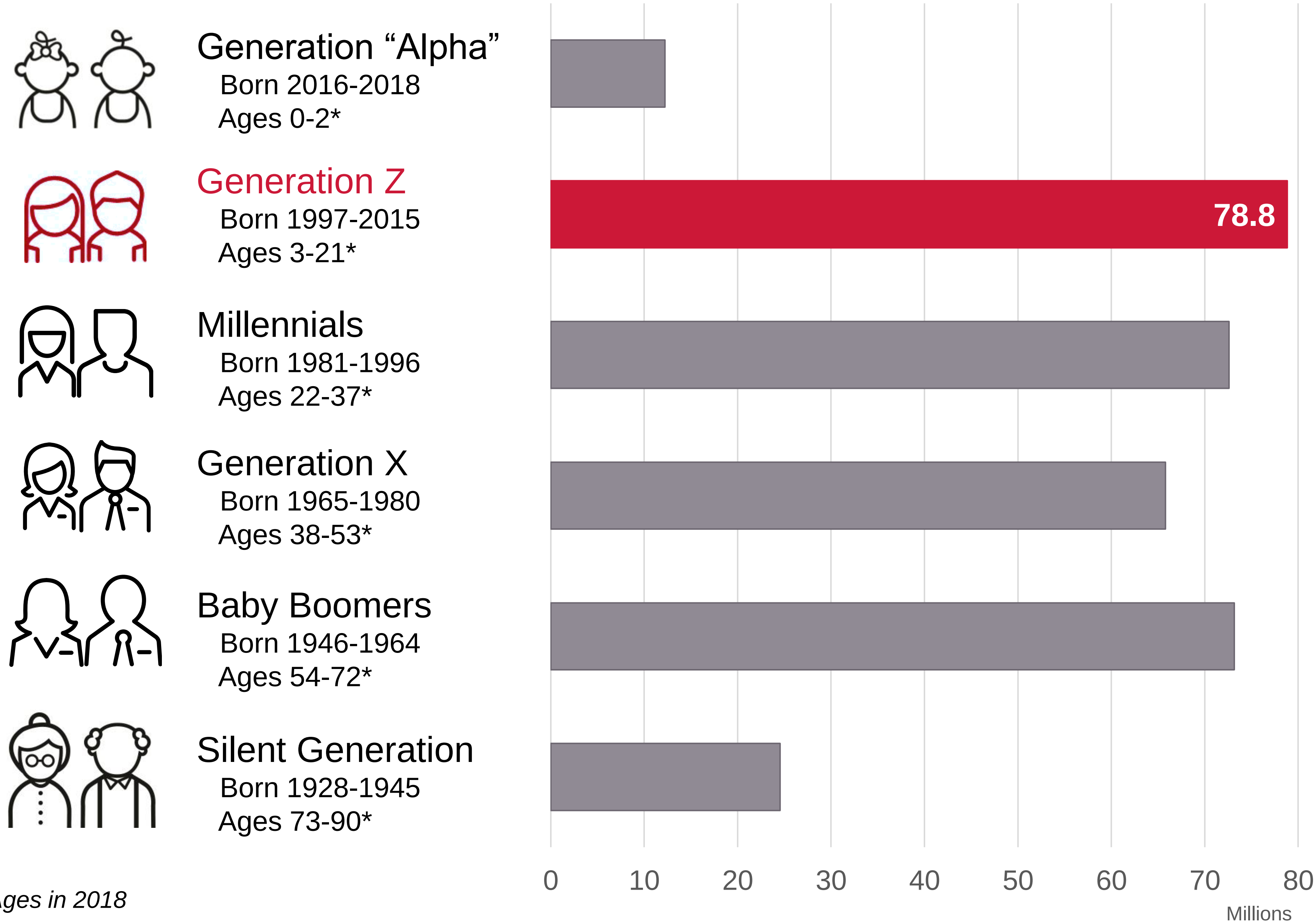
Generational Cohorts



**Ages in 2018*

Sources: Pew Research Center; Kasasa; ICSC Research

Generational Cohorts



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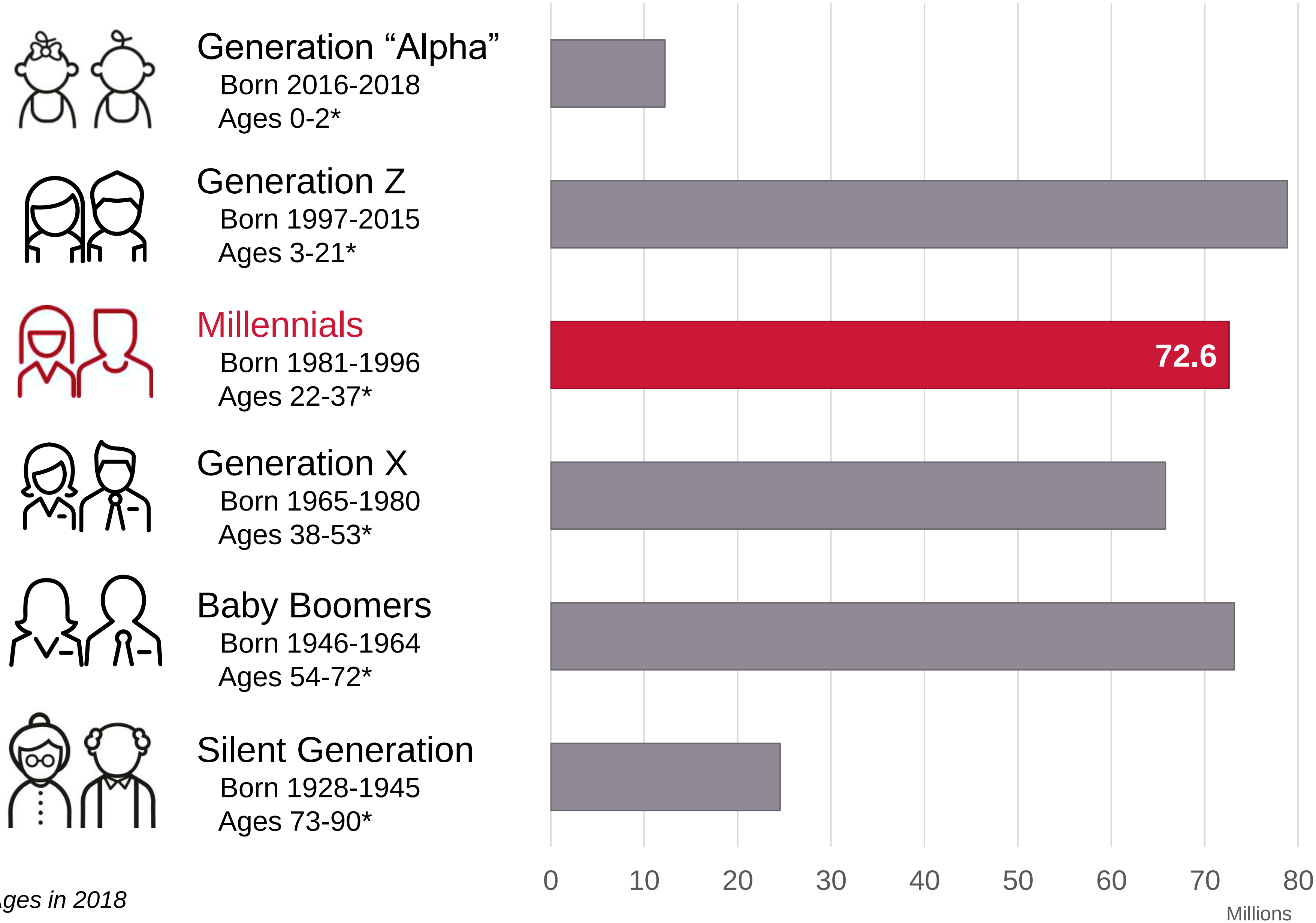
Sources: Pew Research Center; Kasasa; ICSC Research

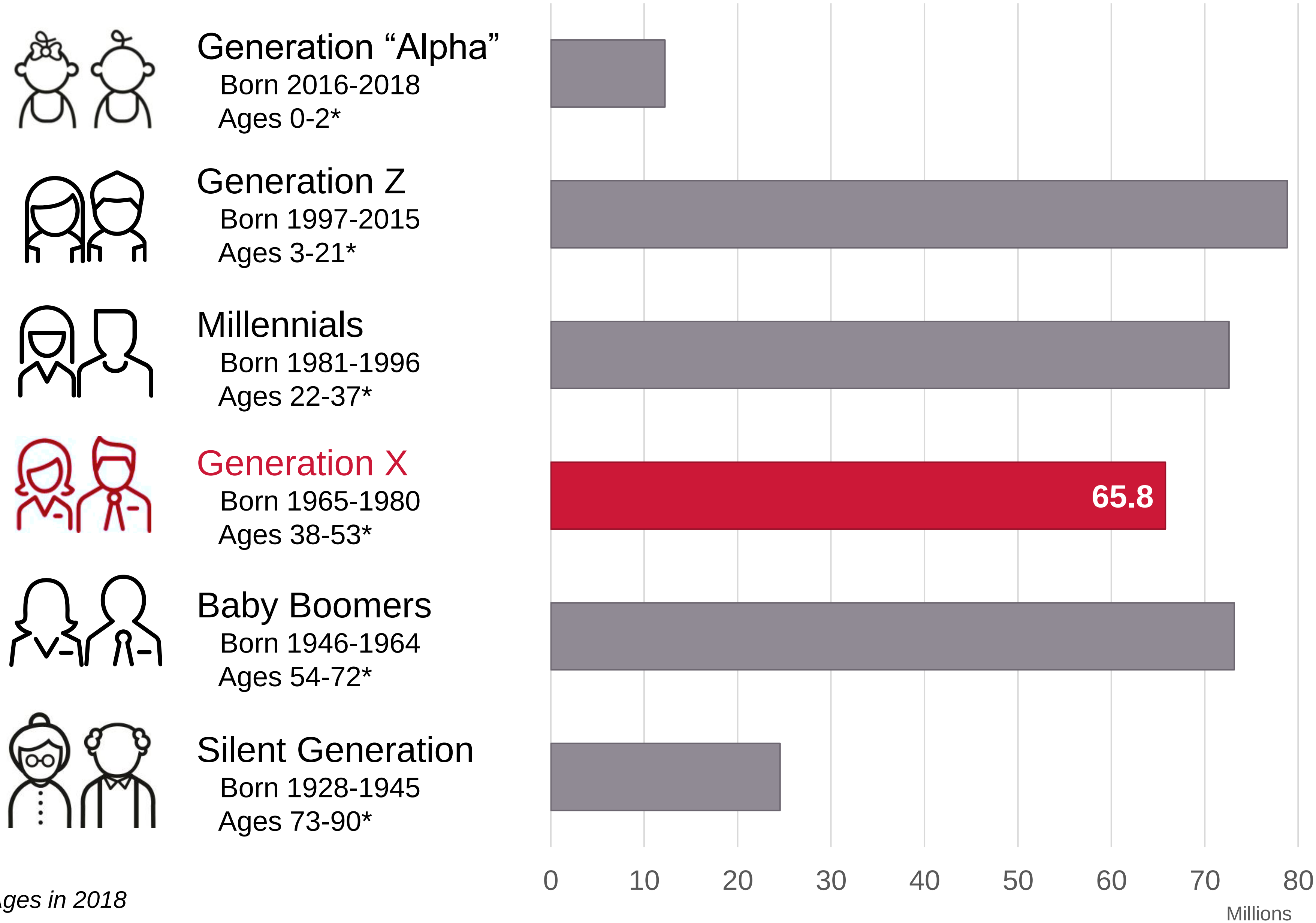
Generational Cohorts



Ages in 2018

Sources: Pew Research Center; Kasasa; ICSC Research

Generational Cohorts



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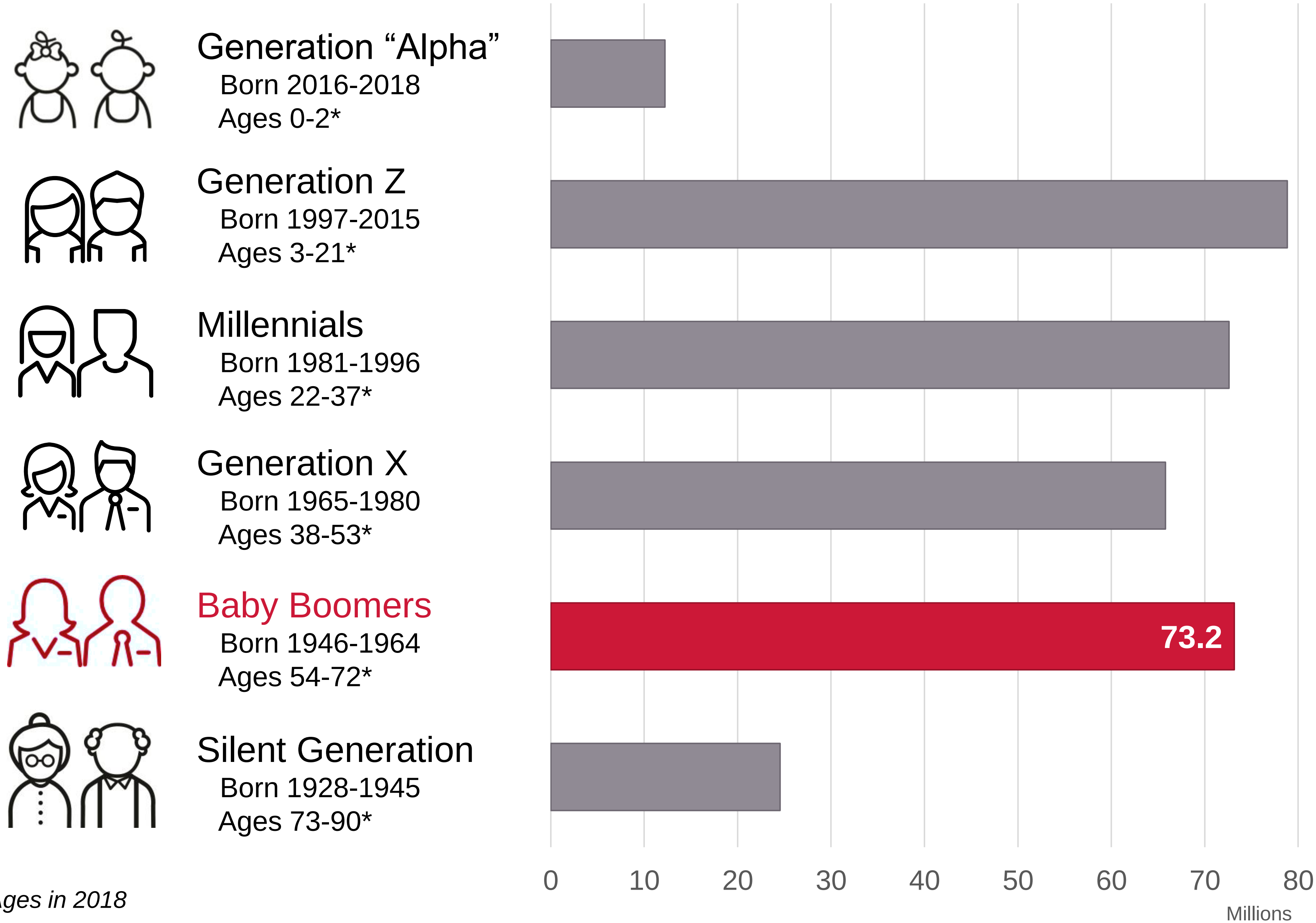

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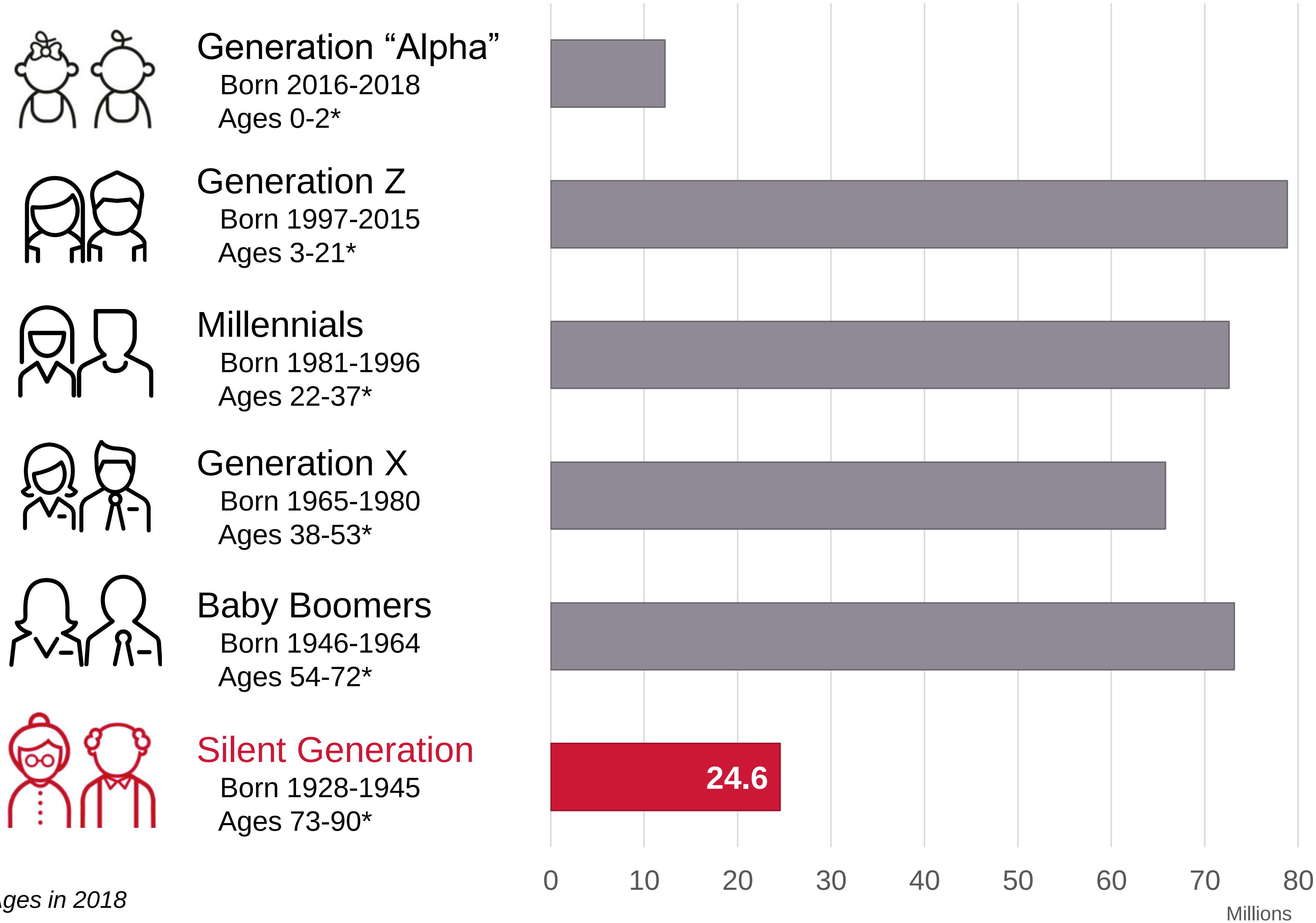

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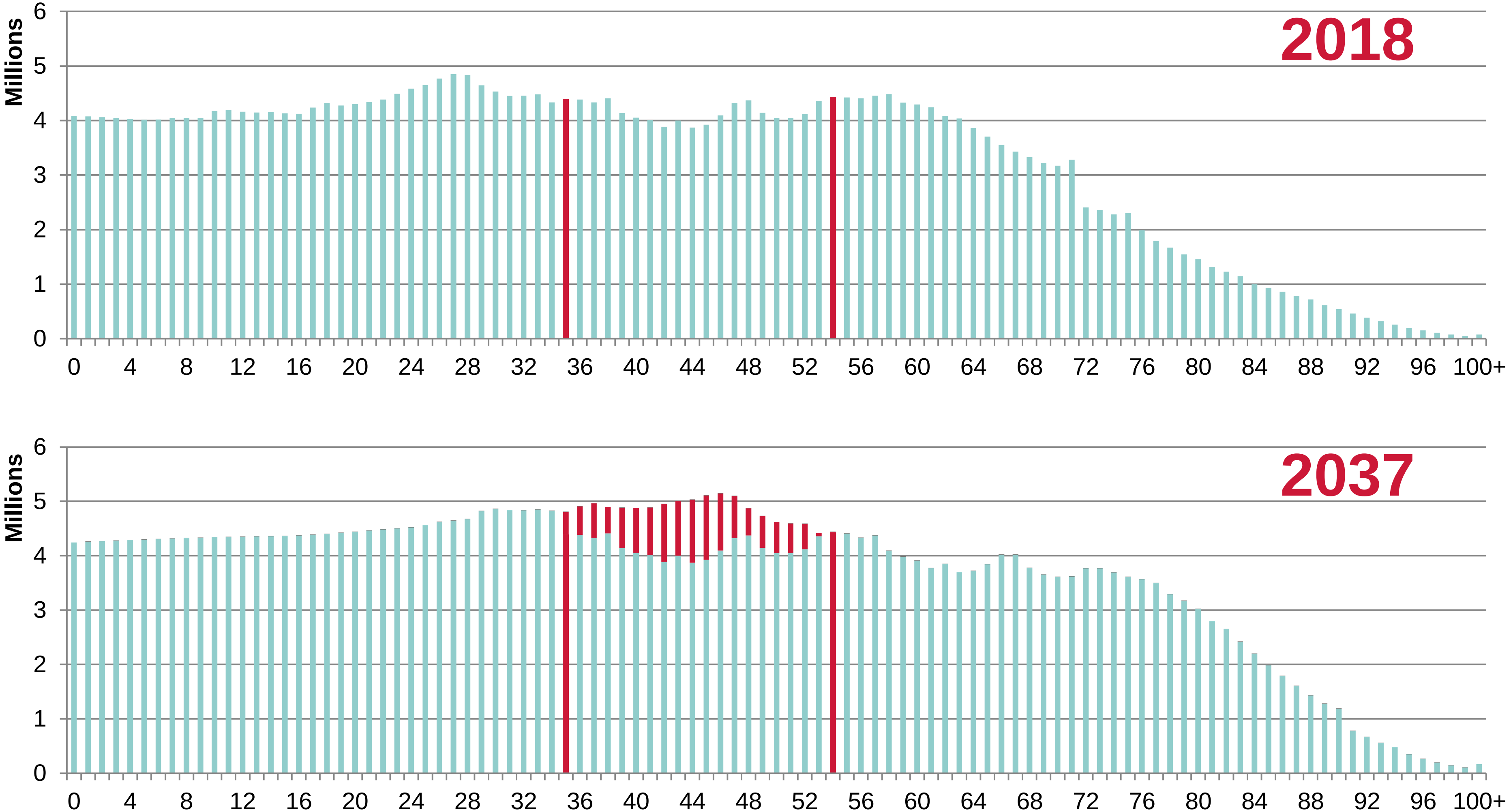
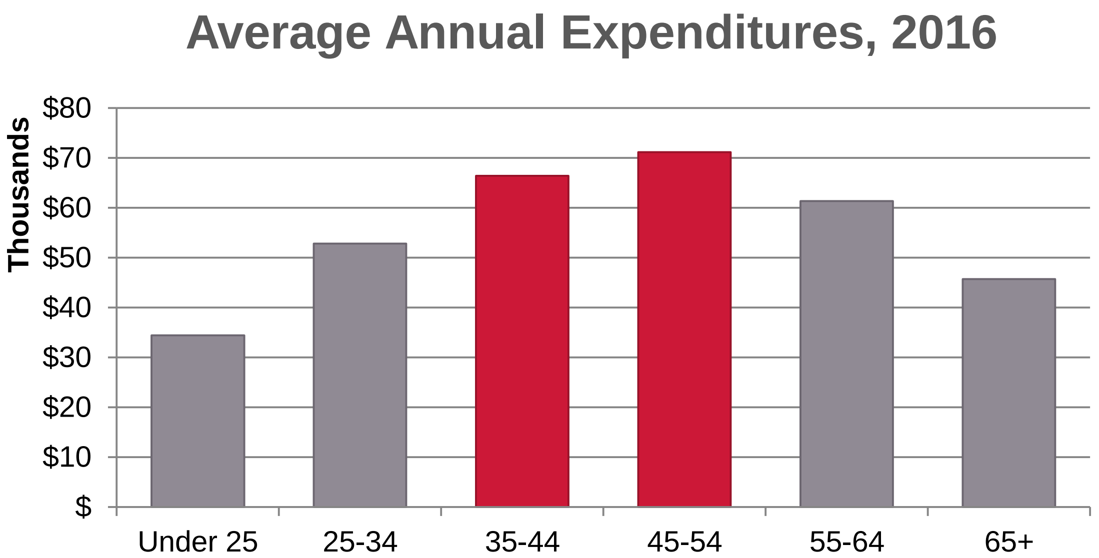
Restocking Prime Consumers



Sources: U.S. Census Bureau; ICSC Research

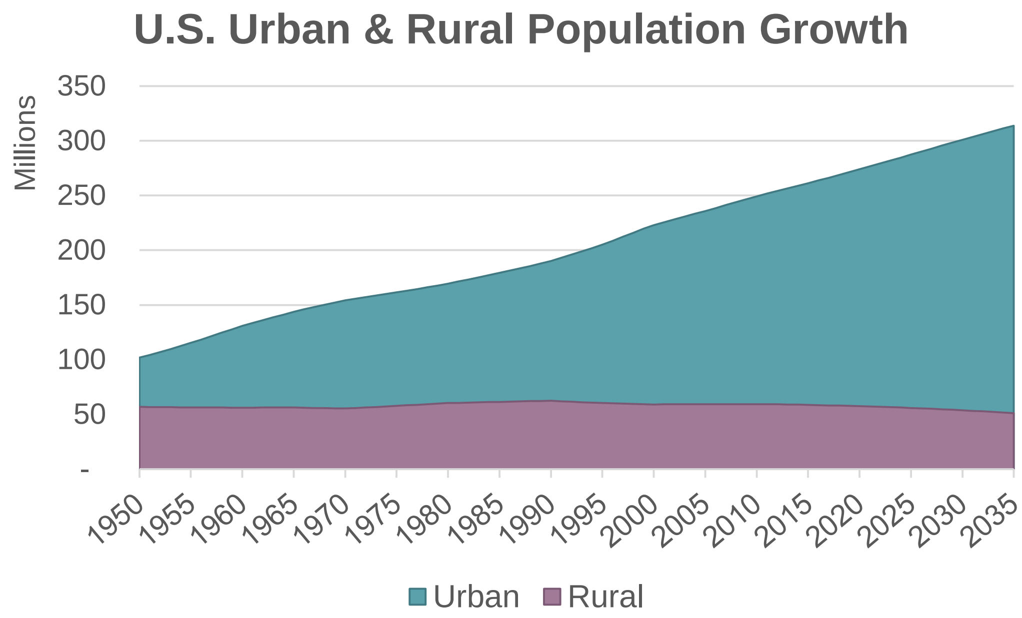
Restocking Prime Consumers

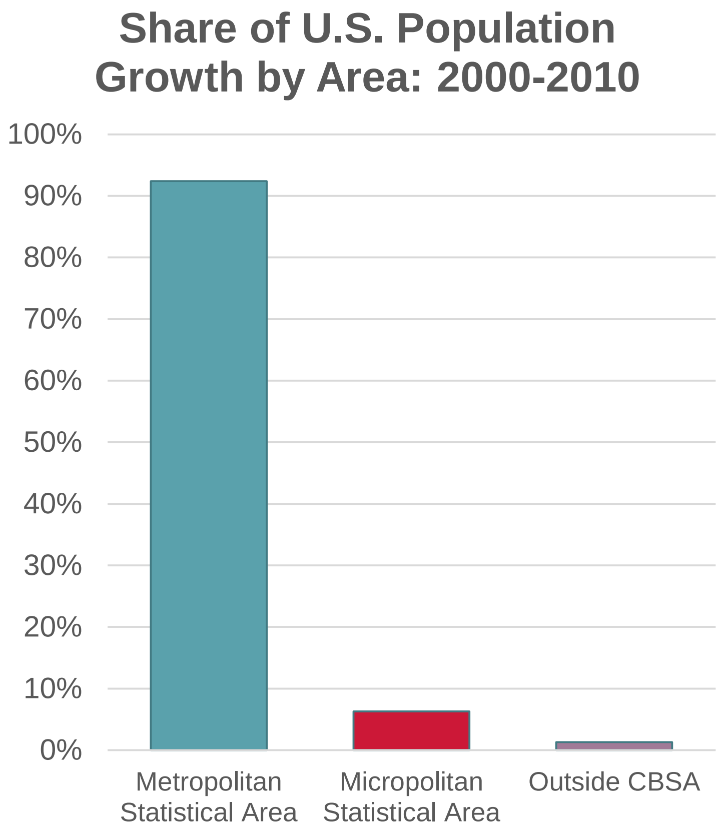


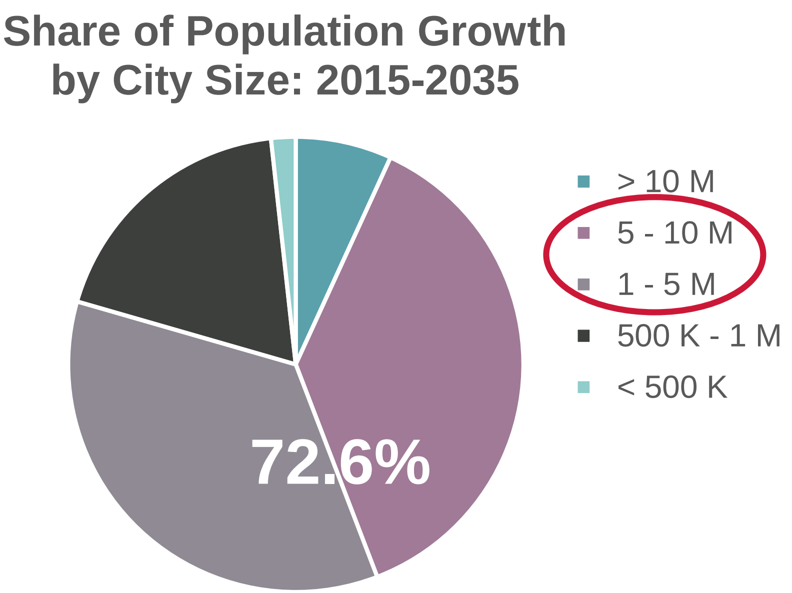
In 2016, 35-54 year-olds accounted for 42% of the annual aggregate expenditures while only accounting for 26% of the population.

Sources: U.S. Bureau of Labor Statistics; ICSC Research

Urbanization

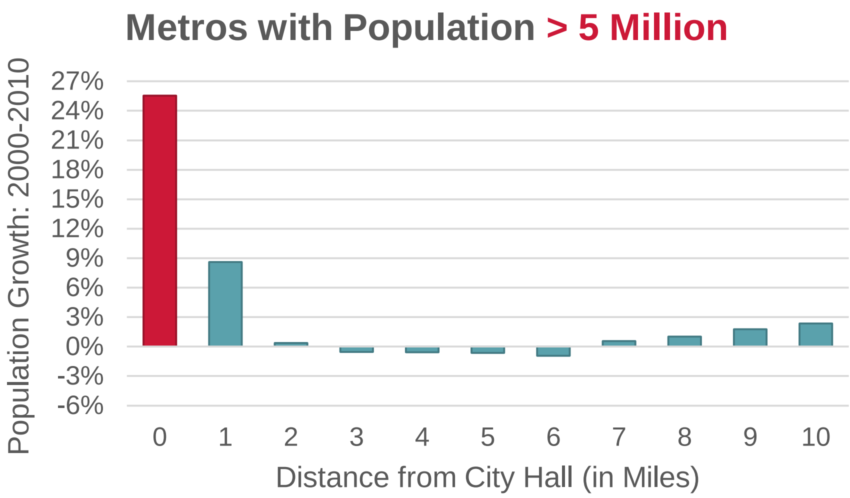


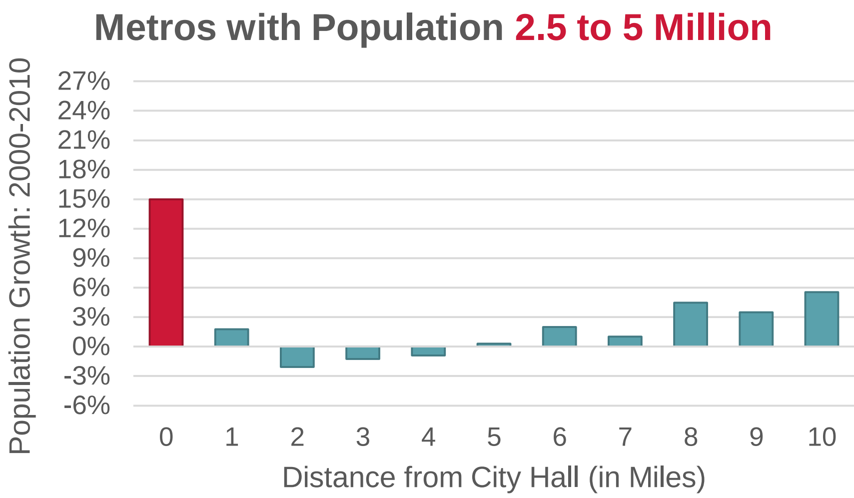


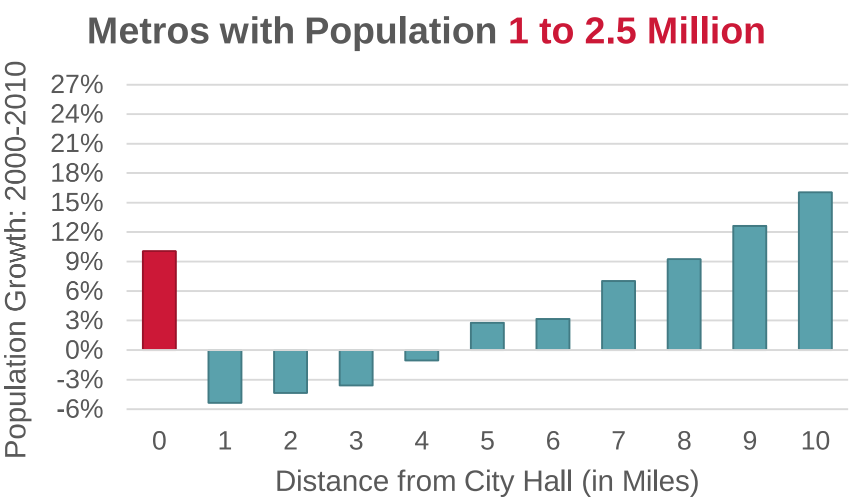


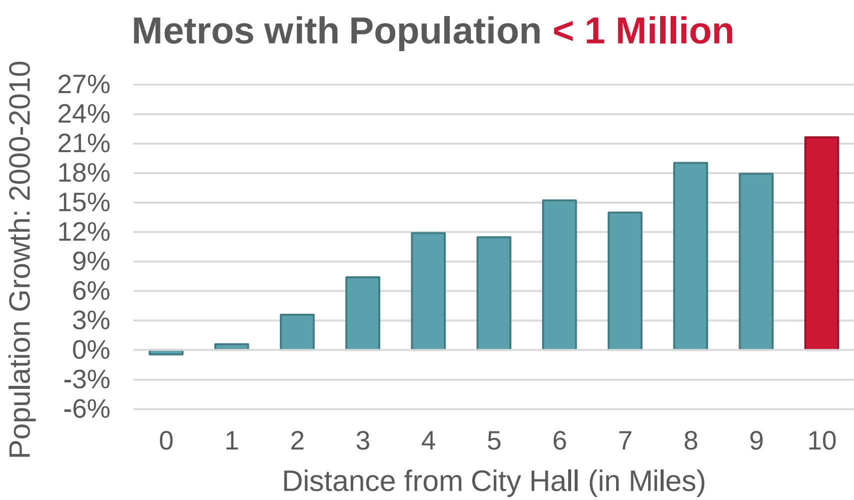
Sources: U.S. Census Bureau; United Nations; ICSC Research

Densification



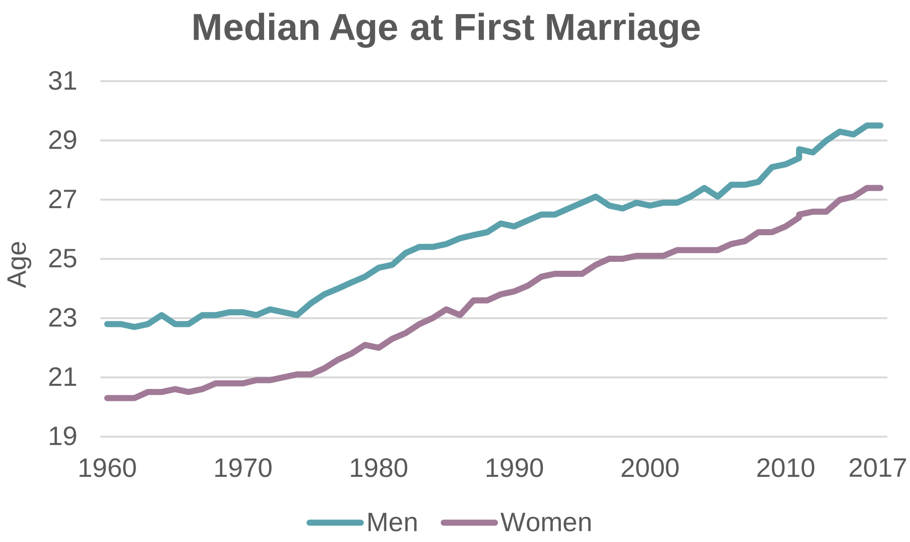


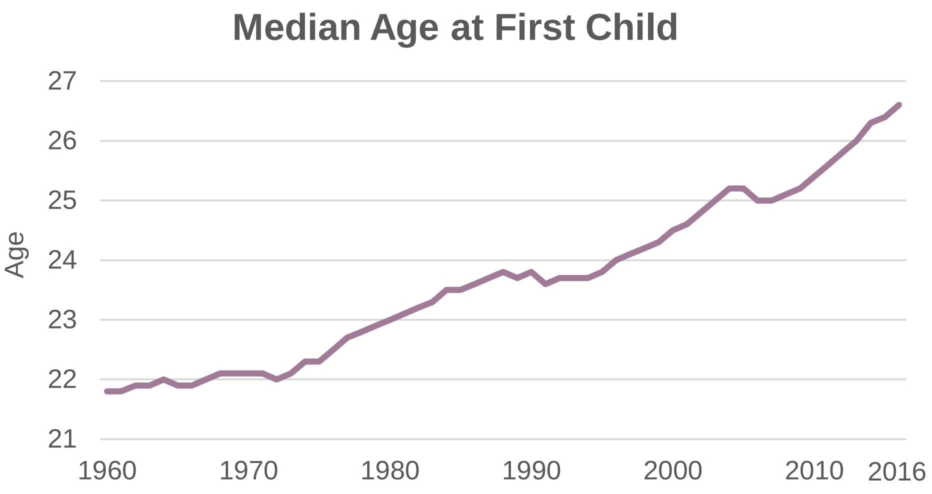


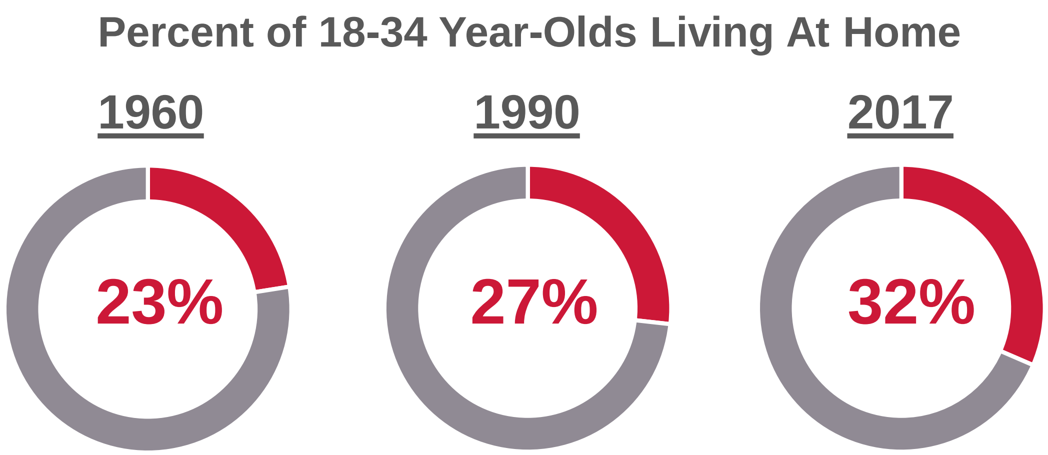


Sources: U.S. Census Bureau; ICSC Research

From Demographics to Psychographics

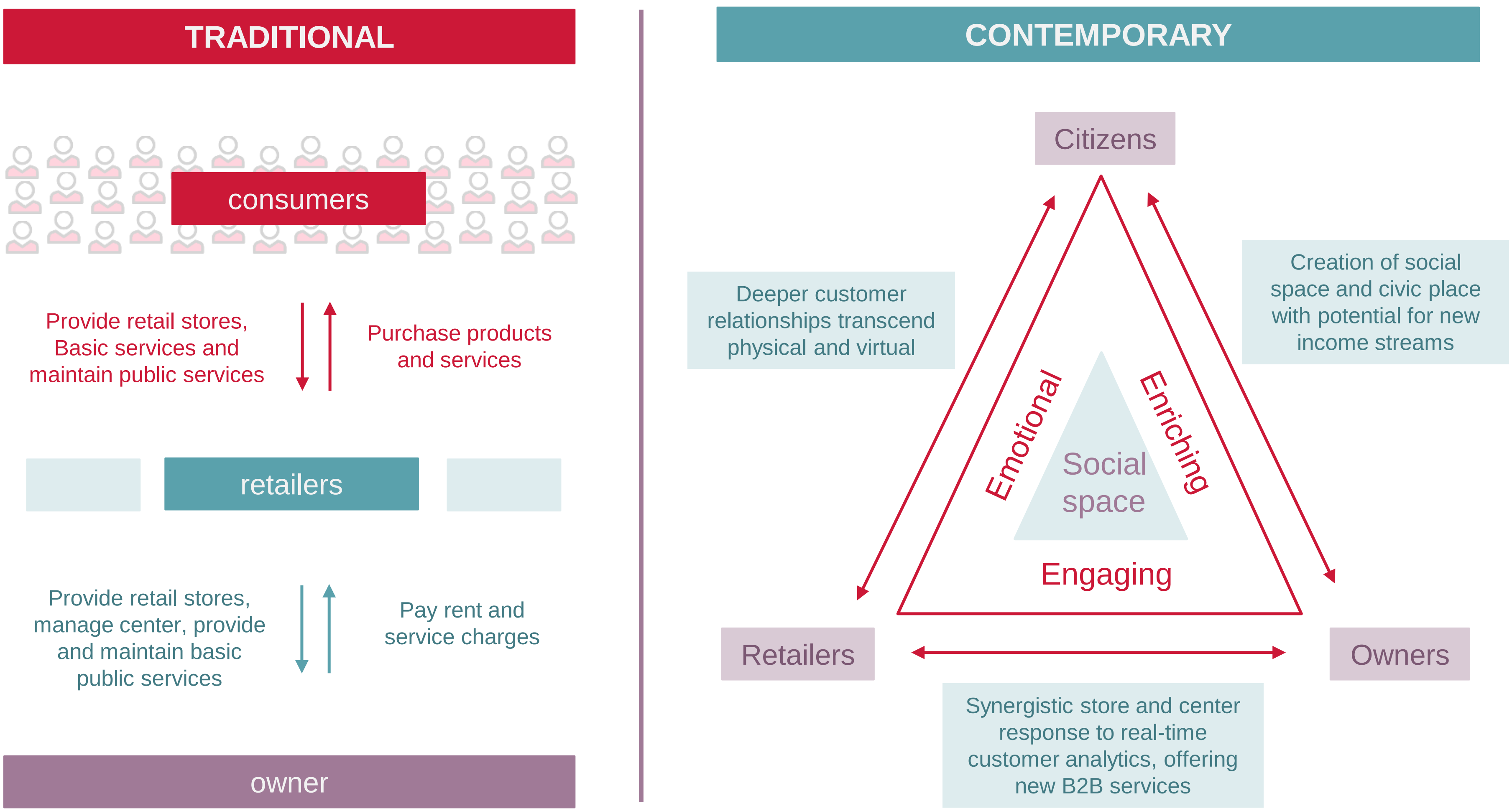






Sources: U.S. Census Bureau; Centers for Disease Control and Prevention; ICSC Research

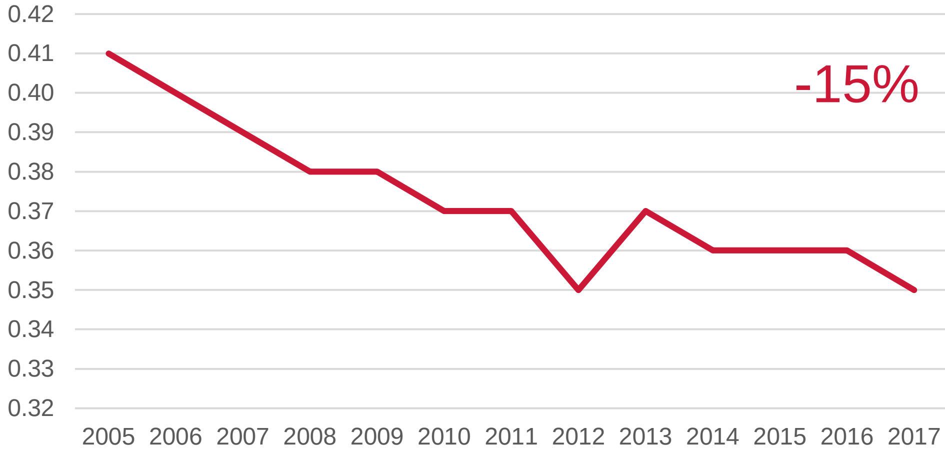
New Retail Real Estate Paradigm



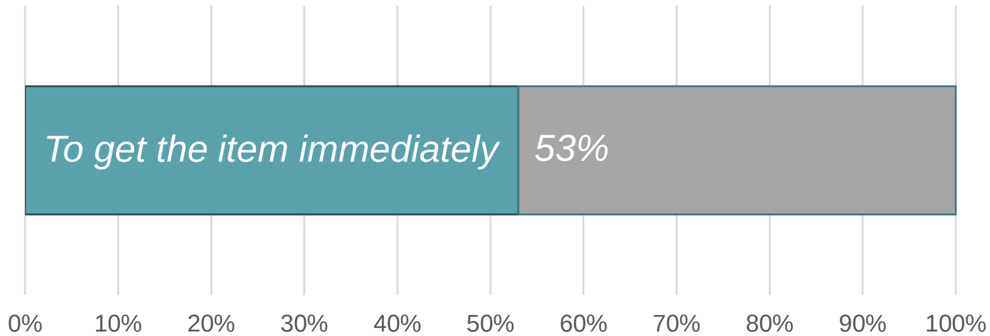
Source: ICSC: Exploring New Leasing Models in an Omni-Channel World (2016)

Convenience, Value and Experience

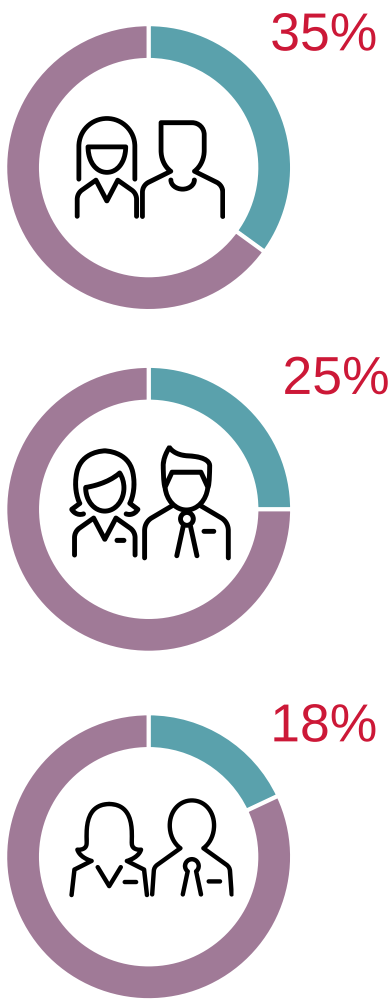
Average Hours Per Day Spent Purchasing Consumer Goods



Why does Gen Z shop in stores?



Bought Online, Picked Up in Store (last 30 days)



Sources: U.S. Bureau of Labor Statistics; ICSC Research

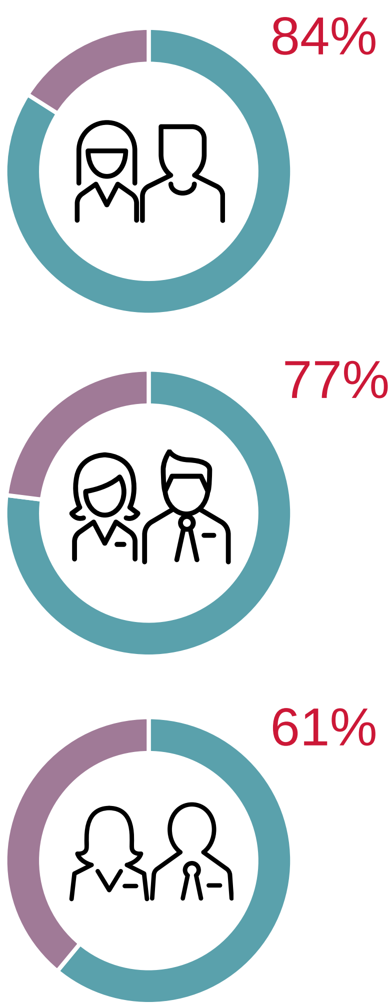
Convenience, Value and Experience

Mobile Devise Use In Store:

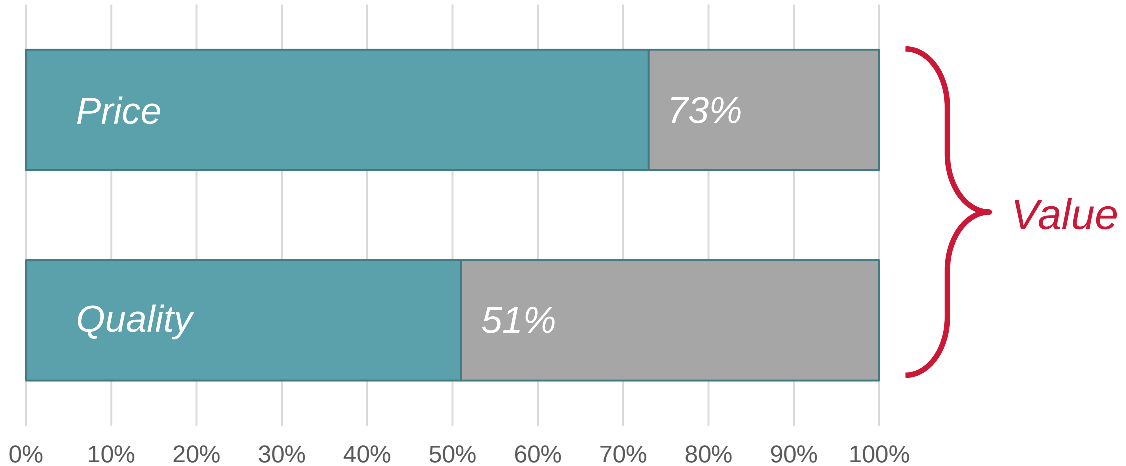
→ Compare prices (53%)

→ Get digital coupons to use in store (39%)

Conducted Research Online Before Shopping



What factors influence Gen Z purchases?



Source: ICSC Research

Convenience, Value and Experience

Most popular mall activities among Gen Z:

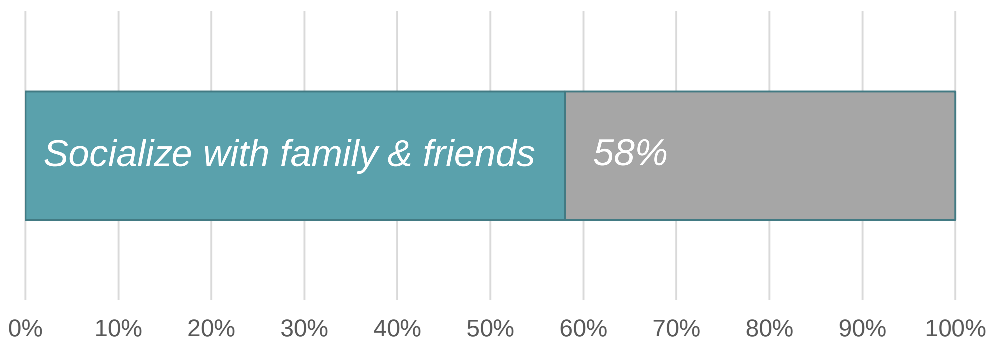
Shop: 76%

Dine: 76%

Socialize: 59%

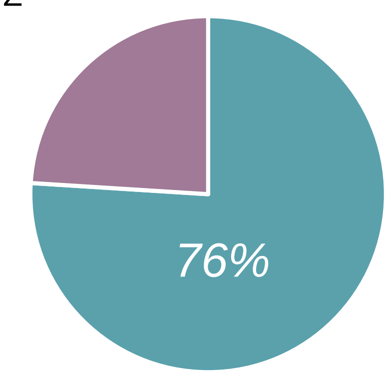
See Movies: 44%

Why does Gen Z shop in stores?



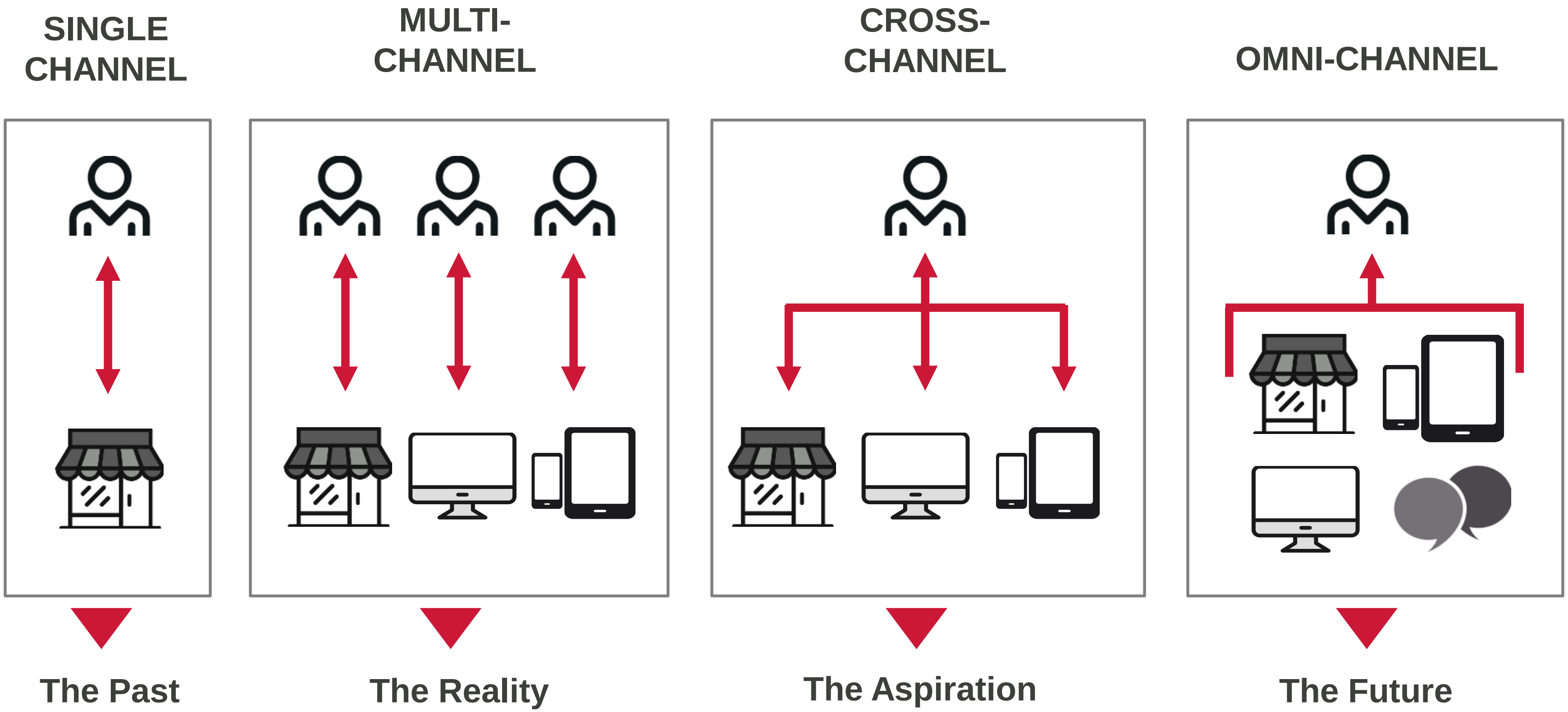
"Physical stores provide a better shopping experience than online."

- Gen Z



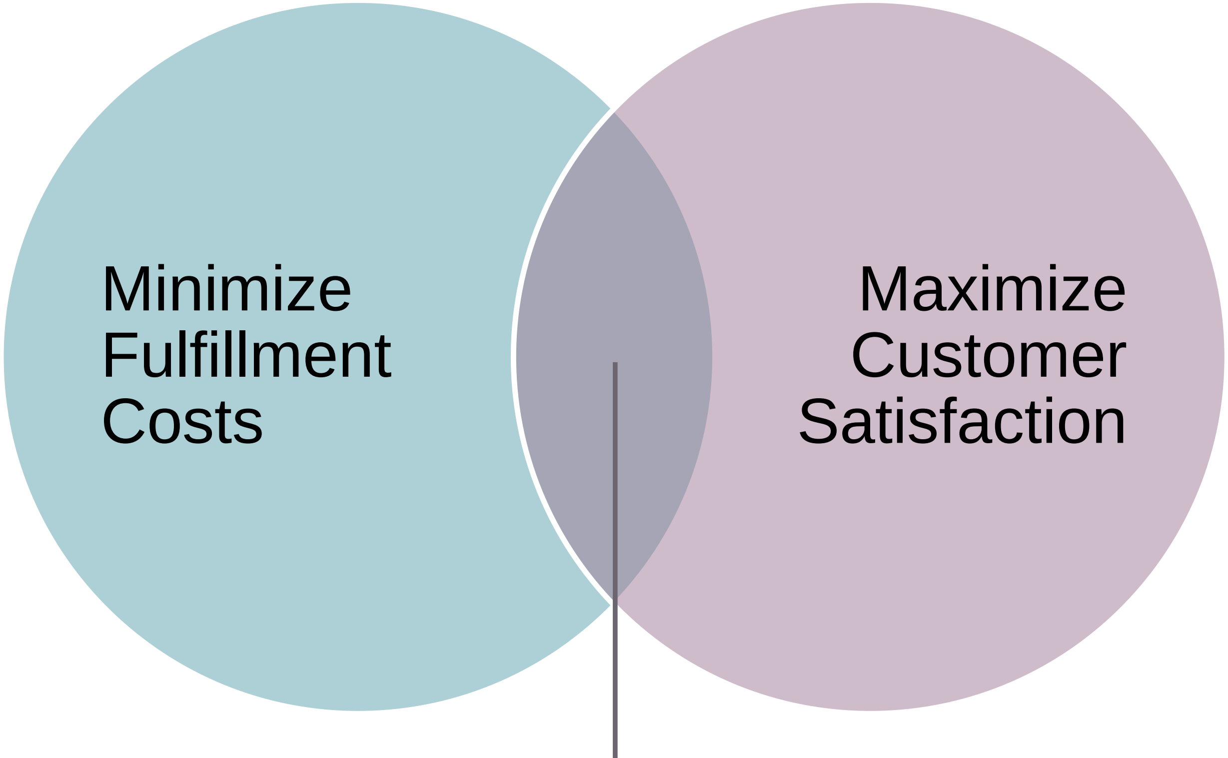
Source: ICSC Research

Omni-Channel Retail: Consumer Expectations



Omni-Channel Retail: Consumer Expectations

Omni-Channel Retail: A Balancing Act



Successful omni-channel retail demands real-time control over the supply chain to minimize costs associated with overhead, human capital, inventory and transportation while reducing "delivery" time and providing top-notch customer service (i.e. a seamless experience across all channels, engagement beyond the POS, personalization and discounts).

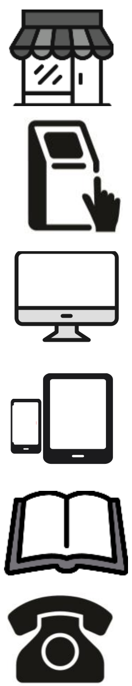
Omni-Channel Retail: Infinite Complexity

(*feedback loop*)

Discovery/ Trial & Test/ Purchase

Fulfillment

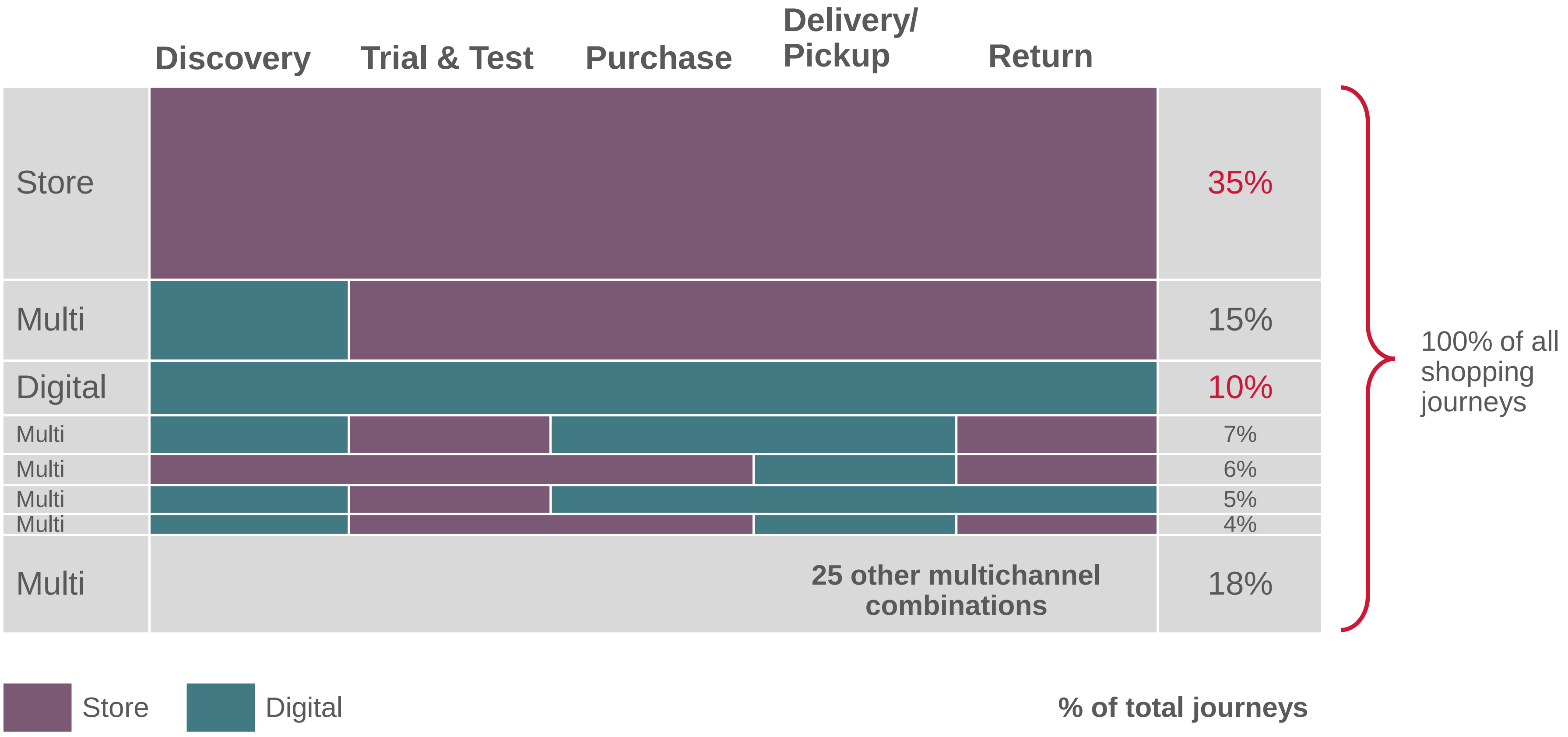
Return/Exchange



- Take home from store
- Pick up in store – ship from another store
- Pick up in store – ship from distribution center
- Ship from store to home/office/3rd location
- Ship from another store to home/office/3rd location
- Ship from distribution center to home/office/3rd location

- In store
- In another store
- Online – to store
- Online – to distribution center

Omni-Channel Retail: Many Shopping Journeys

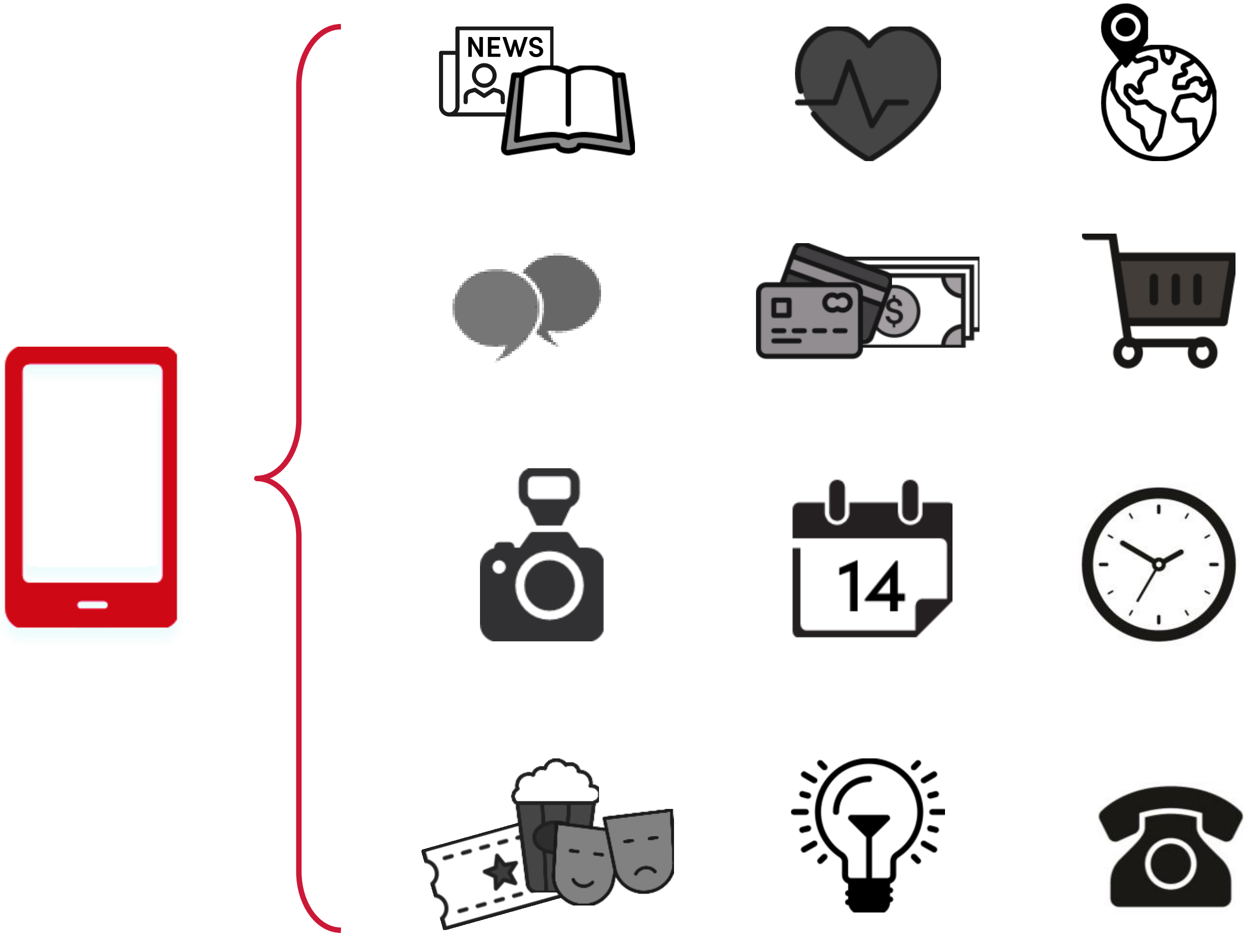


Source: A.T. Kearney, Omnichannel Shopping Preference Study, 2014

A Consumer-Led Disruption …

… Enabled by Technology

Technological Agglomeration



Last-Mile Solutions

Service applications and/or technologies that facilitate the last step in the supply chain.

You go to them, they come to you, or somewhere in between.

→ Delivery to centralized pick-up points

→ Delivery to home, office or trunk of car

→ Delivery by conventional means or via new technologies (e.g. droids & drones)

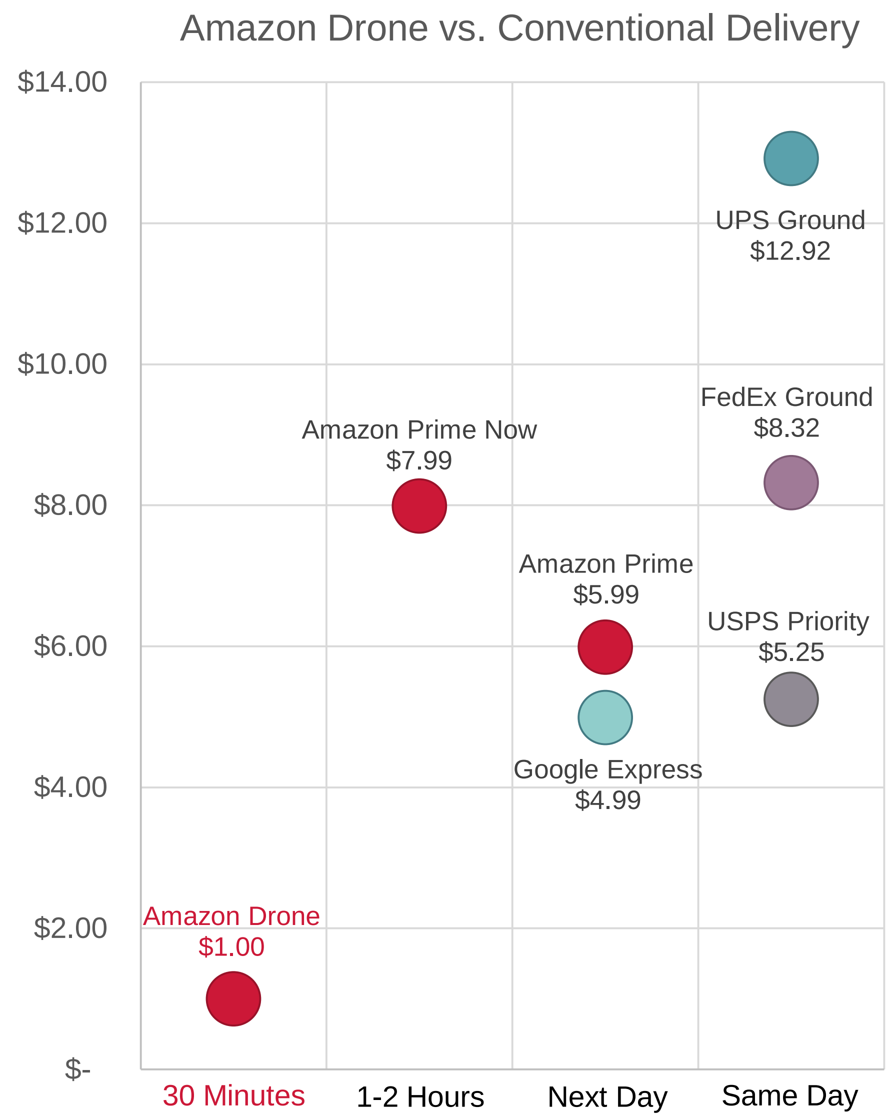
No shortage of players trying to get this piece right:

- Amazon
- Uber
- Lyft
- Instacart
- ShopRunner
- Deliv
- Roadie
- Curbside
- Drizly
- *And many more …*

Economics of Last Mile

The current economics of last mile delivery are driven by two primary factors: *route density* and *drop size*.

Drones have the ability to significantly change this paradigm.



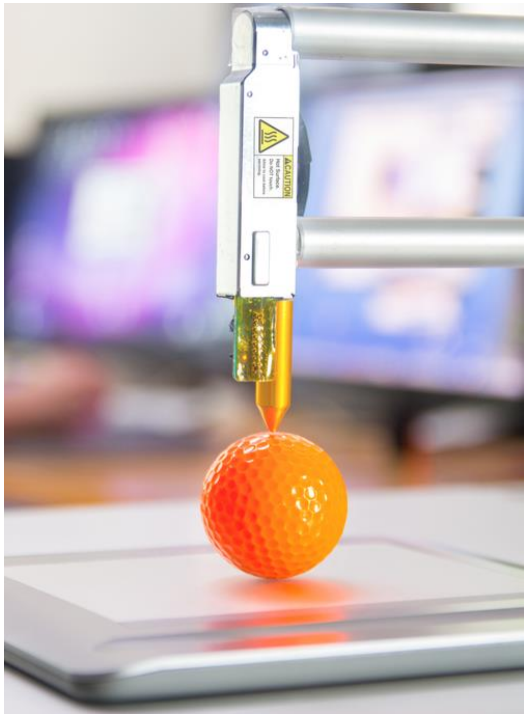
REAL ESTATE IMPLICATIONS

Depending on the last-mile solution(s) utilized, retailers and third-party logistics providers will alter the size, layout and locations of warehouses/distribution centers and stores/showrooms.

Source: ARK Invest

Additive Manufacturing a.k.a. 3D Printing

Eventually, the last mile could be a moot point. The ability to send data files rather than "things" will disrupt the entire supply chain.



The **raw material** would no longer be needed at the beginning of the process, but instead at the end.

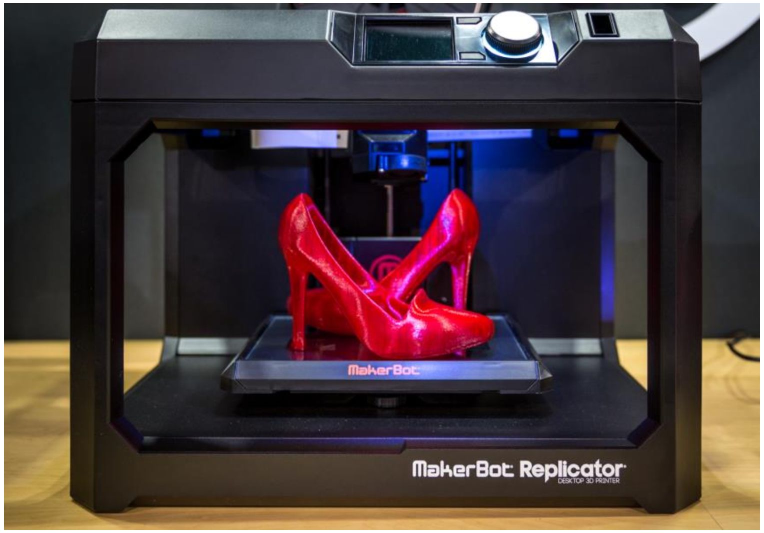
The **supplier** of intermediate goods will no longer be relevant as the product will be made on demand from one or several parts.

The **manufacturer** will be replaced by 3D printers.

The **distributors** will be irrelevant as there are no goods to ship – only files over the Internet.

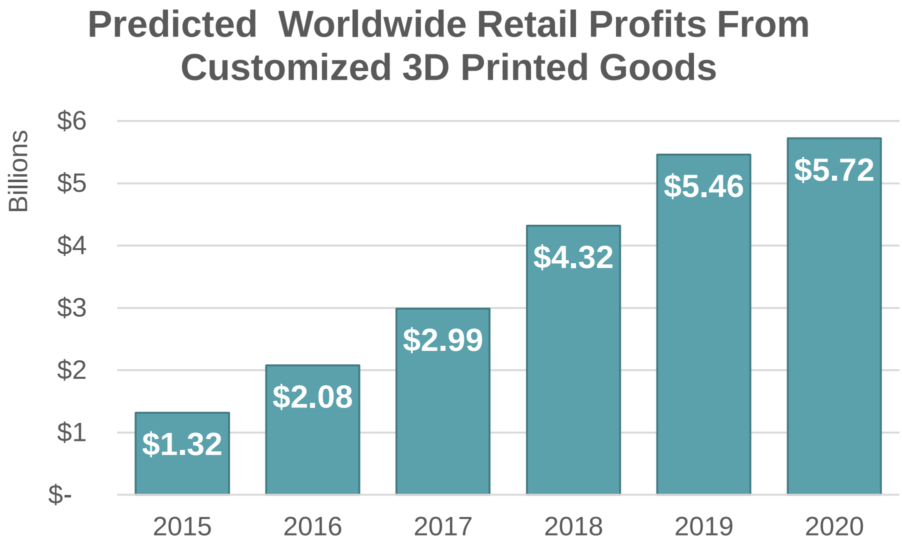
The **retailer** will still be relevant in a service capacity to assist customers with personalization at the point of sale. Depending on the ubiquity of the technology, goods may still be printed at the consumer's home.

Current Applications / Retail Market Potential



Speed to Market

Retailers are able to use 3D printers in the product development stages to quickly create and refine prototypes allowing them to be more responsive to trends and changes in market demand.



Customization

Retailers are using 3D printers at the point of sale to allow consumers to personalize goods and further engage with the brand.

Source: Sculpteo, “State of 3D Printing” survey, May 2015

Augmented & Virtual Reality

Augmented Reality (AR):

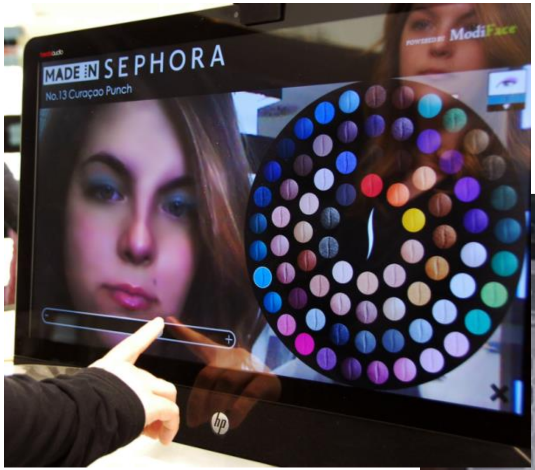
A digital overlay that is used in conjunction with real world items or places. AR allows the user to modify the real world that they are experiencing in real time, adding an extra digital component to everyday life.

Virtual Reality (VR):

The generation of completely digital worlds that are accessed via an immersive headset and occasionally hand controllers. VR allows the user to explore these settings while remaining in one place in the real world.

Current Applications / Future Implications

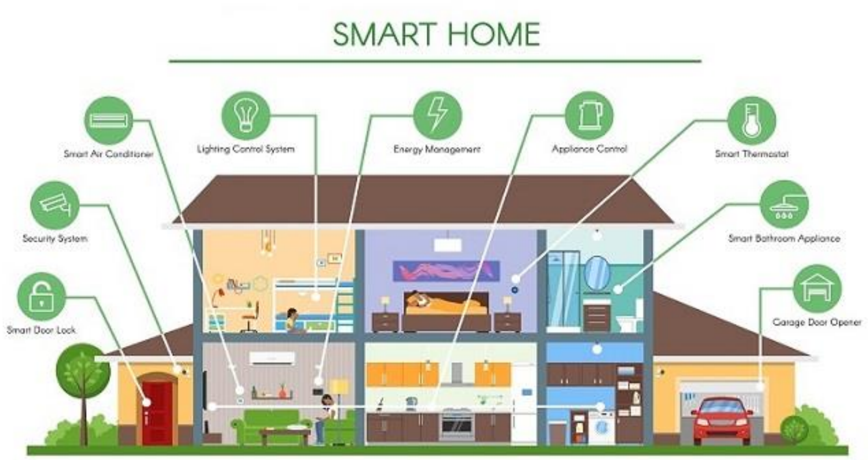
Retailers are currently using AR technologies to allow consumers to digitally try on clothing and makeup. Other retailers are creating digital storefronts allowing for grocery shopping while waiting for the subway or transforming window shopping to actual shopping.



At this point, the use of VR in retail is limited to brand immersion, but in the future, it is likely that consumers will use the technology to browse a fully digital store and try on clothing or interact with products using their avatar – all without leaving the house.

Internet of Things (IoT)

Any device that is Internet connected, capable of sending information to a cloud storage system and/or can interact with other Internet-connected devices.



Current IoT Retail Tech

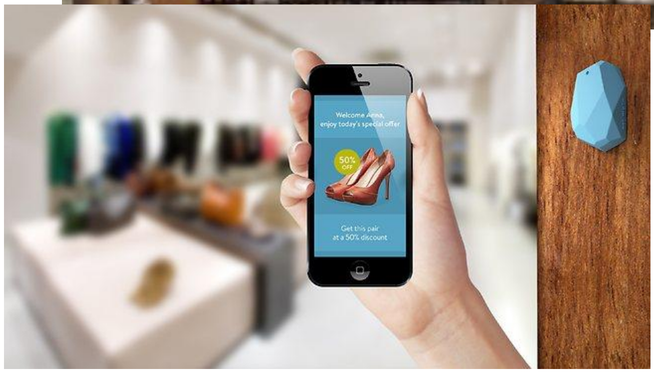
- Beacons
- Smart Robots
- RFID Devices
- Smart Shelves
- Smart Shopping Carts
- Interactive Fitting Rooms
- Electronic Shelf-Edge Labels
- Smart Environmental Controls
- Near Field Communication Tags
- *And many more …*

When IoT meets AI

IoT will become more powerful and ubiquitous with advancements in artificial intelligence (AI) and better predictive analytics.

Retailers will be able to analyze individual consumer behavior to customize interactions from marketing to promotions to service.

With a better understanding of consumer demand, retailers can better manage inventory and reduce the costs associated with reverse logistics.



Self-Driving Vehicles

From owner to passenger.

Autonomous vehicles will radically change land-use patterns and the shape of our built environment.

The extent to which they do that depends to a large degree on the level of autonomy – and their merger with the shared economy.

Levels of Autonomy: 0-5

SAE Level	Name	Steering, Acceleration, Deceleration	Monitoring of Driving Environment	Operations Fallback	System Capability
Human driver monitors the driving environment					
0	No Automation	Human	Human	Human	N/A
1	Driver Assistance	Human & System	Human	Human	Some Driving Modes
2	Partial Automation	System	Human	Human	Some Driving Modes
Automated driving system monitors the driving environment					
3	Conditional Automation	System	System	Human	Some Driving Modes
4	High Automation	System	System	System	Some Driving Modes
5	Full Automation	System	System	System	All Driving Modes

Source: SAE International

Implications for Real Estate

Urbanization of the Suburbs

With more automation and car-sharing options, roadway congestion will decrease allowing for a longer, more productive commute from the areas around cities.

This increased demand will raise suburban property values and – along with declining parking ratios – will encourage mixed-use developments at higher densities.

Suburban shopping malls will be able to put their parking lots to more productive uses creating sustainable community centers that deliver a true work/live/play experience.

Densification of the Inner City

A reduction in the required parking ratio will allow for the redevelopment of surface lots and adaptive reuse of underground lots at commercial and multi-family properties.

This excess supply – in conjunction with a shift towards the suburbs – may lead to a short-term decrease in property values. Over the longer term, however, net population growth and a limited supply of urban redevelopment opportunities will increase property values.

Smaller urban strip and grocery-anchored community centers will be able to redesign their properties to allow for autonomous last-mile delivery services.

Other considerations include disruptions to public transportation, trucking/logistics, streetscapes, and the automotive ecosystem (manufacturing, sales, servicing, rental cars, and insurance).

Retail Real Estate 2.0 and Beyond

From Shopping Center to Community Center

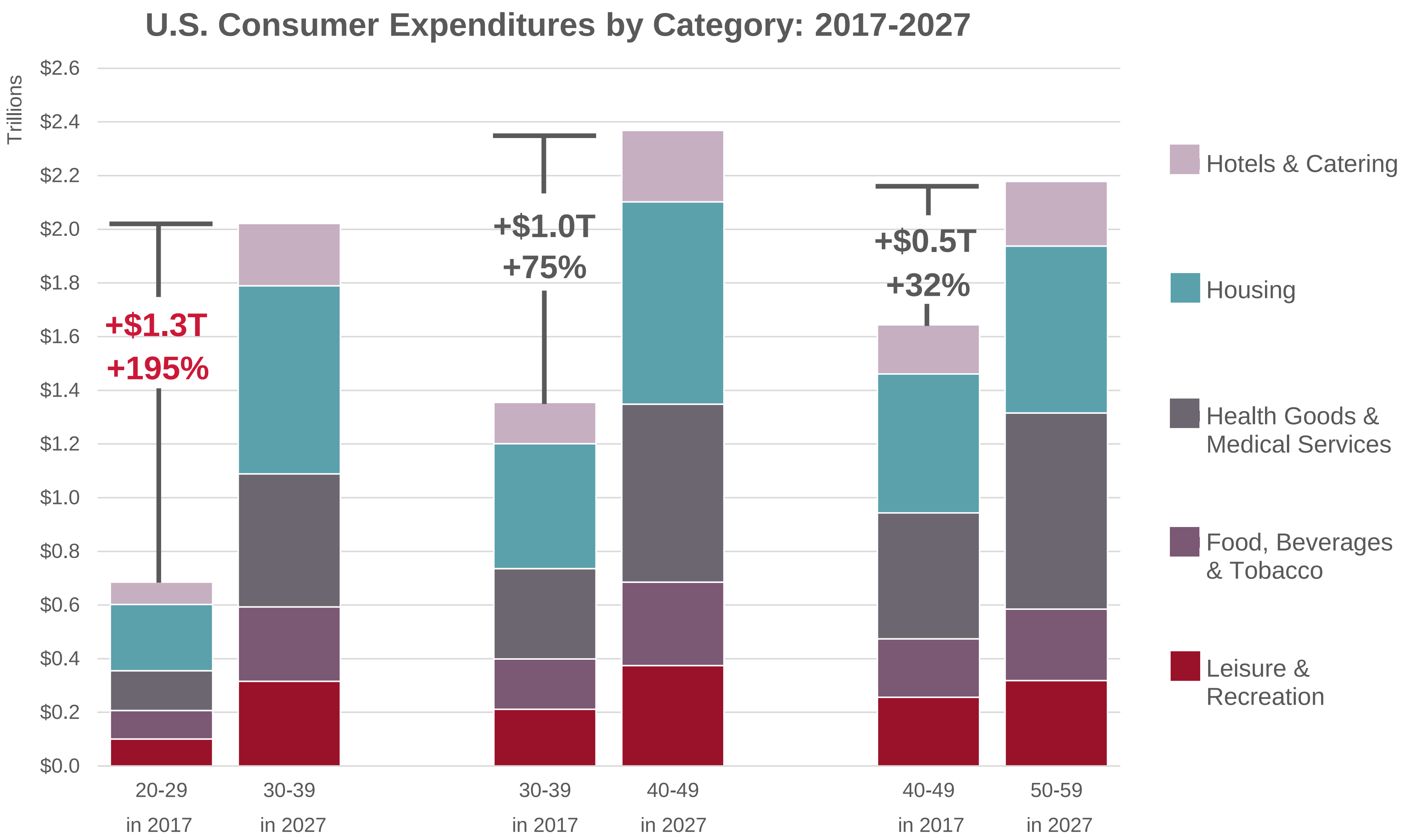
Delivering an "experience" not "stuff".

<u>New "Retail" Tenants</u>

- ✓ Entertainment
- ✓ Food & Beverage
- ✓ Health & Wellness
- ✓ Other Concepts
- ✓ *Mixed-Use*

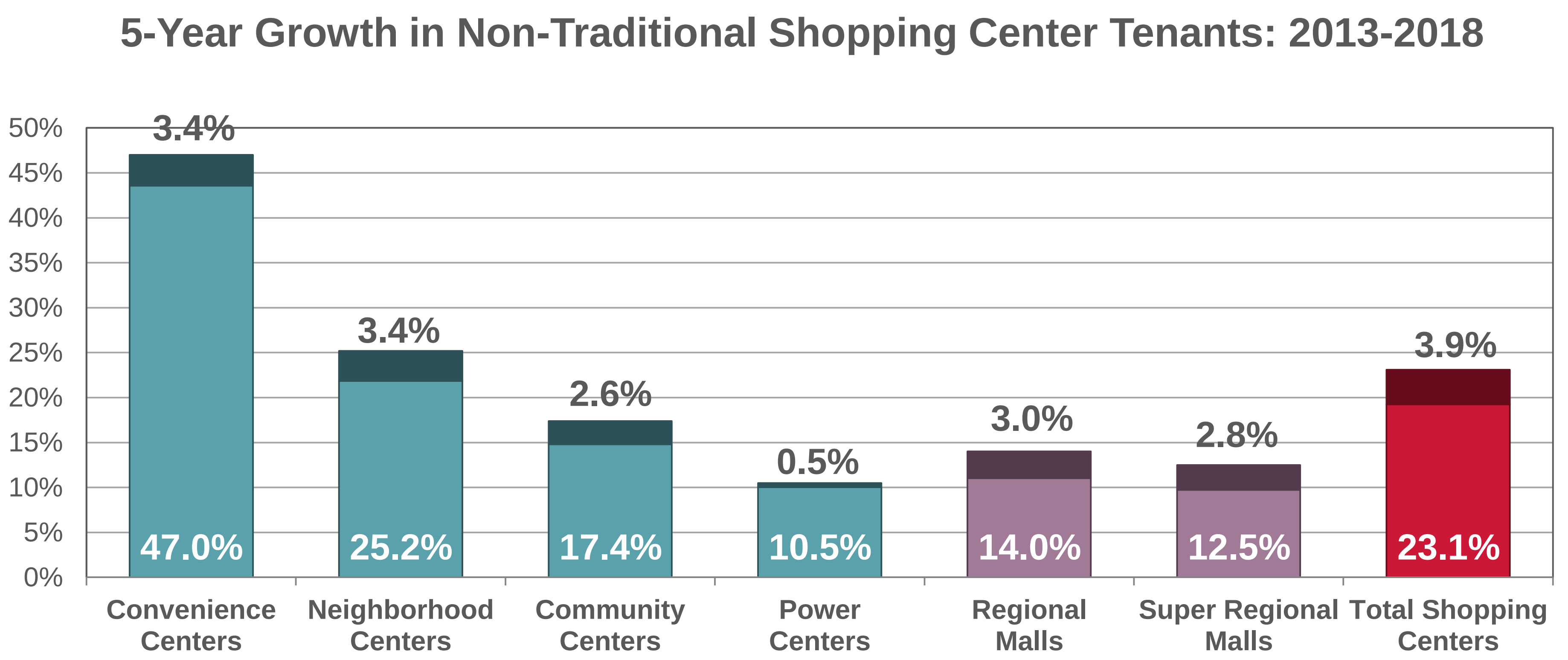
Source: Bruce MacKinnon: 2016

Consumption Shifts by Age Cohort



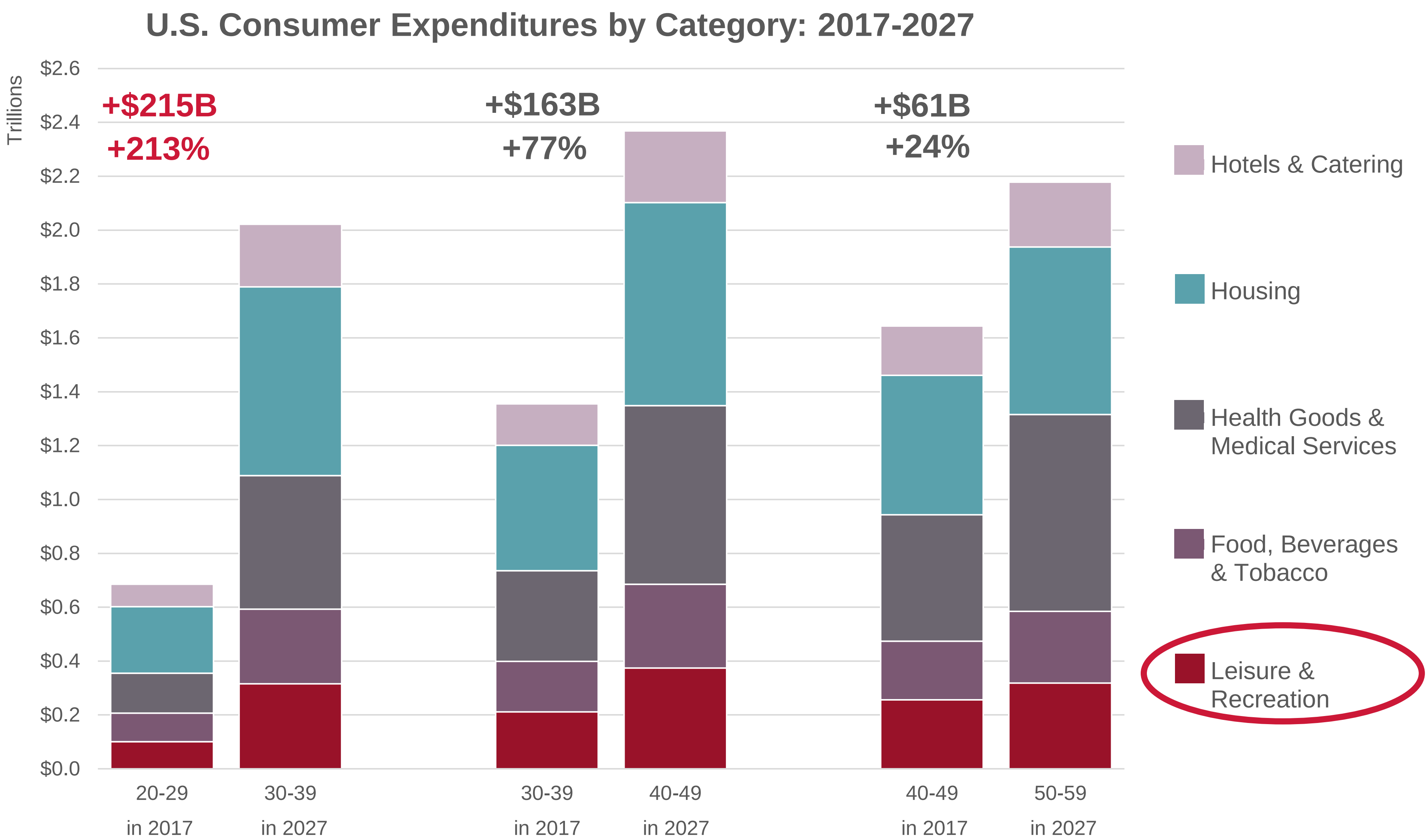
Source: Euromonitor International; ICSC Research

Non-Retail, Non-Restaurant Share of GLA



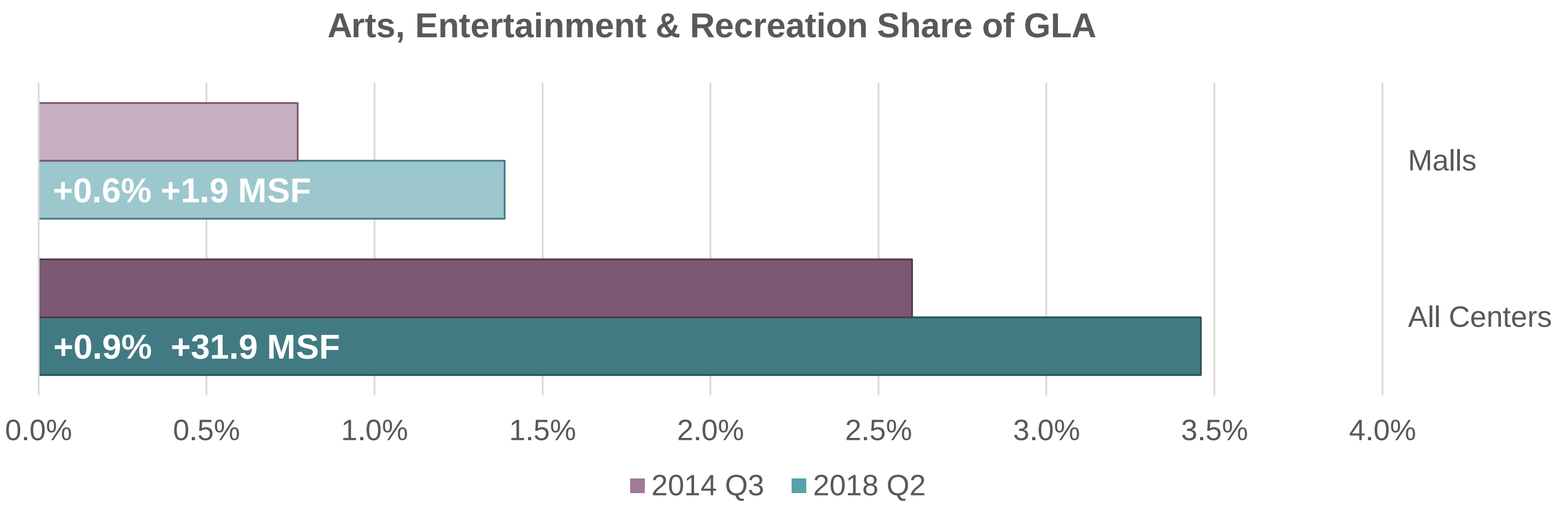
Sources: CoStar Group; ICSC Research

Consumption Shifts by Age Cohort: Entertainment



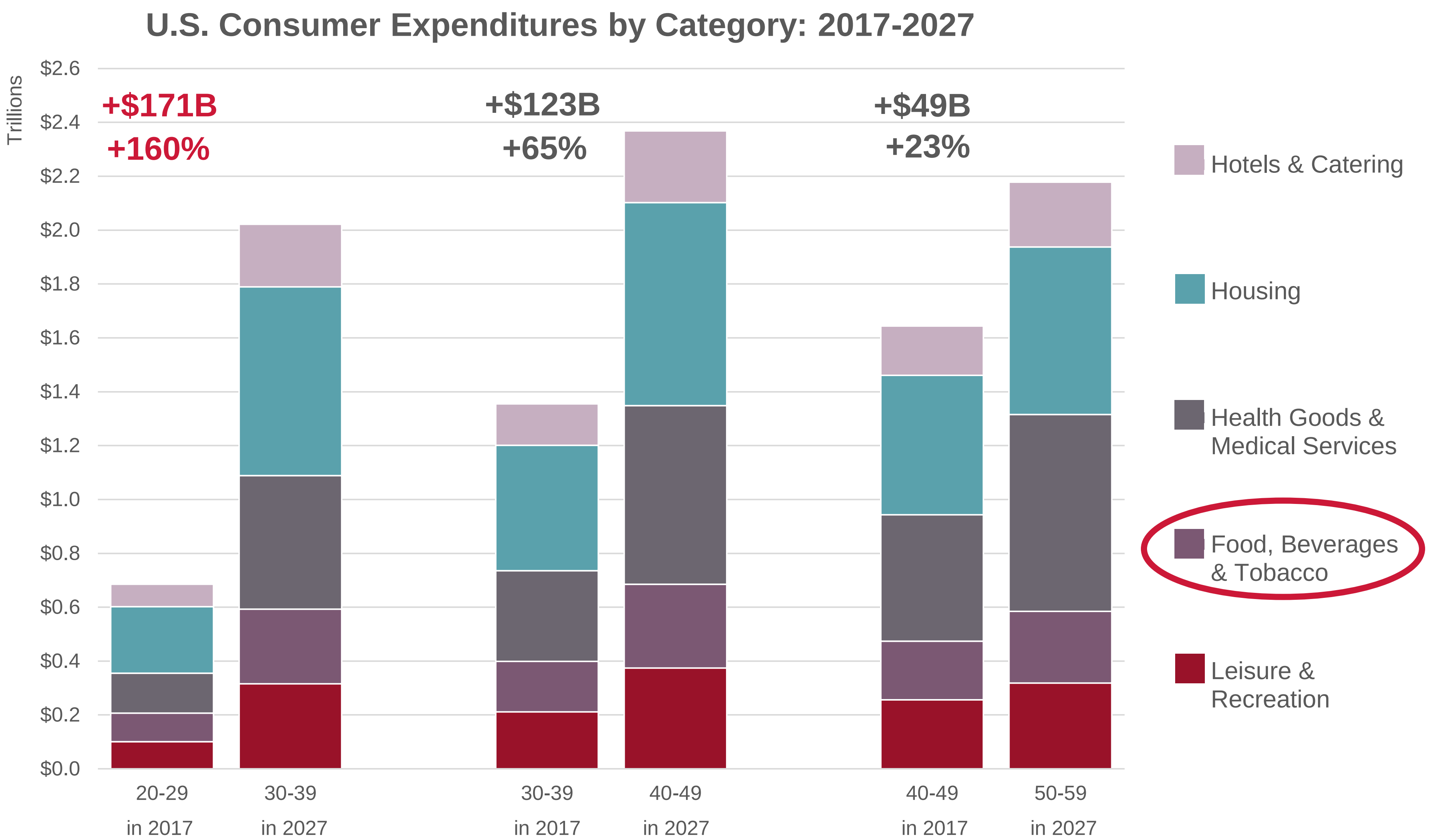
Source: Euromonitor International; ICSC Research

Entertainment



Source: CoStar Group; ICSC Research

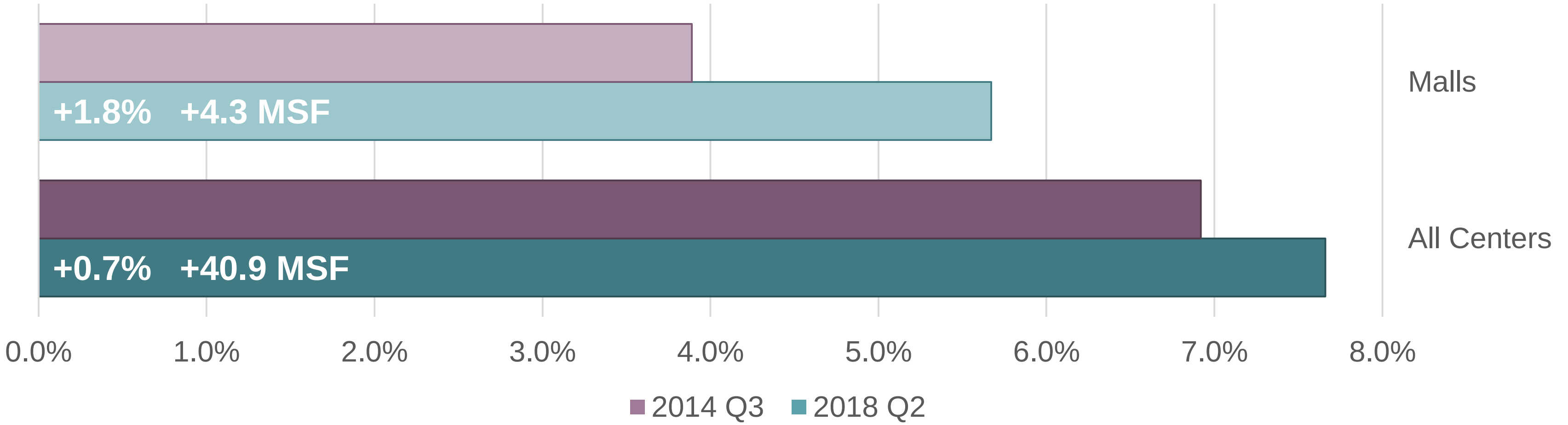
Consumption Shifts by Age Cohort: Food & Beverage



Source: Euromonitor International; ICSC Research

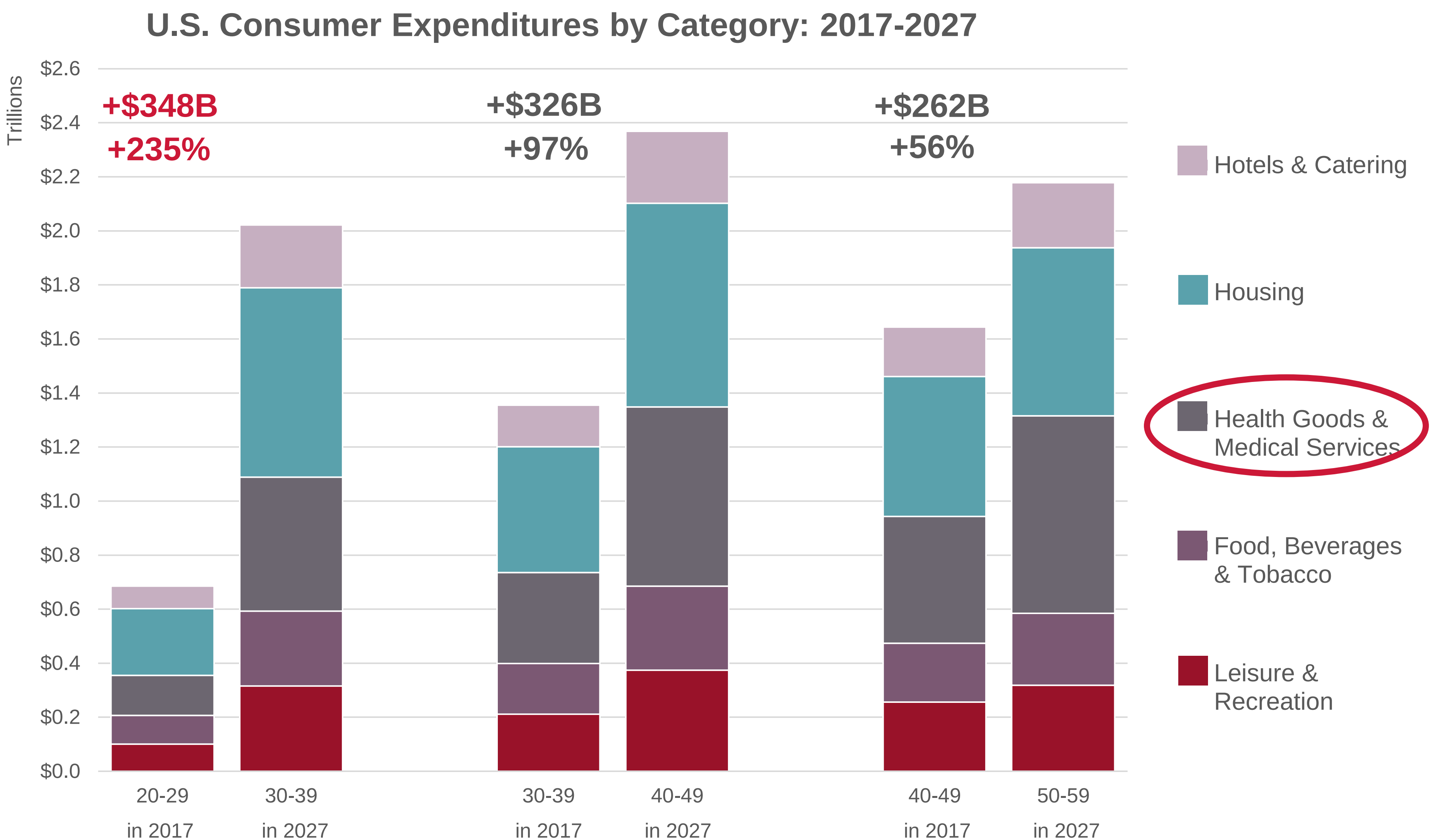
(Bespoke) Food & Beverage

Accommodation & Food Service Share of GLA: 2014-2018



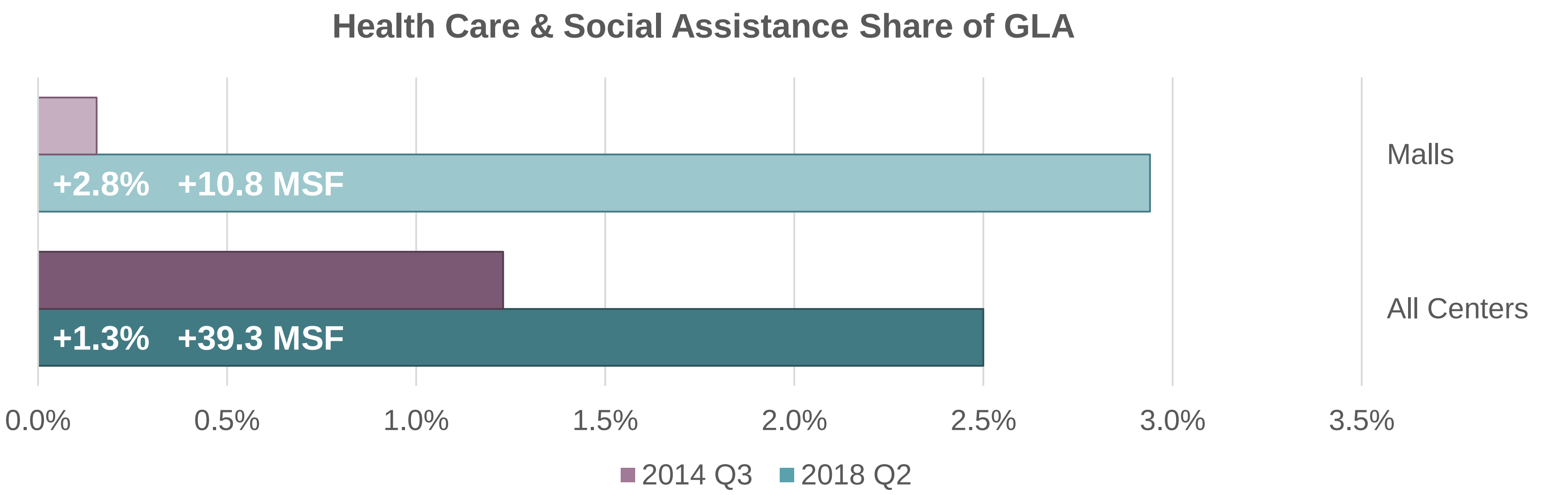
Source: CoStar Group; ICSC Research

Consumption Shifts by Age Cohort: Health & Wellness



Source: Euromonitor International; ICSC Research

Health & Wellness

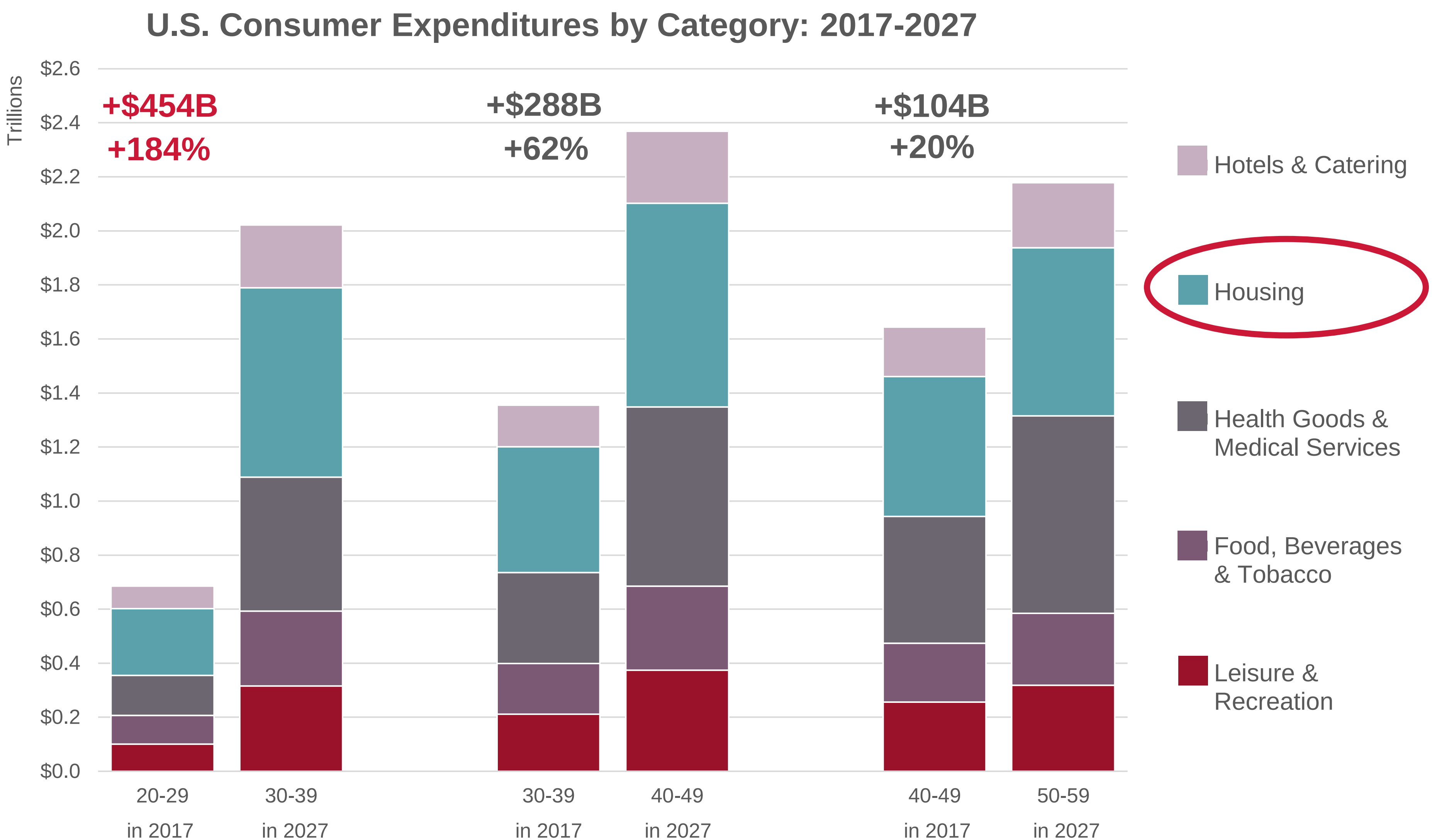


Source: CoStar Group; ICSC Research

Other Non-Traditional Tenants

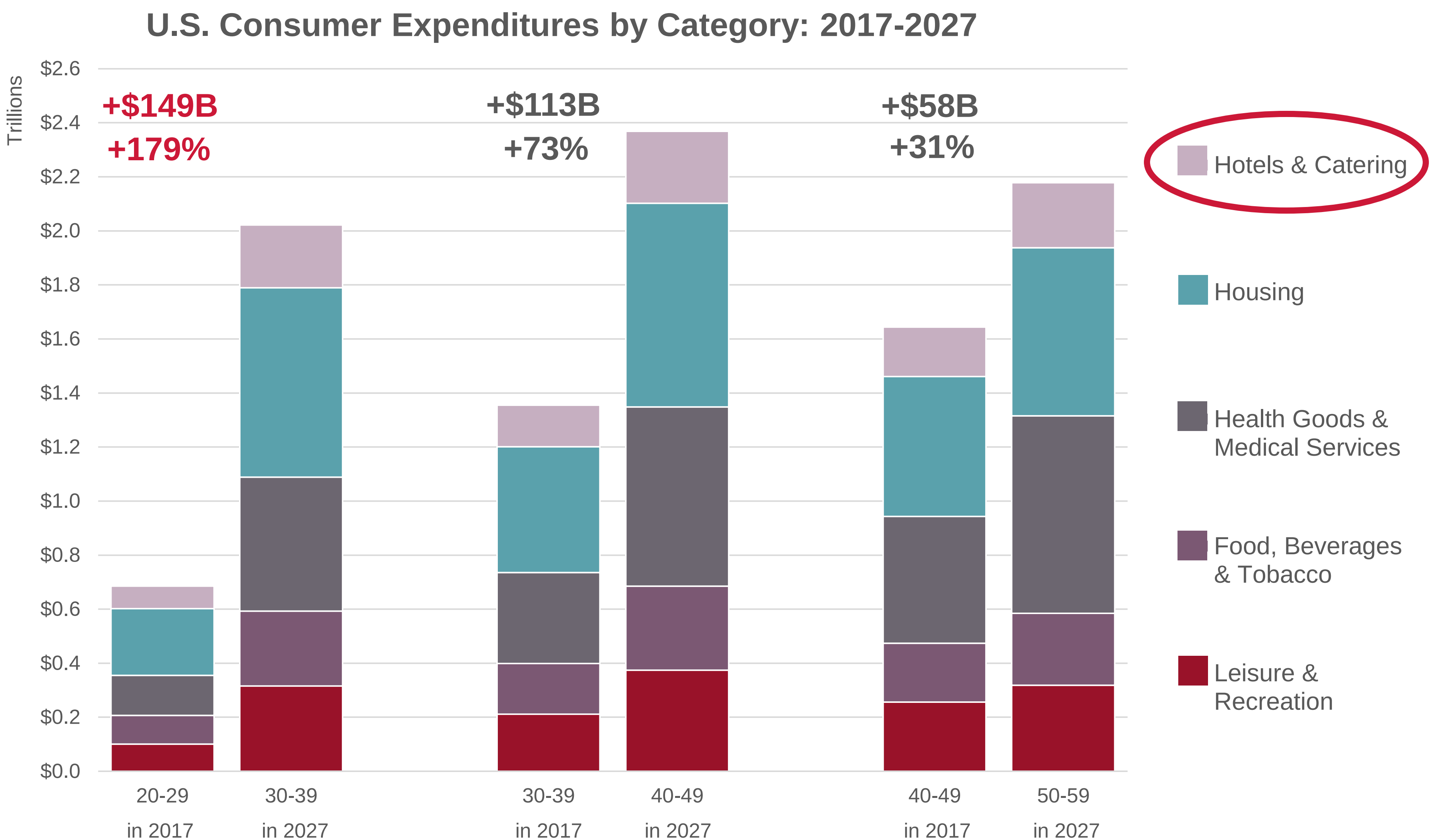
- ✓ Retail Pop-Ups
- ✓ Personal & Professional Services
- ✓ Cultural & Educational
- ✓ Brand Immersion
- ✓ Total Repurposing

Consumption Shifts by Age Cohort: Housing



Source: Euromonitor International; ICSC Research

Consumption Shifts by Age Cohort: Hotels



Source: Euromonitor International; ICSC Research

Mixed-Use


PONCE CITY MARKET


WE WORK
better
TOGETHER


The NEW YORK


Résidences
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From Shopping Centers to Consumer Engagement Spaces

Destination Centers

Large regional centers, anchored by popular attractions, which draw from broad local, national, and some international audiences.

Value Centers

Hyper-curated centers specializing in related retail businesses and services, reflecting the values and preferences of the surrounding community.

Retaildential Space

Mixed-use, multiformat centers located where consumers live, work and travel.

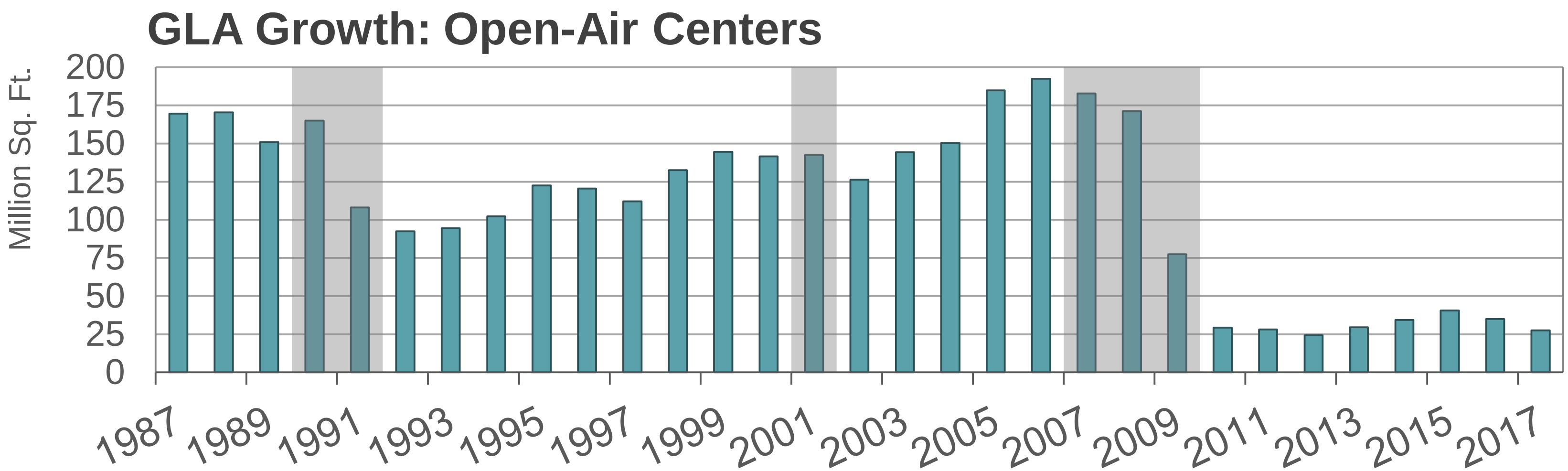
Innovation Centers

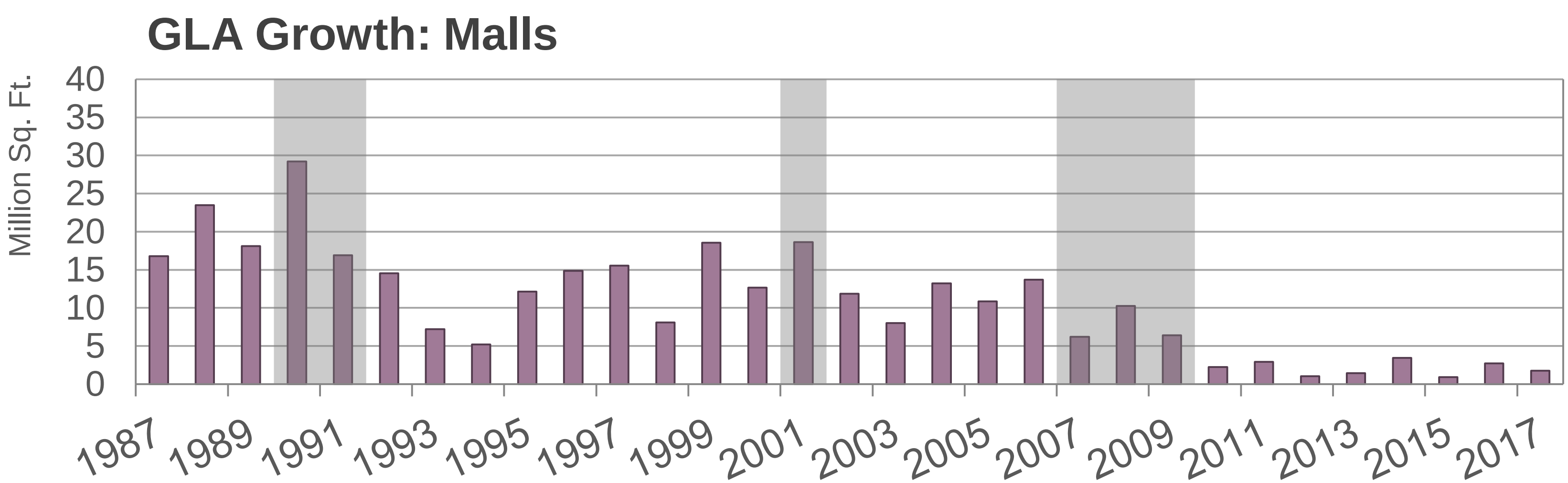
Every "store" (and the center itself) is a smart, active retail environment featuring the latest in high technology.

Source: A.T. Kearney

Retail Real Estate Performance
By the Numbers

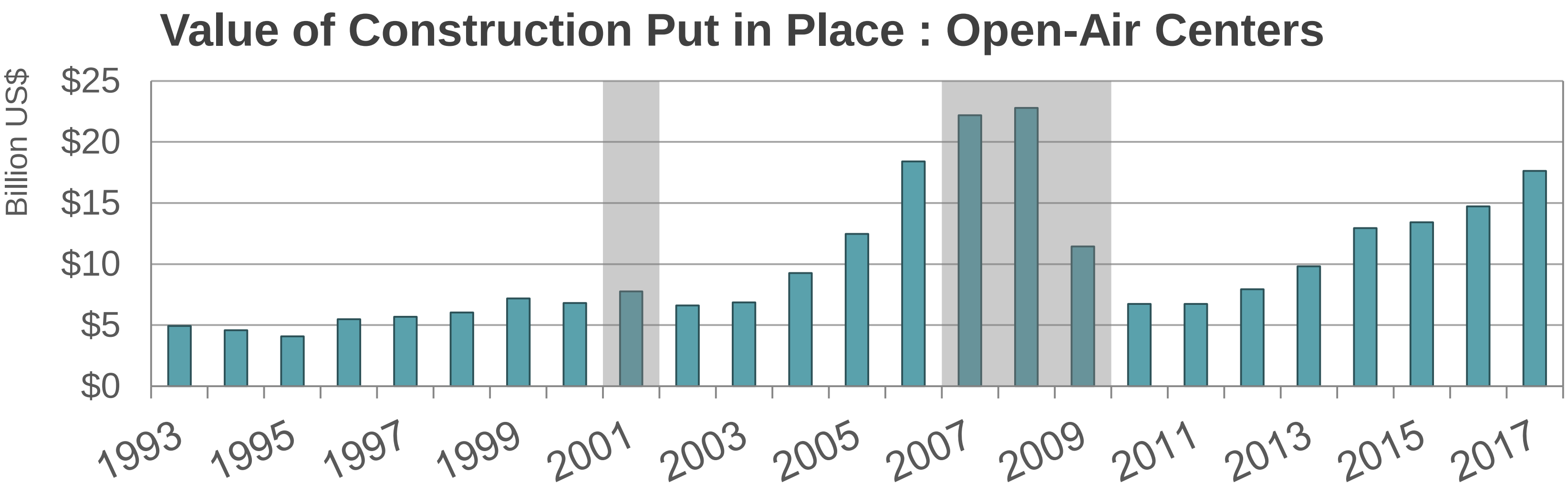
Moderate Supply Growth

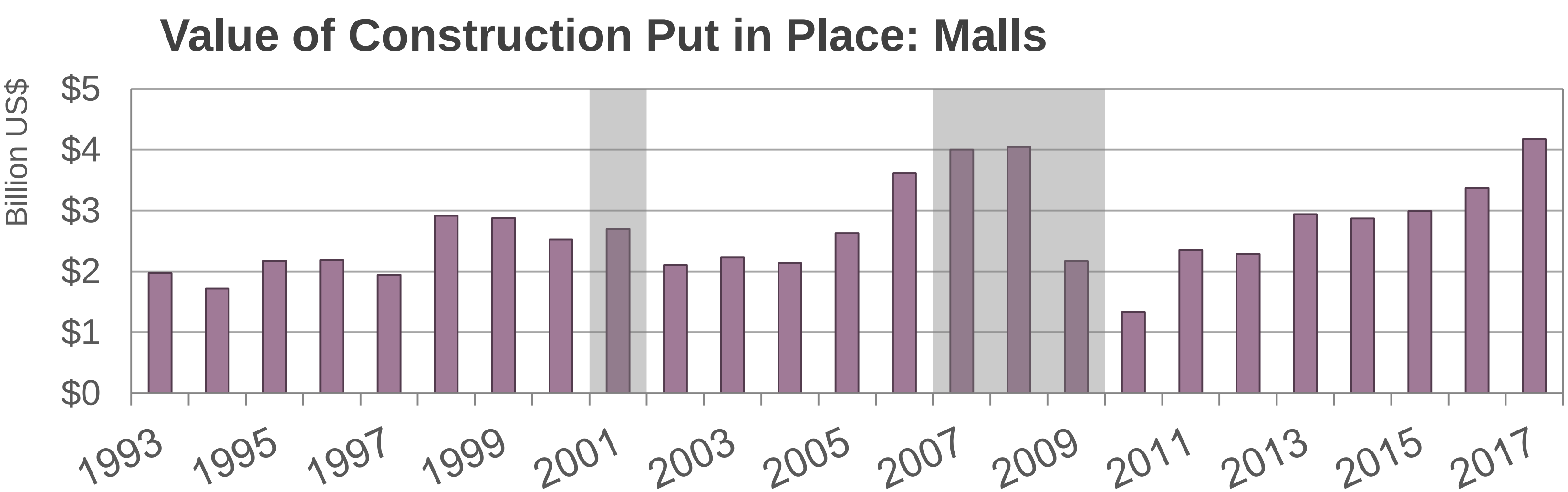




Source: CoStar Group; ICSC Research

Construction Spending Growth



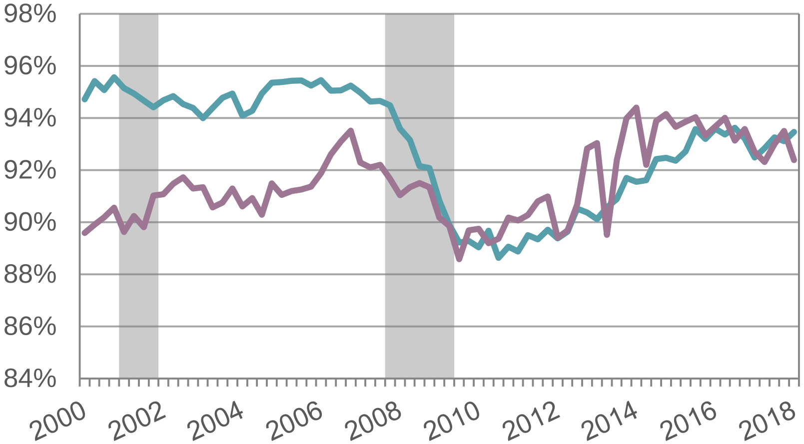


Source: US Census Bureau

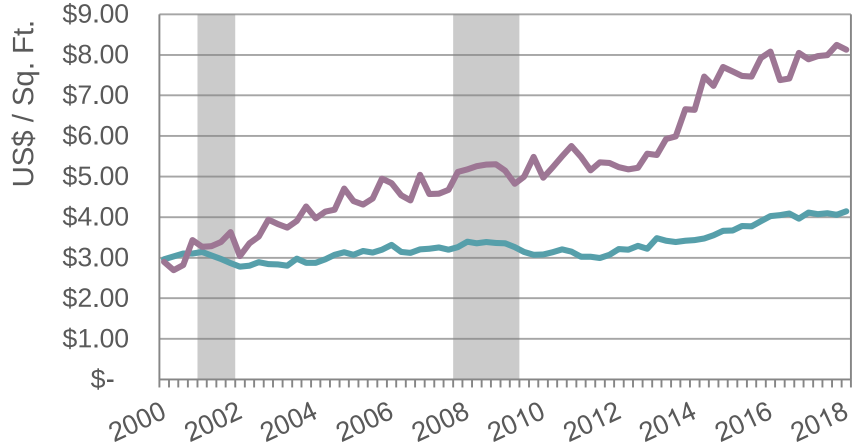
Performance Metrics Strong

Malls
Open-Air Centers

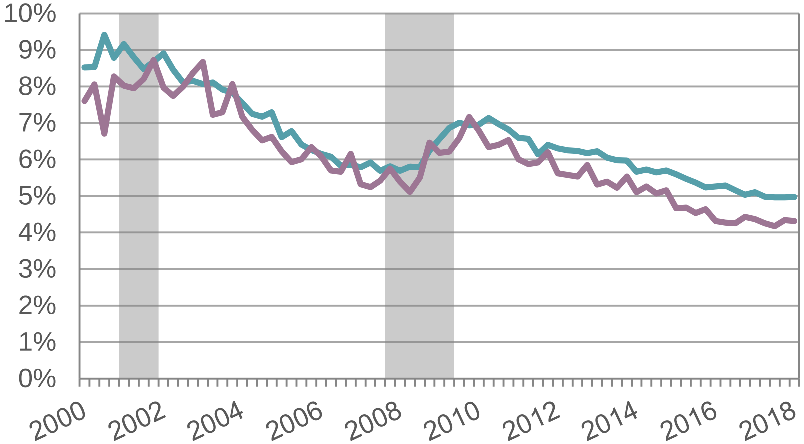
Occupancy Rates



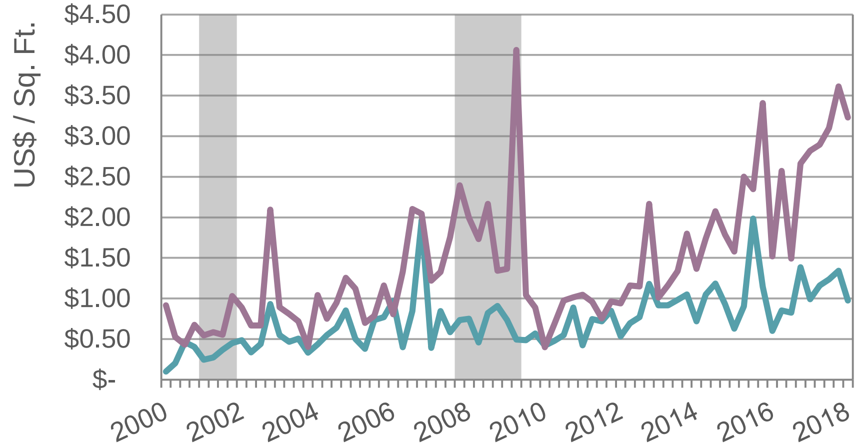
Net Operating Income



Cap Rates



Capital Expenditures



Source: NCREIF

Next Generation Performance Metrics Needed

ICSC

www.icsc.org

District of Columbia Impact Study

District of Columbia

		2016	2017	US 2017
Industry Characteristics	Retail real estate establishments	2,714	2,749	1.9 mil.
	Retail real estate space (sq ft)	26.1 mil.	26.4 mil.	18.2 bil.
	Number of shopping centers[1]	82	83	116,161
	Shopping center space (sq ft)[1]	5.1 mil.	5.2 mil.	7.7 bil.
	Retail real estate jobs per retail building	12.0	12.2	24.9
	Shopping center jobs per center	306	311	153
	Shopping center space per capita (sq ft)	7.4	7.5	23.6
	Employment density (center jobs per 1000 sq ft)	4.9	5.0	2.3
Economic Impact	Retail real estate jobs	49,098	50,473	34.8 mil.
	Retail real estate share of total jobs	6.3%	6.4%	23.7%
	Shopping center jobs	25,085	25,802	17.8 mil.
	Shopping center share of total jobs	3.2%	3.3%	12.1%
	Retail real estate wages	$1.1 bil.	$1.2 bil.	$792.6 bil.
	Retail real estate sales	$7.9 bil.	$8.3 bil.	$5.7 tril.
	Shopping center sales	$3.2 bil.	$3.4 bil.	$2.3 tril.
	Per capita shopping center sales	$4,731	$4,839	$66,625
	Retail real estate state sales tax revenue[2]	$0.5 bil.	$0.5 bil.	$321.8 bil.
	Shopping center state sales tax revenue[2]	$0.2 bil.	$0.2 bil.	$130.5 bil.
	Shopping center property tax revenue	$199.7 mil.	NA	NA
	Retail construction spending[3]	$227.0 mil.	$252.0 mil.	$34.7 bil.
State Characteristics	Population	0.7 mil.	0.7 mil.	325.7 mil.
	Per capita personal income	$75,756	$76,986	$50,392
	Unemployment rate	6.0%	6.1%	4.4%

1 - Copyright, CoStar Realty Information, Inc., www.costar.com

2 - Sales tax revenue generated at retail real estate properties or shopping centers, except for states not taxing: Alaska, Delaware, New Hampshire, Montana and Oregon. Local government sales tax revenue not included.

3 - As reported in the NAIOP Research Foundation's report: Economic Impacts of Commercial Real Estate, 2018 Edition.

Sources: U.S. Bureau of Labor Statistics; CoStar Realty Information, Inc.; U.S. Bureau of Economic Analysis; U.S. Census Bureau; The Sales Tax Clearinghouse; NAIOP; Dodge Data & Analytics and ICSC Research

Maryland

Congressional District Impact Study

Congressional District (1)		2016	2017	State 2017
Industry Characteristics	Retail real estate establishments	3,675	3,716	32,433
	Retail real estate space (sq ft)	35.3 mil.	35.7 mil.	311.2 mil.
	Number of shopping centers [1]	195	198	1,907
	Shopping center space (sq ft)[1]	15.6 mil.	15.7 mil.	162.7 mil.
	Shopping center space per capita (sq ft)	21.5	21.7	26.9
	Shopping center jobs per center	174	176	160
	Employment density (center jobs per 1000 sq ft)	2.2	2.2	1.9
Economic Impact	Retail real estate jobs	66,499	68,241	595,583
	Shopping center jobs	33,974	34,885	304,466
	Retail real estate wages	$1.5 bil.	$1.6 bil.	$13.6 bil.
	Retail real estate sales	$10.8 bil.	$11.2 bil.	$97.7 bil.
	Shopping center sales	$4.4 bil.	$4.5 bil.	$39.6 bil.
	Per capita shopping center sales	$6,044	$6,258	$6,548
	Retail real estate state sales tax revenue[2]	$645.1 mil.	$671.8 mil.	$5.9 bil.
	Shopping center state sales tax revenue[2]	$263.1 mil.	$272.4 mil.	$2.4 bil.
	Shopping center property tax revenue	$24.6 mil.	NA	NA

1 - Copyright, CoStar Realty Information, Inc., www.costar.com

2 - Sales tax revenue generated at retail real estate properties or shopping centers, except for states not taxing: Alaska, Delaware, New Hampshire, Montana and Oregon. Local government sales tax revenue not included.

Sources: U.S. Bureau of Labor Statistics; CoStar Realty Information, Inc.; U.S. Bureau of Economic Analysis; U.S. Census Bureau; The Sales Tax Clearinghouse and ICSC Research

U.S. Shopping Center Count and Gross Leasable Area by Center Type

Number of Shopping Centers

	1970	1978	1983	1988	1993	1998	2003	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Shopping Center Count	36,690	49,607	58,578	73,246	81,191	88,158	97,528	111,962	113,068	113,504	113,845	114,205	114,561	114,934	115,398	115,858	116,161	116,214
Malls	299	605	772	884	980	1,036	1,107	1,171	1,179	1,182	1,184	1,185	1,187	1,192	1,194	1,199	1,202	1,202
Share of Total Center Count (%)	0.8	1.2	1.3	1.2	1.2	1.2	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Regional	137	268	365	432	485	507	532	571	575	578	579	580	582	586	588	593	595	595
Share of Total Center Count (%)	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Super Regional	162	337	407	452	495	529	575	600	604	604	605	605	605	606	606	606	607	607
Share of Total Center Count (%)	0.4	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Open-Air Centers	36,365	48,974	57,773	72,324	80,169	87,076	96,364	110,730	111,828	112,260	112,598	112,957	113,311	113,679	114,141	114,596	114,895	114,948
Share of Total Center Count (%)	99.1	98.7	98.6	98.7	98.7	98.8	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
Strip/Convenience	25,018	31,889	36,843	45,103	48,858	52,192	57,368	66,730	67,374	67,638	67,828	68,039	68,241	68,417	68,647	68,883	69,023	69,046
Share of Total Center Count (%)	68.2	64.3	62.9	61.6	60.2	59.2	58.8	59.6	59.6	59.6	59.6	59.6	59.6	59.5	59.5	59.5	59.4	59.4
Neighborhood	8,711	13,125	16,122	20,852	23,504	25,728	28,354	31,557	31,834	31,944	32,034	32,125	32,208	32,314	32,460	32,599	32,706	32,726
Share of Total Center Count (%)	23.7	26.5	27.5	28.5	28.9	29.2	29.1	28.2	28.2	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.2	28.2
Community	2,235	3,405	4,163	5,474	6,573	7,419	8,350	9,409	9,514	9,550	9,591	9,627	9,659	9,712	9,751	9,801	9,827	9,831
Share of Total Center Count (%)	6.1	6.9	7.1	7.5	8.1	8.4	8.6	8.4	8.4	8.4	8.4	8.4	8.4	8.5	8.4	8.5	8.5	8.5
Lifestyle	61	80	101	133	157	185	261	430	446	452	456	462	472	484	501	513	522	524
Share of Total Center Count (%)	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Power Center	269	372	416	571	794	1,178	1,613	2,138	2,185	2,199	2,209	2,216	2,232	2,246	2,263	2,274	2,284	2,287
Share of Total Center Count (%)	0.7	0.7	0.7	0.8	1.0	1.3	1.7	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
Theme/Festival	45	60	69	82	94	115	134	154	157	157	157	157	158	158	158	158	158	159
Share of Total Center Count (%)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Outlet/Value Center	26	43	59	109	189	259	284	312	318	320	323	331	341	348	361	368	375	375
Share of Total Center Count (%)	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Outlet Centers (ICSC)*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	191	202	206	211	NA
Share of Total Center Count (%)														0.2	0.2	0.2	0.2	
Special Purpose - Airport Retail	26	28	33	38	42	46	57	61	61	62	63	63	63	63	63	63	64	64
Share of Total Center Count (%)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Shopping Center Gross Leasable Area (Millions of Square Feet)

	1970	1978	1983	1988	1993	1998	2003	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Shopping Center Gross Leasable Area (GLA)	1,768.2	2,768.5	3,391.2	4,284.6	4,981.4	5,627.1	6,395.9	7,331.6	7,415.4	7,446.9	7,477.9	7,503.2	7,534.2	7,572.1	7,613.5	7,651.1	7,680.3	7,684.7
Share of Total Retail Space (%)	23.3	29.9	33.0	36.6	38.8	39.9	41.1	42.6	42.6	42.6	42.6	42.5	42.5	42.5	42.4	42.4	42.3	42.3
Malls	300.4	599.5	746.1	841.6	927.5	983.5	1,053.2	1,107.4	1,113.8	1,116.1	1,119.0	1,120.0	1,121.4	1,124.8	1,125.8	1,128.5	1,130.3	1,130.3
Share of Total Center GLA (%)	17.0	21.7	22.0	19.6	18.6	17.5	16.5	15.1	15.0	15.0	15.0	14.9	14.9	14.9	14.8	14.7	14.7	14.7
Regional	81.0	161.6	217.7	256.8	286.5	300.9	314.3	338.2	340.9	343.2	343.8	344.8	346.2	348.8	349.7	352.4	353.6	353.6
Share of Total Center GLA (%)	4.6	5.8	6.4	6.0	5.8	5.3	4.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Super Regional	219.4	438.0	528.5	584.8	641.0	682.5	738.8	769.3	772.9	772.9	775.2	775.2	775.2	776.1	776.1	776.1	776.6	776.6
Share of Total Center GLA (%)	12.4	15.8	15.6	13.6	12.9	12.1	11.6	10.5	10.4	10.4	10.4	10.3	10.3	10.2	10.2	10.1	10.1	10.1
Open-Air Centers	1,462.6	2,163.6	2,638.9	3,436.4	4,045.4	4,634.0	5,329.8	6,210.5	6,287.9	6,317.1	6,345.1	6,369.4	6,399.0	6,433.4	6,473.9	6,508.8	6,536.1	6,540.6
Share of Total Center GLA (%)	82.7	78.2	77.8	80.2	81.2	82.4	83.3	84.7	84.8	84.8	84.9	84.9	84.9	85.0	85.0	85.1	85.1	85.1
Strip/Convenience	290.5	380.4	450.0	570.6	623.8	671.2	744.8	881.9	891.3	895.2	898.2	901.2	904.3	907.3	911.6	915.7	918.9	919.2
Share of Total Center GLA (%)	16.4	13.7	13.3	13.3	12.5	11.9	11.6	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Neighborhood	588.0	924.2	1,152.6	1,491.5	1,694.4	1,864.7	2,058.3	2,267.2	2,286.5	2,295.0	2,302.6	2,310.0	2,316.5	2,324.5	2,336.7	2,347.2	2,356.5	2,357.9
Share of Total Center GLA (%)	33.3	33.4	34.0	34.8	34.0	33.1	32.2	30.9	30.8	30.8	30.8	30.8	30.7	30.7	30.7	30.7	30.7	30.7
Community	436.9	659.7	805.2	1,056.1	1,285.9	1,454.8	1,648.1	1,866.7	1,886.3	1,893.9	1,902.8	1,909.9	1,916.4	1,928.0	1,935.2	1,944.7	1,950.0	1,950.8
Share of Total Center GLA (%)	24.7	23.8	23.7	24.6	25.8	25.9	25.8	25.5	25.4	25.4	25.4	25.5	25.4	25.5	25.4	25.4	25.4	25.4
Lifestyle	20.9	26.9	33.5	42.5	49.8	59.1	86.2	147.5	153.2	154.8	156.8	159.2	162.7	166.4	172.0	176.1	179.5	179.9
Share of Total Center GLA (%)	1.2	1.0	1.0	1.0	1.0	1.0	1.3	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3
Power Center	117.0	158.6	179.1	245.2	342.5	511.1	709.8	950.3	972.0	979.1	984.6	987.0	993.9	999.7	1,007.4	1,012.1	1,016.4	1,017.6
Share of Total Center GLA (%)	6.6	5.7	5.3	5.7	6.9	9.1	11.1	13.0	13.1	13.1	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
Theme/Festival	5.4	8.0	9.0	10.8	12.4	15.4	18.5	22.9	23.0	23.0	23.0	23.0	23.1	23.1	23.1	23.1	23.1	23.4
Share of Total Center GLA (%)	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Outlet/Value Center	3.9	5.9	9.5	19.7	36.6	57.7	64.1	74.0	75.6	76.1	77.1	79.1	82.0	84.4	87.9	89.8	91.7	91.7
Share of Total Center GLA (%)	0.2	0.2	0.3	0.5	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.2
Outlet Centers (ICSC)*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.9	79.9	81.0	83.1	NA
Share of Total Center Count (%)														1.0	1.0	1.1	1.1	
Special Purpose - Airport Retail	5.2	5.3	6.1	6.6	8.4	9.7	12.9	13.7	13.7	13.7	13.8	13.8	13.8	13.8	13.8	13.8	13.9	13.9
Share of Total Center GLA (%)	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Freestanding Retail GLA	5,832.2	6,496.4	6,898.7	7,406.1	7,861.7	8,474.5	9,165.9	9,898.9	9,976.9	10,031.5	10,079.7	10,130.8	10,191.5	10,255.0	10,326.0	10,401.9	10,483.1	10,499.1
TOTAL RETAIL GLA	7,600.4	9,264.9	10,289.9	11,690.7	12,843.0	14,101.7	15,561.8	17,230.5	17,392.3	17,478.4	17,557.6	17,633.9	17,725.7	17,827.1	17,939.5	18,053.0	18,163.4	18,183.9

*Per Value Retail News, an ICSC publication. These figures are comparable to factory outlet data for other regions.

Note: Data represent year-end counts, except the most recent year, current as of latest quarter

Greater DC Area Retail Pipeline

<u>Under Construction</u>

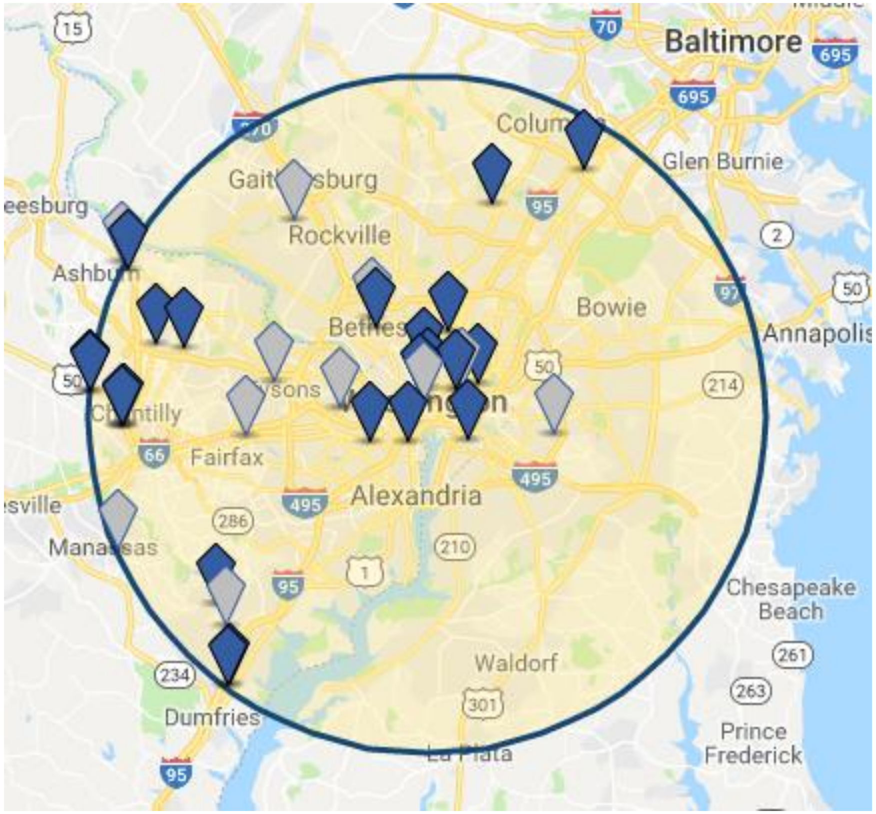
- 35 properties – 2.2 million SF
  - DC: ~1 million SF
  - MD: ~83,000 SF
  - VA: ~1.2 million SF

  - 2018: ~285,000 SF
  - 2019: ~1.1 million SF
  - 2020: ~836,000 SF

<u>Proposed</u>

- 229 properties – 7.8 million SF
  - DC: ~875,000 SF
  - MD: ~2.9 million SF
  - VA: ~4 million SF

  - 2019: ~2.2 million SF
  - 2020: ~2.6 million SF
  - 2021-2023: ~906,000 SF
  - Undetermined: ~2 million SF



Source: CoStar

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