



**Industry Special Report:**  
*Employment Trends in the Gulf Coast Retail Sector*  
**2005-2017**

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Workforce Solutions is an affiliate of the Gulf Coast Workforce Board, which manages a regional system that helps employers solve their workforce problems and residents build careers so both can compete in the global economy. The workforce system serves the City of Houston and the surrounding 13 Texas Gulf Coast counties including: Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton.

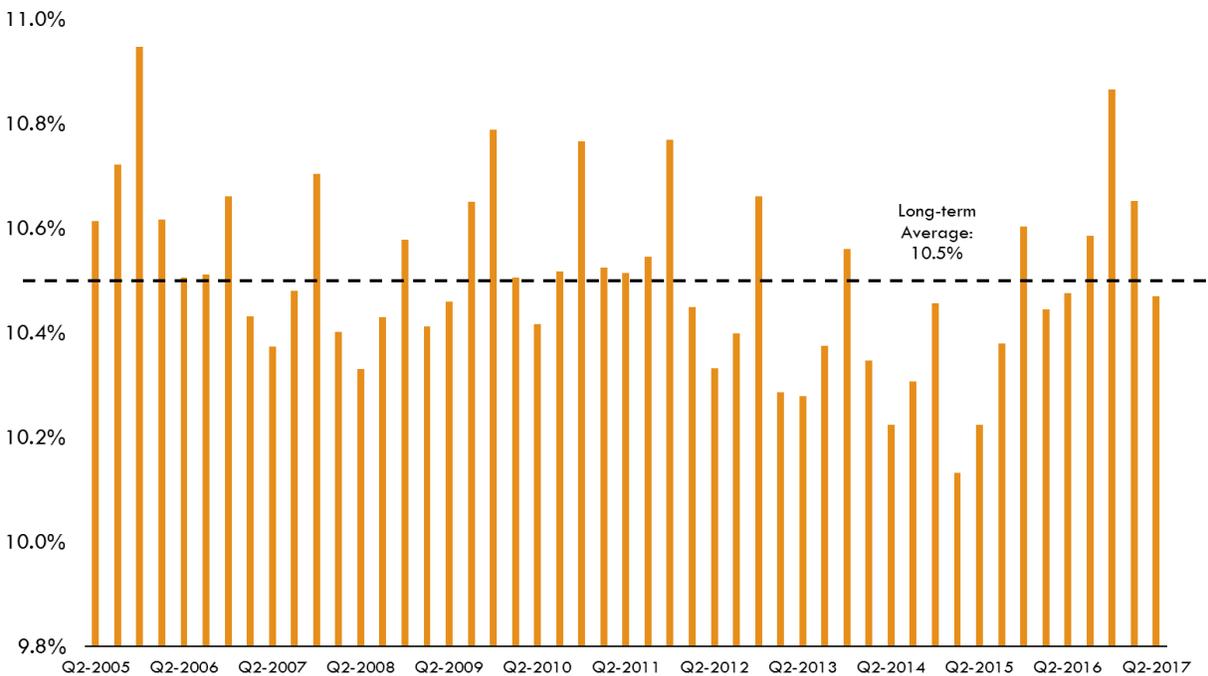
## Overview

A key feature of the U.S. economy is the substantial contribution of consumption to total economic output, which represents nearly 70 percent of U.S. gross domestic product.<sup>i</sup> A reflection of this can be found in the Retail sector, which in the second quarter of 2017 contributed \$1.13 trillion to GDP and accounted for 13 percent of total private employment across the U.S.<sup>ii</sup> <sup>iii</sup> The local contribution of this sector to the Gulf Coast economy is comparably significant with over 311,000 jobs representing nearly 1 in 10 employment opportunities in the region. Retail has long provided new entrants to the workforce with an environment for acquiring basic workplace skills while earning wages. However, changes in consumer habits and technology are reshaping Retail in ways that are likely to have significant implications for the labor market. Non-store Retail, commonly referred to as “Online” Retail by media outlets, is one such major force in this transformation. This segment of retail has benefitted immensely from the proliferation of smartphones and coupled with expedited shipping has led to a diminished role for traditional brick-and-mortar establishments. This report will examine the Gulf Coast Retail sector over approximately the past decade in order to highlight these trends at the local level and ultimately identify the potential challenges to future workforce development efforts vis-à-vis this important source of employment for many of the region’s residents.

## General Characteristics of Retail in the Gulf Coast Region

Analyzing second quarter 2017 data from the Quarterly Census of Employment and Wages (QCEW), revealed that the 13-County Gulf Coast Region possessed 310,564 total Retail jobs representing 10.5 percent of total covered employment. This also happens to be the long-term average since 2005. As a highly seasonal sector, Retail's share of employment typically peaks in the fourth quarter of each year and bottoms in the first quarter of the following year. For much of the past decade, the highest contribution on record occurred in the fourth quarter of 2005 at 10.9 percent of total covered employment, a feat that would not be repeated until the fourth quarter of 2016. Interestingly, during that time, over-the-year job losses across all sectors in the region combined were in excess of -17,500.<sup>iv</sup> Furthermore, despite the severity of the Great Recession from approximately 2008 to 2010, Retail did not shrink the most on record during this timeframe but rather in first quarter of 2015, coinciding with the most recent decline in oil prices, when it reached a low of 10.1 percent. (See Chart 1.)

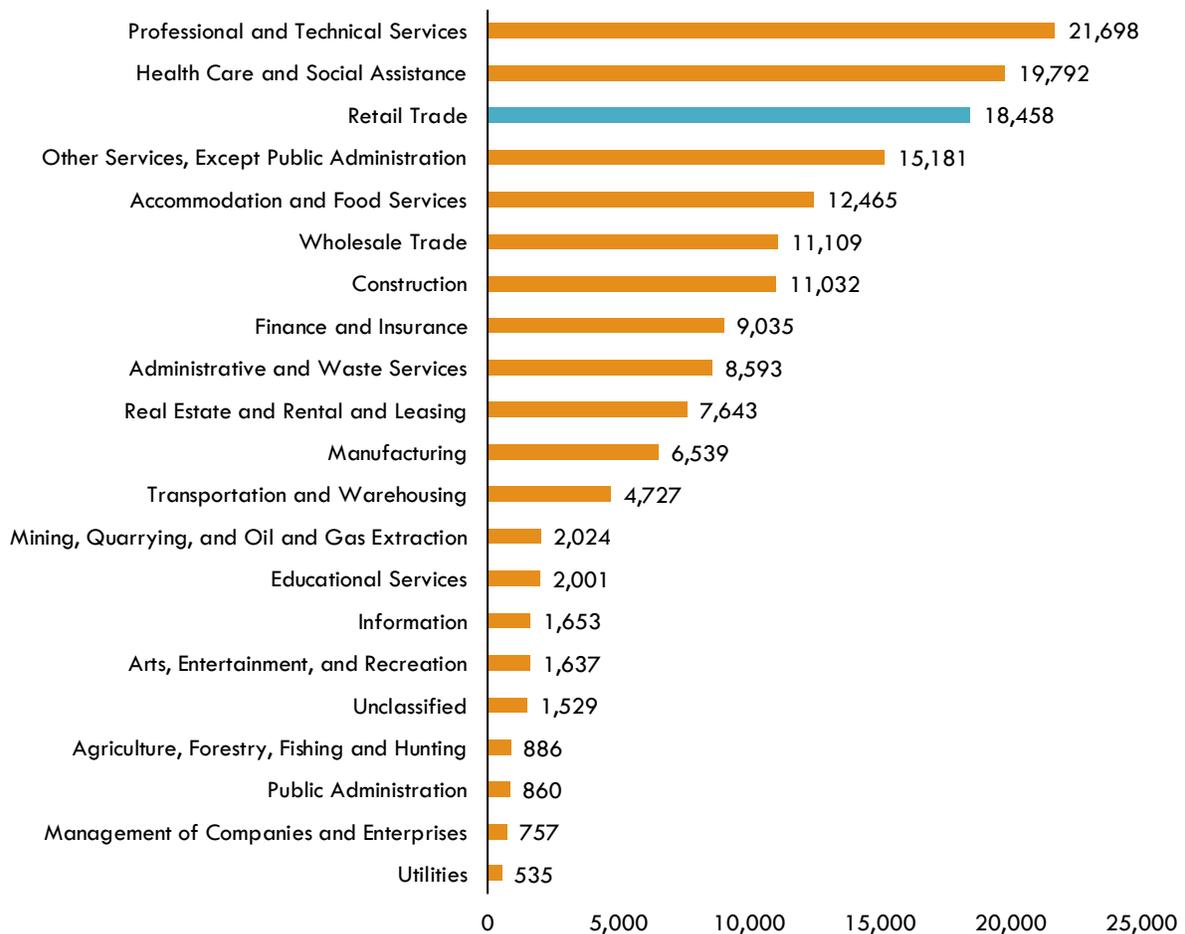
**Chart 1. Gulf Coast Region Retail Employment as Percentage of Total Covered Employment Q2-2005 to Q2-2017**



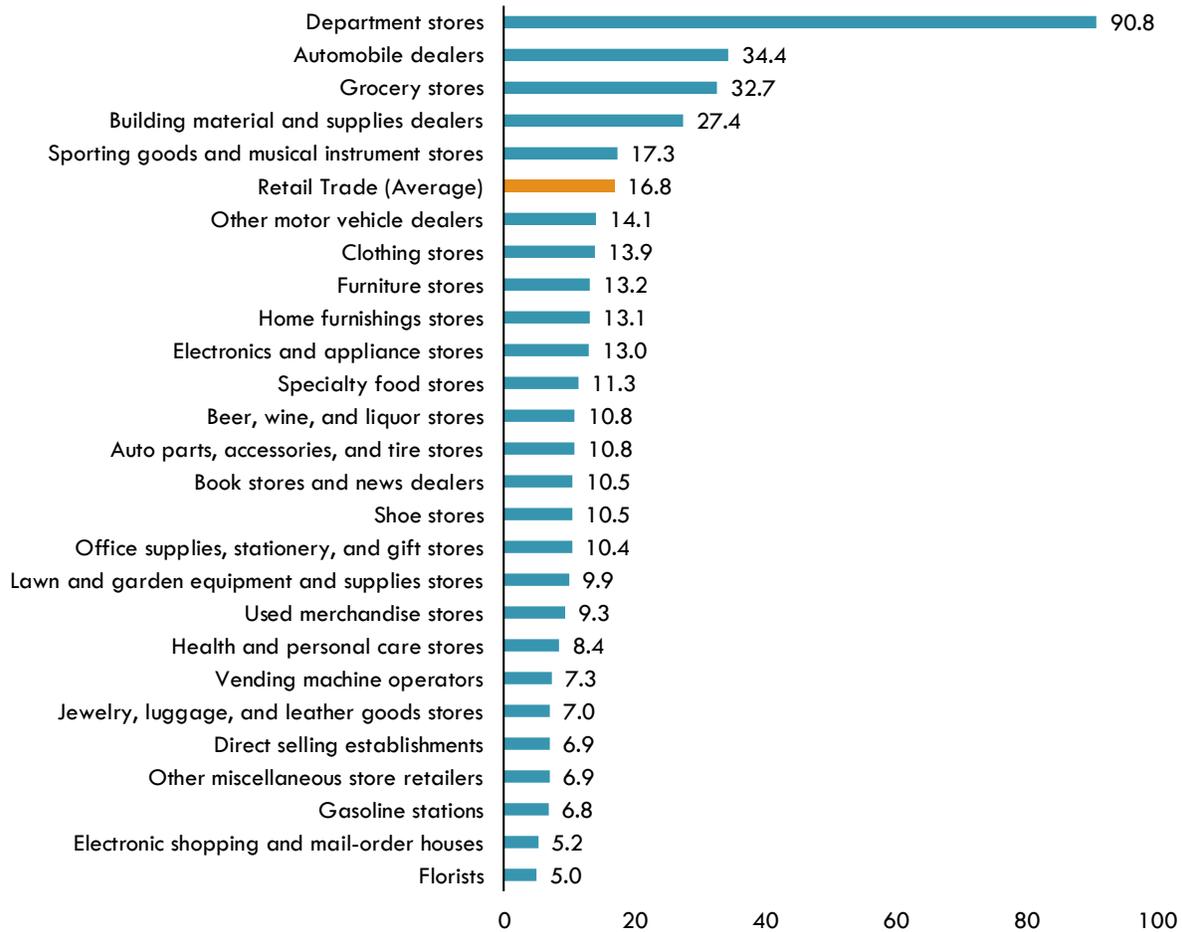
In terms of Retail business establishments, QCEW reported that there were 18,458 across the in the second quarter of 2017. Based on the seeming ubiquity of shopping centers, strip malls, and stand-alone businesses, one might assume that Retail establishments would be the most numerous. Surprisingly, Retail outlets were only the third-most common type of business establishment in the region after Professional and Technical (21,698) and Health Care and Social Assistance (19,792). Nonetheless, Retail establishments accounted for 1 out of every 9 businesses in the Gulf Coast Region. (See Chart 2.) Dividing

the number of Retail jobs by the number of establishments, revealed that on average each Retail establishment in the region contained 16.8 jobs. Note that the average number of jobs per Retail establishment is likely to be much higher than the number of workers given the propensity of Retail employ individuals on a part-time basis. Across the 26 types of Retail at the 4-digit NAICS level, the average number of jobs found within an establishment ranged from a low of 5 among Florists to high of 91 among Department Stores. (See Chart 3.)

**Chart 2. Gulf Coast Region – Number of Business Establishment by Major Sector Q2-2017**



**Chart 3. Gulf Coast Region – Average Number of Jobs per Detailed 4-Digit NAICS Retail Industry Q2-2017**



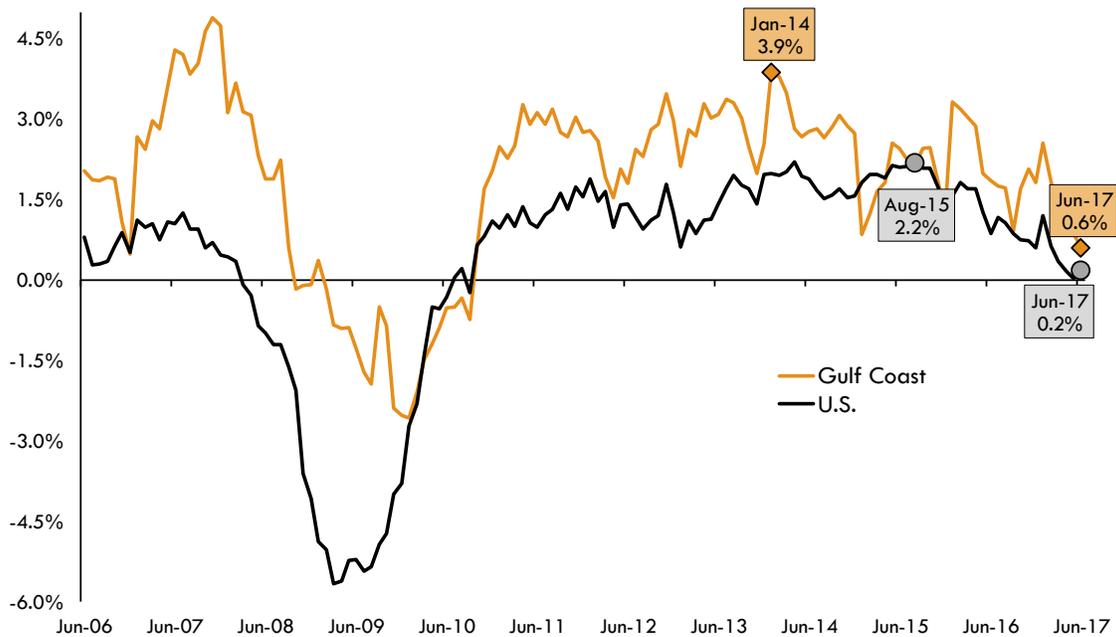
**Long-term and Recent Growth Trends in Gulf Coast Retail Employment**

From the second quarter of 2005 until 2017, Retail job growth in the region increased 24.9 percent, slightly below the overall increase in employment for all industries at 26.6 percent. Retail establishment growth stood at 22.0 percent compared to a 13.0-percent increase for all types of establishments over this same period. These metrics would seem to indicate that over the long-term, Retail in the Gulf Coast has fared reasonably well. However, this decade-long lookback at the sector obscures more recent trends. Over the past few years there have been numerous announcements of national Retail chain bankruptcies resulting in store closures. Several firms were known to have a significant presence in the Gulf Coast before exiting the market completely while others continue to operate in the region albeit in a reduced capacity. In some instances, closures were more a reflection of a particular company’s financial stability, or lack thereof, rather than the specific type of Retail segment or the Retail Sector generally (see Sports Authority and Dick’s Sporting Goods). In others, such as small independently-owned florists, a lack of economies of scale, the idiosyncrasies of a highly perishable product, and increased competition

from grocery stores and online retailers brings into question the viability of that industry’s business model going forward.

Regardless of the cause of the declines, it is instructive to look at recent trends to describe the direction of the sector at present. In doing so, we find that year-over-year Retail job growth in the region peaked in January 2014 at 3.9 percent and subsequently began to exhibit an uneven pattern of lower highs and lower lows. Note that this inflection point preceded the dramatic decline in oil prices in late-2014 that precipitated the region’s most recent downturn by nearly a full year. As of the second quarter 2017, Retail job growth had slowed to 0.6 percent, a pace of growth not seen since October 2010 as the Gulf Coast was emerging from the Great Recession. As an aside, the Current Employment Statistics (CES) survey, which provides monthly estimated snapshots of employment rather than a comprehensive census, indicates that Retail job growth turned negative year over year in March 2017 with a -0.1-percent decline. This does not guarantee that QCEW will also reflect negative growth as third and fourth quarter 2017 data are released yet it does point to the possibility of continued slowing in the second half of the year leading up to Hurricane Harvey, which may have reversed this trend at least temporarily. Again, given that many of the Retail bankruptcies and store closures occurred among national chains, we would expect national Retail trends to mirror our own and vice versa. This was in fact that case although the exact turning points and magnitudes varied, with the U.S. reaching a peak growth rate of 2.2 percent in August 2015 followed by a comparatively steadier decline and culminating in a second-quarter 2017 pace of growth of just 0.2 percent.

**Chart 4. Gulf Coast Region and U.S. – Year Over Year Percent Change in Retail Job Growth Q2-2005 to Q2-2017**



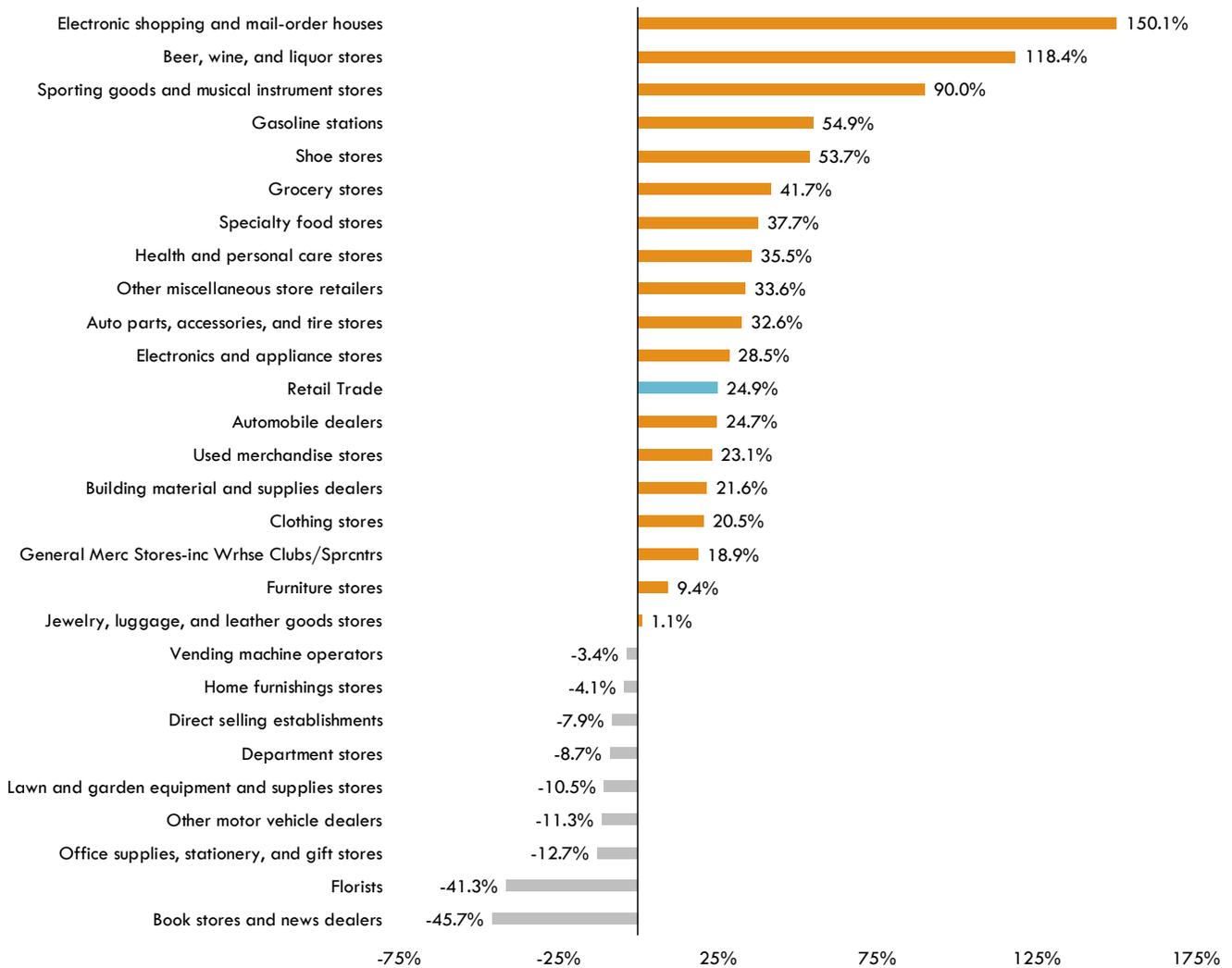
Logically, bankruptcies and store closures, leading to job losses, are key drivers of the trends described above, but the question remains “why are retailers declining in the first place?” Earlier we alluded to changing consumer preferences and technology as generally cited causes. One key player frequently identified in the reshaping of Retail as we know it is e-commerce retailer Amazon. Founded in 1994, it has become the world’s largest retailer in terms of online sales and as of 2017 was responsible for 43.5 percent of U.S. total online sales and 4.0 percent of all U.S. Retail sales.<sup>v</sup> There are reports that across the U.S. 79 million people possess Amazon Prime memberships which could translate to as many as 66 million households.<sup>vi</sup> While Amazon is not the only company responsible for the rise of e-commerce, and proving absolute causation is virtually impossible, it is still worth pondering the extent to which the “Amazon Effect” or at the very least a shift to online shopping generally is adversely impacting brick and mortar Retail. Using Amazon as a proxy for the disruption to traditional Retail, below are some of the company’s product offerings, technological developments and acquisitions that are likely to have already altered consumer habits and are likely to continue doing so:

- 2005: Amazon Prime launches by offering unlimited two-day free shipping on millions of items and later in 2011, access to a vast library of streaming TV and movies.<sup>vii</sup>
- 2012: Amazon acquires Kiva Systems, a robotics company manufacturing automated warehouse inventory management and logistics systems. In the years prior to this acquisition, it was reported that the course of a day, Amazon fulfillment center workers walked 7 to 15 miles. Presumably further integration of this technology will significantly reduce distances traveled on-foot by workers in fulfillment centers.<sup>viii ix</sup>
- 2014: Amazon launches the Echo, a digital personal assistant which uses speech-recognition technology and allows for purchase of an initially limited but growing list of items.<sup>x</sup>
- 2017: Amazon acquires organic grocery store chain Whole Foods Market, in the process adding 400 physical stores, and potentially future distribution centers, located in highly desirable areas to its e-commerce operations.<sup>xi</sup>
- 2018: Amazon opens its first cashier-less convenience store dubbed “Amazon Go” to the public.<sup>xii</sup>

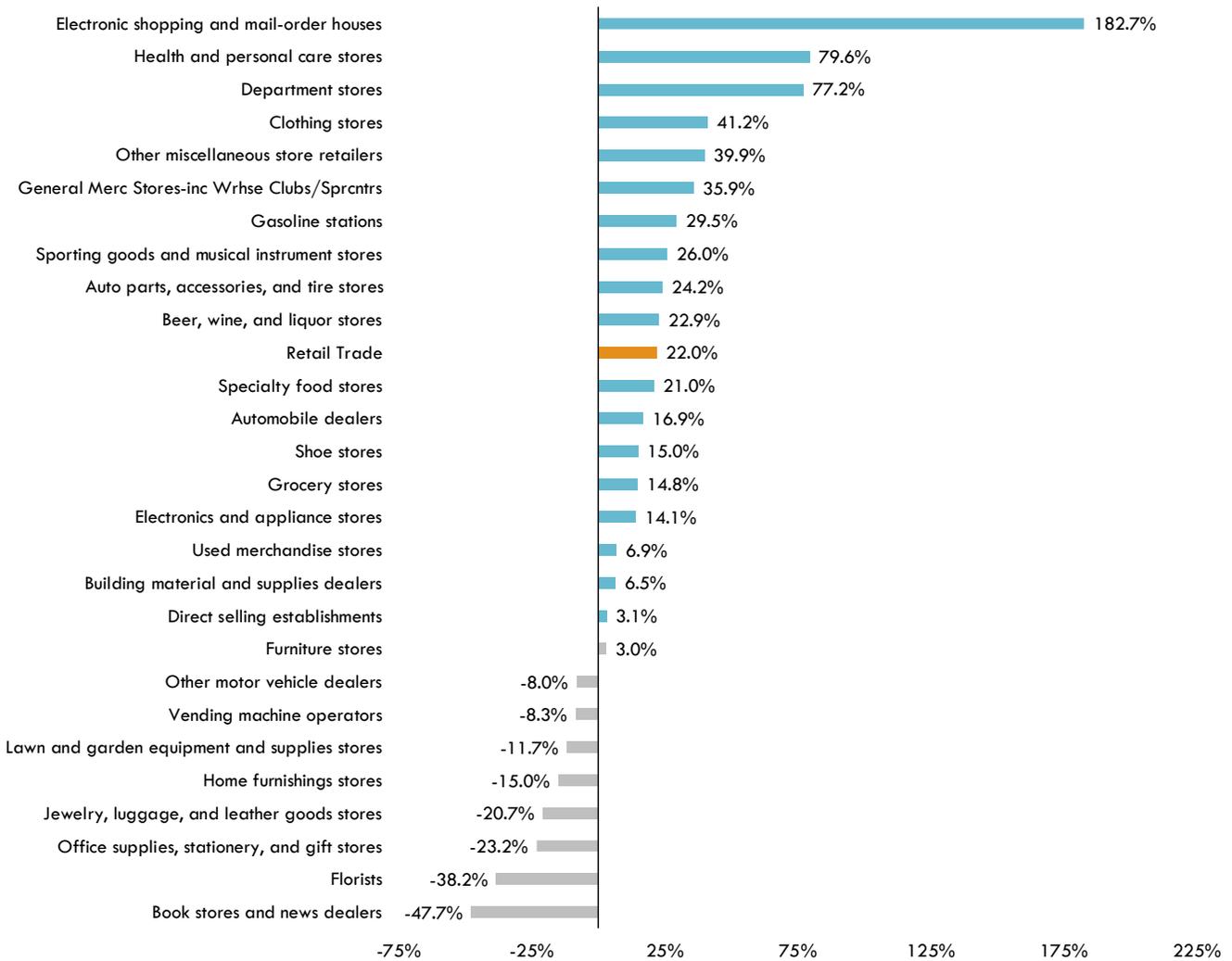
Reviewing the above timeline in the context of Chart 4 reconfirms the difficulty in identifying any degree of cause and effect between Amazon developments and labor market impacts at the aggregate level. Therefore, a brief analysis of selected 4-digit NAICS detailed Retail industries at the regional level may provide more useful insights. Of the 27 detailed varieties of Retail found in the Gulf Coast, one type stands out among the rest in terms of growth between Q2-2005 and Q2-2017: 4541 Electronic shopping and mail-order houses, which primarily refers to online Retail outlets. This Retail industry experienced a 150.1 percent increase in employment over the past 12 years, growing from just 782 jobs to 1,956. With regard to business establishments, this industry saw an even larger increase of 182.7 percent. Furthermore, Electronic shopping Retail was the fastest-growing Retail variety roughly 40 percent of the time over the 12-year period.<sup>xiii</sup> Making this category noteworthy is that it is a likely candidate for capturing the employment contribution online retailers like Amazon, though the inclusion of said company cannot be confirmed using publicly available data. At the other end of the spectrum are Retail industries experiencing significant job losses, for example Book stores and news dealers (-45.7 percent), Florists (-41.3 percent), Office supplies, stationery, and gift stores (-12.7 percent) to name a few. Once again, a

long-term lookback obscures more recent trends affecting some Retail industries more than others, which will be examined in the next section. Nonetheless, the rapid growth of Electronic shopping relative to overall Retail coupled with declines in various types of Retail that have traditionally relied on brick-and-mortar establishments to sell goods and services provides some evidence of the shift toward online Retail at the expense of its physical counterpart across the region. (See Charts 5. And 6.)

**Chart 5. Gulf Coast Region Percent Change in Employment by 4-Digit NAICS Retail Industry Q2-2005 to Q2-2017**



**Chart 6. Gulf Coast Region Percent Change in Number of Business Establishments by 4-Digit NAICS Retail Industry Q2-2005 to Q2-2017**



### Detailed Retail Industry Contributions to Overall Retail Job Growth

An understanding of which types of Retail have either increased or decreased over time is critical to discerning the possible impacts of a shift from conventional retail to online. However, such an analysis is incomplete without examining the long-term contributions of various Retail industries to overall Retail job growth as this reveals important dynamics not otherwise captured. Between the second quarter of 2005 and 2017, 67,034 Retail jobs were added before subtracting -5,128 jobs that were lost over this same period. Among the jobs that were added, more than one-quarter (26.7 percent) came from 4451 Grocery stores alone, making this Retail industry this single-largest contributor to (gross) job growth. This was followed by General Merchandise Stores Including Warehouse Clubs/Supercenters (9.6 percent), Gasoline Stations (8.9 percent), Automobile Dealers (8.5 percent), and Health and Personal Care Stores

(7.4 percent). Growth in the aforementioned industries reflects the 28.6 percent increase in population across the Gulf Coast between 2005 and 2016, the most recent year for which county-level data are available. As a final observation of job-growth contributors, the top-five noted above appear to be currently somewhat less vulnerable to competition from primarily online retailers, like Amazon, given the nature of the products sold, e.g. perishable food items, wholesale club bulk items, gasoline, automobiles, and pharmaceuticals. Note that many retailers of these items now include at least some online component in the customer service experience ranging from rewards points systems, to virtual customization of products, to on-site pickup and/or home delivery.

**Table 1. Gulf Coast Region Percent Contribution to Retail Sector Gross Job Gains by 4-Digit NAICS Retail Industry Q2-2005 to Q2-2017**

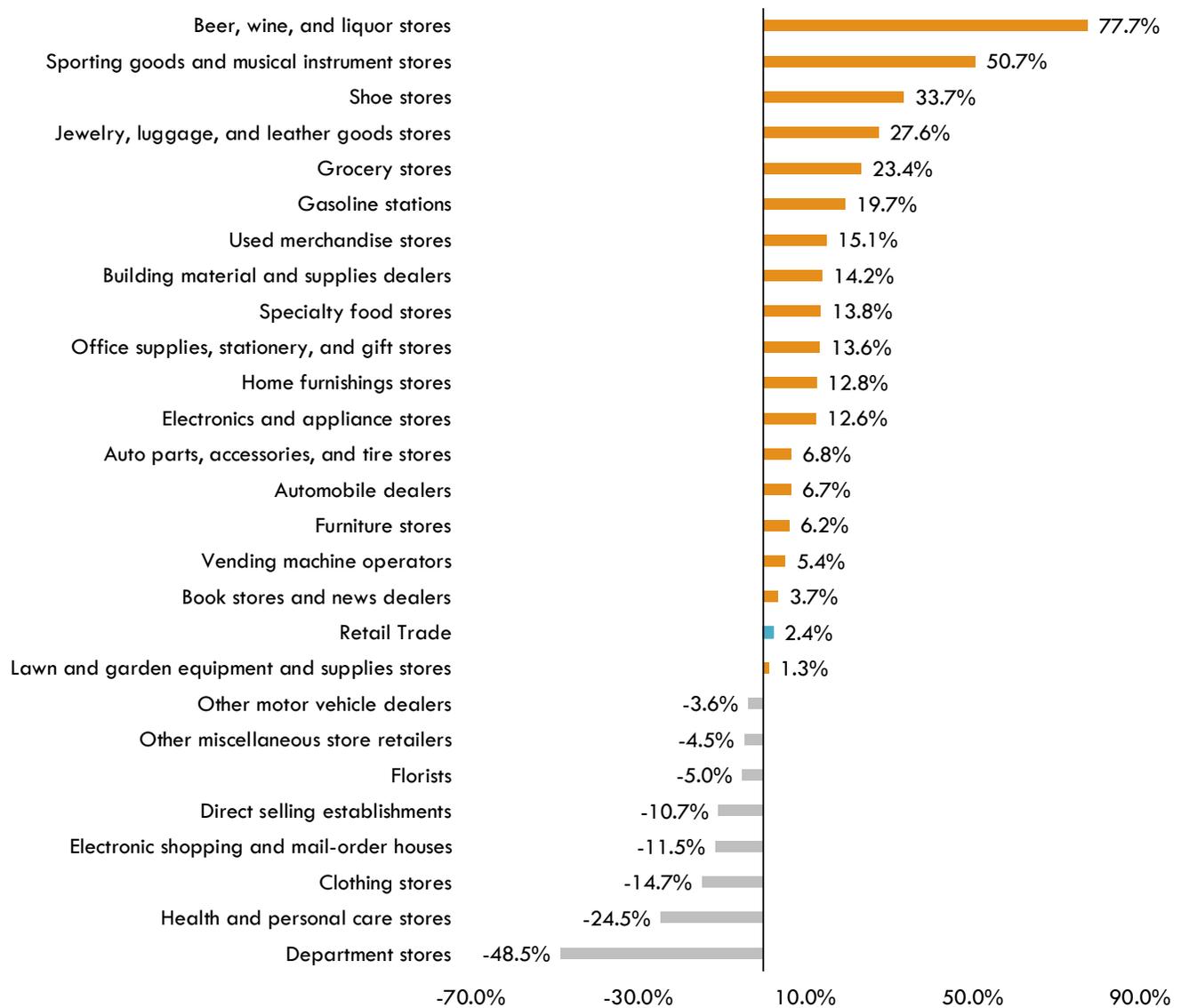
NAICS	Industry	Contribution
4451	Grocery stores	26.7%
452B <sup>1</sup>	General Merc Stores-inc Wrhse Clubs/Sprntrs	9.6%
4471	Gasoline stations	8.9%
4411	Automobile dealers	8.5%
4461	Health and personal care stores	7.4%
4511	Sporting goods and musical instrument stores	7.1%
4481	Clothing stores	5.7%
4441	Building material and supplies dealers	5.6%
4413	Auto parts, accessories, and tire stores	4.2%
4431	Electronics and appliance stores	4.0%
4453	Beer, wine, and liquor stores	3.0%
4482	Shoe stores	2.3%
4452	Specialty food stores	2.1%
4539	Other miscellaneous store retailers	1.9%
4541	Electronic shopping and mail-order houses	1.8%
4533	Used merchandise stores	0.7%
4421	Furniture stores	0.6%
4483	Jewelry, luggage, and leather goods stores	0.04%

<sup>1</sup>Reflects 6-digit NAICS category consolidations due to changes in 2012 and 2017 NAICS structures to preserve data continuity.

In contrast to the above table of job-growth contributors, the table below illustrates one of the most salient features of recent Retail Sector declines, that of the shrinking importance of traditional Department Stores. In 2017 alone, over 324 department store locations representing some 36 million square feet were projected to become vacant, potentially imperiling the shopping centers of which they are typically considered “anchor tenants.”<sup>xiv</sup> This industry accounted for 36.8 jobs lost over the past 12 years. Surprisingly, the number of Department Store establishments *increased* over the period from 123 to 218 for a 77.2-percent gain. However, this growth belies the precipitous drop in the average number

of jobs per establishment from 176.2 in the second quarter of 2005 to 90.8 in the second quarter of 2017 for -48.5 percent decline. In other words, the number of Department Stores has managed to rise, albeit more slowly in recent years, yet the number of jobs and therefore workers supported by each establishment has fallen, something which corroborated by an 8.2-percent decline in jobs over this period. Other Retail industries exhibiting these same contradictory patterns include Health and Personal Care Stores which includes retail pharmacies (-24.5 percent), Clothing Stores (-14.7 percent), and perhaps most ironically of all, and suggesting rapid gains in efficiency, Electronic Shopping and Mail-order Houses (-11.5 percent). (See Charts 5, 6, and 7.)

**Chart 7. Gulf Coast Region Percent Change in Average Number of Jobs per Establishment by 4-Digit NAICS Retail Industry Q2-2005 to Q2-2017**



**Table 2. Gulf Coast Region Percent Contribution to Retail Sector Gross Job Losses by 4-Digit NAICS Retail Industry Q2-2005 to Q2-2017**

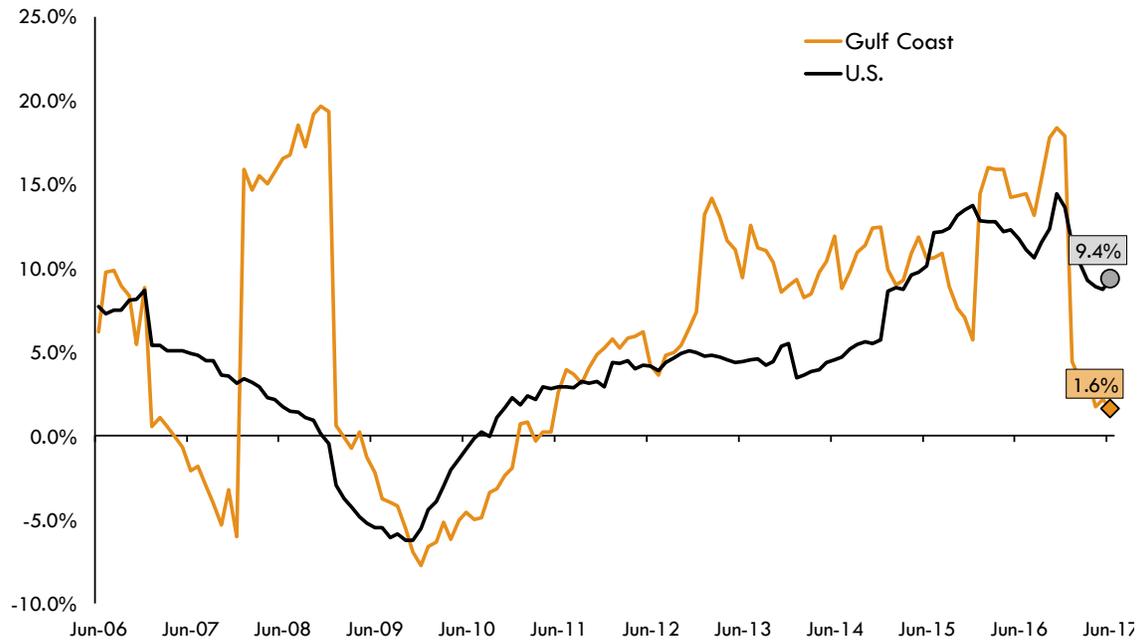
NAICS	Industry	Contribution
452A <sup>1</sup>	Department stores	-36.8%
4512	Book stores and news dealers	-23.2%
4532	Office supplies, stationery, and gift stores	-13.2%
4531	Florists	-9.8%
4412	Other motor vehicle dealers	-6.0%
4442	Lawn and garden equipment and supplies stores	-4.8%
4422	Home furnishings stores	-4.3%
4543	Direct selling establishments	-1.5%
4542	Vending machine operators	-0.3%

<sup>1</sup>Reflects 6-digit NAICS category consolidations due to changes in 2012 and 2017 NAICS structures to preserve data continuity.

### **The Other Byproduct of the Rise in Online Retail: Warehousing**

It is widely accepted that online Retail obviates a significant portion of the need for an in-person Retail experience. However, another key component of the Retail process remains: the storage and distribution of products prior to reaching consumers, typically from a warehouse or similar facility. In the Gulf Coast Region, long-term trends showed that Warehousing and Storage Sector experienced employment growth of 93.9 percent and establishment growth of 47.9 percent between the second quarter of 2005 and 2017, and as was the case for Electronic shopping and mail-order houses, substantially faster than overall job or establishment growth across all sectors of the region’s economy. A look at year-over-year changes reveals that regionally this sector experiences much higher levels of volatility in terms of employment changes compared to the U.S. Nonetheless, the overall trend remains mildly positive despite a sharp drop November 2016 when growth reached 18.6 percent before falling to its most recent rate of 1.6 percent. The reasons for the volatility are unclear though one possible explanation is the reclassification of establishments either to or from this industry during the first quarter benchmarking process that takes place within QCEW each year.

**Chart 7. Gulf Coast Region and U.S. – Year Over Year Percent Change in Warehousing and Storage Job Growth Q2-2005 to Q2-2017**



Returning to the topic of online retailers, specifically Amazon, Warehousing and storage represents another category which may include firms of this type, especially at the local level given that Amazon reportedly operates at least six fulfillment-type facilities in the Gulf Coast Region. The challenge here in identifying the impacts on warehousing, besides the usual difficulties in proving causality, is that Amazon’s presence in the region is relatively recent compared to other parts of the country and furthermore coincides with one of the most volatile stretches of changes in year-over-year job growth in this sector. It should also be noted that at roughly 14,000 warehousing jobs in region, the reported number of jobs across the various Amazon facilities across the region (approximately 4,000) would equate to nearly 28 percent of that industry’s total employment. Below is a timeline of Amazon warehouse expansions in the Gulf Coast although it does not purport to be exhaustive:

- June 2014 – Amazon opens its first fulfillment center, a 250,000-square-foot facility, outside of Humble, TX, reported to create 200 jobs.<sup>xv</sup>
- 2015-2016 Amazon offers 1-hour Prime Now delivery services to selected areas via two facilities.<sup>xvi</sup>
- May 2017 – Amazon opens an 855,000-square-foot second fulfillment center in Pinto Business Park at the southwest corner of Interstate 45 and Beltway 8 in 2017, reported to create 2,500 jobs.<sup>xvii xviii</sup>
- Early-2018 – Amazon opens a 110,000 square-foot leased facility in Fallbrook Pines Distribution Park. Reports from late-2017 indicated a first quarter 2018 start of operations however it is unclear what if any impact the acquisition of Whole Foods has on this facility going forward.<sup>xix</sup>

- February 2018 – Amazon opens a one million-square-foot fulfillment center near Katy, TX, reported to create 1,000 full-time jobs.<sup>xx</sup>

## Conclusion

As we have shown, the Retail Sector continues to be an important part of both the local and national economies generating billions in sales and providing employment opportunities for hundreds of thousands if not millions of individuals. Over the past decade, retail in the Gulf Coast has added jobs and business establishments, yet in recent years this sector has shown signs of slowing, potentially resulting in net job losses. Changing technology and consumer preferences combined with the rise of online retailers have transformed the sector and will continue to do so with some degree of disruption to the labor market unavoidable. While there are numerous online retailers, Amazon remains the leader in this category and is not only a reflection of these trends but also a driver. The precise magnitude of this company's impact on traditional retail is difficult to discern at any geographical level but it was possible to demonstrate the Electronic Shopping, generally, has grown substantially faster than its physical counterpart across the Gulf Coast, indicating some substitution. One beneficiary of this growth is the Warehousing industry which has seen equally impressive growth over the past decade. However, this may be insufficient to offset declines in retail outlets such as Department Stores, which have been reducing their employment per establishment since the mid-2000s. What the future holds for brick-and-mortar retail is uncertain and undoubtedly some chains will reinvent themselves while others will cease to exist. Regardless, the types of jobs associated this sector will evolve and require new skills and as a result it will prove critical for workforce development practitioners to be attuned to these changes and adjust their efforts accordingly.

<sup>i</sup> U.S. Bureau of Economic Analysis, Personal Consumption Expenditures, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/PCE>, February 3, 2018.

<sup>ii</sup> U.S. Bureau of Economic Analysis, Value Added by Private Industries: Retail Trade as a Percentage of GDP, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/VAPGDPR>, February 3, 2018.

<sup>iii</sup> Bureau of Labor Statistics - Quarterly Census of Employment and Wages, as of Q2-2017

<sup>iv</sup> The Current Employment Statistics survey indicates that job losses bottomed at -3,800 in August 2016 while QCEW indicates relatively more severe decline in employment.

<sup>v</sup> eMarketer Amazon's Share of US Ecommerce to Surpass 40% In 2017, retrieved February 4, 2018

<http://www.emarketer.com/newsroom/index.php/amazons-share-us-ecommerce-surpass-40-2017/>

<sup>vi</sup> Morningstar via Recode "Amazon Prime is on pace to become more popular than cable TV" July 9, 2017 retrieved February 4, 2018

<https://www.recode.net/2017/7/9/15938658/amazon-prime-numbers-members-us-households-cable-tv>

<sup>vii</sup> Amazon.com "Amazon Prime" <https://www.amazon.com/p/feature/zh395rdngt6b8ea> retrieved February 4, 2018

<sup>viii</sup> New York Times - March 19, 2012 "Amazon.com to Acquire Manufacturer of Robotics"

<https://dealbook.nytimes.com/2012/03/19/amazon-com-buys-kiva-systems-for-775-million/> retrieved February 4, 2018

<sup>ix</sup> Business Insider – August 17, 2015 "See what it's like inside Amazon's massive warehouses" <http://www.businessinsider.com/what-its-like-in-amazons-massive-warehouses-fulfillment-centers-2014-11/#as-you-might-expect-working-in-an-amazon-warehouse-can-be-very-taxing-employees-need-to-be-able-to-lift-up-to-49-pounds-and-stand-or-walk-for-10-to-12-hours-per-day-6> retrieved February 4, 2018

<sup>x</sup> Venture Beat "You can now ask Alexa to order millions of products on Amazon" <https://venturebeat.com/2016/07/01/you-can-now-ask-alexa-to-order-millions-of-products-on-amazon/> retrieved February 4, 2018

<sup>xi</sup> The Financial Times "Nicolau, Anna (June 17, 2017). "Walmart and Amazon in acquisition shopping spree in retail battle". Financial Times. United Kingdom." <https://www.ft.com/content/bca88eac-52f6-11e7-bfb8-997009366969> retrieved February 4, 2018

<sup>xii</sup> The Seattle Times – January 21, 2018 "Amazon Go cashierless convenience store opens to the public in Seattle"

<https://www.seattletimes.com/business/amazon/amazon-go-cashierless-convenience-store-opening-to-the-public/> retrieved February 4, 2018

<sup>xiii</sup> The periods referred to are year-over-year quarterly changes in employment.

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- <sup>xiv</sup> Forbes Magazine Apr 25, 2017 “Department Store Closures A Good Thing For Malls”  
<https://www.forbes.com/sites/gregmaloney/2017/04/25/department-store-closures-a-good-thing-for-malls/> retrieved February 4, 2018.
- <sup>xv</sup> HKATexas June 29, 2014 “Packages are moving at Amazon’s new fulfillment center, one mile west of Humble City Limits”  
<http://www.hkatexas.com/2014/06/amazon-fulfillment-houston-humble-texas/> retrieved February 4, 2018
- <sup>xvi</sup> Houston Chronicle - October 21, 2015 “Amazon brings Houston 1-hour Prime Now delivery option”  
<http://www.chron.com/business/article/Amazon-brings-Houston-1-hour-Prime-Now-delivery-6572148.php> retrieved February 4, 2018
- <sup>xvii</sup> Houston Chronicle January 12, 2017 “Amazon plans hiring spree in Houston and elsewhere”  
<http://www.houstonchronicle.com/business/retail/article/Amazon-plans-hiring-sprees-in-Houston-and-elsewhere-10854274.php> retrieved February 4, 2018
- <sup>xviii</sup> Houston Chronicle - May 30, 2017 “Amazon hiring 2,500 people for Houston fulfillment center”  
<http://www.chron.com/business/bizfeed/article/Amazon-hiring-2-500-people-for-Houston-11182600.php> retrieved February 4, 2018
- <sup>xix</sup> Houston Business Journal – August 2017 “Exclusive: AmazonFresh inks 110K SF lease in northwest Houston business park “  
<https://www.bizjournals.com/houston/news/2017/07/06/exclusive-amazonfresh-inks-110k-sf-lease-in-in.html> retrieved February 5, 2018
- <sup>xx</sup> Houston Business Journal - Jan 31, 2018 “Amazon finishes Katy facility construction, will start employee equipment training”  
<https://www.bizjournals.com/houston/news/2018/01/31/amazon-finishes-katy-facility-construction-will.html> retrieved February 4, 2018