

Change and Disruption in the Floral Industry

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Introduction

The floriculture industry is part of a larger *green industry* supply chain that includes allied trade suppliers, nursery and greenhouse growers, landscape design and service firms, retail-oriented businesses, and, finally, end consumers.

Even though the focus of this report is on cut flowers, it is important to recognize that they, as a product group, are part of a larger floriculture crop category that includes bedding plants, potted flowering plants, foliage plants, and cut cultivated greens. As distinguished from nursery crops, floriculture crops are generally herbaceous. Bedding and garden plants consist of young flowering plants (annuals and perennials) and vegetable transplants. They are grown in cell packs (in flats or trays), in pots, or in hanging baskets, usually inside a controlled environment, and sold largely for gardens and landscaping. Geraniums, impatiens, and petunias are the best-selling bedding plants. Chrysanthemums are the major perennial garden plant in the United States. Flowering plants are largely sold in pots for indoor use and the major flowering plants consist of poinsettias, orchids, florist chrysanthemums, and finished florist azaleas. Foliage plants are also sold in pots and hanging baskets for indoor and patio use, including larger specimens for office, hotel, and restaurant interiors. Cut flowers are usually sold in bunches or as bouquets with cut foliage. The most popular cut flowers are roses, carnations, gladioli, and pompon chrysanthemums. Leatherleaf ferns are the leading cut foliage. Combining cut flowers and cut greens in bouquets or other flower arrangements is a value-added retail option.

The floriculture industry has been in what seems to be a constant state of transition for a couple of decades. While some businesses in the industry adapting to new paradigms of business competition, others are struggling to find their way among new competitors and an ever-changing customer base. The traditional market channels in the floral industry remain relevant for many of the flowers and plants that consumers purchase, however, firms in these traditional channels are finding increased competition from companies exploring completely new business models that are finding success in the market.

Purpose of this study

Much has been written regarding the structural changes occurring in the floral industry including trade magazine articles, market research reports, industry white papers, and academic journal articles. The WF&FSA, in conjunction with eight other floral associations, commissioned and funded this study to compile relevant secondary research and/or data in order to benchmark industry trends, determine gaps in the available information that can be further researched and analyzed, and to make the findings widely accessible to the industry.

The research methodology used to conduct this study was unique and quite different than other research projects in that the research team interacted with the funding entities throughout the entire project to ensure the research was applicable to the questions of interest and met the diverse expectations of the funding organizations. The research was conducted in a stepwise fashion, with the findings of each step determining the research plan for the next step in the process.

Step 1, which included compiling and cataloging existing floral industry research and/or secondary data, involved the following procedures:

- Creating a definitive data set of what information currently exists, including the timeframe when data was produced (to determine if they are still relevant and applicable).
- Categorizing and summarizing the existing data/reports based on industry segment including wholesale florists, retail florists, mass market, online, consumers, etc.
- Cataloging and benchmarking existing floral industry reports so future research studies can determine trends.
- Identifying and summarizing data gaps that need to be researched in order to complete the perspective of the entire floral supply chain.

The research team examined the entire floral supply chain in the U.S. starting with the domestic and international grower sector, shippers/importers, wholesale florists and other wholesale service-providing firms (e.g. bouquet manufacturers, wire services), florists (event, studio, and brick-and-mortar), e-commerce firms, and end consumers. By using this sectoral approach, we were able to determine the changes in industry **structure**, how firms **conduct** themselves in the marketplace, and the operational and financial **performance** of firms in the floral industry.

The Structure-Conduct-Performance (SCP) paradigm of strategic industry-level analyses assumes market structure will determine firm conduct which then will determine performance. In a typical SCP analysis, market structure establishes the overall environment (or playing field) within which each firm operates. Essential market structure characteristics include the number and size distribution of the sellers and buyers, the type of product offered for sale, barriers to entry, and whether any asymmetry of information exists between buyers and sellers.

Market structure often differs across industries because of variations in basic conditions, including the underlying technological base, the regulatory and legal environment, demand conditions, and the relative importance of economies of scale. All of these basic conditions tend to affect the number and size distribution of firms observed in an industry. Market conduct, the second element, shows up in the firm-level value chain activities such as production, pricing, marketing, promotion, and research and development. Whether a firm decides its strategic intent

independently or in conjunction with other firms in the market has a crucial impact on the conduct of the industry. The third element, market performance, is reflected in the degree of production efficiencies, technological progress, and other factors affecting revenue volatility.

Once the research team collected, cataloged, categorized, summarized, and benchmarked existing data and reports, gaps in existing information were identified. In other words, in order to have a more complete picture of the SCP issues occurring in the floral industry, what additional information would be needed? What additional research could be conducted to fill the gaps and/or data needs? These questions are answered later in this report. For each proposed project, the research team describes the gap that it fills, as well as the research methodology that could be used, and expected deliverables for each project. **Thus, this report represents the findings of Step 1 and identifies the [gaps in information](#) that could be filled by potential research projects during Step 2.**

After reviewing this report, WF&FSA and the funding partners will then provide input on how best to prioritize the proposed gap-filling research projects and the research team will initiate work on the most highly-ranked projects. Once the research to fill the gaps identified in Step 2 is complete, then Step 3, which is producing the comprehensive report, will be initiated. This final, comprehensive report will include a summary of all relevant secondary data from Step 1, compiled by each industry segment along the floral supply chain, as well as the findings from the primary research projects conducted in Step 2. The research team will then work closely with the funding entities to generate easily-consumed infographics and/or other communication tools deemed appropriate for association members, the floral community at large, policymakers, and other floral industry stakeholders as deemed appropriate.

Contents of this report

The first section of the report discusses the changing structure of the floral industry from a supply chain perspective demonstrating the complexities of the industry. This is followed by a discussion of the driving forces of change identified by the research team after an environmental scan of the market research that has been previously conducted regarding the floral industry, along with data collected from industry thought leaders regarding the changes occurring in the industry. The next section discusses other issues that may not be considered driving forces of change, but do represent other issues that are cause for concern and require some level of response by industry firms. A section discussing consumer trends follows, given the importance of consumers in determining the success of the floral industry in the future. Next, a section is presented that provides summaries of the changes occurring in each sector of the floral industry, including the retail sector (e.g. florists, supermarket and mass market floral departments, e-commerce sites), wire services, wholesale florists, domestic and international growers, and

importers. The discussion of floral sectors is followed by a section that identifies the gaps in information that the researchers feel warrants further investigation. In order to keep this report to a manageable size, valuable resources are identified throughout the report highlighting other online and print materials that will likely be of particular interest to readers of this report.

Structure of the floral industry

Figure 1 presents a flow-through-time perspective of the entire floriculture supply chain, depicting (from the bottom up) the extractive or raw materials sector, manufacturing and distribution sector, domestic and international grower sectors, service and retail sectors, and, finally, end consumer. Regulatory functions are also indicated as well as the ancillary service sectors such as banking, distribution, marketing, etc. Lastly, the import/export sectors are included given their importance to overall supply and demand of flowers domestically and worldwide.

During the early days of the industry, cut flowers traditionally followed a fairly unsophisticated supply chain depicted as: ***Domestic growers > Wholesale florists > Retail florists > Consumers***. Imported flowers were introduced into the supply chain following the introduction of supermarket floral departments and accelerated by the Andean Trade Preference Act in the early 1990's. Interestingly, the so-called "war-on-drugs" was one of the forces underlying the implementation of this trade agreement. An unexpected consequence of the policy was that it fostered the entry of several market intermediaries in the floral supply chain. So the traditional supply chain depicted above was augmented with one that looked like this: ***International growers > Importers > Wholesale florists > Retail florists or Supermarket floral departments > Consumers***. The two supply channels operated simultaneously for many years and continue to do so.

At present, however, the structure of the floral industry is much more complex, with new players filling new roles in existing channels and, in some cases, entirely new channels being introduced because of advances in technologies (e.g. information technologies, biotechnologies, packaging, post-harvest technologies, automation and mechanization), as well as improvements in transportation and logistics. Examples of some of these new, alternative channels that were introduced into the supply chains described above include:

- Vertically integrated bouquet makers shipping from their own international farms to Miami, arranging bouquets, and selling them to supermarkets and other mass market floral departments. Some bouquets are even assembled at the grower level and then imported and distributed. Other firms have wedding preparation divisions that deliver

finished bouquets/arrangements directly to brides or event florists.

- Online firms of all types. Some coordinate sales and use local florists to fill orders; some take and fill orders themselves; while others even coordinate sales from growers directly to consumers, brides, event planners, or event/studio florists.
- Local, seasonal, and sustainably-minded specialty cut flower growers and marketers, characterized as being a part of the “slow-flower movement”. Although, this term actually includes florists, studio designers, wedding and event planners, supermarket flower departments and flower farmers who are committed to using American-grown flowers.
- Some floral departments of select supermarkets have been rebranded and repositioned in the market and now supply up-scale services for weddings and other events, acquiring high quality flowers direct from growers. Some have referred to this as the *mass prestige* movement in the *superfloral* channel.
- Hybridized models where firms provide some of the same services to retail florists offered by wire services (e.g. access to a fee-based referral network), but include retail-oriented software-as-a-service (SaaS) in their model.

On the right side of the supply chain diagram, several cross-cutting issues are also summarized including changing consumer tastes and preferences, shrinking margins within certain sectors in the industry, availability and recruiting of talent/labor into the industry, the increasing costs of distribution across all sectors, and the economy regionally and nationally. Several structural aspects of the industry are also listed, with the first being that the industry is in the mature stage of the industry life cycle, meaning that the industry is experiencing very low growth rates (if at all) and is near/at the decline stage unless its value proposition is revamped.

During these latter stages of the industry life cycle, consolidation occurs (usually through mergers or acquisitions) and the number of participants in the industry usually decreases (a phenomena called shakeout). Given these parameters, the term hypercompetition is often used to describe the nature of competition in the industry during this stage of the life cycle. In this case, it means that the competitive advantages that have enabled firms to survive the financial stress brought on by the Great Recession and to remain viable in the marketplace today are not the same advantages that will carry firms successfully into the future. Firms must be proactive in developing competitive advantages and articulating these advantages through value propositions that resonate with the needs and preferences of business-to-business (B2B) customers and end consumers.

Lastly, innovation is occurring at a pace that is not sustainable, thus often referred to as the innovation treadmill which keeps increasing speed to the point that it is difficult for firms to capture the profits necessary to benefit from the innovation before it is time to move on to the next innovation. The development of new flower varieties by breeders is but one example of this innovation treadmill phenomenon. Specific ways in which these structural aspects and industry issues affect individual sectors within the supply chain will be discussed in later sections of this report.

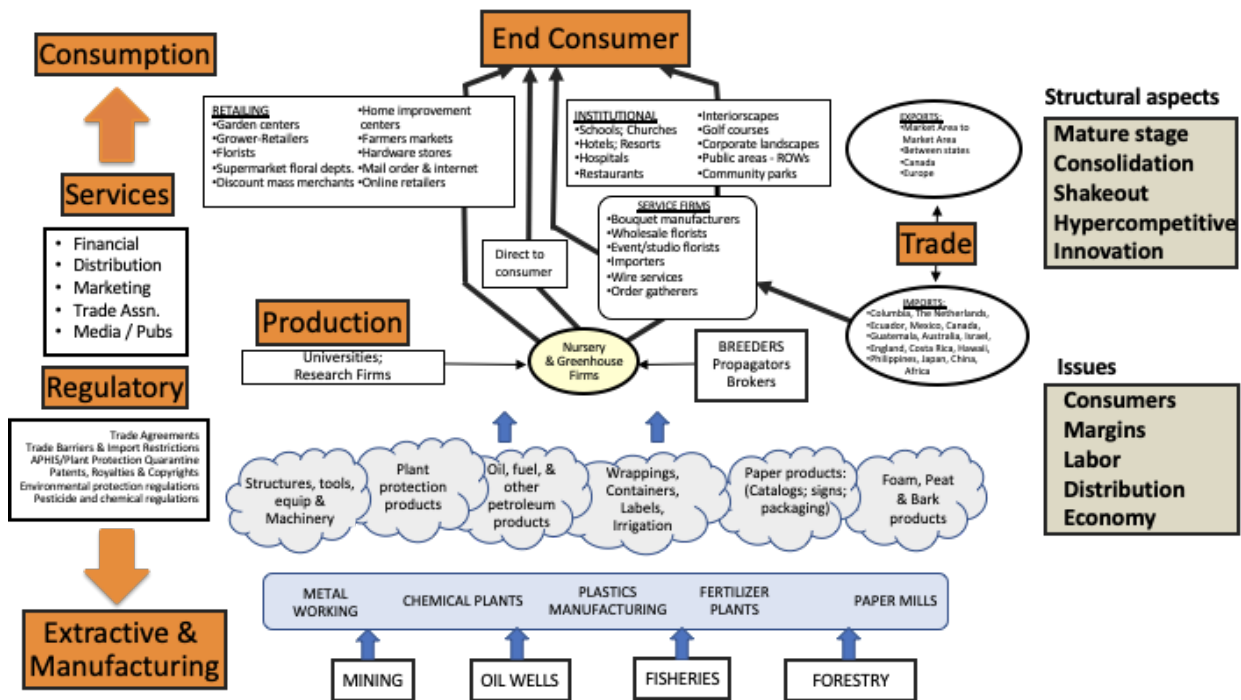


Figure 1. Structure of the floriculture industry.

Driving forces of change

A look back at the year 2000 shows how much the world can change in just a couple of decades. Back then, about 30% of people in developing countries lived in extreme poverty, compared with less than 15% today. Only 12% of people owned a mobile phone; now, more than 60% do. Facebook, which today has almost 1.5 billion users, had not even launched yet. These and other developments have changed how consumers live, think, and shop. Pundits contend that these types of changes are only going to accelerate. What is currently going on in the world economy

is “no ordinary disruption” in that these driving forces are disrupting long-established patterns in virtually every market and every sector of the world economy and in every aspect of our lives.

Driving (disruptive) forces can cause dramatic market shifts and reversals and the retail and consumer packaged goods sectors have seen plenty of such reversals in the past two decades. In 2000, Kmart was the third-largest U.S. retailer with \$36 billion in sales; by 2014, its annual revenues had declined by two-thirds. Over the same period, Amazon’s annual sales grew from \$2.8 billion to \$89 billion. Anheuser-Busch was the world’s largest brewer in 2000; today, it no longer operates as an independent company, having been taken over by formerly smaller players.

The next two decades will bring their share of industry upheavals. Companies that want to be successful in 2030 must study emerging driving forces and begin preparing for them now. Certain trends will follow a pattern of predictable growth -- others may take more surprising paths. In this section, we cite examples of both types of driving forces and some of their high-level implications for the floral sector.

Here is a little of what we know about what the global marketplace will look like in 15 years. With the number of city dwellers increasing at a rate of 65 million each year, the majority of the consuming population will be urban. The average consumer will be slightly older. Growth among aging populations in developed markets is outpacing growth in the younger demographic segments in emerging markets. Of course, age profiles will vary by market. About 75% of the 8.5 billion people projected to be alive in 2030 will have both mobile and internet access. The middle class in emerging markets will be substantially larger and its members better off than their parents. On the business side, consolidation will continue and companies will make better use of digitization, big data, and analytics.

Driving forces (disruptors) affecting the floral industry:

In order to determine the driving forces affecting the floral industry, an intensive environmental scanning exercise was undertaken to examine all that has been documented regarding the structure, conduct, and performance of the cut flower industry. In addition to summarizing findings from secondary (already existing) market research, primary market research (collecting data directly) was conducted in the form of personal interviews with floral industry thought leaders. From these primary and secondary data, we have distilled them into the following major driving forces or disruptors in the industry:

1. Supermarkets led to greater imports and consolidation
2. Increased traction of the online floral channel
3. Direct to consumer channel emerges (e.g. FiftyFlowers, Bouqs, etc.)

4. Demographic shifts in knowledge and perceptions underly consumer preferences
5. Advent of event, studio, & lifestyle florists
6. Spending on funeral and wedding flowers
7. Technology advances
8. Supply chain logistics/transportation (e.g. sea freight)

We have also seen several areas that are cause for concern, including: **the lack of relevant and timely data, tensions among industry participants, current inventory management practices, resistance to change, the availability and retention of labor, and lack of succession planning.** These are discussed below. Various quotes from our interviews with industry leaders are interspersed throughout this summary to illustrate our findings. Here are a few general quotes to set the stage for the driving forces discussion:

“We are seeing the restructuring of the floral industry, not its demise.”

“Our goal is to sell more flowers, to more people, more often. If we can accomplish that, then the industry will be just fine.”

“Protection of the floral supply chain is driven by fear.”

“Change is inevitable. Change is constant. You need to choose to change with the times that are coming, if you are to remain relevant.”

“Survivors have tended to be located near large cities; in the rural areas, not so much.”

“If the brand [image] is good, then the price is less important.”

“Should our goal be to increase the volume of flowers, or to increase the value of flowers?”

“The expanding channels at retail have been both interesting to watch and difficult to keep up with. I wonder if the value proposition of some of these new channels will be lasting or not.”

“There is a universal appeal for flowers and good feedback from consumers. It is much broader than other product categories.”

“It takes courage to make change and influence.”

“Organizations need to ask themselves, ‘If I disappear, who would notice?’ The answer to that question points to your purpose for being in business in the first place.”

“Make sure that you can be the highest quality in your given field and there is no greater opportunity. I help people release their creativity and become wildly successful. I think all these things are very possible and what has made me profitable. The same goes for other industry participants, I think.”

“I can not do my business without wholesalers. I need wholesalers to make it more accessible to purchase from them in the 21st Century and it is more than just posting your flower-of-the-week on Instagram.”

“Healthy shops with a beautiful, artistic atmosphere are not going anywhere.”

“It is when we started manufacturing flowers that I think we destroyed them and they no longer were a special treat.”

“Sometimes you have to say just because we have always done it this way, is that what makes the most sense?”

“Our industry is almost mirroring the restaurant industry. During our parents’ generation, ‘Mom and Pop’ restaurants went out of business due to restaurant chains. Now it is a turnaround where young people are going back to local ‘Mom and Pop’s’ for that experience.”

“We have historically put all the pressure on the weakest link in the chain which is where the product converts into cash.”

“We, at the end of the day, are an agricultural product.”

Growth in supermarket floral drove increased imports and consolidation

Disruptive change has come to the supermarket sector. Technological innovations online and in-store, as well as shifting consumer expectations, are changing the way food retailers operate. The pace of change has been brisk and shows no sign of abating.

Supermarkets have been a disruptive force in the floral industry since the late 1950’s. While this is not a recent phenomenon in the industry, it has been an important one. During the 1980’s and 1990’s, the buying trend by supermarkets for fresh fruits and vegetables started deviating from the traditional grower-wholesale distributor-retailer model to a more streamlined grower-retailer model where the produce was procured directly from growers. As the volume of supermarket

floral sales increased over time, this same procurement trend was carried over to the floral side, with economies of scale and buying efficiencies being the main results buyers were seeking from buying **directly from growers**.

This disruptive force has also contributed to the subsequent **consolidation** that is occurring at every step of the floral supply chain. Larger flower growers have bought out smaller farms, larger retailers have acquired smaller retail players, and wholesale florists have purchased other regional firms. A consolidated market dominated by large players can make it more difficult for smaller players to compete. In addition, several large players are also seeking ways to further streamline their supply chain processes and maximize their profitability through vertical integration.

The most recent driving force in supermarket floral is the re-positioning some retailers are making towards a “**mass-prestige**” offering. That is, upscale service offerings to attract events-related purchasing such as wedding flowers. This has increased the competitive forces among the retail florist sector of the industry. The net effect to date has been a 45% decrease in the number of retail florists since 2001.

Projected disruptors within the supermarket channel over the next decade include further consolidation of the grocery market, with about 30% of existing store chains exiting by 2025. The larger chains will get larger, and the smaller outlets will become more personalized in their service. Today, it is about designing for the experience: the sushi bar, cheese bar, wine bar, or cooking school. Shoppers care about experience first, convenience second, and price third. We will also likely see rapid growth in smaller format stores. There will be increased impact of take-out foods and “food subscriptions” which may carry over to the floral departments. A battle will be fought over “click & collect” and home delivery. There will be more experimentation with “on-trend” stores and culinary-based “grocerants,” where more supermarkets will include soup-to-nuts restaurants. There will be rapid growth of Hispanic-purposed stores. Robotics and artificial intelligence will also be more integrated with store operations than we’ve seen to date.

“Our industry is going through what the baker and the butcher went through 20 years ago.”

“Florists have to react to mass market floral by providing superior service, unique designs, and great marketing.”

“VMI and PBS have become a way of life for me as a wholesale florist. I’ve had to totally change my mindset.”

“The only thing that distinguishes the consumer's choice right now is price. There is so much creativity, new breeds, pinterest and social media flying around that show a lot of exciting and new ways to design for floral. This may be mitigated to a large extent by the purchasing power of mass retail with their convenience and increasing the number of full service stores.”

“We need to be able to sit down with the supermarkets and take the emotions out of it because they are not emotional.”

Increased traction of the online floral channel

Major online players include Bouqs, UrbanStems, FarmGirl Flowers, H.Bloom, Benchmark Bouquets, KaBloom, etc. Digital retailing gives consumers more ways to shop and more access to products and services than ever before. It is clear that consumers are embracing the freedom of shopping whenever and wherever they please, as online sales are capturing a double-digit share of retail dollars in some markets. Interestingly, 18% of floral consumers worldwide have indicated they have purchased flowers online. Of those who purchase online, 18% say they generally purchase in person (another case for having an omnichannel presence), 38% indicate they only purchase flowers online, and 41% say they purchase flowers online and in-person with the same frequency.

For online purchasing of consumables, the most effective activation strategy among “trialists” (purchased online in the past but not recently) and “considerers” (currently do not buy online but would consider buying) is a money-back guarantee for products not matching what was ordered. For fresh foods, strategies that address quality concerns top the list. This is also true for fresh flowers, where research has confirmed that consumers are more likely to purchase, and pay higher prices for flowers that come with some sort of shelf life guarantee. For consumable categories, the most impactful way to reach consumers with messaging that influences purchase behavior is with traditional touchpoints, such as visits to a physical store.

Online flower shops have gained considerable momentum over the last five years. The industry has experienced steady revenue growth since 2013, aided by the e-commerce market **capturing significant market share** from brick-and-mortar florists as more consumers shop online. Additionally, strengthening economic conditions, including rising consumer confidence and disposable income, are continuing to boost demand for floral industry products. However, a strong increase recently in the number of online operators has significantly increased the level of competition. In response, industry players have increased their marketing budgets, expanded their product and service offerings, and increased their focus on differentiating customer services.

Over the last five years, wages have increased as online operators have hired more highly skilled employees with industry experience. These higher wages are being paid out to web developers who have become responsible for providing user-friendly and attractive interfaces on operators' websites and mobile applications. Increases in the breadth of services offered online will continue to encourage consumers to visit industry e-commerce websites for their floral needs. Industry growth, however, will be much more subdued over the five years than it was previously. This will occur as the industry begins to become **more saturated and mature**.

“By ordering ahead... [when things go wrong] it is the florist's fault and not the consumers because they ordered ahead and gave leeway.”

“Some people fear the word commodity and others see it as a result of what is happening in the industry.”

“Because of the internet, we do not have any secret knowledge anymore.”

“The dot-com companies are cannibalizing the business of selling directly to the consumer.”

“Even though our products do not go to consumers directly, we believe we have a responsibility to talk to consumers and have a good presence.”

“Some still believe there should be protection in the chain, but that ship has sailed.”

Direct to consumer channel emerges and puts pressure on the wire services model.

Several startup firms in the last decade have developed direct to consumer (DTC) models where flowers are shipped **directly from growers** to the end consumer (e.g. FiftyFlowers, Bouqs, Urban Stems, Flower Exchange, Grower Direct, Farmgirl Flowers, etc). In addition, several traditional players have created their own variations of a DTC model. For example, some bouquet manufacturers have rooms off to the side of their facility where floral orders for wedding flowers are crafted and sent directly to brides. All of these DTC models have put pressure on the traditional and contemporary wire services provided by FTD (Proflowers), Teleflora, 1-800-Flowers (BloomNet), Floom, and BloomNation.

Selling directly to customers, however, does not necessarily translate to a better customer experience. If floral companies do not have the necessary insight, processes, and culture in place, they will not be able to provide a seamless customer experience. An **understanding of the end**

consumer is required to ensure that any direct sales effort improves the customer experience. While selling directly to consumers makes it easier to acquire customer behavior data, floral companies need to make sense of all that data. Unfortunately, data alone does not provide a complete picture of the customer behavior. To be able to improve the end-to-end customer journey, floral companies need to integrate the transactional data they get from all their channels. More importantly, direct and **authentic engagement** with customers is required so companies can understand the why behind customer behavior. Whether floral companies invest in DTC or not, they still need to engage with consumers on an ongoing basis to gain the necessary customer intelligence for their business.

“The advent of the internet did not support the business model for wire services.”

“You have got to give amazing product to our end user because, if not, that is a bad rap for all of us.”

“Consumers have different technologies available than they used to have and therefore have a different set of expectations when they are shopping.”

“What changed was more access to flowers but this did not mean a more educated consumer. This just meant a cheaper price point.”

“There seems to be a growing sentiment for resentment for the [wire services]. I always take a step back and say, “Well, you are the client. Not the other way around. If it is not working for you, then you don't have to participate. No one is forcing you to, right?” This is a partnership.”

“Before, everyone respected the chain. Now everyone is against everyone. We are confusing the consumer with the disruption.”

“While the doors of the retail florists shrank, the dollars did not.”

Demographic shifts in knowledge and perceptions underly changing consumer preferences

The Baby Boomer consumer demographic is a key buying market for flowers, as they are most likely to have higher levels of disposable income and homes with curated aesthetics. As the Baby Boomer generation ages and experiences a corresponding decrease in disposable income, their flower purchases may decrease accordingly. Younger consumers will likely replace this aging demographic as a proportion of market share. However, younger consumers pose two problems for this industry: they (Gen X) often lack a full appreciation for flowers and their benefits and

opt to purchase non-floral gifts altogether, or they are time-poor and prefer the convenience offered by flowers sold at supermarkets or online. Younger consumers are generally more tech savvy and, therefore, are the most likely to turn to the internet for their shopping needs.

While Baby Boomers have traditionally been the top floral consuming group in the market, Millennials *perceive* themselves to have a greater appreciation of flowers than both Boomers and Gen X'ers. Yet, interestingly, flowers are not their top choice, or “top of mind” for Millennials, meaning that they would choose other gifts or products before floral, or that they do not think about gifting flowers at all. As Gen X'ers and Millennials become the main buying powers, values that were once important are now becoming obsolete.

Convenience is paramount with Gen X so accessibility through websites and express check-outs is favored. This segment is also the most likely to purchase flowers for anniversaries or “just because”. Millennials want product now, and exotic, unusual flowers that stand out. With the internet came the accessibility to information. Gen X and Y consumers have accessibility to knowledge through various media platforms, meaning they know exactly what they wish to purchase and they are resistant to substitutions.

People are waiting until **later in life** to get married and have smaller, more intimate weddings (yet spend more on their weddings). Young people are **less religious**, leading to lower funeral, wedding, and religion-related holiday spending. They instead, seek service- and experience-orientated shopping (Generations Study, SAF; Millennial Study, FMRF; Wall Street Journal).

According to the 2016 SAF Generations of Flowers Study, nearly three-fourths (73%) of all three generations said they have a high appreciation of flowers, a significant increase compared to 2009 findings. According to the study, flowers attract people through their senses and emotions. Consumers strongly agreed the color of flowers adds to the impact of a gift (70%), the sight and smell can improve their mood (69%), and the fragrance is important to them (64%) (Generations Study, SAF). Nearly two-thirds of all study respondents feel special when receiving flowers as a gift and find flowers to be an emotional gift, while 60% said flowers have a special meaning unlike any other gift.

Two in five consumers (40%) purchased flowers in the past year for home decoration, and 22% purchased them as a present for themselves. About 82% of consumers make gift purchases at local florists, including nearly two-thirds who shop in-person. Just one-third (34%) said they do not purchase flowers more often due to them being viewed as too expensive. In 2009, nearly half of respondents identified cost as a barrier. As in 2009, gifting is the most common reason for purchasing flowers. Half of consumers bought flowers in the past year as a holiday or special

occasion gift, and 42% gave them "just because." In fact, giving flowers has proven to be a very memorable occasion; nearly 90% of consumers can remember the last time they gave someone flowers. When it comes to receiving flowers, women (77%) are twice as likely as men (34%) to recall the last time they received flowers.

Whether the flowers were a gift for someone else (82%) or for themselves (75%), most consumers bought flowers at local florists in the past year. From 2009 to 2016, supermarkets suffered a 10% decline in popularity as places to purchase flowers as gifts. But for everyday flower purchases, 70% of consumers typically bought flowers for themselves at supermarkets, and 42% purchased flowers at nurseries or garden centers. Farmers' markets are becoming increasingly popular places to buy flowers. Only 25% of consumers shopped at farmers' markets in 2009, but in 2016, that number rose to 30%. Not surprisingly, Generation Y is significantly more likely to prefer going online to buy flowers; 34% said they do so, compared to 25% of Generation X and 24% of Baby Boomers. Generation Y is also more likely to buy flowers on impulse (50%), compared to 41% of Generation X and 39% of Baby Boomers.

Social media is a major floral information source for both Generation Y (32%) and Generation X (29%), but only 14% of Baby Boomers cite social media as a source. Interestingly, Baby Boomers are far more likely than Generations X and Y to have an emotional connection with flowers in regards to gift giving. Nearly 63% said giving flowers showed they cared, compared to 54% of Generation X and 46% of Generation Y. About 61% said giving flowers is personal; just 56% of Generation X and 44% of Generation Y agreed.

“Consumers are giving flowers a totally different value than what we want them to give the flowers — we can’t change that. We must adapt to them.”

“Wherever you are in the chain, you have to understand what consumers are looking for.”

“This is an era of no substitutions.”

“Millennials will buy whatever they want; there is no understanding that traditionally gladiolas are used for this, or chrysanthemums are used for that.”

“We have to understand that when we give someone a plant, it obligates them to take care of it. For young people that can be daunting.”

“Millennials love the images of plants and flowers, and the idea of them.”

“There is a gap between what we think flowers are worth and what consumers are willing to pay. We have to close that gap with services they value and by emphasizing the benefits that flowers bring to consumers.”

“We have done a disservice to ourselves as an industry by not making the art of floral design something that is regulated and looked out as a legitimate vocation.”

“We don't use certifications to our advantage like plumbers, electricians, and landscape architects.”

“If you're not nice to people and you do not respond and answer questions, your business will go elsewhere.”

“I think there is a consciousness of health... being mindful and calm. If we can really attach that to flowers we can move forward.”

“It is really, really important for young people to connect to where things come from. This is really important to campaign.”

“In the future consumers are going to have higher expectations of the experience that they have with us.”

“Consumers don't have flowers on their mind, they are not exposed to flowers, they see flowers in many spots but they are not connected with flowers.”

“There's not enough traditional consumer base for the brick and mortar florist.”

“We need to be looking not from the business perspective at our products but from the consumer side. How are they looking for information? How are they looking for products? What is our role in this?”

“Millenials are not the last generation, ongoing investment into future generations is needed.”

The advent of event, studio, and lifestyle florists

The increase in the number of event florists, studio florists, and lifestyle florists into the traditional floral channel has not necessarily been a disruptive force in the market altogether, but has rather pointed to several of the weak points of the traditional fulfillment model in servicing the needs of this hard-to-quantify sector. For example, since little data exists as to their numbers

and the infrastructure capacity of this sector, it is difficult for market intermediaries to anticipate and plan for the volume of flowers and floral supplies they require.

The event planning industry depends on the willingness of households and businesses to spend money on social gatherings. In general, businesses hire event planners to coordinate the experience associated with corporate holiday dinners, fundraisers, and client appreciation events. Since companies with strong earnings over the course of the previous year have more money to allocate toward special events, demand for industry services from this market is primarily driven by corporate profit levels and overall business sentiment. Likewise, rising corporate profit levels and an increase in the number of households earning above \$100,000 have bolstered demand from both corporate and individual customers. Overall, revenue for this sector is estimated to grow over the five years. Contrary to the industry's revenue trajectory, the average profit margin is forecasted to have contracted for this sector as the growing number of entrants over the past five years has encouraged increased price competition among event industry participants.

Improving business sentiment and consumer confidence in recent years have boosted demand from both the household and corporate markets. Households work with professional event planners to organize and promote weddings, anniversaries, birthdays, and other milestone celebrations. Consequently, per capita disposable income and consumer confidence levels are the key drivers of demand from the household market. Over the next five years, revenue for event planning industry is expected to stall, particularly once the expected economic downturn starts. Barriers to entry are likely to remain low as online event planning services increase in popularity, in turn, encouraging new participants into the industry.

“Studio florists work in these communities and help each other out; very interconnected [and] different than traditional florists who see each other as competition.”

“Studio florists are hard to follow and basically untrackable. We wait for them to approach us because we do not know how to attract them.”

“You cannot take the view that the studio florists are just going to go away. Amazon did not make money the first 10 years and it has not gone away.”

“We have no idea how many of them are out there? It's like the wild west all over again. It's hard to anticipate what they need.”

“I've had to be more flexible and nimble than in the past because there are so few florists that operate with standing orders. Now they want things just-in-time.”

“Having a brick and mortar space is no longer what defines being a legitimate florist. This used to be the only way the wire services recognized you.”

“It's strategically smart to start small. The wholesalers are missing out because the studio florists are finding other ways to get what they need. They are not seeing the need for wholesalers if wholesalers are not willing to meet the studio florists where they are at now.”

“A lot of studio florists are second career individuals who are passionate about flowers but come from a business-savvy background.”

“Studio florists are walking into wholesalers, giving them a color pallet, and telling them to pick the flowers for the florist. Education is necessary now. Wholesalers should invite the florists to take a walk through the cooler and point out options, educate them, and have them choose. This education is different from the past, but necessary.”

“There's blurry lines to who is a studio florist and who is an event florist and who is a brick and mortar. Event florists can be either.”

“Many studio florists have a weekday job. This is their Thursday, Friday, Saturday job.”

Spending on funeral and wedding flowers

Funeral trends. Funeral preferences in recent years reflect a movement away from traditional burials and towards lower-cost **cremation services**. Additionally, competition for this industry's funeral-related products has been heightened by the emergence of alternative sales channels, including e-commerce. Revenue has largely dipped because cremation has steadily gained in popularity in recent years. A **loosening of traditional religious preferences** for burial and an increasingly transient population have contributed to this trend. In addition, cremation is less expensive than burial because it does not require the purchase of a casket or cemetery plot. Its lower cost has not only pushed more families to opt for cremation, but also deprived funeral homes of ancillary product sales that make up a significant share of their revenue. This trend will continue to put pressure on the revenue and profitability of funeral homes as they adjust to lower per-client revenue. However, a slight expected uptick in the U.S. death rate will likely prevent more substantial declines. As the Baby Boomer generation ages and seniors become a significantly larger component of the population, the annual **number of U.S. deaths will accelerate**. This development will keep industry revenue and participation relatively stable, despite the ongoing challenges for funeral homes.

A recent survey of funeral directors showed that they consider flowers and plants as providing the most comfort to the bereaved, followed by sympathy cards, for non-human sources of comfort. Seventy-three percent of funeral directors believe their clients recall flowers and plants as a comfort. Fifty-one percent of funeral directors believe floral memorials are an expression of sympathy, as well as a tribute or sign of respect for the deceased. Seventy-four percent of funeral directors encourage flowers at the services and nearly one-fifth of them strongly view floral tributes as a significant tradition that should be preserved. Funeral directors recall approximately 64% of clients talking about flowers and plants. However, 68% of funeral directors are unaware of any studies showing the benefits of flowers at services. Twenty percent of those who completed the survey indicated that families of the deceased always request donations instead of flowers, while 70% stated their clients sometimes request donations and 10% specified donations are rarely/never requested them.

Almost two-thirds (64%) of funeral directors do not use the term ‘in lieu of’ flowers in funeral announcements. The majority of funeral directors (63% were visited by a local florist in the past 3-4 months while only 19% were visited 1+ year(s) ago or never. Eighty percent of funeral directors stated they have a working relationship with at least one local florist, 7% have a local florist but not a real working relationship, and 2% have an in-house floral designer/shop. Seventy-four percent of funeral directors encourage families to have flowers at their service, while 6% only sometimes encourage flowers/plants, and 16% have no preference. The majority of directors (44%) believe funeral flowers are sometimes a hassle while 18% of them think funeral flowers are a hassle indicating there is room for improvement. The cards attached to memorial flowers are an expressed area for improvement for 89% of funeral directors. Value-added services of florists that are deemed to be helpful by funeral directors include the use of containers that avoid spills (75%), adjusting the arrangements (45%), transporting flowers to the cemetery (23%), and setting up the flowers in the service area (15%).

Wedding trends. Evolving social norms and medical advancements which enable women to safely give birth later in life have caused the marriage rate to decline over the past several decades. Extended periods of cohabitation before marriage and family planning has increasingly become the norm among young couples. As a result, the wedding services industry has experienced stifled growth over the five years to 2019. Despite fewer couples getting married, increasing per capita disposable income has enabled those who do get married to spend more on their big day. While rising wedding budgets have translated to higher overall industry revenue, heightened competition has hindered revenue per operator. Over the past five years, the barriers to entry for operators in this industry have decreased as more couples find vendors through the internet. Online marketing and social media have increased visibility for industry players and lowered marketing budgets, making it easier for new companies to enter the industry. Over the next five years, industry demand is expected to continue to be pressured by the forecasted

decline in marriage rates. However, the industry's decline is expected to be mitigated by demand from wealthy consumers with higher budgets. The increasing average age of marriage and the length of engagements will give couples more time to plan and save money for their ceremonies (Funeral, IBISWorld).

Wedding statistics as of 2019. Couples expect to invest roughly 10% of their total budget on wedding flowers, according to Brides.com. Every year an average of 2.4 million weddings are performed in the U.S. Today's median age for brides is 29-years-old. For grooms, it is 31-years-old. The median age for remarriage is 34-years-old for brides and 37-years-old for grooms. One-third of those getting married have been married previously. The average amount spent on a traditional American wedding is \$35,329. Each weekend an average of 44,230 weddings takes place. The most popular months for weddings are September and October. Only 33% of weddings take place in a religious institution, and that number continues to decline. About 43% of weddings are officiated by a friend or family member rather than a professional. About 23 million bridesmaids and groomsmen attend brides and grooms each year. The average number of wedding guests is 136. Per-guest cost is \$268. Pre-wedding activities are more expensive to attend than the wedding itself. Bachelor party attendees spend on average \$738, while bachelorette party spending averages \$472. The average amount each guest spends to attend the wedding is \$703. The average amount spent on a wedding gift is in the \$70-\$100 range. About 88% of Americans marry at least once in their lifetime.

A total of \$72 billion is spent on weddings annually in the U.S. Weddings represent a \$50 billion annual industry. Who pays for the wedding? In 19% of cases, it is the brides' parents, however, 32% of brides and grooms pay for it themselves, and 15% of couples share the cost with both sets of parents contributing. About 48% of couples launch a wedding website. More than 91% of couples register for wedding gifts. About \$19 billion is spent buying presents at wedding gift registries. The average amount spent on wedding bands for the couple is \$1,575. The average amount spent on a bridal gown is \$1,564.

“Florists have moved to servicing mostly weddings and event work. In the old days they weren't too keen to do weddings because of a difficult mom or a difficult bride, but now it's one of their main revenue streams.”

“The successful florists have really embraced the necessity to participate in the wedding and event business.”

“Because of the range of information available to consumers, the role of the florist has become providing more education than consultation.”

“Talk to millennials about their weddings and they go to the internet first — the information is out there.”

“Couples can align themselves with floral designers who have the same vision as their wedding through looking at their social media.”

Technology advances

Technology has been, and will continue to be, a driving force of change in all sectors of the U.S. economy. The applications of technology in the floral sector mainly stem from advances in biotechnology, genetic engineering, information technology (including artificial intelligence), precision agriculture, automation and mechanization (including robotics), sensor technology, and controlled environment agriculture technologies (including hydroponics). There are simply too many technologies to describe in the context of this report, but the following are short case study examples of the far-reaching impact technology has had on the floral sector.

Internet technologies have fueled massive changes in the floral industry. The e-commerce online industry is growing rapidly as more time-strapped and cost-conscious consumers are enticed by the convenience of finding, comparing, and purchasing products easily and quickly. Driven by increased consumer spending and the rapidly growing number of total internet connections, revenue for the industry is expected to rise over the next five years. The rapid and continuous rise of the internet has given companies the opportunity to reach hundreds of millions of customers. Faster internet speeds and a surge in mobile device use have contributed to the mainstream adoption of internet shopping which has contributed to stronger industry operating margins. Economies of scale have also helped large companies boost profit as these companies are able to achieve better purchasing and shipping rates. Over the next five years the industry is expected to continue on its current course as internet traffic volume continues to grow and spending further shifts from traditional retailing to e-commerce. To effectively compete in this increasingly competitive market companies will need to continue to differentiate themselves from competitors using targeted marketing campaigns, offering a wider range of products, and implementing new technology. Some companies will also introduce alternative business models and nontraditional delivery methods to make merchandise more affordable and increase delivery efficiency. In the floral industry, companies that provide internet technology platforms (e.g. BloomNation, Details Flowers, True Client Pro, and other software providers like BloomTrac, FloraNext, FloristWare, Komet) will be in high demand to provide e-commerce services to florists that are affordable and enhance their competitiveness in the marketplace.

Artificial intelligence is leading the way in streamlining the search and shopping experience for floral customers. For example, recently 1-800-Flowers partnered with IBM to leverage the

company's Watson program, an AI technology designed to transform the online customer experience with a smart virtual shopping assistant. The 1-800-Flowers incarnation of Watson is Gwyn (Gifts when you need them), which helps the retailer's customers find a gift to send to loved ones by using cognitive capabilities to present customized product suggestions to online shoppers. Essentially a high-powered chatbot, Gwyn intuitively guides 1-800-Flowers mobile and desktop customers throughout their buying journey. Gwyn can handle all sorts of questions – from the vague “I need to find some flowers for my mother,” to the more specific “Show me the best roses you've got.” In all cases, Gwyn asks several follow-up questions to ensure that the right product suggestions are given. For instance, if a customer wants to find a gift for his mother, Gwyn will ask about the occasion, what the sentiment is, and what types of things Mother likes. What's more, the more the customer interacts with Gwyn, the more intuitive it becomes, meaning that the shopping experience becomes even more refined over time. However, Gwyn is not the only digital concierge that 1-800-Flowers has at its disposal. Facebook announced in 2016 that its Messenger app would support branded chatbots and 1-800-Flowers was the example Mark Zuckerberg used in his very first demo. “I love this one,” Zuckerberg said. “It's pretty ironic: To order from 1-800-Flowers, you never have to call 1-800-Flowers again.” Lastly, 1-800-Flowers also partnered with Amazon to enable customers to order gifts by voice using Amazon Alexa on the Echo, Echo Dot, Amazon Tap, or Fire TV. All a customer needs to do is say “Alexa, ask 1-800-Flowers to send roses to my wife on Valentine's Day”, and the retailer will process the order and arrange the delivery. This heightened degree of personalization in the floral purchasing process promises to not only reduce purchasing barriers, but also increase the likelihood of repeat purchasing in the future.

A mass-market example of the influence of technology is the use of robotics to arrange flowers. With a projected labor cost savings of more than 75%, robotics technology is projected to become widespread in the global mass-market flower industry over the next five years. Some pundits forecast that the majority of floral arrangements sold by mass-market floral retailers in five years will be manufactured by robots. This will have a profound shift in the supply chain in terms of how flowers are packed and boxed, which flower varieties are grown, and what arrangements look like when they hit the mass-market shelves. Most mass-market floral consumers probably do not care if flowers are arranged by a robot or human. As many studies have shown, consumers just want their flowers to be fresh, last a long time, and be visually presentable; in short, they want value for their money. Just as consumers do not ask who baked the cakes in many supermarkets (now made by robots in many chains), they likely will not start asking who arranged the flowers. Ultimately, robotic automation will improve the consistency of mass-produced flower arrangements while simultaneously reducing labor costs.

The use of cooling technologies throughout the supply chain has enhanced flower shelf life considerably. Vacuum cooling machines cool down flowers and remove undesired humidity of

the flowers in a stable way by creating a vacuum inside the cooling chamber. Over the last few years this technique has been used more often and transporters are becoming more aware of the benefits. Flowers that leave their point of origin at the right temperature can better endure temperature changes during transportation, thus improving cold chain management. Not only is the quality of the flowers preserved throughout shipment and vase life increased, but the risk of botrytis and insects is also greatly reduced.

“Amazon has taught our consumers to not accept substitutes.”

“There’s never been a more exciting time to be in marketing and share information with people.”

“Technology has made our industry a lot more transparent than in the past.”

“If we are in the ‘experience economy’, then how do we supply the bells and whistles as soon as they open the box?”

“In many ways, doing advertising now is easier and cheaper. You reach a lot more audience with \$1.”

“Nowadays, competition with floral products can be ringtones or applications. People spend \$3 without blinking. But they aren't willing to spend \$5 on flowers.”

“Why don’t wholesalers do more video calls? My wholesaler can walk me into the cooler and show me colors and varieties on the spot. No guessing involved, and faster than emailing me pictures. But they won't because they don't want to.”

“In traditional ad creation, there is physically creating, proofing, and all that stuff. Now, you can do 15 social media posts in the time it took you to get one ad out in the past. It is about perspective.”

Supply chain logistics/transportation

It was only when the price of air freight began to rise dramatically in recent years and when cargo space became scarce at holiday times, straining the system and putting quality and freshness at risk, that more flower shippers began to look at **sea freight** as an option. Brazil and Venezuela have been primary buyers of airfreight backhaul from the U.S. which has comprised mainly of electronics. However, Brazil has been experiencing an economic downturn and Venezuela’s economy has all but collapsed. As a result there is minimal backhaul leading to

higher air freight prices due to the “one-way flights” to the U.S. This has been fueling the push for the industry to move towards sea freight. According to Asocoflores, maritime transport of flowers from Colombia to the U.S. more than doubled in the period January to May 2019 compared to the same period in 2018. At the same time, other markets where sea transport appeared to be growing in the past reveal a declining tendency, as shown in the table below:

TABLE 1. COMPARISON OF CUT FLOWER EXPORTS FROM COLOMBIA SHIPPED BY SEA, BY MARKET, 2018-2019

MARKET	JAN – MAY 2018		JAN – MAY 2019		% VARIATION 2018/2019		% SHARE IN 2019	
	TONS	TEUS*	TONS	TEUS*	TONS	TEUS*	TONS	TEUS*
USA	2,205	385	5,108	852	>100%	>100%	49.6%	40.8%
UK	3,031	548	2,966	658	-2.1%	20.1%	28.8%	31.5%
Chile	1,384	304	1,554	362	12.3%	19.1%	15.1%	17.4%
Australia	263	50	248	58	-5.5%	16.0%	2.4%	2.8%
Japan	266	90	166	56	-37.8%	-37.8%	1.6%	2.7%
Spain	53	32	90	53	69.4%	65.6%	0.9%	2.5%
Other	262	71	166	47	-36.6%	-33.8%	1.6%	2.3%
TOTAL	7,463	1,480	10,298	2,086	38.0%	40.9%	100%	100%

* TUES = Twenty-foot Equivalent Units. Metric tons. Source: ASOCOLFLORES, 2019

A strong economy is good news for transportation companies, but that rosy outlook is already being undercut by **driver and other labor shortages**. Logistics companies face challenges filling warehouse jobs as workers choose jobs across many fields, while trucking companies are finding it hard to attract and retain drivers. The answer may lie in automation, as well as improved pay and benefits. Currently there is a shortage of truck drives which is also a factor driving up freight rates. While about 48,000 drivers were hired in 2018, there is still a shortage of approximately 100,000 drivers. Some reports estimate that 4.6 million jobs are going to be needed in the transportation sector by 2030. Wages have not increased proportionately with the relative demand of drivers, contributing to this disparity in the amount of drivers available. Thus, logistics will become all the more important as we figure out ways to move product efficiently and cost-effectively. The increase in freight rates will likely be exacerbated by the 30% increase in truck tonnage that is projected until 2030. The current trade war with China may have a dampening factor on tonnage projections depending on the severity of the impacts on domestic manufacturing and distribution companies.

Rapid delivery of consumer goods ordered online has become a benchmark that shippers and consumers alike expect. For transportation companies, that means adhering to ever-more-stringent “must arrive by” requirements. In trucking, **technology** is helping increase operational efficiencies, while logistics companies are developing transportation management systems.

Consolidation has been a major theme in the airline industry for years. Facing fewer competitors, airlines have been able to manage capacity and ticket pricing, fly fuller planes, and improve profitability. In contrast, trucking, long dominated by regional rather than national carriers, has experienced dozens of mergers and acquisitions in recent years. The fragmented field of ocean shipping could also be subject to further consolidation reflecting its rising importance in an age of e-commerce.

Transportation accounts for over 28% of total U.S. greenhouse gas emissions, the largest of any industry. Domestic and international regulation aims to lower emissions resulting in a search for alternatives like electric vehicles and cleaner fuels. Companies that reduce their **environmental impact** have the opportunity to not only cut costs, but also appeal to investors concerned with environmental, social, and governance practices.

Few industries are more challenged by external disruptions than transportation which is subject to everything from weather and geopolitics to fluctuations in fuel prices and labor disputes. Added to this is an **aging U.S. infrastructure** and **overcrowded roads**. With public funding lagging, there could be a gradual shift to private investors who appear ready to leap in when the opportunity presents itself.

With market speculation and forecasts for increased tonnage, 2019 and beyond seems to point to continuing **increases in the demand for truck freight transportation**. Driver shortages continue to constrain availability along with the enforcement of the 2017 Electronic Device mandate reducing the number of miles that can be logged: further tightening trucking capacity. The industry is estimated to be close to 50,000 drivers short and companies are feeling the squeeze as costs rise. This, combined with higher salaries and rising fuel prices, have created higher overall transportation costs. Despite these setbacks the trucking industry is undergoing its best period of growth in years and should remain strong through 2019. Current truck tonnage is up 9.5% compared to this time last year outpacing the 2017 annual gain. With 70% of domestic tonnage being carried by trucks, the American Trucking Association (ATA) anticipates that **freight volumes will continue to reflect rising consumer spending**.

In recent years there has been a shift in the trucking industry to move away from the current reliance on low-technology diesel trucks. Companies like Nikola Motor plan to build a \$1 billion hydrogen-electric semi-truck factory in Phoenix, Arizona. Tesla has also made plans to replace current trucks by developing a fully **electric semi-truck** that will go into production in 2019. In 2018, the first **self-driving truck** completed a coast to coast test drive. San Francisco start-up company, Embark, announced that its machine learning software had successfully driven from Los Angeles to Jacksonville, Florida. While the truck is autonomous on freeways, it does require

human drivers to get on and off exits. This concept would make it possible for truckers to keep their jobs but cover longer routes while making more deliveries with less lead time.

“Sending flowers via sea containers is proving to be an attractive option that can be cheaper without a negative impact on quality.”

“When you are in the supply chain, you have to understand what consumers are looking for and that is one of the key roles of marketing is to figure out where the markets are heading.”

“I am firmly into a relationship with my wholesaler. I buy a few things direct, but I do not need to do that often because my wholesaler is robust and healthy.”

“If there could be a channel for designers to talk directly to local farms, then they can grow exactly what we need.”

“Imagine if you go to the dairy section of a store and you smell bad milk. You get closer and you see that the expiration date was last week. Not only this, but the milk is rotten. Forget it! This happens with flowers. We have a huge responsibility to ensure that we are delivering good product. Otherwise, we kill ourselves. That does not work for our brands.”

“Imagine looking at avocados at the store. They are all different tones and sizes. You ask yourself, “Are these the same thing, or not?” Maybe with the different sizes, there is a different taste. This is true for flowers. We need consistency for each of the types of flowers.”

“For distribution of sea freight, the biggest, most powerful buyers will direct the whole thing.”

Insights from industry leader interviews

As mentioned above, 41 interviews were conducted with floral industry professionals that are leaders in their respective sectors within the industry. While many of their thoughts are shared in the form of the quotes throughout this document, there are also other insights that were gleaned during the interviews. Typically, each interview consisted of asking each participant the following questions: What keeps you up at night? What do you feel are the key drivers of change in the industry? How have these have contributed to the decline in the floral sector in which you compete? What are the key success factors for firms in this sector in the future? How will your sector evolve going forward into the future? How has your business changed its strategy throughout the years and how have you influenced the future success of the industry? Further insights gleaned from their answers to these questions are summarized by floral sector below.

Links to insights from:

[Retail florists](#)

[Supermarkets](#)

[E-commerce firms](#)

[Wholesale florists](#)

[Importers](#)

[Growers](#)

[Breeders](#)

[Allied trade](#)

[Association](#)

Other issues that are cause for concern

Lack of data

Currently it is viewed that there is a lack of accessible and credible data available to industry members. This is either in the form of data that does not to date exist, or blended data that prevents the ability to discern the true value of cut flowers in the marketplace from other green industry products.

“My gut tells me that these trends are happening, but I have no data to support my gut reaction.”

“There is no real data or knowledge about our industry. Having this information would bring some [industry] security.”

“We have no way to compare one hectare in Colombia with one hectare in African with one hectare in China.”

“I don't feel like I have all the facts.”

“Other institutions have more resources than most of us put together so why would they want to work with us? The information is out there.”

Data limitations

It is commonplace to refer to industry-wide statistics when attempting to describe the structure, conduct, and performance of an industry or sectors within an industry. These statistics generally originate from government agencies responsible for collecting and disseminating them. For example, time-series historical data regarding the grower sector have originated from the Floriculture Crops report (released annually), the Census of Horticultural Specialties (updated every 5 years), or the Census of Agriculture (conducted every 10 years), which all originate from the National Agricultural Statistics Service (NASS) within the USDA.

Data for all other floral sectors generally originate from the U.S. Economic Census of businesses, which is administered by the U.S. Census Bureau. This official count serves as the foundation for the measurement of U.S. businesses and their economic impact. As part of the Census Bureau's mission to provide timely information on the health of the U.S. economy, this "business" census serves as the most extensive collection of data related to business activity. Nearly 4 million businesses, large, medium and small, covering most industries and all geographic areas of the United States receive surveys tailored to their primary business activity and a response is required by law. Title 13, United States Code (U.S.C.), Section 131, authorizes the survey by requiring businesses and other organizations included in the survey to answer the questions and submit a response.

However, even though businesses are required by law to respond to the Economic Census, there are other issues that affect the accuracy of the sector-level data within the floral industry. These issues revolve around how businesses are classified and, specifically, which NAICS code they are classified under.

As background, NAICS is the North American Industry Classification System, which is used to classify every business in the United States. NAICS is a hierarchical system that starts off with a two-digit sector code and goes up to the six-digit NAICS code. The more digits, the more detail. For example, NAICS sector code 31 is manufacturing. Within Manufacturing is Food Manufacturing (NAICS three-digit code 311). Within Food Manufacturing is Animal Food Manufacturing (3111), and eventually you get down to canned dog food (311111). The NAICS categories are updated (if needed) every five years, including the years the Economic Census is conducted, which are years ending in 2 and 7.

NAICS is an offshoot of the NAFTA agreement. When the U.S., Canada, and Mexico were working on the NAFTA agreement, they realized that the classification systems we were using across countries was so dramatically different there was no way to accurately measure

trade-related metrics across our countries. So they created NAICS, which replaced the Standard Industrial Classification (SIC) system in 1997. The codes are comparable between the three countries down to the 5-digit level. At the six digit level, we kind of go our own way. So, for example, the U.S. and Mexico have a 6-digit NAICS code specifically for tortilla manufacturing while Canada does not. Apparently they do not make their own tortillas in Canada, or they do not make enough of them to warrant their own NAICS code, so they have tortillas added into “other baked goods,” and it is a comparable system at that level.

Within the NAICS data, there are *firms* and *establishments*, and searchable data include sales, number of employees, and the associated payroll. Firms may have more than one location, so the terminology “establishment” is used to describe a business at a single physical location, classified into its own NAICS code. Collecting the data at the establishment level instead of the company or firm level allows two things. The first advantage is that it allows the Census Bureau to count people where they are actually working rather than where they are headquartered. The second advantage of the establishments breakdown is that it allows for each location to be classified into its own NAICS code if the primary business activity is different from that of the headquarters location.

But this is where theory and practice start to deviate a bit. All of this sounds like a logical way to organize businesses (establishments) by the appropriate sector or industry, but the accuracy of this system also depends on: **(1) the types of sub-sectors included in the NAICS code category being examined**, and **(2) whether or not each business is being classified into the correct NAICS code**. As you will see below, this is where things can go awry.

Issue 1: Non-floral sub-sectors included in the NAICS codes of interest

Pertaining to the first issue, a single NAICS category may contain sub-sectors that are related, but not exactly alike, to the specific sector being considered. As an example of this, consider the following screenshots regarding the NAICS code 424930, which is the code where **wholesale florists** should be categorized:

424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers

This industry comprises establishments primarily engaged in the merchant wholesale distribution of flowers, florists' supplies, and/or nursery stock (except plant seeds and plant bulbs).

Cross-References. Establishments primarily engaged in--

- Merchant wholesale distribution of cut Christmas trees--are classified in Industry [424990](#), Other Miscellaneous Nondurable Goods Merchant Wholesalers; and
- Merchant wholesale distribution of plant seeds and plant bulbs--are classified in Industry [424910](#), Farm Supplies Merchant Wholesalers.

2007 NAICS	2012 NAICS	2017 NAICS	Index Entries for 424930
424930	424930	424930	Artificial flowers and plants merchant wholesalers
424930	424930	424930	Bedding plants merchant wholesalers
424930	424930	424930	Florist's supplies merchant wholesalers
424930	424930	424930	Flowers merchant wholesalers
424930	424930	424930	Nursery stock (except plant bulbs, seeds) merchant wholesalers
424930	424930	424930	Ornamental plants and flowers merchant wholesalers
424930	424930	424930	Plants, potted, merchant wholesalers
424930	424930	424930	Soil, top and potting, merchant wholesalers
424930	424930	424930	Trees merchant wholesalers

As you can see from the description of this 6-digit NAICS code, the two sub-sectors that primarily apply to traditional wholesale florists are *Florist's supplies merchant wholesalers* and *Flowers merchant wholesalers*. **However, there are other types of businesses, in addition to wholesale florists, that end up being included in this category because of the other sub-sectors included in the category.** So using this NAICS category to describe the wholesale florists sector results in over-estimation of the economic contributions of wholesale florists.

The extent of this issue can be estimated by using the Economic Census data-portal website, which now allows users to “search” for a list of establishments included in each NAICS category. This tool (see below) was used to generate a partial listing of establishments for the NAICS category 42493 Flowers, Nursery Stock, and Florists’ Supplies Merchant Wholesalers (Note: The list below contains only the first page of listings from the search):

Search for "42493"

NAICS Code 42493 - Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers

See industry description for NAICS Code - 424930.

NAICS
42493

- ▶ See Companies for NAICS 42493
- ▶ Buy Business List - NAICS 42493

Companies for "NAICS Code - 42493" Flowers, Nursery Stock, and Florists' Supplies Merchant Wholesalers:

- Pennock Co, Philadelphia, PA, 19153 Country: U.S.
- Roy Houff and Co, Chicago, IL, 60638 Country: U.S.
- Altman Plants, Vista, CA, 92084 Country: U.S.
- Plant World, Albuquerque, NM, 87113 Country: U.S.
- Greenleaf Wholesale Florist Inc, Brighton, CO, 80601 Country: U.S.
- Robert Baker Inc, West Suffield, CT, 06093 Country: U.S.
- Kurt Weiss Greenhouses Inc, Center Moriches, NY, 11934 Country: U.S.
- Floracraft Corp, Ludington, MI, 49431 Country: U.S.
- Denver Wholesale Florists Co, Denver, CO, 80216 Country: U.S.
- Oglesby Plants International Inc, Altha, FL, 32421 Country: U.S.
- Carlstedt, LLC, Jacksonville, FL, 32204 Country: U.S.
- Delaware Valley Wholesale Florist Inc, Sewell, NJ, 08080 Country: U.S.
- Duda Sod, McAllen, TX, 78504 Country: U.S.
- Caffco International, Montgomery, AL, 36110 Country: U.S.
- Altman Specialty Plants Inc, Giddings, TX, 78942 Country: U.S.
- Bordiers Nursery Inc, Irvine, CA, 92603 Country: U.S.
- Walters Gardens Inc, Zeeland, MI, 49464 Country: U.S.
- Olsons Greenhouse Gardens, Salem, UT, 84653 Country: U.S.
- Imperial Nurseries Inc, East Granby, CT, 06026 Country: U.S.
- R And C Floral Inc, Ludlow, MA, 01056 Country: U.S.
- Raker And Sons Inc, Litchfield, MI, 49252 Country: U.S.
- Advantage Medical Staffing Inc, Saint Augustine, FL, 32086 Country: U.S.
- Willoway Nurseries Inc, Avon, OH, 44011 Country: U.S.
- Blue Heron Farm, Corvallis, OR, 97333 Country: U.S.
- Delta Floral Distributors Inc, Los Angeles, CA, 90043 Country: U.S.
- Hines Growers Inc, Forest Grove, OR, 97116 Country: U.S.
- Len Busch Roses, Minneapolis, MN, 55446 Country: U.S.
- Miramar Wholesale Nurseries, Ijamsville, MD, 21754 Country: U.S.
- Monterey Bay Bouquet, Watsonville, CA, 95076 Country: U.S.
- Mellano And Co, Oceanside, CA, 92057 Country: U.S.
- Southland Sod Farms, Oxnard, CA, 93033 Country: U.S.
- Florexpo, LLC, Carlsbad, CA, 92008 Country: U.S.
- Native Floral Group, Oceanside, CA, 92056 Country: U.S.

Liner Source Inc, Eustis, FL, 32736 Country: U.S.
Marian Gardens Tree Farm, Groveland, FL, 34736 Country: U.S.
T and L Nursery, Redmond, WA, 98052 Country: U.S.
Underhill Ferneries, Barberville, FL, 32105 Country: U.S.
Masson Farms of New Mexico Inc, Radium Springs, NM, 88054 Country: U.S.
Pineae Greenhouse Inc, Ogden, UT, 84401 Country: U.S.
Fall River Florist Supply Co, Temple City, CA, 91780 Country: U.S.
R A Dudley Nurseries, Thomson, GA, 30824 Country: U.S.
Greenheart Farms Inc, Arroyo Grande, CA, 93420 Country: U.S.
Neal Mast and Son Inc, Grand Rapids, MI, 49544 Country: U.S.
Prime Source Floral Distributors, San Leandro, CA, 94577 Country: U.S.
Tawakoni Plant Farm, Wills Point, TX, 75169 Country: U.S.

As can be seen by this partial listing of firms, there are only a handful of establishments that would be considered to be wholesale florists according to their primary business activity. The others, though classified correctly, contain a mix of nursery and greenhouse finished plant growers, sod producers, and young plant growers. So when summarizing the number of firms, total sales, number of employees, payroll, etc. for this NAICS code, there is no way to know exactly what percentage should be attributed to wholesale florists versus the other sub-sectors. The only way to know this percentage definitively would be to review the entire list of several thousand establishments and identify the specific NAICS sub-sector code it should carry.

Issue 2: Misclassification of firms / establishments


But perhaps the most perplexing issue comes as a result of firms being misclassified into the wrong NAICS code category. There are certain times when businesses are asked to report selected data regarding their businesses according to the appropriate NAICS code. An example of this is when businesses apply for their initial business license, they are assigned or classified into a particular NAICS code depending on their primary business activity. However, not many zealous entrepreneurs are up-to-speed on what NAICS code their budding business should fall into so misclassifications are frequent and firms are often classified in the wrong NAICS code according to their primary business activity.











To test this using the same 42493 NAICS category we have been examining, a specific search query was conducted for several prominent wholesale florists in the floral industry to determine if they were being appropriately classified (e.g. Kennicott Brothers, Meyesh Wholesale Florist, Bill Doran Company). As the screenshots below indicate, the headquarters of each of the wholesale florists was usually correctly associated with the 42493 NAICS code, but many of their other locations (or establishments, using NAICS terminology), were incorrectly listed under the NAICS code 453110, which is the NAICS code for retail florists.

🚩 Companies for "kennicott"

Kennicott Brothers Co	Chicago, IL, 60622	 US
453110 - Florists	▶ More Companies in this Industry	
Kennicott Brothers	Grand Rapids, MI, 49544	 US
453110 - Florists	▶ More Companies in this Industry	
Kennicott Brothers Co	Milwaukee, WI, 53208	 US
453110 - Florists	▶ More Companies in this Industry	
Kennicott Brothers	Elk Grove Village, IL, 60007	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
Kennicott Kuts	Donovan, IL, 60931	 US
453110 - Florists	▶ More Companies in this Industry	
Kennicott Brothers	Saint Paul, MN, 55113	 US
453110 - Florists	▶ More Companies in this Industry	
Kennicott Brothers	Atlanta, GA, 30340	 US
444220 - Nursery, Garden Center, and Farm Supply Stores	▶ More Companies in this Industry	
Kennicott Wilderness Guides Kennicott	Glennallen, AK, 99588	 US
711219 - Other Spectator Sports	▶ More Companies in this Industry	
Kennicott Brothers	Northbrook, IL, 60062	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
Kennicott Brothers Company	Alsip, IL, 60803	 US
453110 - Florists	▶ More Companies in this Industry	

🇺🇸 Companies for "mayesh"

Mayesh Wholesale Florist	Carlsbad, CA, 92011	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Mercha... ▶ More Companies in this Industry		
Mayesh Wholesale Florist Inc	Charlotte, NC, 28217	 US
453110 - Florists ▶ More Companies in this Industry		
Mayesh Wholesale Florist Inc	Las Vegas, NV, 89118	 US
423990 - Other Miscellaneous Durable Goods Merchant Whole... ▶ More Companies in this Industry		
Mayesh Wholesale Florist	Santa Ana, CA, 92705	 US
453110 - Florists ▶ More Companies in this Industry		
Mayesh Wholesale Florist Inc	Oxnard, CA, 93030	 US
453110 - Florists ▶ More Companies in this Industry		
Mayesh Wholesale Florist	Houston, TX, 77018	 US
453110 - Florists ▶ More Companies in this Industry		
Mayesh Wholesale Florist Inc	Los Angeles, CA, 90045	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Mercha... ▶ More Companies in this Industry		
Mayesh Wholesale Florist	Bakersfield, CA, 93301	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Mercha... ▶ More Companies in this Industry		
Mayesh Wholesale Florist Inc	Romulus, MI, 48174	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Mercha... ▶ More Companies in this Industry		
Mayesh Wholesale Group	Riverside, CA, 92507	 US
453110 - Florists ▶ More Companies in this Industry		

Bill Doran Company	Green Bay, WI, 54302	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
Bill Doran Co	Louisville, KY, 40203	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
Bill Doran Co	Springfield, IL, 62703	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
Bill Doran Co	Waterloo, IA, 50703	 US
423990 - Other Miscellaneous Durable Goods Merchant Wholesalers	▶ More Companies in this Industry	
Bill Doran Co	Omaha, NE, 68117	 US
453110 - Florists	▶ More Companies in this Industry	
Bill Doran Co	San Antonio, TX, 78204	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
J W Perry Inc Bill Doran Co	Moorhead, MN, 56560	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
Bill Doran Co	Chicago, IL, 60612	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
Bill Doran Co	Peoria, IL, 61603	 US
424930 - Flower, Nursery Stock, and Florists' Supplies Merchant Whole...	▶ More Companies in this Industry	
Bill Doran Company	Des Moines, IA, 50314	 US
111421 - Nursery and Tree Production	▶ More Companies in this Industry	

What this means is that the NAICS data for wholesale florists that has been referenced in the floral literature for years has been inaccurate. In this case, we have relied more on the anecdotal data from WF&FSA about membership in the association to develop a more accurate estimate of the number of “doors” in the wholesale florist sector in the industry.

In addition, this misclassification has also been an issue in the other floral related sectors. For example, a similar search was conducted for the NAICS code 453110 Florists and yielded the following partial list of establishments (cut off after the first page of listings):

Companies for "NAICS Code - 453110" Florists

Weston Nurseries Inc, Hopkinton, MA, 01748 Country: U.S.
Toblers Flowers, Kansas City, MO, 64127 Country: U.S.
City Blossoms, New York, NY, 10006 Country: U.S.
Dr Delphinium Designs and Events, Dallas, TX, 75225 Country: U.S.
Concord Oil Company Inc, Concord, MA, 01742 Country: U.S.
Conklyn's Florist, Alexandria, VA, 22304 Country: U.S.
Dreisbach Wholesale Florists Inc, Louisville, KY, 40222 Country: U.S.
Kennicott Brothers Co, Chicago, IL, 60622 Country: U.S.
Flowerama of America Inc, Cedar Falls, IA, 50613 Country: U.S.
From You Flowers, LLC, Old Saybrook, CT, 06475 Country: U.S.
Boesen the Florist, Des Moines, IA, 50310 Country: U.S.
San Gabriel Nursery and Florist, San Gabriel, CA, 91776 Country: U.S.
Sunburst Flowers Inc, Miami, FL, 33122 Country: U.S.
Metrolina Greenhouses, Huntersville, NC, 28078 Country: U.S.
Monrovia Growers Inc, Cairo, GA, 39828 Country: U.S.
1 800 Flowers.com, Carle Place, NY, 11514 Country: U.S.
Dr Delphinium Flower and Orchid House, Richardson, TX, 75080 Country: U.S.
Kroger Floral, Louisville, KY, 40223 Country: U.S.
Wegmans Food Floral, Erie, PA, 16509 Country: U.S.
Kroger Floral, Frisco, TX, 75033 Country: U.S.
Kroger Floral, Frisco, TX, 75034 Country: U.S.
Market 32Newburgh, NY, 12550 Country: U.S.
Burton + Burton, Bogart, GA, 30622 Country: U.S.
Floral Expressions By Carrs, Anchorage, AK, 99508 Country: U.S.
Spartan Nash, Omaha, NE, 68127 Country: U.S.
Royer's Flowers and Gifts, York, PA, 17402 Country: U.S.
Kroger Floral, Inc, Cincinnati, OH, 45232 Country: U.S.
Kroger Floral, Inc, Cincinnati, OH, 45215 Country: U.S.
Kroger Floral, Bowling Green, OH, 43402 Country: U.S.
Kroger Floral, Ann Arbor, MI, 48105 Country: U.S.
Kroger Floral, Lapeer, MI, 48446 Country: U.S.
Kroger Floral, Atlanta, GA, 30319 Country: U.S.
Kroger Floral, Atlanta, GA, 30319 Country: U.S.
Albertsons Floral, Chula Vista, CA, 91910 Country: U.S.
Kroger Floral, Woodstock, GA, 30189 Country: U.S.
Kroger Floral, Mount Juliet, TN, 37122 Country: U.S.

Kroger Floral, Mount Juliet, TN, 37122 Country: U.S.
Kroger Floral, Louisville, KY, 40220 Country: U.S.
Kroger Floral, Louisville, KY, 40214 Country: U.S.
Buy For Less Floral, Edmond, OK, 73003 Country: U.S.
Flowers By Dillon Stores, Manhattan, KS, 66502 Country: U.S.
Stop and Shop Florist, Clinton, CT, 06413 Country: U.S.
National Florist Directory, Paragould, AR, 72450 Country: U.S.
W J Griffin Inc, Santa Barbara, CA, 93111 Country: U.S.
Kroger Floral, Lawrenceville, GA, 30043 Country: U.S.
Kroger Floral, Nashville, TN, 37208 Country: U.S.
Teters Floral Products Inc, Bolivar, MO, 65613 Country: U.S.
King Soopers Floral, Golden, CO, 80401 Country: U.S.
Veldkamps Flowers and Gifts Inc, Denver, CO, 80215 Country: U.S.
Teleflora, LLC, Los Angeles, CA, 90064 Country: U.S.
Albertsons Floral, Fort Worth, TX, 76148 Country: U.S.
Viviano Flower Shop, Saint Clair Shores, MI, 48082 Country: U.S.
Albertsons Floral, Lake Charles, LA, 70605 Country: U.S.
Winston Flowers, Boston, MA, 02118 Country: U.S.
Abbott Laboratories, Lake Zurich, IL, 60047 Country: U.S.

In addition to the retail florists that are correctly classified into NAICS 453110 category, there are some that are misclassified, including one of the largest greenhouse growers in the country, one of the largest nursery growers in the country, a few wholesale florists, and a random oil company. Interestingly, there were also a number of supermarket floral departments (e.g. Kroger, Albertsons, Wegmans). So this points to the conundrum that faces anyone trying to use this data to describe the scope and size of the retail florist sector. The misclassified firms would need to be reclassified into the appropriate NAICS code and then a count of the actual retail florists would need to be made, as well as the number of supermarket floral departments included in this category. These breakdowns could then be used to accurately define the floral sectors of interest.

Tension between industry participants and working as silos

While comradery is evident among participants in the same sector, there are often negative tones that are expressed when discussing other sectors in the industry. This kind of industry rivalry is common among industries that are in the mature stage of the life cycle. However, this must be overcome if the industry is to tackle some of the overarching issues facing the industry.

“There is too much bad blood out there and it hinders cooperation in the industry.”

“The importers don’t want to work with the wholesalers, and many wholesalers don’t want to work with retailers, and the retail florists don’t want to work with the supermarket because they feel they are in competition.”

“Elected officials say one thing but put actions in place that promote the importers.”

“They [South Americans] are really good at snowing the American public.”

“I don’t think that supermarkets put retail florists and wholesalers out of business, they put themselves out of business. You have to change and adapt and they didn’t know how to do it.”

“Small growers are operating under the radar. They do not pay taxes and do not follow the same environment regulations as we do. They undercut price for the entire market and margins for everyone else goes down.”

“For the domestic growers to say it is not an even level playing field is ridiculous... If you look at the age of growers that started after the Andean Trade Preference Act, you can’t say that they put you out of business when you weren’t even in business when it started.”

“I want to learn from you. I hope you can learn from me, too.”

“This is an industry of silos. It's incredible how different these companies are but we are in the business of selling the exact same thing.”

“We need to work together to get more people to buy more flowers.”

“Wholesalers are trying to figure out how not to make the retail florists mad while serving the studio florists.”

“We have meetings where everyone has great ideas, but at the end of the day it's a problem because the "factions" do not work together. In theory, there is no reason why not to work together.”

“We evoke emotion in this industry; we are an emotions market. That is how we thrive. It is hard, therefore, to ask people not to feel emotion towards each other.”

Not tracking SKU's accurately throughout the supply chain

Many of the floral products today are shipped as mixed or variety packs. Many times SKUs are by variety and not by color. This creates some challenges for retailers to follow the data and provide what customers might want and when trying to determine trends in consumer purchasing preferences. By not knowing exactly how much of the specific color and species they will be receiving, or potentially may be selling, logistical challenges can arise when providing products online.

“Because of the mixed pack, I can not guarantee that I will have three dozen of the same pink rose to sell to my customers. Therefore, I can not put this information online because I can not anticipate volume by SKU.”

Resistance to change

Protection of the status quo was mentioned by several interviewees as a reason for the consolidation activity in recent years and the exiting (shakeout) from the industry that has occurred across several floral sectors. Specific examples of the resistance to change that were mentioned by those interviewed included a reluctance to embrace technology, change standard operating procedures, engage in non-traditional channels, and learn about new customer types fast enough. Flexibility and responsiveness were mentioned as key success factors for being successful in the floral industry in the future.

“The floral industry has been slower than most industries to utilize the internet and a lot of the customers that we work with do not have the size or breath of investment in it necessary.”

“One advantage florists had over everyone was same-day delivery. They let Amazon take it away from them by not promoting that service.”

“Change is hard. Some people are still doing business by all by paper and that is a death sentence.”

“The decline of the florist and wholesaler is self-inflicted. This is because they did not change and did not evolve to be successful.”

“I was doing a funeral in a different state than I am from and I googled wholesale florists in the nearest metro-area. I could not find a wholesaler online through a basic google search. I found

out from calling other florists from that area what the wholesalers were named and their phone numbers. It's such basic marketing. They are making it difficult for me and I'm a legitimate florist who has a sales tax ID number."

"Participants are reluctant to make anybody upset with them outside of their normal channels. Now, the flipside of all of that is retailers are reinventing themselves and wholesalers are reluctant to reinvent themselves, right?"

"Where do we drive sales? Only on holidays. We focus on those days. When we talk about promotions, we talk about Valentine's Day or Mother's Day. That's the last thing we should be doing."

"The [wholesalers] are doing the same thing their father, grandfather, and everyone did before them. That's a massive issue. This is true around the world."

"You're selling to a multi-million dollar flower shop and you're selling only 10,000 worth of product, for goodness sake; they just come to you if they can't find something or they got a problem. They are doing business with someone else. Some wholesalers do not understand market share. Then there's those who are going after the multi-million dollar businesses and saying "Look, we need to do more business with you because you're doing more business. I'll be your cold chain support team." And they are working smarter."

"Our industry is super connected and family-like, but one of the dangers of that is you can get to the point where you're not seeing what's going on outside the industry and it's super important that we look outside the industry for trends."

Labor

The availability and retention of labor remains an important issue for all sectors of the floral supply chain. There are more jobs available right now than there are people to fill them. Tighter economic conditions will likely cause firms to operate in a more lean fashion but those with working capital will find it easier to find and retain employees temporarily.

Non-farm employment is projected to grow by 8.4 million jobs to 169.4 million jobs over the 2018–28 decade (U.S. Bureau of Labor Statistics). This expansion reflects an annual growth rate of 0.5% which is slower than the 2008–18 annual growth rate of 0.8%. An aging population and labor force will contribute to changes expected over the coming decade, including a continued decline in the labor force participation rate and continued growth in employment in healthcare and related industries and occupations. Real Gross Domestic Product (GDP) is projected to grow

at much the same rate from 2018 to 2028 as it did in the previous decade; labor productivity is projected to accelerate slightly from the previous decade to an annual rate of 1.6%, higher than the previous decade's annual rate of 1.3%.

Many U.S. agricultural employers have also reported that they are finding it hard to attract new workers and to retain their current ones. These anecdotal reports are supported by statistical evidence pointing to a tightening labor market. Over the last decade, wages for hired farmworkers have risen, the gap between agricultural and nonagricultural compensation has narrowed, and use of the H-2A program has more than doubled. Moreover, net immigration from Mexico—the leading country of origin for foreign-born farmworkers in the United States—has slowed appreciably. The slowdown is such that, for the first time in decades, reverse migration in which workers leave the United States to return to Mexico may be outpacing migration from Mexico to the United States.

“A very tight labor market has caused us to have to spend more on labor than we would have hoped this year.”

“I could have hired several more people but I couldn't get anyone to apply.”

“People are still key to this industry. We have floral artists who need to touch, smell, see, feel, communicate, and work with people who are knowledgeable.”

Lack of succession planning

Interviewees from all sectors of the floral industry expressed struggles with this issue. The lack of succession planning has been part of the reason why many firms have exited or been acquired. This comes as little surprise, however, as recent business surveys report that one-half to three-fourths of firms in business today have no succession plan.

“Now I haven't been able to corroborate by any data, but my observation with many retail shops is that there is very little interest in succession planning ... they have been handed down from generations where their grandparents or their parents before them elected to continue to run the business. We aren't seeing that as often.”

“So you have your business, and who do you pass that along to?”

“We have a responsibility to show our businesses have great potential for a career path for young people.”

“People who have been in the business many years think that we should rule everything. We need to be “careful” and we have to supervise. That, we shouldn't be giving the opportunity to young people to do whatever they consider is important, both good and poor. We need to hand the reins over. Young people will be available to represent the company on boards, committees, or task forces that we have for the objectives that the industry has to accomplish.”

“We are a mature market that doesn't necessarily have a lot of businesses with great succession plans.”

“People are still key to this industry. We have floral artists who need to touch, smell, see, feel, communicate, and work with people who are knowledgeable.”

Produce industry study corroborates our driving forces findings

Findings from the recently-released study entitled **PMA’s Glimpse into the Future: 2020 Produce And Floral Environmental Scan** support the driving forces that our study team gleaned from the personal interviews and our own environmental scanning exercise. PMA researchers interviewed industry experts and read industry and consumer publications from around the world to identify issues that will affect the produce and floral industries in the next three to five years. These are their main findings:

Global economic landscape:

- **Effects of political uncertainty** - Growing protectionism and political policy changes, exemplified by moves like Brexit and the United States’ withdrawal from the Trans-Pacific Partnership (TPP), are constraining the free movement of products. Increasing trade barriers in major economies, such as the United States-China trade war, are creating uncertainty about trade rules, supply chains and economic policies.
- **Weakening of global trading system** - The influence and authority of traditional trade institutions are being undermined and critics argue that the IMF and World Bank have not kept pace with rapid changes in the global economic system and power shifts.
- **World order is solidifying in the East** - As China and other one-time “emerging” economies such as India mature, they are now consuming more of what they produce, developing their own domestic supply chains, and are less reliant on imports. However, the next wave of emerging economies, including Indonesia, Thailand and Malaysia, will collectively consume almost two-thirds of the world’s manufactured goods by 2025.

Consumer expectations:

- **Prioritization** - Consumers are prioritizing being independent and active and having a positive personal image through all life stages. Older consumers seek to prolong their lifespan and healthspan, which extends beyond just physical wellness to include mental wellness in the forms of relaxation, focus, mindfulness, and mental sharpness.
- **Simplicity** - Produce, flowers and plants are a natural fuel and critical component for consumers seeking deeper meaning in their lives. This awakening is encouraging consumers to make more thoughtful decisions about what they buy and seek ways to reverse the negative impact they perceive consumerism is having on other human beings, animals and the environment.
- **Changing ideas about aging** - Baby Boomers have more in common with the values and priorities of Millennials and Gen Z than is often thought. Baby Boomers are just as obsessed with technology, the latest apps, and smart devices but are in better financial shape than the rest of the population.

Industry landscape:

- **Automation** - Automation is spreading throughout the supply chain – from grower to retailer and foodservice outlets - due to a lack of labor and the pursuit of consistent quality and customer experiences.
- **Survival of the fittest in retail** - Investment in customer experiences and technology is the key to retail growth. Retailers that build the right customer experience and invest in automation will reap operational cost and labor savings.
- **Reinventing the shopping experience** - Customer-centric strategies are critical to retail survival. Consumers' digital behaviors, online shopping, and demands for experiences are creating new expectations to make shopping fun and easy.
- **Convenience and personalization are the new norm** - Consumers expect a personalized shopping experience with recommendations and sales promotions customized for them.
- **Growth in direct-to-consumer** - Many floral suppliers are currently in the process of expanding their proprietary e-commerce platforms and/or offering more products directly to customers. This trend mirrors the consumer goods industry where an estimated 40% of manufacturers now sell directly to consumers. Direct-to-consumer (DTC) sales are projected to reach \$130 billion by 2025.
- **Next gen agriculture** - “Faster, better, cheaper” has been the driving force for all industries throughout history, but the future of agriculture is about faster, better, cheaper and more powerful.
- **Transparency and traceability** - Supply chain partners are not the only ones demanding increased transparency. Consumers are increasingly concerned about how crops are

grown, how much fertilizers and chemicals are used, and how their food is handled as it moves through the supply chain.

- **Quality assurance** - Quality and safety throughout the supply chain are fundamental, and examples of advancements in this area are cropping up throughout the industry.
- **Distribution** - The direct-to-consumer movement requires a supply chain with different capabilities than those in place today. Distribution centers are no longer staging points for supply chain inventory but, instead, are part of the value chain, providing value-added services. More than 4 million robots are expected to be in more than 50,000 warehouses worldwide by 2025.
- **Sustainability** - As consumers worldwide demand a more sustainable environment, efforts to respond are resulting in a growing number of organizations gaining their B Corporation status, an increase in green building LEED Certifications, more cities banning single-use plastic and global policy changes intended to reduce pollution. Consumers are also demanding more of themselves, prioritizing their commitment to protecting people and the planet as they become more educated about sustainability initiatives, increase their recycling efforts and reduce their energy and plastic use.
- **Alternative energy** - Utilities and businesses will continue to shift to renewables. This transformation will require ongoing engagement with external stakeholders.
- **Talent** - Increasing global connectivity, demographic shifts, and smart machines will continue to reshape the landscape of the workplace and the key skills that workers will need in the future. As a new generation joins the labor market and employment options evolve in an increasingly global and knowledge-based economy, people management will need to become more strategic to accommodate a more flexible and diverse workforce.

Source: [PMA's Glimpse into the Future: 2020 Produce And Floral Environmental Scan](#)

Floral consumers

Consumers drive the entire supply chain. Given the importance of floral consumers, this entire section is dedicated to providing the latest statistics and market research regarding floral consumer tastes and preferences. After some general observations, there are sections that cover demographic differences, then specific preferences regarding weddings, events, and funerals, followed by consumer trends in floral gifting, attitudes towards sustainability, and purchasing barriers.

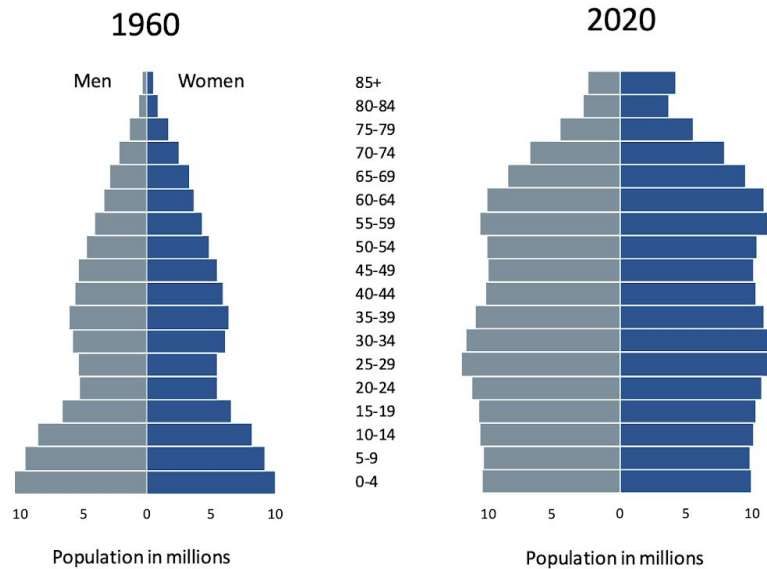
Baby Boomers worldwide will continue to lead the plant industry forward because of their large size and high per capita consumption (AIPH, 2019). In fact, their real per capita and household spending on ornamentals is far greater than previous information indicates (AIPH, 2019). Yet, to

win the middle class in the developed countries, the floral industry industry needs to emphasize quality and look for a new take on value. There must be a balancing act between premiumization and price (Megatrends, 2019). In the future there will be even more urbanization than what we see today. By 2050, 70% of the world population will live in cities (AIPH, 2019).

The U.S. population will see many changes over the next two decades, particularly in terms of ethnic diversity. Pew Research forecasts by 2050 the U.S. population will be made up of 47% white, 29% Hispanic, 13% black, and 9% Asian. Invariably, this will translate to greater diversity in consumer preferences as well, particularly taste and color preferences.

Population aging

- » By 2030, every baby boomer will be over 65
- » Number of 65+ will grow from 49 to 95 million between today and 2060



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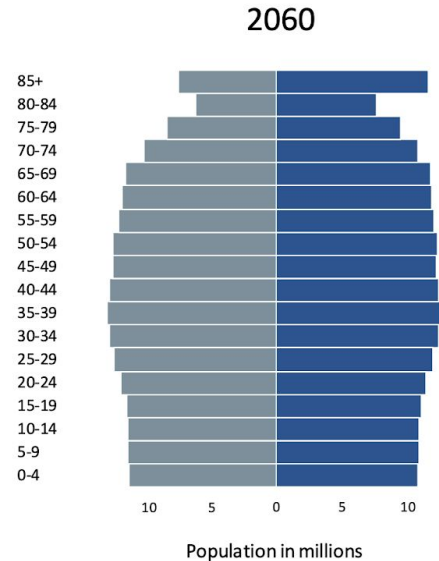
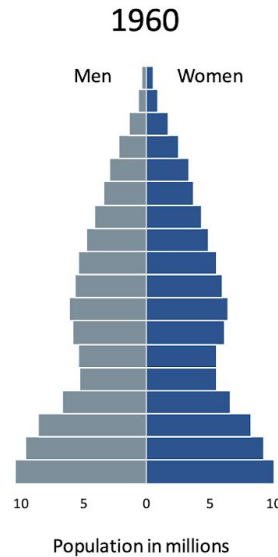
Population aging

» Number of 65+ will grow from 49 to 95 million between today and 2060

65+ grow by 92%

85+ grow by 198%

100+ grow by 618%



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Demographic turning points

Aging

- » More older adults than kids by 2035
- » More young children than elderly by 2060

Immigration

- » Immigration projected to become the primary driver of population growth starting in 2030
- » Due to population aging and a rising number of deaths

Diversity

- » White population projected to shrink
- » Due to demographic momentum of younger, more racially diverse cohorts



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General Floral Consumer Behavior

In the U.S., a total of 91 million households participated in lawn and garden activities in 2017 (National Gardening Survey). This is an increase from 2012 by 3% in all types of lawn and garden products. The compound annual growth rate in the average spent on lawn and garden activities since 2012 increased 8% per year, not adjusted for inflation (National Gardening Survey). The average spent on lawn and garden activities nationwide is \$503 per participating household. Container gardening is also on the rise with a 7.8% increase in spending on container gardening per year with spending at \$58 per household. Consumers desire container gardens with scaled-down, easy-care plants. Houseplants was \$48 per household. Herb gardening also on the rise with double digit growth per year playing to the fact that people are into health and well-being right now. The consumer's desire for successful gardening meant 36% of households bought some form of gardening information (National Gardening Survey).

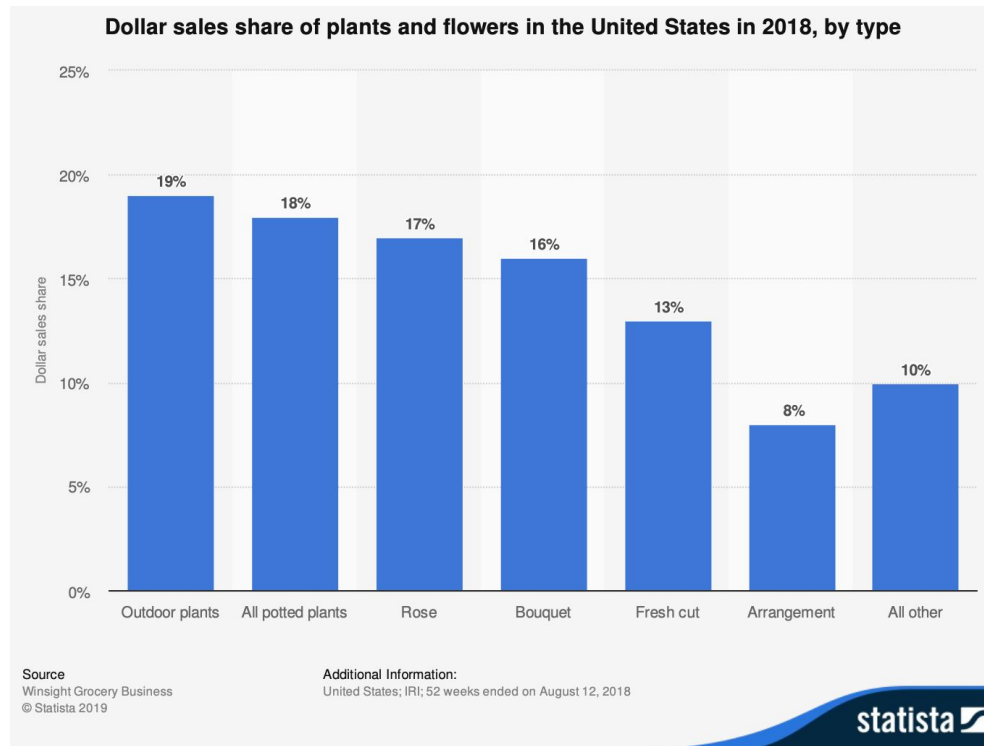
When broken down by state, approximately 45% of the population in Minnesota purchases plants. Forty percent of the population in Washington, Oregon, Wisconsin, Pennsylvania, Connecticut, and Alaska purchase plants. Thirty-five percent of the population in Utah, Kansas, Michigan, Ohio, Virginia, Maine, New Hampshire, and Massachusetts purchase plants. When evaluating by average spending per person by state, Idaho, Louisiana, Illinois, New York, New Jersey, and Connecticut spent the most per month (\$50-\$55). Michigan, Missouri, Oklahoma, Nevada, and Alaska spent \$45-\$50 per month, and the remaining of the states spent less than \$45.

In a typical month, the percentage of U.S. consumers that purchase flowers is less than five percent (Palma and Ward, 2015), however due to the way the data is merged, it is impossible to determine how much floral consumption is specifically related to cut flowers versus potted plants, perennials, or annuals. According to Stephen Bachmann, author of *The Reason for Flowers: Their History, Culture, Biology, and How They Change Our Lives*, the U.S. consumes 10 million cut flowers on an average day (Keatley Garvey, 2016). Personal consumption of flowers has steadily increased from 1970 to 2017 with some setbacks in 1990-1991, 2000-2001, and 2008-2009 (Arizton; U.S. Economic Census Bureau). Maturity of the floral market has led to the hyper-competitiveness, squeezed margins, and price competition. This affects consumers responsiveness to floral products.

In a simulation of the floral market, Palma and Ward (2015) found that market penetration and buyer frequency increased with age and when female purchasers were buying for self-use. One of the most important overall objectives of their research project was to separate the demand drivers for flowers into the market penetration component from that of the frequency of buying.

Most transactions for all flowers took place because of the entry of new buyers rather than repeat buying customers (frequency); however, when analyzing each variable individually, this percentage differed across flower types. The extreme importance of market penetration versus frequency of buying has considerable implications. New buyers may need additional information and are potentially influenced by the first impression, whether the facilities or quality of the flowers. Buying habits may not be as well established in terms of the types of flowers and what is communicated with different types. Hence, having in-store information to guide potential buyers is more important than with products where the consumer is a frequent repeat buyer. For outdoor flowers, informational needs are even more challenging for the new buyer. Store layout, resource materials, and personal assistance are likely more important with the demand gains coming mostly from market penetration versus the frequency of buying. While the goals likely differ among the four flower types, there are several generalities that have potential for all four. The demand for each flower type was closely tied to the age of the buyer with the transactions increasing with the age of the buyer. Hence, promotional efforts to target the younger market in all flower types should have potential positive benefits in all four groups. For the other classifications, programs targeting specific household attributes should more likely be tailored to the type of flowers (e.g., cut, plant, dry or outdoor) being marketed as described previously.

For the U.S. floral market, demand slumped in 2005 (Floral Purchasing, FMRF). Additionally, buying households decreased by roughly 3 million in 2005 versus in 2003 and 2004. Soon after came the Great Recession where we saw a second slump in demand from 2008 to 2009. Buying households previously purchased floral arrangements an average of 5 times per year but this has declined slightly over time (Floral Purchasing, FMRF). Prior to this, this held steady at 5 to 6 floral arrangements purchased per year from 1995 to 2005 (Floral Purchasing, FMRF). Average spending per arrangement is \$17.49. In 2016, consumers purchased flowers approximately every 4.4 months (Generations study, SAF). Broken down by generation, Millennials purchased approximately every 3.6 months, Generation X every 4.4 months, and Baby Boomers every 5.3 months (Generations Study, SAF). Given that floral expenditure has been decreasing among consumers under 40 years of age for the past two decades, innovative marketing strategies to target this age cohort are essential for the floral industry's success in the future (Zhao, 2016).



Demand is expected to grow in the next five years (2019-2024) (Florists, IBISWorld). The percentage of consumers who viewed flowers as a luxury has decreased, indicative of the prosperous economic climate currently present (Generations Study, SAF). Yet, other sources predict that floral consumption will decrease. First Research indicates that U.S. consumer spending on nondurable goods, an indicator of florist sales, fell 0.6% in June 2019 compared to June 2018. But, U.S. personal income, which drives how much consumers have to spend on luxury items like flowers, rose 4.9% in June 2019 compared to June 2018 (First Research). Miller, in 1983, determined that floral demand was relatively inelastic, meaning that consumers do not respond to price changes for floral products. Palma and Ward (2015) replicated this result with representative data from AFE and IPSOS-NDP where the floral consumer is still generally non-responsive to changes in price of floral products.

A recent report by the AIPH (International Association of Horticultural Producers) shows that average spending on flowers and plants at farmgate value (domestic plus imports) is \$26.48-\$34.46. Average retail value flowers and plants (domestic plus imports) is \$79.45-\$103.36 (AIPH Appendix, 2019). Household spending on “home and garden” is projected to go from \$2,550 to \$3,324 (2.15% increase). Total per capita spending on ornamentals is targeted to increase from \$251 in 2016 to \$333 in 2030 with a growth of 33% (AIPH Appendix, 2019). Annual average capita spend on flowers and plants was \$56.66 in 2016 and will grow to \$77.28 in 2030 with a growth of 36% and a compound annual growth rate

(CAGR) of 2.6%. Bizminer (Florists) reports the market penetration for households spending is \$137 in cut flowers per year while the individual person's spending on cut flowers each year is \$58 at the retail florist.

Seventy-three percent of consumers express some level of appreciation for flowers and supermarkets are the most widely shopped channel for self-purchase while the most widely shopped channel for gifting is the local florist (Floral Purchase, FMRF; Generations Study, SAF) because of a decrease in the use of supermarkets when gift giving (Generations Study, SAF). Florist shop purchases were significantly more expensive than supermarket purchases (\$50 versus \$20 median) (Floral Purchase, FMRF). Seventy-four percent of transactions occur in person while 15% are online; per dollar value, 67% is spent in-person and 21% is spent online (Floral Purchase Tracking Study, 2016). This is an inverse from Arizton's results where average spending at an in-person florist was \$65, online florist was \$68, and mass merchandiser was \$30.

Consumers are willing to pay more on occasions for romantic events (77%), Mother's Day (68%), get well (58%), holidays (45%), and day brightener/"just because" (33%) (Consumer Preference, FMRF). Additionally, no special occasion had a decrease in purchasing over the past decade (1995-2005). Non-calendar occasions accounted for the greatest amount 31.7% of floral purchasing occasions (Floral Purchasing, FMRF). For personal purchase, age, marital status, income, cleaning/fresh floral knowledge, location grown, and color were important for the decision-making process (Li, 2016). For gift purchase, age, being male, having an associates or bachelor's degree education, income level, direct access, grown local (in the case of the study, Washington), color, and uniqueness mattered (Li, 2016). Locally grown flowers ghad major effects consistent with past findings by Carpio and Isengildina (2009) and Loureiro and Hine (2002). Seventy percent of consumers agree that color adds impact to the purchase and 69% say that the smell can improve their mood. This is up from 53% who say fragrance as important in 2009 (Generations Study, SAF). Flower color is considered a dominant attribute in the floral purchase decision process. For single stem flowers, red/bronze is the most popular color choice followed by peach/pink (Yue and Behe, 2010).

Consumers with a household income of \$70,000 or greater are more likely to make a purchase at a florist. Additionally, consumers with a family income of \$150,000 or greater account for the most spending and are overwhelmingly the most likely to be a customer. Other notable demographic characteristics for florist customers include region and race. Consumers in the Northeast and West spend the most at florists compared to consumers in other regions (Sundale).

White consumers are more likely to be a customer at florists compared to other races. Hispanic consumers will be increasingly important in the future, as growing population and incomes will lead to more spending on flowers and plants (Sundale). Hispanics are the largest and fastest

growing minority in the U.S. According to the 2010 U.S. Census, the number of Hispanics grew from 35.3 million to 48.9 million from 2000 to 2010 and the Hispanic population is projected to grow to more than 60.0 million in 2020. In 2015, one-third of the population under the age of 19-years-old was Latino. Latinos account for approximately 25% of children under the age of five in the U.S. (Sundale).

According to Arizton, consumers see florists as “vendors”, but not experts on flowers. Being a member of a professional floral association was not viewed as a driver for purchase from the establishment. This idea can occur when all “brands” within a channel are seen as equally performing. A little less than half the percentage of people sampled by Arizton indicated that they are aware of the flowers that apply to different occasions. The channel has been challenged by the dearth of correct order deliveries and lack of distinctive flower arrangements. These inconsistencies can serve as key differentiators that can drive growth in the market (Arizton).

The top three things considered when making a floral purchase are convenience, product quality, and price (Floral Purchase, FMRF). No matter the age of the respondent, quality and longevity were the most important floral attributes. Additionally, design is important for younger consumers (Consumer Preference, FMRF). In 2005, houseplants were the most spontaneous purchases and approximately 1/3 of all plant purchases were impulse; 80% of cut flowers and bedding plant purchases were premeditated (FMRF). Seventy percent of consumers are unaware of the origins of flowers, yet 51% of consumers would buy locally if given the choice (Arizton). Seventy percent of supermarket consumers report that they will prioritize holiday purchases next year. Sixty-six percent said they will emphasize making impulsive purchases (PMA, 2019).

Coupon use, which is at an all-time high, is also going virtual as many companies are using coupon sites such as Groupon. By 2022, more than 600 million consumers worldwide will use mobile coupons resulting in nearly \$43 billion in savings. Currently, mobile couponing is most prevalent in Asia (specifically China), with North America and Western Europe quickly gaining ground (Sundale).

Guarantees are also a great consideration in floral purchasing. There was a 3% increase in Willingness to Pay (WTP) for arrangements if the flowers were for the purchaser themselves. If the arrangement was a gift, WTP went up 7% (Floral Purchasing, FMRF; Rihn, 2014). If the floral arrangement was guaranteed to last 11-14 days then WTP increased more than 17%. The more expensive the arrangement, the more important the guarantee was for the purchase.

According to **Yue and Behe (2008)**, competition among floral retailers has promulgated industry-wide structural changes while giving consumers more choices in locations for purchase. Consumer panel data collected by the American Floral Endowment from 1992 to 2005 were used

to evaluate consumers' choice of different floral retail outlets among box stores (BS), traditional freestanding floral outlets (TF), general retailer (GR), other stores (OS), and direct-to-consumer (DC) channels. Since 1992, market share and percentage of transactions decreased through TF but increased for BS. Mean expenditure per transaction in TF was higher than in BS and GR. Consumers who made floral gift purchases were more likely to patronize TF, but those who bought floral products for themselves were more likely to purchase from BS. Consumers patronizing TF or DC were more likely to buy arranged flowers rather than unarranged flowers. Consumers who purchased foliage plants and outdoor bedding or garden plants were more likely to buy them from BS. Reasons consumers who choose BS and GR cited for using those outlets included convenience and lower prices, whereas consumers who purchased from TF and DC cited delivery, reputation, and service as major drivers impacting their use. Demographic and geographic differences were also identified among consumers using the aforementioned outlets.

Dissecting down to the types of flowers consumers purchase, roses and mixed flower arrangements are the most common. Red flowers are overwhelming chosen by men (72%) while women like mixed colors (57%). Bouquets are the most common arrangement type. Seventy-four percent of purchases were occasion-based while 26% were "just because". Tulips, carnations, and lilies were the second "tier" of most frequently purchased (First Research). Self-purchase and "for spouses" were tied for most frequently recipient. The median flower purchase was \$30. Forty-four percent was less than \$25 and 20% was over \$100. Women buy four times as many fresh flowers as men (First Research).

According to **IBISWorld (Florist)**, 27% of floral consumers are over ages 40 to 54, 25% are 55 to 64 years old, 21% are over 60 years old, 21% are ages 30 to 39 years old and 7% are under 30. Participants within the floral industry are becoming increasingly focused on the younger consumer categories and their "lack" of purchasing. No two generations experience an event or period in the same way, nor do two cohorts experience being a particular age in the same way due to age/life-cycle effects, period effects, and cohort effects. This knowledge should always be paired with behavioral and attitudinal data for a full picture. Affluent, educated consumers buy flowers. Baby Boomers account for 40% of the flower purchases (Floral Purchasing, FMRF). Millennials account for 5%. Males account for 20% of the floral purchases but are more highly represented among fresh flower purchases (30%) (Floral Purchasing, FMRF). Two to five member households purchased the most flowers. Single member households purchased the least (10%). The greater the household size, the less likely to purchase.

Resources for general behavior section:

[Accenture & Havas Media, 2014. The consumer study: from marketing to mattering](#)

[AIPH, 2019. Ornamental horticulture: A growing industry?](#) (fee-based publication)

[AIPH, 2019. USA Appendix data](#) (fee-based publication)

[Anacleto, 2017. Profile and behavior of flower consumer: subsidies for marketing actions](#)

[Anjali, 2014. Product diversification in floriculture](#) (fee-based publication)

[Arizton. Floral gifting market in the U.S.](#) (fee-based publication)

[Bizminer Industry Market Report. NAICS 453110: Florists](#) (fee-based publication)

[Carpio and Isengildina, 2009. Consumer willingness to pay for locally grown products: the case of South Carolina](#)

[Cordomi, 2017. Le demanda de flores de corte: generacion de datos e investigacion de mercado](#)
(The demand for cut flowers: generations of data and market investigation) (fee-based publication)

[Dun & Bradstreet First Research Report. Florists](#) (fee-based publication)

[Euromonitor, 2018. Gardening in the U.S.](#)

[FMRF, 2009. Consumer preference for flowers as gifts: age, segments, substitutes, and perceived risk](#) (fee-based publication)

[FMRF, 2016. Floral purchasing tracking study](#) (fee-based publication)

[FTD University, Skip Paal, AAF. Trimming your cost of goods](#)

[Greenhouse Product News/Euromonitor, 2019. Megatrends for 2019](#)

[Huang, 2005. Floral product behaviors and their influence on consumer floral purchase frequency](#)

[Huss, 2017. The meaning of flowers: a cultural and perceptual exploration of ornamental flowers](#)

[IBISWorld Industry Report. 45311 Florists in the U.S.](#) (fee-based publication)

[International Floriculture Expo, 2016. Trends in the fresh-flower supply chain](#)

[Keatley Garvey, 2016. The real reason for flowers: not just for Valentine's Day](#)

[Li, 2016. An evaluation of factors influencing consumer purchase decision of cut flowers: a case study of Washington consumers](#) (fee-based publication)

[Loureiro and Hine, 2002. Discovering niche markets: a comparison of consumer willingness to pay for local \(Colorado Grown\), Organic, and GMO-free products](#)

[National Gardening Survey, 2018 Edition](#) (fee-based publication)

[Observer. Can Instagram save the flower industry?](#)

[Palma and Ward, 2015. Measuring demand factors influencing market penetration and buying frequency for flowers in the U.S.](#)

[Pew Research Center, 2008. U.S. population projections: 2005-2050](#)

[PMA, 2019. Trends in mass-market floral](#)

[Rihn, 2014. Consumer preferences for longevity information and guarantees on cut flower arrangements](#)

[Rihn, 2015. Consumer response to novel indoor foliage plant attributes: evidence from a conjoint experiment and gaze analysis](#)

[Rita and Balas, 2007. Dimensions of quality of cut-flowers in horticulture supply chain](#) (fee-based publication)

[SAF, 2016. Floral purchase tracking study](#) (fee-based publication)

[SAF, 2016. Generations of flowers study](#) (fee-based publication)

[Statistica, 2019. Dollar sales share of plants and flowers in the United States in 2018, by type](#) (fee-based publication)

[Sundale Research Report. Florist state of the industry](#) (fee-based publication)

[Traction, 2019. Cultural meaning of flowers report](#)

[Usman, 2015. Estimation of consumers' demand functions of cut-flowers products: a case study of Pakistan, Punjab](#) (fee-based publication)

[U.S. Census Bureau, 2017. 2016 Economic Census](#)

[U.S. Census Bureau, Population Division. Estimates of the total resident population and resident population age 18 years and older for the United States, states, and Puerto Rico: July 1, 2018](#)

[Vespa, U.S. Census Bureau. Demographic turning points population projections for the United States: 2020 to 2060](#)

[Yen and Huang, 2009. An analysis of floral consumption values and their difference for genders and geographic regions](#)

[Yue and Behe, 2008. Estimating U.S. consumers' choice of floral retail outlets](#)

[Yue and Behe, 2010. Consumer color preferences for single-stem cut flowers on calendar holidays and noncalendar occasions](#)

[Yue and Hall, 2010. Traditional or speciality cut flowers? Estimating U.S. consumers' choice of cut flowers at noncalendar occasions](#)

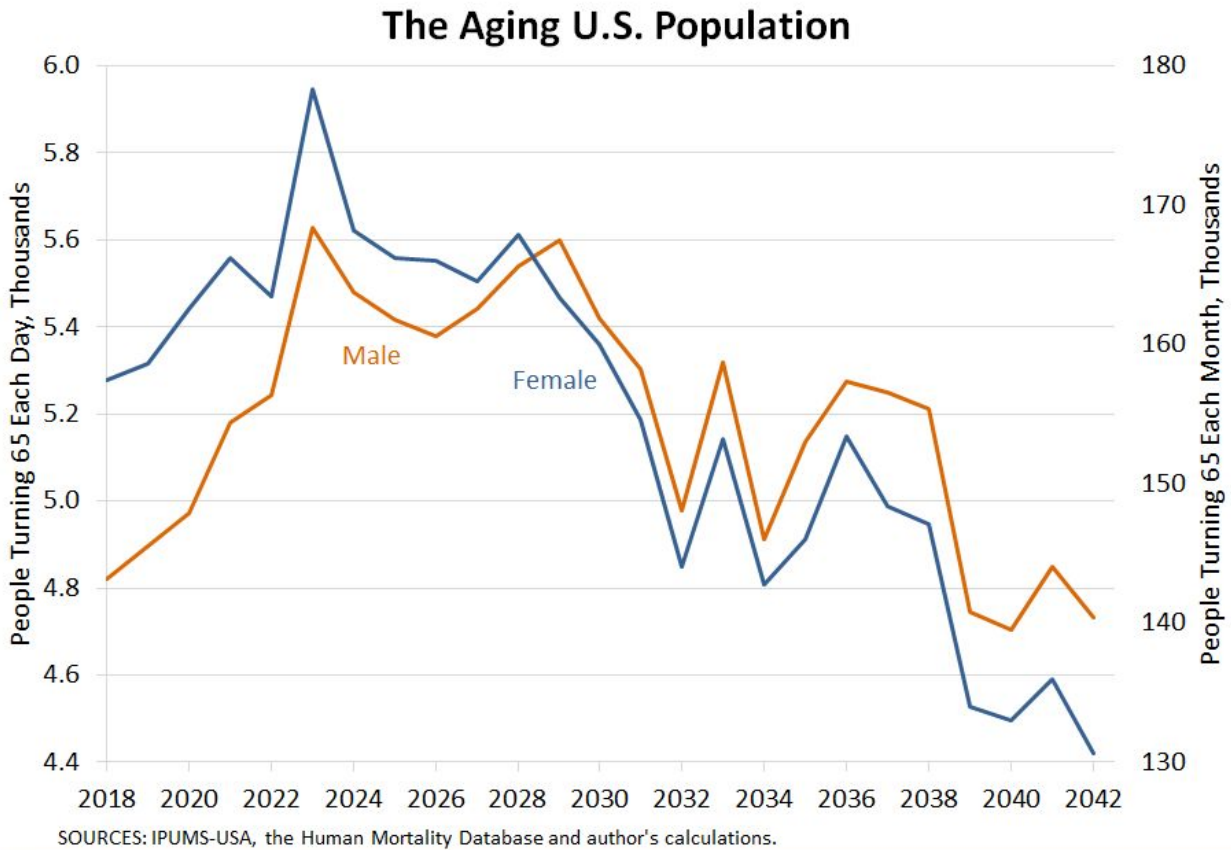
[Zhao, 2016. Factors affecting U.S. consumer expenditures of fresh flowers and potted plants](#)

Baby Boomers

The Baby Boomer generation, ages 55-years-old to 74-years-old, in essence built and sustained the horticulture industry as we know it. They represented much of the growth in the industry from 1980 to present, but now they are aging. Consumers 40- to 64-years-old account for 51.2% of the industry revenue, have the highest appreciation for flowers, and are most likely to consider flowers when purchasing gifts (IBISWorld, Florist). In 2017, the percentage of gardeners over 55-year-old group shows a steady rate of 35% which means that consumers over 55 has been stalled in their participation share rates since 2008 (National Gardening Survey).

Will Baby Boomers continue to stay the floral industry's primary customer? Some reports indicate that for the next few years, they will remain in that important role. Even with the increase in age, the furtherment of medicine and the increase in longevity has enabled more people to survive to successively-higher age intervals (AIPH, 2019). Aging households in the western world are spending more money on gardening, have higher disposable income, tend to stay in their homes longer, and lead a more active lifestyle than previous generations (AIPH, 2019). Additionally, according to the Pew Research Center, 10,000 Baby Boomers are retiring every day in the United States (see figure below). This could mean that more are spending time

on gardening as a hobby or more time is spent on leisure activities and the gardening is outsourced to a service provider (AIPH, 2019). Additionally, the number of people age 60+ is expected to increase by 30% to 222 million by 2030. As a result, these individuals will account for 51% of the urban consumption growth in developed countries (AIPH, 2019).



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This age group forms a demographic that is more urban, ethnically diverse, educated, and tech-savvy than the 60+ age group in previous generations. Sixteen percent of the population is non-white. With this change in diversity, and changes for other generations, the housing market has seen an increase in demand for multi-generational housing. This is expected to account for 20% of the growth in U.S. housing demand for those 60+ years of age. According to the National Association of Home Builders, homes were predicted to shrink in size by 10% starting in 2015 and this indeed has been the case through the end of 2019. With smaller homes, people are taking to the outdoors for dining, cooking, and entertaining. In fact, the 2014 Casual Living and Apartment Therapy Outdoor Decorating Survey notes that 62% of Millennials, 46% of Gen X'ers and 24% of Baby Boomers are spending more time outdoors (2015 Garden Trends). Significant segments of the target group are not content to accept the average, they want “*more professional, premium, or sassier versions*” of goods and services (AIPH, 2019).

Baby Boomers have been among the most lucrative consumer groups in the past as they were considered reliable customers (Arizton). The group also spends a considerable amount of their income meaning many boomers are not financially prepared for a comfortable retirement. Many face the choice of scaling back their spending or delaying retirement. Other Boomers will retire with consider disposable income and can afford luxury leisure activities. Over time, fewer 25-to-39-year-olds purchased flowers, while more 55+year-olds purchased flowers from 1996 to 2013 (Zhao, 2016).

Baby Boomers' primary channel for purchasing flowers for themselves is supermarkets (77%) (Generations Study, SAF). They primarily gain information from friends and family, TV, and discussion with florists/experts (Generations Study, SAF). It is believed that there has been a decrease in spending on floral purchases on occasions because Baby Boomers are decreasing their purchasing for occasions (Generations Study, SAF). The funeral and sympathy category resulted in the highest average spending per holiday (Floral Purchasing, FMRF; Generations Study, SAF).

When surveyed, Millennials and Generation X reported a slightly lower level of appreciation for flowers than Baby Boomers. They also had a lower houseplant purchase intention (Generations Study, SAF). Baby Boomers require offerings of quality and freshness (Generations Study, SAF). They remain far more likely to have an emotional connection with flowers in regard to gift giving and are more likely than other generations to view gift giving as caring, personal, sentimental, and tasteful (Generations Study, SAF). Further, they are most likely to view those who give flowers as thoughtful, sincere, and taking the time to give something special (Generations Study, SAF).

Resources for baby boomer section:

[Arizton. Floral Gifting Market in the U.S.](#) (fee-based publication)

[AIPH, 2019. Ornamental Horticulture: A growing industry?](#) (fee-based publication)

[FMRF, 2016. Floral Purchasing Tracking Study](#) (fee-based publication)

[Garden Media Group. 2015 Garden Trends Report](#)

[IBISWorld, 45311. Florists in the U.S. Industry Report](#) (fee-based publication)

[National Gardening Survey, 2018 Edition](#) (fee-based publication)

[National Association of Home Builders. Housing statistics](#)

[Pew Research Center, 2008. U.S. population projections: 2005-2050](#)

[Pew Research Center. Baby Boomers Retire](#) (fee-based publication)

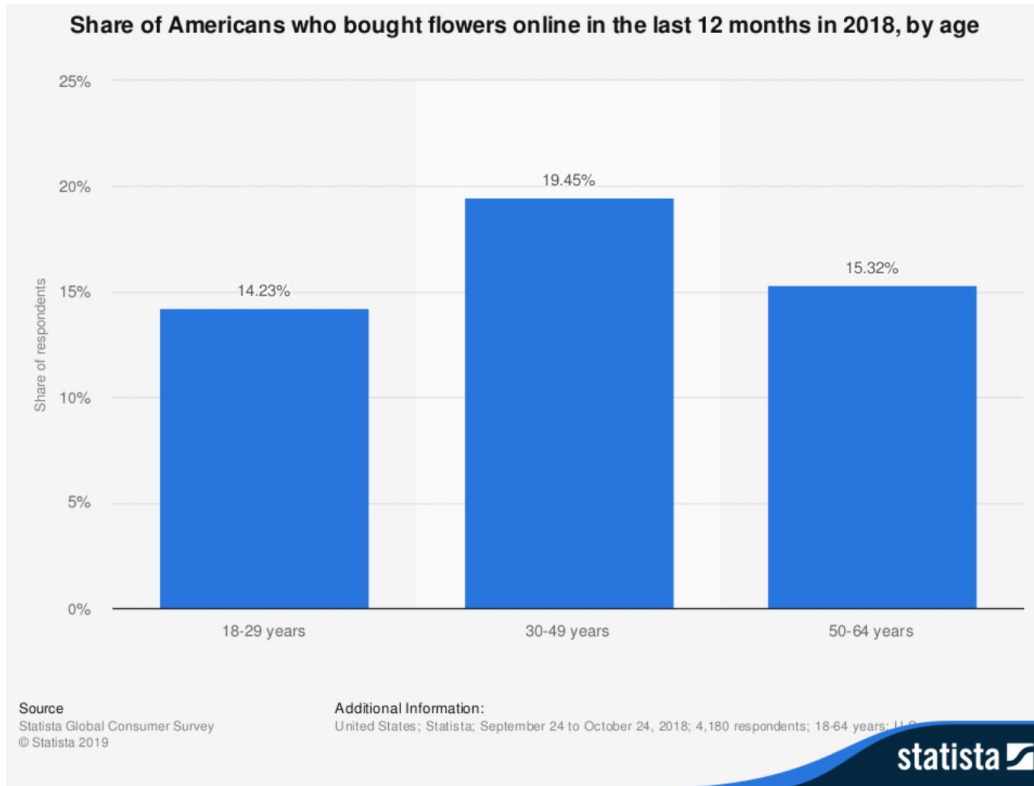
[SAF, 2016. Generations of Flowers Study](#) (fee-based publication)

[Zhao, 2016. Factors affecting U.S. consumer expenditures of fresh flowers and potted plants](#)

Generation X

Generation X (comprised of individuals ages 35 to 54 years old) is significantly more likely than to consider purchasing flowers at a florist (Generations Study, SAF). Additionally, compared to 2009, there has been a positive shift in flower appreciation among Generation X (and Gen Y), while it has remained relatively the same among Baby Boomers (Generations Study, SAF). They were the biggest spenders (per household) on green industry products in 2017 (National Gardening Survey).

Gen X'ers are interested in shareable experiences, education, and content opportunities (Arizton; Generations Study, SAF). They are “squished” between their Baby Boomer parents and Millennial children, leading them to be financially and time supportive of both generations. Generation X is the most “time-starved” generation often juggling career and family obligations. But, they maintain a strong commitment to work-life balance in their lives (AIPH, 2019). Companies that appeal to Generation X'ers the most are companies that are transparent and altruistic, benefit communities, and place importance on sustainability and the environment (Arizton).



Convenience is of the utmost importance in the form of delivery options and purchasing options (Generations Study, SAF). Because they are busy, they like gift reminders and cash-and-carry bouquets (Generations Study, SAF). Generation X has the highest incidence of purchasing flowers for anniversaries and “just because” because they are more settled in life and have a high disposable income (Arizton). The number one channel used when purchasing for themselves is the florist followed by the nursery/garden center. They desire interesting designs/styles that make an impact and flexible delivery options. Generation X’ers get their information from friends and family, TV, and discussions with florists and/or other experts (Generations Study, SAF).

Resources of generation X section:

[Arizton. Floral gifting market in the U.S.](#) (fee-based publication)

[AIPH, 2019. Ornamental horticulture: A growing industry?](#) (fee-based publication)

[National Gardening Survey, 2018 Edition](#) (fee-based publication)

[Pew Research Center, 2008. U.S. population projections: 2005-2050](#)

[SAF, 2016. Generations of flowers study](#) (fee-based publication)

[Statistica, 2019. Share of Americans who bought flowers online in the past 12 months in 2018, by age](#)

Millennials

Generation Y (colloquially called Millennials) is currently settling into their adult lifestyles. Ages 25- to 34-years-old, they are facing lots of firsts: their first home, first job, and first independent income. Generation Y is trying to find the right balance between spending for necessities and for entertainment. This generation is concerned not just with function and utility, but also with style. They are more ethnic than previous generations, where 15% of today's 20- to 34-year-olds were foreign born and 21% of young adults are Hispanic.

They should not be ignored. Millennials current buying power equates to \$200 billion with indirect spending reaching \$500 billion (Millennial Report, FMRF). In 2015, 50% had an income less than \$50,000 while 16% had an income of \$50-\$60,000 (Millennial Report, FMRF). Their incomes are expected to increase as they age and move more into the workforce. Yet, Millennials specifically have an average income lower than the average of the generations before them, have high student debt from education, and were hit hard from the recession. This adds up to lower purchasing power and cost-conscious decisions. They are getting married later in life and becoming parents at older ages than their own parents. While many have begun to purchase their own homes and start their own families, the average Millennial is less financially secure than his/her Baby Boomer parents were at a similar point in their lifecycle. This, along with the scarcity of affordable housing, means that Millennials very likely will remain renters longer than previous generations. The share of young adults living with their parents has risen from 30% to 36% from 1982 and 2014 (AIPH, 2019). This may not be a change in preferences but more likely a reflection of realities. In the fastest-growing urban areas, renters are typically apartment dwellers with little or no access to outdoor gardening spaces. As such, many have turned to indoor or patio gardening (Gardening in the U.S., Euromonitor).

There is reason to believe that when the economic environment improves a certain amount of postponed demand could be unleashed, but there is also strong evidence to suggest that unemployment during their early career years will have a negative impact on earnings prospects in the long term (AIPH, 2019). Income lost during a recession and its aftermath could lead to permanently lower incomes for those affected. Additionally, attitudes shaped by economic circumstances during youth tend to stick with a person. They will be more likely to trust community groups online than companies selling a product or service (AIPH, 2019). Behaviorally, in a national survey when asked "Do you think most people can be trusted?" those who responded in agreement fell from 41% in 1984 to 19% in 2014. These individuals are very

interested in gathering information from their families, friends, and communities on what to buy. Reviews are an integral part of the product discovery, search, and acquisition process.

According to the National Gardening Survey, 5 of the 6 million people who started gardening in 2017 were at the age group of 18- to 34-years-old. Millennial men have increased their lawn and garden participation activities. Indoor gardening tends to be more male and younger while outdoor plant purchasing tends to be more female and older (50+) (Floral Purchasing, FMRF). The trend of increased online retail has also impacted the gardening sector with an increase of 23% in sales via internet retailer or mail order/catalog from 2012-2017 (National Gardening Survey). The biggest consumers of gardening information in 2017 were men under the age of 35.

Generation Y has often been characterized as voracious consumers of information. In fact, the 18- to 34-year-old garden consumer group accounted for nearly half of gardening information purchased (National Gardening Survey). Over 10 million households acquiring gardening apps for their digital devices in 2017. They engage more with experiential products and live in the moment — especially on social media platforms (Snapchat and Instagram) (Cathy Burns, PMA State of the Industry Address). Millennials use Facebook, Instagram, and YouTube the most (Millennial Report, FMRF). They get information from trusted sources like friends and family, social media, and email (Generations Study, SAF). Gen Y likes engagement with other people who also like plants and flowers. Some Millennials have termed themselves as “plant parents” and post pictures of their “plant babies” which they name. They will share advice on how to style and photograph plants through social media interactions and converse extensively in social media groups on how to care for plants and how much they enjoy them.

Millennials like to purchase products, including green industry products, online and consider the internet in the future due to high satisfaction from online purchases (Floral Purchasing, FMRF; Generations Study, SAF; Millennial Report, FMRF). According to 10ecommercetrends.com (2019) and Millennial Report (FMRF), more than half of Millennials still prefer going to physical stores at some point in the buying journey either to look at the product more in depth, purchase the product, or compare it. They are most likely to buy from florist website since they are fluent with technology (Generations Study, SAF).

Gen Y values accessibility when shopping for flowers and using multiple channels, including social media (Generations Study, SAF). They like to use social media content that is organized and easy to read. Consumers can now use image-based searching to look for products – no words typed. In fact, image and voice searches will account for 50% of the searches that happen in 2020 (10ecommercetrends.com). They favor discounts; discount price promotions and add-on gifts are good for first-time buyers, young professionals, and/or students. Millennials also like

loyalty and subscription programs based on rewards, email or phone number programs, and geo-location through app or online ads (Millennial Report, FMRF).

They have a high appreciation of flowers and really like houseplants (51% purchase intent). They buy on impulse and to make themselves feel better. Color of the flowers can be used to create/express moods and celebrate their personalities (Trends, PMA; Millennial Report, FMRF). Although they purchase roses the most out of the generations, they enjoy unusual or unique flowers (Generations Study, SAF). They purchase flowers for themselves the most at farmer's markets and convenience stores (Generations Study, SAF). They have good memories associated with receiving and using flowers but flowers are not top of mind (Generations Study, SAF). Yet, other sources say that Millennials are not appreciative of flowers are less likely to know where to buy flowers, and less likely to purchase bouquets (Florists, IBISWorld; Trends, PMA). Consumers under thirty who purchase from florists are most likely to purchase in person and deliver flowers themselves but less likely to differentiate florists from other retailers (Arizton). They opt to purchase non-flower gifts or they are time poor and prefer convenience (Florists, IBISWorld; Trends, PMA). Some believe that they can not afford the "really artistic" flower arrangements even though they like them. According to Euromonitor, consumers will spend more on what matters to them and cut back on what does not (2019).

Millennial indoor gardeners have tended to focus on plants that require relatively little maintenance or offer a health or wellness benefits. As a result, indoor plants are set to see further positive retail value growth over the forecast period as consumers continue to embrace indoor gardening. Their concerns for the environment will also play a role in continued floral growth (Cathy Burns, PMA State of the Industry Address). Generation Y is very experience-oriented. They want to be in immersive environments, and for experiences to become a destination (Millennial Report, FRMF). They enjoy "Urban Wilding" and biophilic design centered around wellbeing and environmentalism. They are eco-conscious and ask for sustainable practices of flowers, employees, and support of local communities (Millennial Report, FMRF). Arizton reports that to reach Gen Y the most the floral gifting marketplace must be organized, have easy-to-use products, constantly updated, sensitive to the environment, mobile-friendly, technology-oriented, and allow for freedom of choice.

Resources for millennial section:

[Absolunet, 2019. 10 e-commerce trends for 2019](#)

[AIPH, 2019. Ornamental horticulture: A growing industry?](#) (fee-based publication)

[Arizton. Floral gifting market in the U.S. \(fee-based publication\)](#)

[Cathy Burns PMA, 2019. Fresh Summit state of the industry address](#)

[Cruz Sogueco. Maximize millennial floral purchasing](#)

[Euromonitor, 2018. Gardening in the U.S.](#)

[FMRF, 2016. Floral purchasing tracking study \(fee-based publication\)](#)

[FMRF, 2016. Marketing tactics to increase millennial floral purchases \(fee-based publication\)](#)

[Greenhouse Product News/Euromonitor, 2019. Megatrends for 2019](#)

[IBISWorld Industry Report. 45311 Florists in the U.S. \(fee-based publication\)](#)

[Roberts, Becky. GPN MAG. Megatrends for 2019.](#)

[National Gardening Survey, 2018 Edition \(fee-based publication\)](#)

[Observer. Can Instagram save the flower industry?](#)

[Pew Research Center, 2008. U.S. population projections: 2005-2050](#)

[PMA, 2019. Trends in mass market floral](#)

[SAF, 2016. Generations of flowers study \(fee-based publication\)](#)

[Statistica, 2019. Share of Americans who bought flowers online in the past 12 months in 2018, by age](#)

[Vox, 2019. Why restaurants, stores, and Kylie Jenner's house are absolutely covered in flowers](#)

Weddings

The United States has experienced some major social changes that will greatly affect the wedding industry. The legalization of same-sex marriages has expanded the industry's consumer pool (Sundale). Evolving social norms and medical advancements have enabled women to give birth later in life. It socially does not cost a woman as much to have a child out of wedlock and women have become more financially independent. There are extensive periods of cohabitation before marriage and family planning has increasingly become a norm with young couples (Center of Disease Control and Prevention). Seventy-four percent of women cohabit before marriage. They are less interested in having children and starting families. Engagement periods are extending due to movement from job to job, staying single longer, or cohabitating to see if the couple wishes to get married. Average marrying age for brides is 29-years-old and grooms is 31-years-old (TheKnot.com). Much of the spending on wedding services will come from consumers ages 25-34-year-old (Sundale). People are becoming less traditional and religious and put more emphasis on the extravagance of the event. These major social changes have led to a decline in marriage rates (Wedding Services, IBISWorld). Marriages are expected to reach an all-time low of 5.2 marriages per 1,000 people in 2024 as compared to 8.4 marriages per 1,000 people in 2000 and 10 marriages per 1,000 people in 1980.

Who is paying for the wedding is changing as well. Nearly 32% of brides and grooms pay for the event, 19% of brides' parents pay for the event, and 15% of couples share the cost with both parent groups for the event (TheKnot.com). Brides.com indicates the opposite where 27% of couples pay for their wedding themselves and 42% of the bride's or the bride and groom's parents pay for the event. Wedding season is now extended into September and October from the traditional May through August time period.

Wedding culture has changed and will continue to change with future generations. As previously discussed, the Millennial generation is facing different circumstances from the generations before them leading to altering preferences and habits. Couples are looking for individualism in their event. Thirty-three percent of weddings take place in religious institutions and is on the decline. Forty-three percent of weddings are officiated by a friend or family member rather than a professional (TheKnot.com). They are moving away from tradition and into personalization of events as seen through less garter tosses (30% now do it), less bouquet tosses (50% toss), and an uptick in hand-written vows and signature cocktails (Brides.com, 2018). Much of their inspiration comes from Pinterest (87% indicate) while 76% search Instagram for content. Nearly all brides (98%) use social media to find and vet wedding vendors while 83% visit the vendor's social media account before deciding to hire them.

Increased disposable income has enabled those getting married to spend more on their event. This has led to a 0.3% growth in weddings over the past five years. Much of the wedding focus is on first marriages even though 30% of individuals have been previously married. This is

because remarriages are not as extravagant, and couples do not spend as much money on second or third marriages.

Average spending of flowers for a wedding is \$2,411 in 2018, up from \$2,300 in 2017 (TheKnot.com; Wedding Services, IBISWorld). Flowers account for 4.5% of the products and services offered for a wedding (Wedding Services, IBISWorld). This can be taken a step further by looking at the minimally reported costs of flowers and decorations (Statistica). The minimal cost of a reception table centerpiece in 2012 was \$242. The average minimal cost of a ceremony flower arrangement was \$208; bridesmaid's bouquet was \$121, bridal bouquet was \$99, corsages/boutonnieres \$92, floral petals were \$63, and flower girl flowers were \$59.

The number of weddings in the U.S. will increase from 2.3 million weddings to 2.99 million weddings in 2030 (0.75% increase due to the size of the Millennial generation). When looking at the wedding rate of the overall population, this will decrease from 71% to 61%. The average cost for a wedding in the U.S. has dropped from \$35,329 in 2016 to \$33,391 in 2017 along with a drop in head count from 141 to 136. Couples are willing to spend more per guest to make the day unforgettable.

Yet, couples are still trying to find ways to cut costs. This can be done through trimming the guest list, setting a wedding date for off-seasons, getting married on a weekday, and destination sites (Wedding Planners, IBISWorld). Young & Thrifty indicates that destination weddings are 40% less expensive than a non-destination reception. A polling website even reported that "Millennials prefer small weddings" (TheKnot.com, 2019). The DIY segment is anticipated to stifle gains. DIY has become popular because it enables couples to give their nuptials a personal touch, and the proliferation of the internet has made it easier than ever for people to research and plan their own weddings. Consumer confidence index, according to IBIS, is expected to decrease, which will lead to tighter pockets and less spending on weddings. This will be mitigated for the industry by the wealthy consumers with high budgets. Average amount per wedding is expected to increase (Wedding Planners, IBISWorld).

Time is money for the couples. As they become increasingly involved in their careers, they will have less time to plan a wedding and more likely to opt to hire an industry operator. This is good news for industry participants as couples find vendors through online searches. Online marketing and social media have increased visibility for players and allowed for lowered marketing budgets. Social networks and online wedding service websites are driving several fundamental changes to the industry's structure. Vendors can post inexpensive ads targeted towards women of a certain age. Additionally, many vendors are transitioning towards niche markets of wedding day coordinators and same-sex wedding experts. These providers stand out as unique and well-positioned in the market.

Resources for wedding section:

[Adagio DJ. To toss or not to toss: the bouquet & garter](#)

[Brides.com, 2018. This is what American weddings look like today](#)

[Brides.com, 2019. The average wedding in 2018 was more personal and less traditional](#)

[Center of Disease Control and Prevention. A demographic, attitudinal, and behavioral profile of cohabiting adults in the United States, 2011–2015](#)

[IBISWorld Industry Report. OD4412 Wedding planners in the U.S. \(fee-based publication\)](#)

[IBISWorld Industry Report. NN006 Wedding services in the U.S. \(fee-based publication\)](#)

[Mar-Nel, 2012. Statistics for the wedding industry](#)

[Statistica, 2019. Weddings and marriages in the U.S. \(fee-based publication\)](#)

[Statistica, 2019. Weddings in the U.S. - Estimated minimum costs for flowers and decorations in 2012](#)

[Sundale Research, 2018. Florist state of the industry report \(fee-based publication\)](#)

[TheKnot.com. Apparently millennials prefer small weddings to large weddings, survey says](#)

[TheKnot.com, 2017. Couples spend an average of \\$33,391 on weddings, incorporating cultural, religious and personalized elements, according to The Knot 2017 real weddings study](#)

[TheKnot.com, 2018. The national average cost of a wedding is \\$33,921](#)

[Traction, 2019. Cultural meaning of flowers report](#)

[TripSavvy, 2019. Wedding statistics and honeymoon facts & figures](#)

[Washington Post, 2015. 144 years of marriage and divorce in the United States, in one chart](#)

[Young&Thrifty.ca, 2019. Destination wedding vs traditional at home weddings: which one's cheaper?](#)

Event Planning

Event planning, a \$5.4 billion industry, encompasses wedding services, corporate social events, birthdays, and other events such as religious ceremonies, retirement parties, graduation parties, festivals, fundraising events, fairs, and sporting events (Event Planners, IBISWorld). Per capita disposable income and consumer confidence levels are key drivers of demand for event services. A change in the marriage rate can have serious effects on the demand for party planning services.

Much of the demand for event planning services comes from households earning more than \$100,000. Since there has been an increase in the number of households earning greater than \$100,000 at the same time that there has been strong business sentiment, the demand has been bolstered for household and corporate markets. As a result, revenue is expected to grow over the next five years as corporate business profits increase and personal disposable income levels increase. Additionally, leisure time and sports are inversely related to unemployment rates. Therefore in 2019, time spent in leisurely activities is expected to stagnate which affects the demand for event-planning services. As consumers become more time strapped they are more likely to outsource party arrangements to a third-party provider, bolstering demand for industry services.

A large and growing share of the industry are non-employees who are self-employed individuals that serve a limited number of clients per year and typically generate less than \$50,000 in annual income from industry-relevant services. IBISWorld estimates that 90% of event planning operators are non-employees that work part time or seasonal basis. Total employees approximately number 132,042, but figures vary widely due to the very low barriers to entry which allows operators to enter and exit the market easily in response to shifting conditions and cyclical demand of the market.

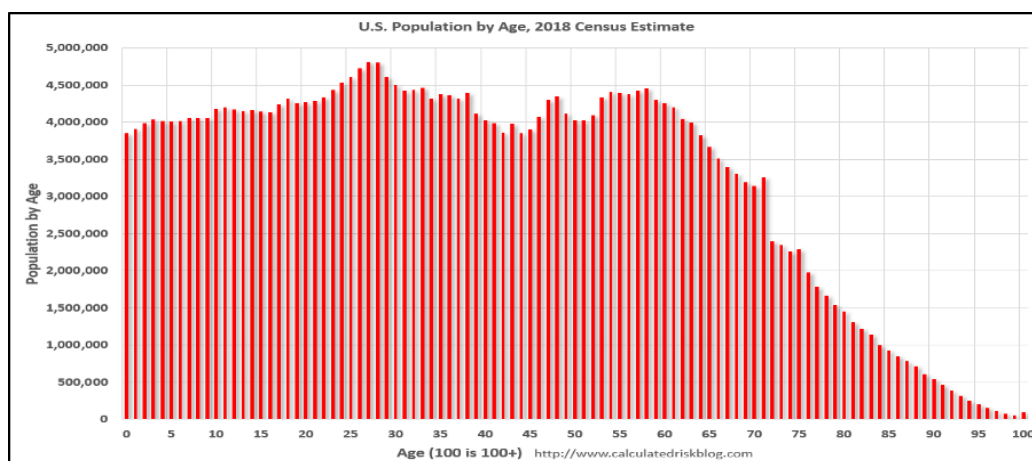
Resources for event planning section:

[IBISWorld Industry Report. OD4414 Party & Event Planners in the U.S.](#) (fee-based publication)

Funerals

The business of funerals is a booming business, comprised of approximately 25,000 establishments with a revenue of \$16.5 billion (Funeral Homes, IBISWorld). Industry revenue is expected to increase *slowly* over the next five years even though the number of deaths each year is expected to rise *quickly* due to the age structure of the population (Funeral Homes, IBISWorld). The death rate increased from 0.63% (630 deaths per 100,000 people) in 2018 to

0.89% (890 deaths per 100,000 people) per year. The number of deaths is projected to increase due to the size of the Baby Boomer generation as depicted by the 2018 Census estimate.



Additionally, Arizton projects an increase in deaths in comparison to the last decade due to rampant substance abuse, Alzheimer's disease, and pregnancy-related deaths. If this trend continues, the market is expected to grow at a steady yet slow pace (Arizton, 2019). Fourteen percent of the population is over the age of 65-years-old and this percentage will increase as Baby Boomers age (AIPH, 2019).

The sympathy floral market is valued at \$1.11 billion (Arizton). Fifty-one percent of the sympathy gift giving goes to floral with the highest average spending (Demand Space, PMA; Generations Study, SAF). Most of these purchases happen at the florist (45%) while $\frac{2}{3}$ happen in person and $\frac{1}{3}$ happen online (Trends, PMA). Additionally, $\frac{2}{3}$ are planned purchases and $\frac{1}{3}$ are impulsive (Trends, PMA). Mixed flower bouquets account for 50% of purchases. Average spending on funerals will increase from \$400 to \$546. Plants are gaining more credibility as they are viewed as a gift of life that keeps giving (Arizton). Consumers who purchase for sympathy and funerals are usually older females with higher incomes and have children (Demand Space, PMA). They are also more likely to be Hispanic. These consumers want the recipient to feel cheered up and touched, themselves feel to be sympathetic and caring, and they know it is a traditional, safe choice for this type of occasion (Trends, PMA).

Traditional vendors may see competition from online vendors offering caskets and other products which can enable customers to compare prices. E-commerce sales for funerals are anticipated to rise in 2019 (Cemetery, IBISWorld). Cremations have gained popularity. Fifty-four percent of corpses in 2019 will be cremated which is up 8% from five years earlier in 2014. A loosening of religious preferences for burial, increasing transient populations, and expenses have contributed as well. Cremations are expected to increase to 64% of post-death

dispositions by 2024. This will result in lower per-client revenue for the funeral operators. The number of pet funerals is rising and could create more opportunities for operators, including florists (Forbes; The Hustle).

Resources for funeral section:

[AIPH Report, 2019. Ornamental Horticulture: A Growing Market?](#) (fee-based publication)

[Arizton. Floral Gifting Market in the U.S.](#) (fee-based publication)

[Forbes. The Biggest Trends In The Pet Industry](#)

[IBISWorld Industry Report. 81222 Cemetery Services in the U.S.](#) (fee-based publication)

[IBISWorld Industry Report. 81221 Funeral Homes in the U.S.](#) (fee-based publication)

[PMA. Floral Market Demand Space](#) (fee-based publication)

[PMA, 2019. Trends in Mass Market Floral](#)

[SAF, 2016. Generations of Flowers Study](#) (fee-based publication)

[Sundale Research. Florist State of the Industry Report](#) (fee-based publication)

[The Hustler, 2019. The pet funeral industry makes 100 million dollars in profit](#)

[Traction, 2019. Cultural Meaning of Flowers Report](#)

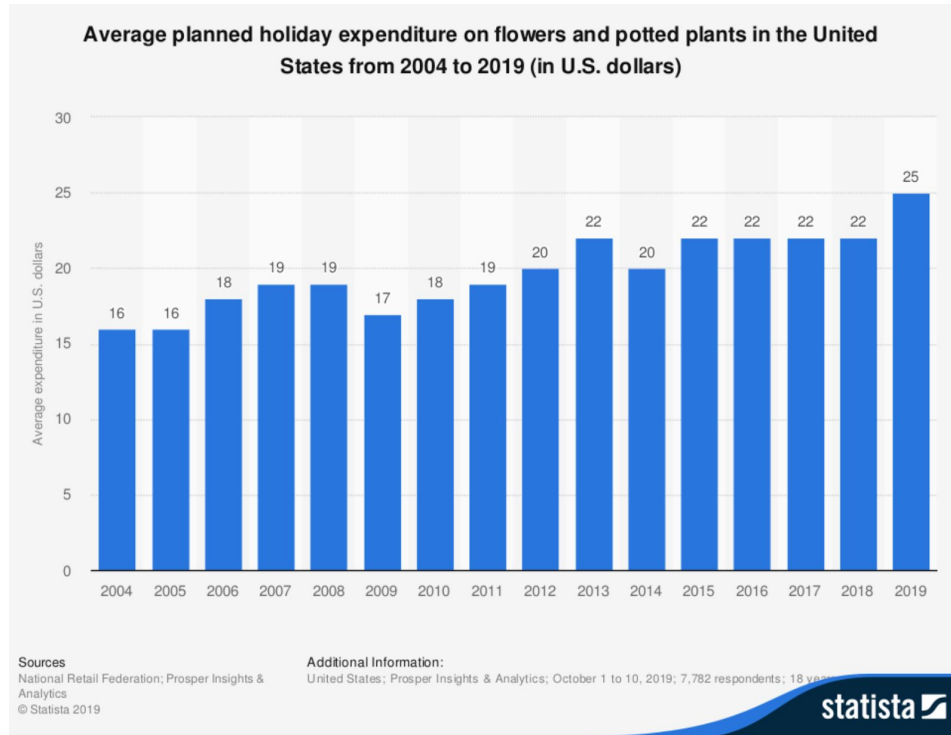
Gifting and Occasions

Though wedding, general events, and funeral trends may ebb and flow with the generational preferences, gifting is a deeply embedded tradition in American society that is not going anywhere soon (Arizton). Gift giving in the U.S. has reached an all-time high with the average U.S. consumer spending approximately \$608 on gifts for friends, family, and coworkers in 2017 (NRF). Prosper Insights & Analytics anticipates that holiday spending in floral for 2019 will be at an all time high of \$25. This is up from an average holiday spending of \$17 in 2009, directly after the recession and \$19 in 2007 before the recession (NRF).

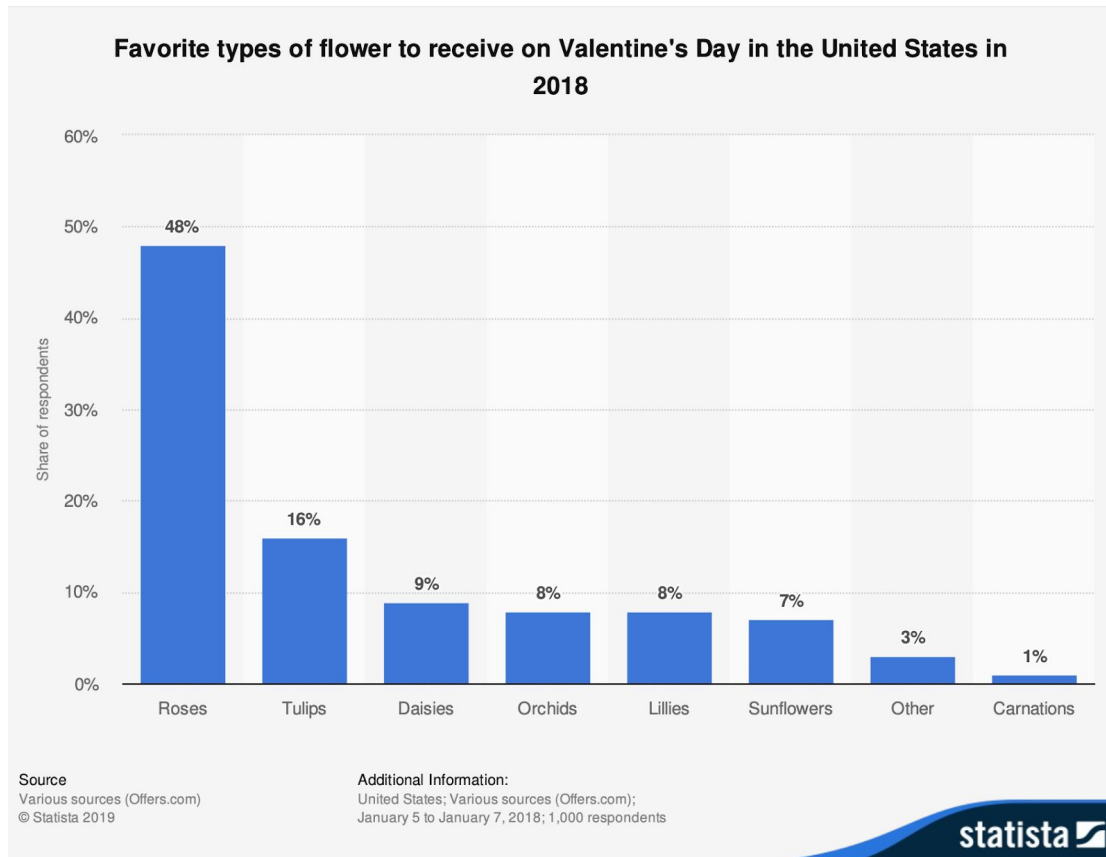
The concept of giving gifts is thought to be driven by occasions and religious significance. A floral gift includes economic, functional, social, and expressive value. These values vary in

importance depending on the recipient of the floral gift (Arizton). Their demand for emotion conditioning, monetary worth, curiosity fulfillment manifests in a consumption value that can guide purchase decisions, thereby offering a way forward in the market. Receiving flowers caused recipients to display increasingly compelling connections with people that gave them the gifts (Arizton; Huang and Lin, 2015). Imagery created by flowers includes caring, personal, and sentimental as a gift in 2009. This was still true in 2016 but overall to a lesser extent (Generations Study, SAF). Purchasers want to feel happy, caring, satisfied, and proud (Demand Space, PMA). The purchaser also wants the recipient to feel happy, uplifted, cared for, and pleased (Demand Space, PMA).

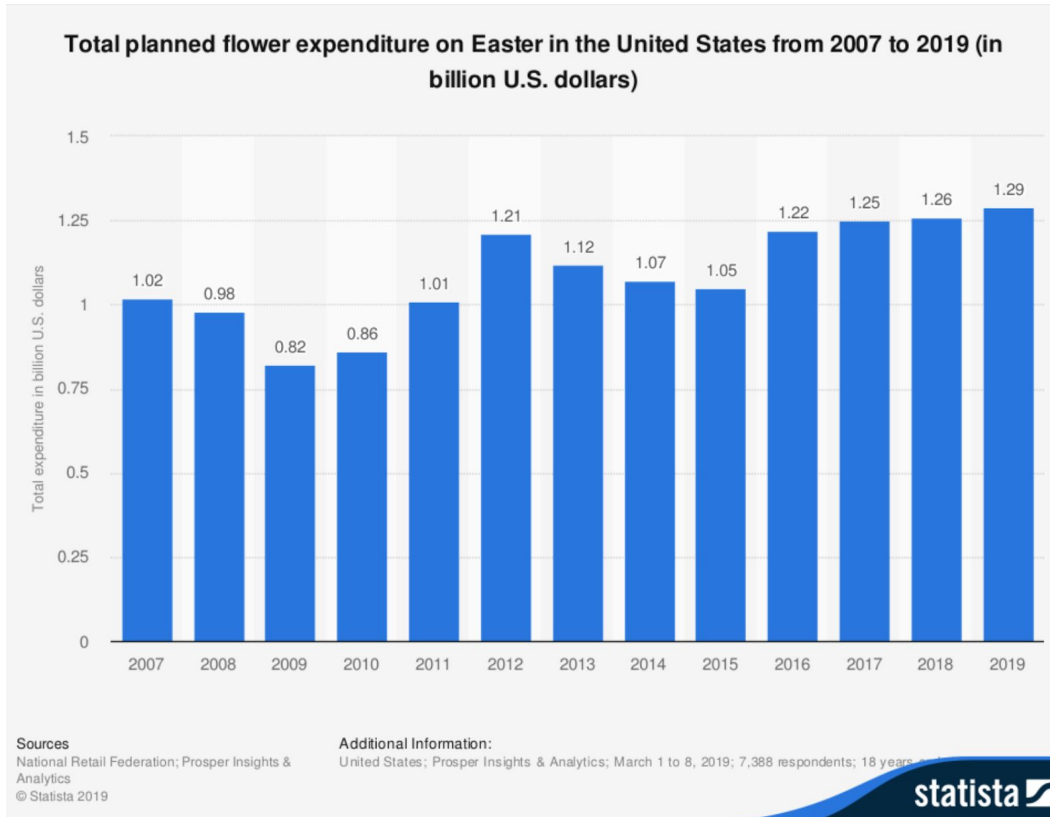
Palma and Ward (2015) found in agreement with Miller (1983), that the decisions to purchase flowers (market penetration) and the number of transactions on a given period (buyer frequency) (household demand) were highly impacted by calendar occasions. Traditional, holiday/occasional gifts remain the most common reason for purchasing flowers in the past year. Flowers were twice as likely to be seen as traditional versus old-fashioned (Arizton). Conversely, in the supermarket space, holiday gift giving accounts for 15% of floral occasions (Demand Space, PMA). PMA (Demand Space) indicates that in holiday gifting, floral accounts for 17% of purchases, of which three-fourths is fresh flowers and one-fourth is house plants and spending average at \$32.89. Arizton reports floral accounts for 32% of holiday occasions. Half of the purchases are planned and half are impulsive (Demand Space, PMA). Approximately $\frac{1}{3}$ of purchases are made at supermarkets while $\frac{1}{2}$ are made at florists and $\frac{1}{10}$ are made at garden supply centers. PMA indicates that 20% of Valentine's Day flowers and 4% of Mother's Day flowers are purchased from supermarkets. Most supermarket holiday purchases occur in person and are planned (Demand Space, PMA). Mixed flower bouquets and roses are the most purchased items for holiday gifting.



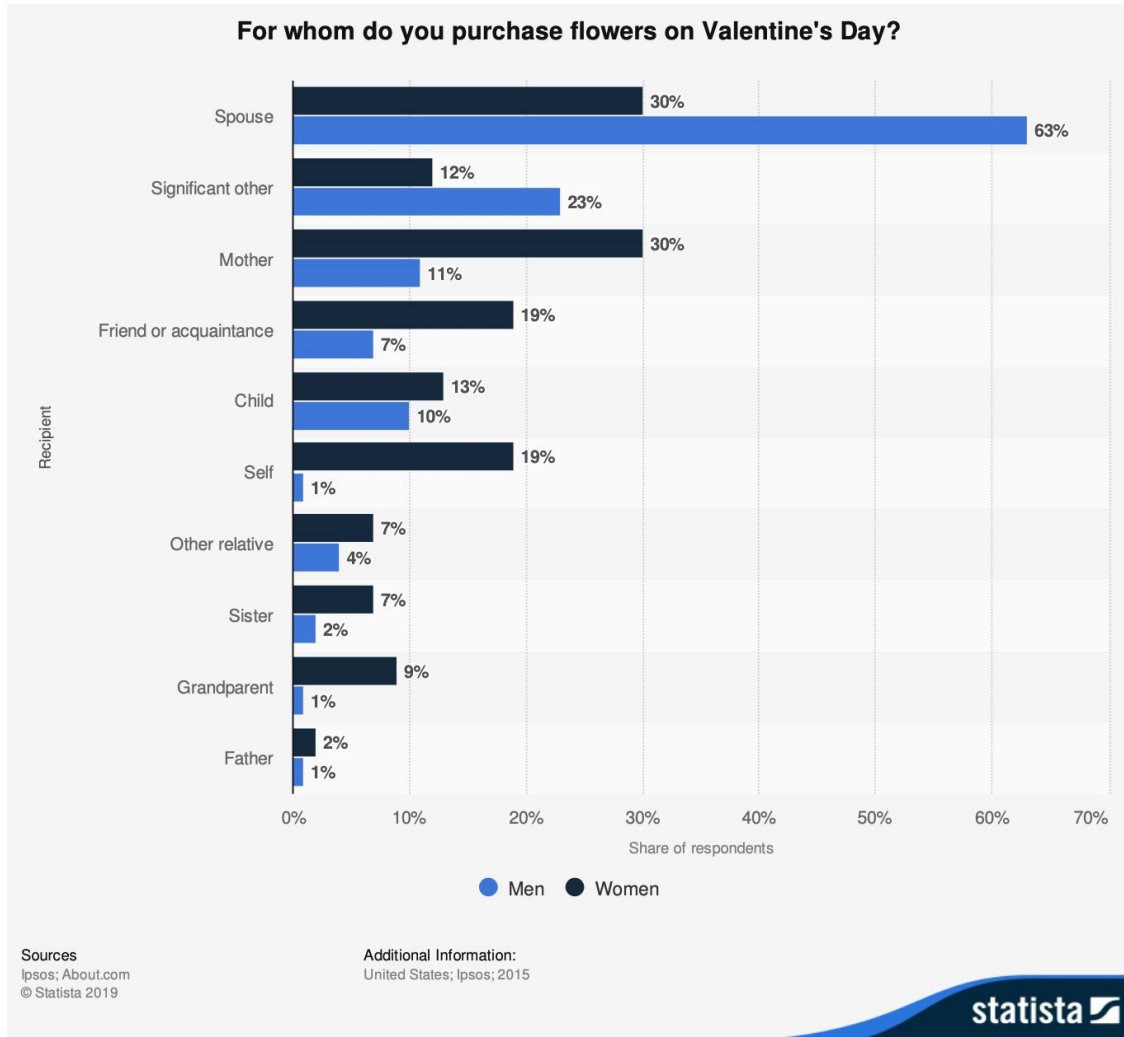
Generally, shop windows, newspapers/magazines, personal preference and word of mouth all served as the information sources in self users' flower purchase decision (Huang, 2007). However, self users relied more heavily on shop windows and newspapers/magazines as external information sources than gift users who use primarily word-of-mouth (Huang, 2007). The most common recipient is a spouse where their gift is purchased at a florist (29%) or at a supermarket (20%) (Floral Purchasing, FMRF). Flower recipients continue to widely differ by both gender and generation. Males are most likely to purchase flowers for a significant other, someone to whom they are romantically attracted to, and parents. Meanwhile females are most likely to purchase for parents, friends, and other relatives including children. "Just because" and birthdays are the most common situations for having purchased gifts for someone else closely followed by holidays and anniversaries. "Just because" is most common among Generation X, while Baby Boomers most prevalently purchase for birthdays and holidays. The percent of people who have not ever received flowers decreased from 2009 to 2016 from 17% to 14%. Males are significantly more likely to have now received flowers than in 2009 (32% had never received in 2009 to 26% in 2016). Three-quarters of females remember the last time they received flowers as a gift.



While flowers have been a large part of Valentine's Day, Easter, Mother's Day, and Christmas, it is becoming lesser of a case as society has become more casual (Arizton). Nearly 60% of the male population buys flowers during Valentine's Day. However, one of the major factors hindering the growth of the market is the timing of the day itself. In the past, the winter weather has affected the market and significantly reduced delivery of flowers. While flowers have previously been a popular choice for Easter and Christmas, wine is more popular (Arizton). Each household spends on average \$80 for Mother's Day flowers. Spending is stunted on Mother's Day because the gift is seen as a collective family holiday rather than individualized gift (Arizton).



For other special occasion gifting, the average customer spends \$30.35 and purchases from the supermarket and florist at the same frequency. This is a very planned purchase. Floral gift-giving did increase for anniversaries (Generations Study, SAF). Other special occasions where flowers are purchased is “Congratulations”, “Get Well”, and baby showers. Mixed flower bouquets are the most purchased item followed by rose and flowering house plants being almost tied in popularity. Gift cards are the most competitive item that flowers must compete with (flowers are considered at 5% while gift cards are at 21%).



Additionally, 40% of consumers have made a flower purchase as either a “just because”, a “pick-me-up” gift for someone, or for home decoration. Overall, there has been a significant decrease in “just because” gift giving, specifically as a housewarming or party/host-hostess gift (Generations Study, SAF). PMA (Demand Space) reports that 10% of floral purchases are for self-care/well-being. Within self-care/well-being, 12% of purchases are floral -- split evenly between fresh flowers and houseplants. This segment of consumer is overwhelmingly females who purchase flowers because they find them attractive, it is a treat for them, it sets a mood, and they are long-lasting (PMA). Consumers would spend more for holiday or occasion gifting than they would for themselves (\$25). Twenty-seven percent of these purchases occur at supermarkets and twenty-two percent occur at garden supply centers. People who purchase for others buy less variety than those buying for themselves; they purchase mixed flowers (29%), succulent plants (19%), non-flowering houseplants (17%), roses (12%), flowering house plants (12%) and bunches of monospecies flowers (11%). Everyday decorating is still highly dominated by female purchasers who buy for both genders, themselves, and family. They buy because they like the

flower or plant, they find it attractive, saw it in store (impulsive purchasing), and they last long. Most of these purchases are made at garden supply centers and supermarkets but some do occur at florists. The majority occur in person with 59% being impulsive purchases (Demand Space, PMA). Most of these purchases are non-flowering houseplants, flowering houseplants, and mixed flower bouquets. Consumers also considered Home Decor items and candy more than fresh flowers and houseplants when it came to home decorating.

One in six adults from Generation Y purchase flowers for dates (Generations Study, SAF). Females are widely seen as those most appreciative of flowers, with 30% of gift givers citing their mother, their girlfriend, or wife as the main appreciative of a floral gift (Generations Study, SAF). Friends and daughters are next most seen as having appreciation of flowers. Emotions about gifts were stronger among Boomers (Generations Study, SAF). Generation Y is significantly more likely to have received flowers compared to in the past and are the most likely of the three generations to remember the last time flowers were received (Arizton). Younger gift givers are throwing caution to the wind and looking for gifts they perceive as “real” skipping generic wine, gift cards, and chocolates. Apart from customized products, gifts that are not customized but have a personal, individual appeal are also gaining momentum. Experiences particularly are rapidly growing in popularity as gifts over possessions.

In the current era, digitally social connections have exploded and are characterized by less meaningful and impersonal relationships. Consumers are thus in the pursuit of demonstrating the value that they hold for their relationships and presenting gifts that have profound underpinnings. Flowers have entered a state where they may be not considered innately personal, practical, or thoughtful. Since they eventually pass away, they do not leave a lingering impression and are therefore not thought of as a useful present (Arizton).

Among larger families, spending on gifts have been noted to be lower, courtesy strong social ties within the familial circle. However, consumers that live in the suburbia spent more on gifts than their income would justify. The justification is characterized by an amicable sentiment that prevails within the boundaries extending beyond the immediate families. This was a lot more prominent among suburbia (Arizton).

In the workplace or professional settings, flowers for coworkers are the most popular floral recipient, followed by flowers for the giver’s boss, and finally colleagues (Arizton). Considering most of these relationships are formal and do not facilitate conversations at a deeper level, employees tend to buy gifts that are less risky, therefore, flowers fitting perfectly (Arizton). Gifting flowers as an expression of thanks accounts for 26% of the demand space (Demand Space, PMA). “Thank you” floral gifts are mostly purchased in-person at the florist, and are planned purchases. Gifters also considered food/fruit baskets, gift cards, and candy.

Arizton notes that under certain circumstances bouquets are the preferred floral gift. They are usually given:

- If the giver is not aware of the recipient's likes or needs (largely evident among more loosely informal ties or business relationships)
- If there is a certain degree of contemplation going into the gift to make it more personal
- When the gift giver is under a severe time crunch and cannot give a lot of thought to picking the appropriate gift
- When gifts for the opposite gender are in question.

Conservativeness is thus exercised to avoid negative connotations. Flowers have largely been considered neutral, gaining status as a non-failing gift that requires little thought and is more often than not appreciated. They also do not over-individuate. In addition, there is no restriction to age. Hence, they make for a good “one-size-fit’s all” gift. Bouquets are easily accessible across cities, even when the consumer is not physically present to deliver the gift. There is barely a timeline involved in the delivery of flowers. The variety also gives them an advantage in terms of befitting a range of occasions. Bouquets are priced in such a way that they fit any budget and largely do not pass off as cheap.

Resources for gifting and occasions section:

[Arizton. Floral Gifting Market in the U.S.](#) (fee-based publication)

[Huang, 2005. Floral product behaviors and their influence on consumer floral purchase frequency](#)

[Huang, 2007. Behavioral Differences in Prepurchase Processes between Purchasers of Flowers for Self Use and for Gift Use](#)

[Huang and Lin, 2015. Who Decides to Give a Gift of Fresh Flowers? The Effects of Givers and Receivers on the Likelihood of Buying Fresh Flowers for Gifts](#)

[Lai and Huang, 2013. The effects of relationship characteristics on buying fresh flowers as romantic Valentine’s Day gifts](#)

[National Retail Federation \(NRF\), 2019. Holiday shoppers plan to spend 4 percent more this year](#)

[Palma and Ward, 2015. Measuring Demand Factors Influencing Market Penetration and Buying Frequency for Flowers in the U.S.](#)

[PMA, 2019. Floral Market Demand Space](#) (fee-based publication)

[SAF, 2016. Generations of Flowers Study](#) (fee-based publication)

[Statistica, 2019. Favorite flowers to receive on Valentine's Day in the U.S. in 2018](#) (fee-based publication)

[Statistica, 2019. For whom do you purchase flowers on Valentine's Day?](#) (2015 by gender) (fee-based publication)

[Statistica, 2019. Total planned flower expenditure on Easter in the United States from 2007 to 2019 \(in billion U.S. dollars\)](#) (fee-based publication)

[Statistica, 2019. Total planned holiday expenditure on flowers and potted plants in the United States from 2004 to 2019](#) (in U.S. dollars) (fee-based publication)

[Yue and Hall, 2010. Traditional or speciality cut flowers? Estimating U.S. consumers' choice of cut flowers at Noncalendar occasions](#)

Eco-sustainability

Consumers are concerned for the environment and sustainability. In a global survey of 30,000 consumers, 72% of people said that businesses are failing to take care of the planet and society as a whole (Accenture & Havas Media, 2014). Consumers are seeking products from companies that demonstrate ethical and moral values, termed as Corporate Social Responsibility, that align with their own values. These values can be lower impact on the environment, sustainability, transparency, ethical sourcing, safer labor practices, and community outreach (Megatrends, Euromonitor; Trends, PMA). They care about food miles, carbon footprint, and fair trade. In fact, consumers would buy less imported food if they knew the distance it has traveled (Gairdner, 2006). Environment-conscious consumers are inquiring about green attributes and requesting for them when they buy flowers, putting more pressure on companies to stock flowers that are a result of sustainable practices. Sustainability and green products will become a standard, driving change and awareness throughout the industry (Sundale). Products that are environmentally friendly and safe for pets and children are increasingly important to consumers (2015 Garden Trends). Other important aspects of the eco-sustainability movement is the recently energized focus on wellness and green living.

The cut flower industry cannot overemphasize the importance of quality of life messaging, particularly in focusing its differentiation strategies in the future. No matter if a member of the Boomer, Gen X, or Gen Y generation, quality of life is a “higher order” need that is important to consumers. For example, although the economic downturn has increased anxiety on the part of Baby Boomers about retirement, they are nevertheless proactive in seeking innovative solutions to dealing with age. They view their new stage of life as one of activity and fulfillment rather than idleness. Additionally, more people are spending time outdoors and purposefully having un-styled, natural outdoor space to connect more with nature. Some communities called “Agrihoods” base their living around communities gardens or working farms that they feel offer financial, health, and environmental benefits through growing their own food and social interaction (Urban Land Institute).

There is more private sector appetite to drive change than ever before. At the beginning of the new decade we may be at the dawn of the fourth industrial revolution that will transform the global economy. The State of Green Business released the Top 10 Sustainable Business Trends of 2020 encouraging businesses to deploy advanced intelligence and analytics, accelerate the pace of innovation, embrace new strategies, and encourage greater transparency. Thanks to the farm-to-table movement, some independent chains and small grocers are responding to customers’ calls to do the same with their floral merchandise. Thirty percent of all gardening households indicated all or most of the garden products their household purchases are labeled “organic.” (National Gardening Survey). Sundale encourages floral firms to embrace organic flower production. The floral industry’s response has come from the California Cut Flower Commission (CCFC) who developed sustainability standards for domestically grown cut flowers and from FTD who announced a partnership with the Green Business Bureau, a group that certifies small- and medium-sized businesses around the world for their environmental efforts. Through the partnership, FTD member florists can become certified through an online process that focuses on seven general categories of green initiatives (Sundale).

Resources for eco-sustainability section:

[California Cut Flower Commission, 2012. Annual Report California Flowers: Making a Difference](#)

[Gairdner, 2006. Local food is miles better](#)

[Gaul, 2014. Sustainability: An examination of trends in the floral industry](#)

[Green Biz Group. State of Green Business 2020](#)

[Greenhouse Product News/Euromonitor, 2019. Megatrends for 2019](#)

[Holt and Watson, 2008. Exploring the dilemma of local sourcing versus international development - the case of the flower industry](#)

[Idrovo-Novillo, 2019. Closing the cycle for the cut rose industry by the rescue of its organic wastes: a case study of Ecuador](#)

[Manikas, 2019. Sustainable cities through alternative urban farming - the case of floriculture](#)

[National Gardening Survey, 2018 Edition](#) (fee-based publication)

[PMA, 2019. Selling points to engage reluctant floral shoppers at retail](#)

[Prado, 2015. Deepening understanding of certification adoption and non-adoption of international-supplier ethical standards](#) (fee-based publication)

[Schimmenti, 2013. Behaviour of consumers of conventional and organic flowers and ornamental plants in Italy](#)

[Sundale Research, 2018. Florist State of the Industry Report](#) (fee-based publication)

[Urban Land Institute, 2018. Agrihoods: Cultivating Best Practices](#) (fee-based publication)

[Wani, 2019. Floriculture sustainability initiative - the dawn of a new era](#) (fee-based publication)

Purchasing Barriers

It is not only important to understand demographics and preferences of floral consumers, but also preferences of non-floral consumers. Even though sales have increased -- and conversely prices have dropped -- floral consumption is not the same as other major markets. Some individuals have indicated this is due to the culture and lifestyle of the American consumer, but others have indicated it is because of dissatisfaction with the quality of the product (Reid, 2005).

Some of these barriers may be “fixable” and easy to change and some may simply be observable but unable to change at the present time. PMA reports nearly 90% of supermarket shoppers are satisfied with their purchase (Demand Space, PMA). Other surveys report lesser percentages of

floral consumers that are satisfied, such as 73% (Purchasing Barriers, FMRF). So what about the remaining 27% of consumers that are unsatisfied, or the general consumer who does not purchase flowers? The number one barrier is price. Consumers believe flowers to be too expensive for something that does not last very long or long enough (Purchase Barriers, FMRF). Value (expensive) and maintenance of the product can also prevent the consumer from purchasing (Demand Space, PMA).

If we take a look back in history, price has not always been a barrier for consumers. In fact, ads from the 1930's show that roses sold for \$2 a dozen. Today, if we were to adjust for inflation rates that would equal \$37. If we look at ads from present day, we can see that roses are sold for prices such as \$9.99-\$12.99. Comparatively, roses were sold at a higher price in 1936 in the recovery period of the Great Depression versus today post-recovery of the Great Recession.

Attitudinal barriers exist such as the appropriateness of the flowers for occasions and events in general, appropriateness of flowers as a gift for men, and a dislike of flowers. Consumers believe that flowers are most appropriate for Valentine's Day and other romantic occasions, Mother's Day, Sympathy/loss, and get well (Purchasing Barriers, FMRF). Consumers may not buy flowers outside of these holidays. Interestingly, non-purchasers require available options within the price ranges they typically spend (\$13-\$41). There are adverse trends that work against the cut flower industry including the trend for personalized gifts, high wastage, negative publicity for flowers, disparities and issues with flower deliveries, and investment in artificial flowers and blooms (Arizton).

Non-floral buyers are characterized as less affluent and educated with no children within the home (Arizton). They also have a lower probability of being married (Arizton). Also, non-floral buyers do not necessarily have an interest in them. For instance, only 20% of non-buyers grow flowers while only 30% of them notice flowers when they are at an event. African Americans are more likely to view flowers as not "top of the mind" and would rather keep things simple (Demand Space, PMA).

In general, Gen Y and X consider flowers not "top of the mind" leading them to options other than floral (Demand Space, PMA; Generations Study, SAF). Gen Y and X consumers are also more likely to think that flowers are expensive, though this perception has decreased. Some Millennials consider flowers too traditional of a gift or are unsatisfied with what they ordered upon reception (Generations Study, SAF).

Some of the barriers have decreased over time, like the percentage of consumers who felt flowers were too expensive fell from 46% to 34%, and consumers who didn't always think about flowers fell from 34% to 28%. But the perceived difficulty in maintaining flowers has increased from

12% to 15% (Generations Study, SAF). PMA reports that up to 52% of consumers find the maintenance of flowers to be inconvenient. The attitude of these consumers is that they like to live “in the moment” and socialize (Demand Space, PMA). Some demographic characteristics of consumers who have a negative image of flowers are that they tend to be male, younger (21- to 39-years-old), and Hispanic or Asian (Demand Space, PMA). They like to buy on impulse and are very active on social media, therefore are influenced by their friends and are early adopters of products and change. Understanding the non-floral buying consumers can help the industry to address the consumer’s areas of concern, if possible, and keep consumer satisfaction as high as possible.

Resources for purchasing barriers section:

[Arizton. Floral Gifting Market in the U.S.](#) (fee-based publication)

[EMRF, 2016. Floral Purchase Tracking study](#) (fee-based publication)

[EMRF, 2016. Marketing Tactics to Increase Millennial Floral Purchases](#) (fee-based publication)

[EMRF, 2016. Purchase Barriers Study](#) (fee-based publication)

[Jenkins, 2008. Increased knowledge about floral preservatives influences customers’ perception of the quality and value of a floral arrangement purchase](#)

[PMA, 2019. Floral Market Demand Space](#) (fee-based publication)

[Reid, 2005. Trends in Flower Marketing and Postharvest Handling in the United States](#)
(fee-based publication)

[Rihn, 2014. Consumer Preferences for Longevity Information and Guarantees on Cut Flower Arrangements](#)

[SAF, 2016. Generations of Flowers Study](#) (fee-based publication)

[Superfloral: Stats & Facts, 2014. Why don’t some buy?](#)

Conclusion

Overall the floral consumer is changing demographically, preferentially, and geographically. In the future growth of our industry will come from consumption increases and not from growth in population or GDP (AIPH, 2019). All of the qualities that consumer evaluate come down to one

thing: enhancing their quality of life. Research shows that there's no better way to do this than through the daily use and/or enjoyment of flowers, plants, and trees. All the green industry has to do now is convince consumers of this in a manner that they view their products and services as necessities instead of luxuries. This will, of course, make the industry even more recession resistant in the future.

Resources for floral consumer conclusion section:

[AIPH, 2019. Ornamental Horticulture: A growing industry?](#) (fee-based publication)

Summary of each sector

Retail

Overview of the Retail Market

As mentioned, dramatic changes have been occurring in the floral market. The local production and specialized retailing of the 1950's has been replaced by a system where flowers produced almost anywhere in the world are largely sold by omnichannel retailers. As discussed in the [Driving Forces of Change Section](#), flowers were initially sold directly to specialty florist shops in the cities from domestic growers via the wholesale market. After encouragement to meet demand for flowers via the supermarket channel, the industry began to sell in supermarkets. Since the late 1980's and early 1990's, florists have seen increased competition to their businesses upstream in the supply chain (Reid, 2005). Even before the Great Recession, the decline in florists had begun while supermarkets and other mass market firms gained more market share. In addition, we see e-commerce applications become increasingly important to the retail channel due to the advancement of technology and the consumer demand to purchase product from that platform.

Florists

Florists account for \$6.8 billion in revenue each year for the floral industry (Anything Research; Florists, IBISWorld). The industry has a stable product market where products are clearly segmented into arranged flowers, unarranged flowers, plants and complementary merchandise, such as fine chocolate, wine, plush toys and cards. Arranged cut flowers accounts for 62% of the product and services provided by a florist. Unarranged flowers (13%), potted plants (13%), and giftware (13%) account for the rest. Yet, no major companies dominate the industry. The 50 largest companies account for less than 10% of the revenue (First Research). Because the

industry is fragmented, small firms can effectively compete with large firms. Low barriers to entry and limited economics of scale lead to intense competition (Anything Research).

Florists are seen as a traditional service economy that is reliant on labor rather than capital to sell its goods (Florists, IBISWorld). Essential functions can not be outsourced, therefore technology needs to be implemented or improvements in staff training need to be made to increase revenue growth. The skill requirement varies depending on the level of floral certification received, but the average hourly wage for entry-level designers is well below the industry average (First Research). Average annual salary per employee in a retail florist business is \$32,030 or about \$15 to \$16 per hour (Anything Research). This level of compensation can lead to higher employee turnover rates, thus more frequent training required, especially in periods of high demand.

The florist sector of the industry is entering the declining stage of the industry life cycle (Florists, IBISWorld). The number of firms in the market is expected to contract at a rate of 0.2% over the next five years to 2024 (Florists, IBISWorld). This has occurred through consolidation, business closures, and the number of layoffs (Florists, IBISWorld). Demand from weddings and funerals will account for an increasing percentage of sales because these services are less sensitive to pricing and convenience concerns (Florists, IBISWorld). Because of this low rate of growth, effective marketing is required to reach consumers and facilitate demand (First Research). Bizminer (Florists Report) reports that the industry market volume of florists in 2019 is \$18 billion. Small businesses account for \$13 billion (75% of market share) and start-ups account for \$606 million (3.27% of market share) of the \$18 billion (Florists, Bizminer).

Florists have experienced declining profit margins for several years because of downward price pressures due to increased omnichannel competition and wire service fees, as well as increases in their operating input costs. This margin compression has exacerbated the rising overhead costs associated with maintaining brick and mortar retail facilities. Historically, florists are able to cover their variable expenses of developing bouquets and arrangements but have had difficulty in recovering all of their overhead expenses due to the price pressures stated above. This marginal profitability has led to considerable shakeout in the industry, particularly in contractionary economic conditions.

Consumer spending is the main driver of the floral market channel and is expected to increase, but this does not necessarily mean an increase in growth for the florists (Anything Research; First Research; IBISWorld, Florists). Much of the growth in floral will be stunted by external channel competitors such as e-commerce and supermarkets and unpredictable business conditions (Florists, IBISWorld; Sundale).

Revenue for florists is projected to decline at an annualized rate of 1.4% over the next five years due to external competition (Florists, IBISWorld). Bizminer reports that florists may have seen a decline in average annual sales of 13% from 2016-2018 (Florists, Bizminer). Florist Review indicates that consumers look to spend \$20-\$40 on flowers and budget conscious consumers are opting for low-cost or unarranged flowers from supermarkets and e-commerce. This has led some operators to focus exclusively on niche, higher margin products that cater to an upscale consumer demographic. Others have shifted their focus to lower price points and focused on the sale of unarranged flowers to deal with mounting competition.

Many florists compete based on price rather than customer service or quality of their product offerings (First Research). Additionally, if they receive orders associated with a communication network (wire service) like FTD or Teleflora the brokers usually receive 25-30% of the price of retail order. Typical prices are \$30 to \$75 for floral arrangements and less for loose bunches of flowers (First Research). Supermarkets also put pressure on florists by eroding sales and increasing price pressure. Price sensitive shoppers and cash-and-carry flower services have grown in popularity and led to more supermarket sales. They choose mass market establishments instead of delivery service with traditional florists which includes an additional cost. Florists also face the challenge of being heavily reliant on holiday spending, such the largest florist holidays of Valentine's Day, Mother's Day, and Christmas, so the cash flow is not even across the months (First Research).

Retail florists account for 30% of industry transactions and 20% of spending. Yet, floral shops take home 47% of the dollar value in floral indicating that they are doing fewer transactions but more high dollar services (Floral Purchasing, FMRF). Average industry gross profit is \$212,238 per firm and cost of goods sold accounts for 61% of average income statement (Anything Research). The industry average Return on Equity is 0.32 and Return on Assets is 0.08 (Anything Research). The average working capital to sales ratio is about 10% (range from 10% with large companies, 15% for medium, and 7% in small companies) (First Research). Profit margins will be 5.1% in 2018 (Florists, IBISWorld). A retail flower shop generates \$362,218 in annual revenue while annual revenue per employee in the U.S. is \$70,000-\$81,000 (SAF; Florists, Bizminer). Anything Research reports that the average firm does \$500,000 in revenue and has 5 employees. From 2012 to 2017, the average sales per establishment rose by an average of 3.5% per year (Sundale). In 2022, the average florist is expected to have sales of \$650,012 (Sundale). The average sales per employee is \$7,562 in 2019 (Florists, Bizminer).

IBISWorld (Florists) reports there are 31,901 florist businesses operating in the United States. NAICS-based reports there are anywhere from 12,000 to 30,000 businesses depending on the website generating the list. SAF reports there were 13,054 establishments in 2017 (Sundale; First Research). This represents a 40% reduction in firms since 2005 (SAF; First Research). Anything

Research reports there are 11,907 florist businesses. No matter the size, it is generally recognized that the break down of floral sales is 8,778 firms sell unarranged cut flowers, 11,547 firms sell arranged cut flowers, 9,287 firms sell blooming indoor potted plants, and 8,840 firms that sell non-blooming indoor potted plants (Anything Research).

In 2017, arranged cut flower sales in U.S. through florists increased to \$4.55 billion representing 60% of total florist sales (Sundale). Following arranged cut flowers, unarranged cut flowers accounted for 13% of total florist sales in 2017. In 2017, sales of indoor potted plants through florists increased to \$920 million. Indoor potted plants' share of total sales is expected to hold steady at 12.2% during this time. All categories are expected to increase by at least 2% (Sundale). Location and convenience form the main basis of competition among florists (45311; First Research). Leased space in high traffic areas to get foot-traffic into shop (First Research). Thirty-eight percent of florists are ages 25-55 (Florists, Bizminer). Florists are 49% male and 51% female and are predominantly white (Florists, Bizminer). Nearly three percent of florists work from home (Florists, Bizminer).

On average, florists employ a total of 59,465 to 77,911 employees in the United States (IBISWorld, Florists; Anything Research). CityTownInfo reports there are 43,360 floral designers (employees) in the U.S. while the U.S. Bureau of Labor Statistics reports there are approximately 55,500 floral designers in the United States with an average decline of 14% over the coming decade (Citytowninfo.com; U.S. Bureau of Labor Statistics). This will equate to 7,600 fewer florists being in the industry in ten years. Overall employment is expected to decline as larger operators lay off employees and companies close up shops. Remaining players will increasingly emphasize customer service and employee knowledge to differentiate themselves from online and supermarkets. Approximately 60% of florists function as single establishments with no employees. The average establishment employs about 2 employees (Florists). Twenty percent of floral designers are self-employed. Employment of floral designers is projected to decline by 6% from 2016 to 2026 (First Research). The average pay for a floral designer is \$27,200 in wages or equating to \$13.08 per hour of labor (U.S. Bureau of Labor Statistics).

States that have the greatest number of florists include California, New York, and Texas (First Research). High-income areas of the U.S. are more likely to have a higher concentration of florists since flower purchases are correlated with discretionary income. The five largest floral market sizes (states) include New York at \$642 million, California at \$618 million, Texas at \$472 million, Florida at \$470 million, and Pennsylvania at \$320 million (Anything Research). The Southeast portion is expected to account for the largest share of the industry establishments (25%). Florida alone accounts for 5% of all establishments (speculated to be due to the older, wealthier population). The Mid-Atlantic and Great Lakes regions are densely populated and possess 17.9% and 16.3% of establishments. The West has the fourth largest concentration of

industry establishments at 12.8%. California has the most establishments at 8.6% (Florists, IBISWorld).

Many florists entered the profession because of their affinity for creativity and passion for flowers (Florists, IBISWorld). Store operations consist of caring for flowers, putting together flower arrangements, taking orders, serving walk-in customers, and delivering arrangements to consumer and commercial customers (First Research). Additionally, point of sale systems are used to run and grow floral businesses, enabling them to collect consumer information such as date and time preferences which used for personalized email campaigns and connecting with consumers via social media (First Research). The entire industry has recently embarked on an industry-wide venture to standardize automation protocols such as trade item number and vendor-specific universal product codes (Florists, IBISWorld).

Florists have a variety of consumers ranging from individuals to commercial institutions such as hotels, restaurants, hospitals, funeral homes, and upscale retailers (First Research). Florists are also getting a boost from the exploding popularity of social networking websites, such as Facebook, Pinterest, Twitter, and Instagram (Sundale; First Research). Business generated from Pinterest is double that of Facebook (SAF). Others have incorporated an interactive website into their business as an effective marketing tool to reach consumers (Anything Research).

Many florists are strengthening their sales training and offering advanced design classes to employees in an effort to boost confidence, creativity, and the overall knowledge of their craft (Sundale). Key success factors for florists in the future are effective quality control, ability to control stock on hand, ability to attract local support/patronage, attract product presentation, accessibility to consumers/users, and having good relationships with suppliers (Florists, IBISWorld). Many young professionals have been taking flower arranging classes at local florists and are now engaging in other hands-on activities, such as terrarium bars, facilitating the trend toward customized and personalized products (Sundale). A boost in promotional activities, more personalized customer service, and the trend toward more corporate events, parties, weddings, and funerals will result in more sales for retail florists (Sundale).

Resources for florist section:

[Arizton. Floral Gifting Market in the U.S.](#) (fee-based publication)

[Anything Research Report. Florists](#) (fee-based publication)

[BBC Worklife, 2019. Why are flowers so expensive?](#)

[Bizminer Industry Market Report. NAICS 4531: Florists](#) (fee-based publication)

[Bizminer Industry Market Report. NAICS 453110: Florists](#) (fee-based publication)

[Bizminer Industry Market Report. NAICS 444220 Nursery, Garden Center, and Farm Supply Stores](#) (fee-based publication)

[CityTownInfo.com. Floral Design Schools and Degree Programs](#)

[Claro, 2004. Managing business networks and buyer-supplier relationships](#)

[Dun & Bradstreet First Research Report. Florists](#) (fee-based publication)

[Dun & Bradstreet First Research Report. Garden Centers & Farm Supply Stores](#) (fee-based publication)

[Effects of tariffs on floral industry survey](#)

[Florist's Review. Lower price points & focus on unarranged flowers](#)

[IBISWorld Industry Report. 45311 Florists in the U.S. Industry Report](#) (fee-based publication)

[IBISWorld Industry Report. 44422 Nursery & Garden Stores in the U.S.](#) (fee-based publication)

[International Floriculture Expo, 2016. Trends in the fresh-flower supply chain](#)

[Marketing & Growth Hacking. The floral industry is dying and there's no one to blame but themselves](#)

[Reid, 2005. Trends in Flower Marketing and Postharvest Handling in the United States](#)

[Sundale Research. Florist State of the Industry Report](#) (fee-based publication)

[Suntibavivattana, 2012. Extending the vase life of mixed flower bouquets](#)

[U.S. Bureau of Labor Statistics, 2018. Floral Designers](#)

Supermarket and Mass Market floral departments

Supermarkets, groceries, and mass market establishments come in various shapes, sizes, formats, and specialties. They range from large-scale conglomerates with hundreds of locations to small specialty stores with a single location. Overall, supermarkets have seen an uptick in spending due to the strengthened economy over the last decade.

Of supermarket products, floral accounts for 1-10% of the products sold which in respect to other department's sizes. In fact, in Progressive Grocer Magazine floral sales account for an average of 1.15% shares of all perishable sales making floral the "red-headed stepchild" of the supermarket sector (Perishables, Statistica; Progressive Grocer Magazine). Additionally, floral departments are believed to influence only 3.3% of supermarket traffic within the store (Statista, Progressive Grocer Magazine).

Floral consumption was introduced into supermarkets to meet the everyday, cash-and-carry demand of the U.S. consumer. Due to price sensitivity, economic climate, time poor participants, and other factors, we have seen supermarkets gain more and more of the market share to where they nearly equal in share to florists. This has caused some tension for the industry as many florists feel that supermarkets are the sole reason for the decline in retail florists and wholesale florists. Others feel as though flowers have been "commoditized" because they are available "everywhere", therefore no longer special or premium. Conversely, supermarkets have created economics-of-scale and supply chain management that have sophisticated the industry and allowed for more flowers to be sold in the U.S. Their positioning will continue to evolve as supermarkets become more omnichannel by providing online pickup services, same-day pickup, and delivery options for floral like they do for their other departments (Grocery Stores, IBISWorld; State of the Industry, Superfloral).

Due to increased competition from a variety of retailers, many large national grocery chains offered big discounts and promotions to drive foot traffic to their stores and strengthen consumer loyalty (Grocery Stores, IBISWorld). Yet, discretionary income will lead to an ever growing demand for premium, value-added goods and an increased revenue rate of 1% each year to 2024. In 2017, for example, floral department sales at supermarkets increased by 2% to approximately \$1.01 billion. Mass market retailers and supermarkets are even moving toward full-service floral departments and some of these establishments are starting their own flower growing operations to increase operational efficiency and cut down on costs (State of the Industry, Superfloral). This includes establishments, like HEB, who are positioning themselves as supermarket "masstige" (mass market prestige) where they can provide services for everyday, occasion, or custom event

purchasing. The number of full-service stores has increased from 2003 to 2015 by 7% while the number of self-service stores has decreased by 9% (Trends, PMA).

The average value of a floral transaction in 2015 was \$12.55 and the average foot-print of a floral operation was nearly 580 square feet (Trends, PMA). Shrinkage averages around 10% per establishment. According to Euromonitor (Overview of the U.S. Floral Market), there are 20,736 supermarkets in the United States with floral departments. Gross margins are around 44% in 2015 which is up from previous years. The supermarket store profile includes 74% unarranged cut flowers, 8% arranged cut flowers, 12% potted and bedding/perennials, and 6% non-perishables (Trends, PMA).

Coincidentally, just like how the most florists are located in California, Texas, New York, and Florida, so too are supermarkets. This is heavily correlated with the size in population in each of the states. There are approximately 41,470 supermarket/mass market operators within the United States (Grocery Stores, IBISWorld). Approximately three operators that constitute 31.9% of the market share. Many operate as single establishments. For those who multi-establishments, 70% of floral product come through central distribution. 20% of establishments reported that 100% of their product comes through central distribution (Trends, PMA). Thirteen percent indicated they had no central distribution for floral products.

It is also believed that Walmart and Amazon, which are two “800-pound gorillas”, mold the retail sector and consequently consumer preferences and buying habits about what is acceptable and what is not. To put in perspective, Walmart has a 25% share of the \$800 billion grocery market. Additionally, Amazon is the top online grocery option with a \$6 billion lead over its closest competitor, which happens to be Walmart. Both of these companies will shape the outlook for many industries, including floral. In fact, supermarkets account for most of the growth about 25% of floral purchases in 2005 took place at supermarkets and receive twice the amount of transactions as the retail florist shops (Floral Purchasing, FMRF).

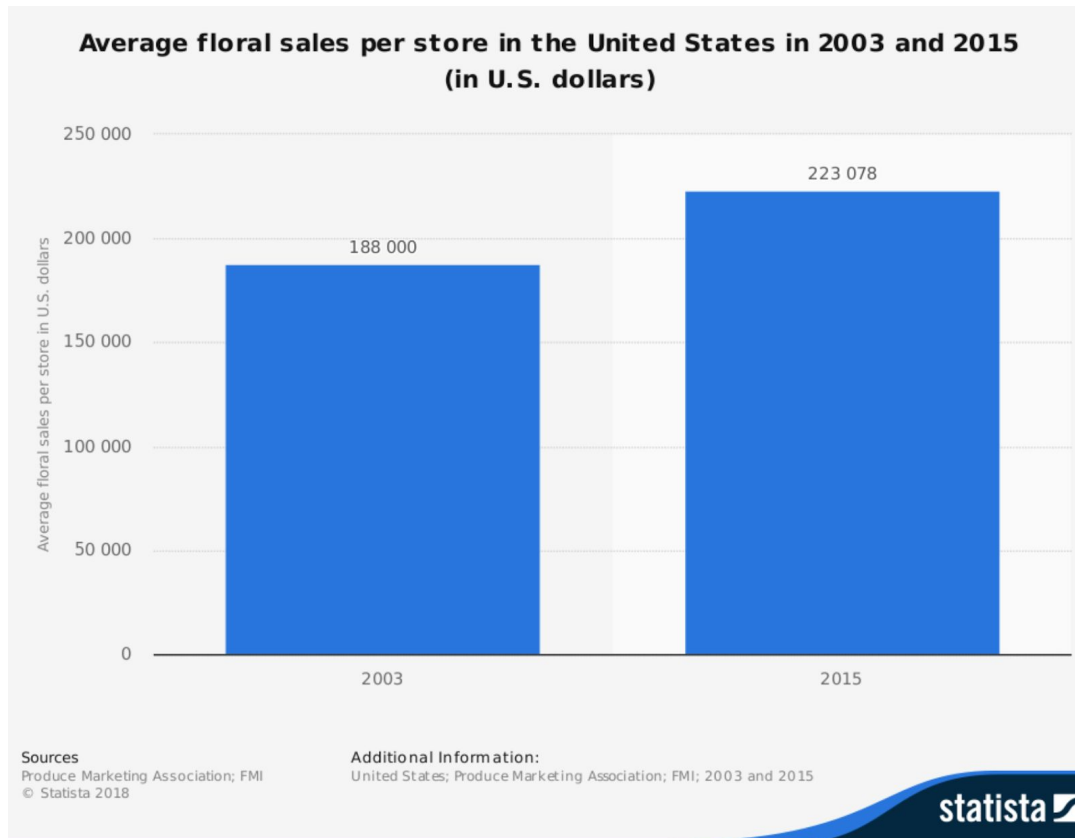
While floral volume in supermarkets is very easy to track, color and stem count is not. The challenge for supermarkets in the future to compete not only in the physical, full-service, cash-and-carry space but also in the convenient, online, logistics space as well. Because of current logistical issues, some within the supermarket sector are unable to offer floral online because they can not guarantee from establishment to establishment within the same operation that they will have a flower in a specific color and stem count.

PMA reports there are approximately 15,000 operations that equate to \$3 billion in floral sales yearly (PMA, data sheet). No matter the type of service -- full, mixed-mode, or self-service -- 68% of floral sales occur in-store and 2% occur online (Statista Research Department, Type of

floral sales in the U.S. in 2015, by service level). 31% of sales are holiday, 42% are impulsive, 4% are wedding, and 3% are sympathy. More impulsive sales occur at self-service stores than at full or mixed-mode service. More sympathy sales occur at mixed-mode service stores than full or self-service (42% versus 4% or 2%). The average rate for a florist employed by a retail supermarket is \$11.91 in 2019 (payscale.com).

Grocer Business Magazine in 2018 reported that 50% of national supermarket/mass market floral sales are fresh cut flowers, 19% are outdoor plants, 18% are potted plants, and 10% are other plants. Bouquets account for 16% of fresh cut flower sales (Grocer Business Magazine, 2018), which suggests there may be an opportunity to extend the season beyond specific holidays, especially in the categories of outdoor plants into mid-summer and late fall periods. Additionally, the top five goals of supermarket floral establishments are to increase profitability and staff training, reduce floral shrink, use more local suppliers, and partner with suppliers (Trends, PMA).

Broken down by type of store, chain supermarkets have on average \$229,650 in average floral sales per store (Statista Research Department, Average floral sales per store in the U.S.). Independent supermarkets have an average of \$294,000 in sales, other mass market retailers have an average of \$124,500, and grocery/service wholesalers have an average of \$83,000 in sales (Statista, Average floral sales per store in the U.S.). Overall, all regions of the U.S. have seen growth in supermarket floral departments from 2.3% to 9.5% (Statista, Floral department: sales growth by region U.S. 2018). The areas of the United States that have seen the most growth are the West (7.1%), Mid-South (9.5%), Great Lakes (6.3%), and Plains (5.6%) (Grocer Business Magazine, 2018). Total sales has increased for supermarkets from \$188,000 in 2003 to average sales per store of \$223,078 in 2015 (Statista, Average floral sales per store in the U.S. 2003-2015). Since 2015, floral sales have spiked nationwide by \$560 million (Grocer Business Magazine, 2018).



Floral Product Sourcing

About 13% of respondents to the PMA Floral Trends Report reported no central distribution of floral products, while nearly 20% reported that 100% of floral products went through central distribution. For 2015, about 70% of floral product on average was centrally distributed, compared to 48% in 2003. Nearly all floral products went through central distribution for chain supermarkets, grocery/service wholesalers and other mass marketers. For independent supermarkets however, only a small percentage of floral was centrally distributed. Self-service floral operations utilized central distribution to a greater degree than other service modes. The degree of central distribution increased directly with the increasing size of the floral operation. Independent supermarkets were most involved with store-level buying of floral product, with nearly two-thirds of buying conducted by store-level personnel. For the largest-sized operations, only about one-quarter of floral buying was conducted by store-level personnel.

Bouquets and Premade Arrangements

South American farm direct and Miami bouquet manufacturers are the two leading sources for bouquets and premade arrangements, followed distantly by U.S. growers/shippers. Compared with the 2003 survey, both South American farm direct and Miami bouquet manufacturers have

become the dominant flower source with mass-market floral buyers. Since 2003, sourcing of bouquets and premade arrangements from U.S. growers/shippers has declined dramatically. There is some variation as to the top source used by each type of mass market provider(chain supermarkets, independent supermarkets, grocery/service wholesale, or other mass marketers).

Percent of total value sourced of bouquets and pre-made arrangements in 2015 versus 2003 (PMA Floral Trends Report)

	2015	2003
South American Farm Direct	41%	28%
Miami Bouquet Manufacturers	38%	29%
U.S. Growers/Shippers	14%	23%
U.S. Grocery/Service Wholesalers	3%	1%
U.S. Wholesale Florists	2%	4%
Mexican Farm Direct	1%	N/A
Holland Direct	1%	3%
Other Sources	0.3%	12%
All Sources	100.3%	100%

Chain Supermarkets

Miami Bouquet Manufacturers
 South American Farm Direct
 U.S. Growers/Shippers

Independent Supermarkets

U.S. Wholesale Florists
 U.S. Growers/Shippers
 South American Farm Direct

Grocery/Service Wholesale

U.S. Wholesale Florists
 Miami Bouquet Manufacturers
 U.S. Growers/Shippers

Other Mass Marketers

South American Farm Direct
 Miami Bouquet Manufacturers
 -

Not depicted in the table but revealed in the research, self-service operations sourced almost exclusively from South American farm direct, with Miami bouquet manufacturers being a distant second. For mixed-mode service operations, sourcing was more broad-based, with Miami bouquet manufacturers in the lead position, followed by South American farm direct, U.S. growers/shippers, U.S. grocery/service wholesalers and U.S. wholesale florists. Miami bouquet manufacturers were the lead source for full-service operations, followed by South American farm direct and U.S. growers/shippers. Interestingly, both ends of the industry service spectrum showed a narrow sourcing profile, with a greater percentage of total product value sourced from the top floral source.

The PMA research revealed the smallest-sized operations—those with 50 or fewer stores—sourced nearly half of total value directly from South American farms. About 20% of value was sourced from U.S. wholesale florists, with about 15% from U.S. growers/shippers and

about 10% from Miami bouquet manufacturers. The moderate-sized operations—those with 51 to 299 stores—showed similarly broad sourcing as the smaller-sized operations, but Miami bouquet manufacturers held the lead sourcing position at 43%. The largest-sized operations—those with over 300 stores—showed somewhat narrow sourcing, with nearly 45% of total value sourced from South American farm direct, followed closely by Miami bouquet manufacturers, and U.S. growers/shippers a distant third.

Fresh Cut Flowers and Greens

Whereas the U.S. floral market historically relied heavily on domestic production, imports now make up an estimated 82% of the total cut-flower sales in the U.S. (Euromonitor International). In 2013, Colombia exported \$1.34 billion worth of flowers, with the U.S. accounting for over 75% of the total at \$1.09 billion. Colombia grows 20,000 acres of flowers for export by roughly 300 farms. Roses are the primary export flower, followed by carnations and chrysanthemums. Supermarket chains source a large amount of their flowers from Colombia (USDA FAS). There are around 150 companies that import and distribute Colombian flowers in the United States, mostly located in the Miami area. Ecuador is the second-largest supplier of cut flowers to the U.S. according to ITC data. While Ecuadorian imports experienced steady increases over the last few years, import duties depressed this growth.

More than one-half of total cut-flower and greens value was sourced from South American farm direct. Miami importers garnered second position with almost one-third of source share, and U.S. growers/ shippers registered a distant third at just over 10%. Compared with the 2003 survey, South American farm direct has now expanded its lead position for fresh cut-flower sourcing. Miami importers have largely maintained their second-place ranking, while U.S. growers and shippers have now lost almost half the cut-flower sourcing share they had accrued in 2003. U.S. wholesale florists also have lost significant cut-flower sourcing share since 2003. U.S. grocery/service wholesalers have maintained the same low cut-flower share they held in 2003, while the source share for Holland direct was cut in half for 2015.

Percent of total value sourced of fresh cut flowers and greens in 2015 versus 2003 (PMA Floral Trends Report)

	2015	2003
South American Farm Direct	52%	37%
Miami Imports	31%	27%
U.S. Growers/Shippers	11%	20%
U.S. Grocery/Service Wholesalers	2%	2%
Holland Direct	1.4%	3%
U.S. Wholesale Florists	1.3%	7%
Mexican Farm Direct	1%	NA
Other	0.4%	4%
All Sources	100.1%	100%

Chain Supermarkets

South American direct
Miami importers

Independent Supermarkets

South American direct
U.S. growers

Grocery/Service Wholesale

U.S. growers
Miami importers

Other Mass Marketers

South American direct
Miami importers

Not depicted in the table but revealed in the research, the smallest-sized operations sourced more than half of cut-flower purchasing (57%) from South American farm direct, but these smaller-sized operations generally showed a broader sourcing profile compared to larger-sized operations. About 17% of value was sourced from U.S. growers/shippers, about 15% from U.S. wholesale florists and about 7% from Miami importers. The moderate-sized operations showed more focused sourcing for fresh cut flowers compared to their bouquet sourcing, with 70% of cut-flower purchasing sourced from Miami importers, with U.S. growers/shippers a distant second at 10%. The largest-sized operations also showed somewhat narrow sourcing, with over 50% of total value sourced from South American farm direct. Nearly 30% of cut-flower purchasing from these large-sized operations was sourced from Miami importers, and just over 10% was sourced from U.S. growers/shippers.

Resources for the supermarket floral section:

[1959, DeLoach Part A. Commercial Cut Flower Industry: Further production increases without substantial increase in acreage may cause changes in successful marketing practices](#)

[1959, DeLoach Part B. Commercial Cut Flower Industry: Expansion of merchandising outlets for floral needed to balance increased output capacity products of growers](#)

[Effects of tariffs on floral industry survey](#)

[Food Navigator. 2019 and beyond: Six trends shaping the supermarket of the future](#)

[Greenhouse Product News/Euromonitor, 2019. Megatrends for 2019](#)

[Grocer Business Magazine, 2018. Power to the Petals](#)

[IBISWorld Industry Report. 44511 Supermarkets - Grocery Stores in the U.S. \(fee-based publication\)](#)

[International Floriculture Expo, 2016. Trends in the fresh-flower supply chain](#)

[Marketing & Growth Hacking. The floral industry is dying and there's no one to blame but themselves](#)

[Payscale.com. Grocery store or supermarket hourly rate.](#)

[Progressive Grower Magazine. 2018 Floral Department Data](#)

[Progressive Grocery Magazine. 2019 Retail Floral and Produce Review](#)

[PMA, 2019. Floral Market Demand Space \(fee-based publication\)](#)

[PMA, 2019. Trends in Mass Market Floral](#)

[PMA, data sheet. Type of floral sales in the United States in 2015, by service level](#)

[Sarrientos, 2014. Gender and global value chains- challenges of economic and social upgrading in agri-food](#)

[Statistica, 2019. Average floral sales per store in the United States in 2003 and 2015 \(in U.S. dollars\) \(fee-based publication\)](#)

[Statistica, 2019. Average floral sales per store in the United States in 2015, by business type \(in U.S. dollars\) \(fee-based publication\)](#)

[Statistica, 2019. Most influential grocery department in driving store traffic in the United States in 2019 \(fee-based publication\)](#)

[Statistica, 2019. Sales growth of the floral department in the United States in 2018, by region \(fee-based publication\)](#)

[Statistica, 2019. Supermarket sales share of perishable food in the United States in 2018, by product department](#) (fee-based publication)

[Statistica, 2019. U.S. Floral Department Sales Growth 2018 by Region](#) (fee-based publication)

[Suntibavivattana, 2012. Extending the vase life of mixed flower bouquets](#)

[Super Floral, 2019. Floral Training and Mass-Market Retail](#)

[Superfloral, December 2019. State of the Industry, Cathy Burns](#)

[Superfloral, January 2019. State of the Industry, Stan Pohmer](#)

[SuperFloral Retail Forecast 2020](#)

E-commerce

With the formation of the internet in the early 1990's came the eventual desire to use this communication tool to shop online. Though we have had the ability for roughly 25 years to conduct transactions online we have really seen the surge in online shopping within the past ten years, corresponding with the development of security-related technology and the widespread usage of mobile devices. Now, we see the evolution and integration of online payment systems, mobile device applications, and website and social media sites. Now, e-commerce represents 10.7% of all retail transactions which might not seem a large share, but has seen double digit growth per year in the past five years (10ecommercetrends, 2020; E-commerce, IBISWorld). Retailers today carry between 2 and 10 times more SKUs than they did 10 years ago. Successful SKU's have the related product and marketing-related content to support them (product images, video, descriptions, sizes, attributes and complementary products).

The function of e-commerce is to have a product on a website (and/or mobile application) where users can locate and purchase from the seller. The product is then boxed and transported from the distribution location to the consumer's desired location. This sector in the industry is different than others in the way that firms do not depend on having physical establishments near consumers to in order to conduct business. They only require warehouse space to store goods -- location consideration is important for shipping speed or near major ports to accept purchase deliveries (E-commerce, IBISWorld). There is limited data to indicate how many of the floral industry participants conduct business online and the volume quantity as which they do business.

Some florists engage in e-commerce as a tool and not necessarily as a primary outlet, while others operate on this platform exclusively. Though they do not have physical brick-and-mortar stores to reach their consumers, they rely heavily on their marketing and consumer reach online which can be just as costly. IBISWorld reports this industry does \$5 billion in revenue over 230 firms (Online Flower Shops, IBISWorld). According to investment firm DA Davidson, the e-commerce floral market is valued at \$6 billion. This segment is considered an emerging disruption to the channel because it is relatively new and has seen tremendous growth. Yet, 82% of mobile users search for a local business and 18% of local searches lead to a sale within 24 hours (Uberall, Google).

IBISWorld reports that annual growth for e-commerce and online auctions will decrease from 14% (2014-2019) to 10% (2019-2024) due to quality growth stage epitomized by competitiveness, high economic importance, and weaker companies exiting. There are low barriers to entry. This segment is highly fragmented with low-to-medium market share concentration. Additionally, mobile device connectivity has increased 10% annually. Companies will continue to invest in mobile websites and artificial intelligence as chatbots (customer service agents) and to forecast user behavior. Technology continues to improve per-employee efficiency through warehouse management systems (WMS), robotic systems, etc., making the e-commerce firms highly efficient. The use of big data will continue to analyze consumers trends (marrying together in-store purchasing with online presence), and to power robots in warehouses (10ecommercetrends.com, 2020; E-commerce, IBISWorld). Additionally having an online presence gives even small retailers the ability to compete with larger companies on product segmentation and variety as serving like a proxy between the consumer and the larger companies.

E-commerce will soon account for 15% of all specialty retail sales in North America (10ecommercetrends.com, 2019). Additionally, firms are moving to Progressive Web Apps (PWAs) which blurs lines between websites and applications resulting in faster loading and more fluid experience for the consumer 2-10 times faster than mobile sites (10ecommercetrends.com, 2019). Transactional social media is influencing online impulse purchasing where a consumer can look at a company's Instagram post, click on the picture, and purchase the floral design all without leaving Instagram's application. QR codes, which previously didn't fare well due to lack of use, are making a comeback as digital natives find them useful instead of clunky because QR codes are no longer app-dependent (10ecommercetrends, 2019). Absolutnet, creator of 10 Ecommerce Trends for 2019 (and 2020) predicts that to beat Amazon, we will see major retailers mimic and exemplify the company through direct to consumer storefronts, PWAs, and providing a wider selection of SKUs. Shopping on-the-go is relevant as well. Nearly half of Americans use their mobile device to discover the closest gas station, order and pay for coffee or food, find parking, and more. Geolocalization technologies helps advertisers understand where users are

going, and where they go most often indicating that not only is online search behavior but also location and driving habits. Companies will be paying attention to this type of data (10ecommercetrends.com, 2019).

Product content syndication is vastly important for the end consumer experience. Product content syndication is content that is pushed to multiple sites/platforms from a centralized point creating consistency while broadening the product's reach. Information about the product is just as important as the product itself. Without information, the consumer can not discover, research, and make informed decisions about the product. Consumers rely heavily on comments, ratings, and reviews of other consumers when making their decisions because they trust the opinion of other consumers over businesses (Katz, 2019). Without all of this product information, they will move on.

There is a hybridization, of sorts, that has occurred among several of the leading floral-related e-commerce firms while attempting to find business models that are differentiated enough from the competition to warrant above average economic returns. For example, 1-800-Flowers is both an e-commerce floral site and has a wire service division (BloomNet) and was one of the first floral business to sell flowers (and other gifts) online (Swaminathan, 2012). Amazon expanded their product offering in 2013 to include flowers by launching Amazon Curated Flowers Collection, which offered lower prices than wire companies (than FTD) but does not use local florists to fulfill orders.

The online floral gift market was valued at \$2.99 billion in 2017 (Arizton). Just mobile floral gifting was valued at \$1.46 billion (Arizton). Viewing pictures of arrangements and price comparisons remain the ways the internet is most commonly used in the flower purchase process. Sending flowers outside of an immediate area and finding a florist's number/website were also commonly mentioned (Generations Study, SAF). More consumers are now going online to find a florist's website rather than a phone number -- only 1 in 7 consumers prefer to purchase gifts of flowers over the phone. Consumers are encouraged to purchase through e-commerce by the ease of ordering at home and the ability to quickly compare prices and product reviews among retailers. The ease of the consumer is paramount as seen through firm activities that make the user experience smoother through in-store pickups and subscription boxes virtually establishing routines with satisfied purchasers (E-commerce, IBISWorld). Since online shoppers are not able to physically inspect potential purchases, operators must make the decision process as seamless as possible by ensuring every product is accompanied by detailed descriptions (e.g. color, size, material, functionality and quantity) and high-quality photographs (E-commerce, IBISWorld).

Resources regarding e-commerce section:

[Absolunet, 2019. 10 eCommerce Trends for 2019](#)

[Absolunet, 2020. 10 eCommerce Trends for 2020](#)

[Arizton. Floral Gifting Market in the U.S.](#) (fee-based publication)

[eTail. Here's How 1-800-Flowers Leverages AI to Streamline the Customer Journey](#)

[Forrester. Case study: The North Face and 1-800-Flowers embrace AI for conversational commerce](#) (fee-based publication)

[Google, 2019. Local Searches Lead 50% of Mobile Users to Visit Stores](#)

[IBISWorld Industry Report. 45411A E-Commerce & Online Auctions in the U.S.](#) (fee-based publication)

[IBISWorld Industry Report. OD5069 Online Flower Shops in the U.S.](#) (fee-based publication)

[Katz, R. 2019. Consumer Trust Relies Heavily on Reviews and Brand Honesty. Emarketer.com](#)

[McKinsey Global Institute, 2017. Artificial intelligence: the next digital frontier discussion paper](#)

[Nielson, 2017. What's in-store for online grocery shopping](#)

[SAF, 2016. Generations of Flowers Study](#) (fee-based publication)

[Suntibavivattana, 2012. Extending the vase life of mixed flower bouquets](#)

[Swaminathan, 2012. 1-800-Flowers.com](#)

[Uberall, 2018. Study: 82% of Mobile Shoppers Doing 'Near Me' Searches](#)

[Verdouw, 2013. Virtualisation of floricultural supply chains: A review from an Internet of Things perspective](#)

Direct-to-Consumer

The direct-to-consumer (DTC) segment is very closely correlated with the e-commerce segment, however they are not mutually exclusive, as there are some domestic firms who do not function within the online space. By definition direct-to-consumer is when a brand sells directly to the end consumer without selling through retailers, distributors, wholesalers, or outlets. Much of the direct-to-consumer movement within the floral market has been by: (1) growers creating segments within the firm to sell direct and creating an online platform at which to communicate with the consumer, or (2) retail firms with consumer-facing websites who establish strategic alliances with growers. Either way, the flowers are shipped directly from growers in the U.S., Colombia, or Ecuador to the end consumer (most likely in the United States) through Fedex or another partnering transportation firm. Some of these growers have domestic warehouses in which they store product and ship from Miami to the end consumer.

The floral industry is becoming more omnichannel in its supply chain and the direct-to-consumer segment is one of the expected channels that develops in an omnichannel industry. The point is to create a high profit margin for the grower, to develop relationships with the end consumer, and it is believed that if the flowers are shipped directly from the farm to the end consumer that they will last longer because they have fewer steps along the way instead of all of the intermediate steps in the traditional supply chain. Initially, when the DTC segment was first developed, the quantity of the product and fulfillment was substandard. Arrangements would not arrive or would not be what the consumer had viewed online. Because the grower segment traditionally has not had to work with the public there has been growing pains related to timing of the product. Quality and fulfillment have improved over time, some of which improvement have been led by key companies setting the standard bar that others had to compete with.

Because this is an emerging segment, it is unclear data-wise how large the segment is and how much revenue flows through the firms. Generally speaking, Amazon is believed to be the largest retailer overall but it is unclear how large their market share is because they do not disclose this information. Other direct-to-consumer companies (e.g. FiftyFlowers.com, Farmgirl Flowers, Urban Stems, TheFlowerExchange.com, Bouqs, Petal by Pedal, Rosaholics) also hold their information close to their vests. Estimating the size of the direct-to-consumer segment is a potential gap to be filled in information.

Other DTC floral outlets include farmers markets, Community Supported Agriculture (CSA) outlets (sometimes referred to as subscription farming), roadside stands, and on-farm sales (you-pick). In fact, cut flowers are sold at 93% of farmer's markets in Washington state (Ostrom and Donovan, 2013). A pricing study of those markets indicated that, when floral vendors at

farmers markets were clustered together, they on average had higher price points than those vendors who were isolated singularly at their farmers market (Connelly, 2017). Yet, when analyzing by stem price, those with higher concentrations of vendors charged less per stem (Dahlia) than those who were in lower concentrations of vendors -- to the tune of \$0.30 more (Connelly, 2017). The number of stems varied per bouquet from 12 to 43 stems depending on the location. In general, Dahlia prices per stem were lower in larger bouquets. Smaller bouquets would garnish a \$0.34 higher increase in Dahlia stem price versus larger bouquets. Offering bouquets of different sizes may be appealing to consumers but adding more stems to a bouquet might not pay off for the business.

Resources regarding the direct-to-consumer section:

[Bench. Challenging Goliath: How UrbanStems is Uprooting a Multi-Billion Dollar Industry](#)

[Connolly, 2017. Cut Flower Prices at Farmers Markets: A Bouquet Pricing Study](#)

[Forrester. Case study: The North Face and 1-800-Flowers embrace AI for conversational commerce](#) (fee-based publication)

[IBISWorld Industry Report. OD5069 Online Flower Shops in the U.S.](#) (fee-based publication)

[Inside UrbanStems' Mission to Remake the Flower Delivery Business](#)

[McKinsey Global Institute, 2017. Artificial intelligence: the next digital frontier discussion paper](#)

[New York Times, 2016. The start-up that aims to bring back the Farm-to-Vase bouquet](#)

[Suntibavivattana, 2012. Extending the vase life of mixed flower bouquets](#)

[TechCrunch. Floral delivery startup UrbanStems raises \\$12M to fund national expansion](#)

Wire Services

One distinctive service available from traditional retail florists (and more recently from some non-traditional floral outlets) is the ability to take a customer's order at a store at one location and deliver that order to a recipient virtually anywhere in the world. This is accomplished through networks of florists joined by electronic communication and billing mechanisms called **floral wire services**. It is this ability to take a last-minute order and deliver it overnight that made

flowers, historically, a unique gift. Following the merger of two major wire services to form the largest such entity, there are currently at least four wire services serving their retail florist shop members in the United States: FTD, BloomNet (owned by 1-800-Flowers), Teleflora, and Bloomex. There are other wire services but they operate in other parts of the world (Euroflorist, Interflora, Petals Network, and Teleflorist).

Floral businesses that take the orders and wire them to another location are referred to as "sending" florists while those who receive the wired order, design and deliver that order are called "filling" florists. In general, when a floral order is taken from a customer and sent to another florist to be filled, the sending florist earns 20% commission from the filling florist for promoting and taking that order. The sending florist may earn a rebate from the wire service depending on which wire service the sending florist uses. The sending florist also may charge the customer a service fee for taking the order. It can be fairly profitable to be a sending florist — from charging the customer a service fee, earning a rebate from the wire service and collecting an order commission from the filling florist, especially if the sending florist rarely fills orders. The profit that can be made taking flower orders and sending them elsewhere to be filled has triggered the development of a sizable group of businesses called "order gatherers" or "order generators," some of whom rarely, if ever, fill orders. Order gatherers are described in the section below.

By comparison, the filling florist agrees to fulfill the wired order for 100% of the face value of the order, despite not receiving 100% of the fee. That order has now become "discounted" by the amount of the commission, usually 20%. The filling florist pays the sending florist 20% and a fee to the wire service that handled the order. These two expenses leave the filling florist with about 73% or less of the order's face value with which to fill that order. Nevertheless, that florist has agreed to fill the order at 100% of the order's value. The formula of 20% to the sending and 80% to the filling florist was derived during a period in the floriculture industry when florists' incoming order volume and outgoing order volume was, for the most part, balanced. As a result of this balance, florists viewed themselves as senders and fillers. If one side had an advantage over the other, it balanced itself in the long run. Many perceive this no longer to be the case.

The debate over whether florists can cover the expenses of filling discounted orders has persisted for years. Many florists believe they can make money by filling discounted incoming orders and would join multiple wire services to increase those incoming orders. However, monthly and per-transmission fees, though historically nominal, have increased at a fairly rapid rate while the number of wire orders has been flat or declining. It may no longer be profitable for many florists to belong to multiple wire services. A trend has evolved where some florists feel forced to fill the incoming orders at less than their full value to make up for their expenses. The result can be disappointed consumers and eroded trust that hurts the entire industry. A few florists are

choosing not to belong to any wire service because of the fees and inability to make a profit on discounted orders. Using toll-free numbers and the internet, some have chosen to send orders directly to florists across the country, bypassing the wire services. But for the majority of florists, the major wire services provide products and services that expand their business opportunities and allow them to reach customers well beyond their physical locations. The wire services also provide professional florists with expertise in website development, accounting techniques, order taking and point of sales software. In addition they offer training in floral design and care and handling techniques, color trends, new floral varieties, and the latest supplies and products, not to mention sponsoring conventions, publications, continuing education, and general industry support.

Some wire order senders are cashing in on the fees available from accumulating and wiring orders and are known in the industry as "**order gatherers**" A number of senders promote themselves by using national, regional and local radio, television, billboard, newspaper and telephone directories to increase their volume of incoming orders. Various national order gatherers represent themselves as local florist businesses by advertising in local telephone white pages directories. This activity is viewed by some as deceptive and has caused considerable frustration for florists and the public, and in some localities has led to legislation regulating this practice.

This deception is not limited to non-florist order gatherers, however. Some florists have taken out "deceptive" floral ads in telephone directories around the country implying to the naive consumer that they are local businesses. Such practices are frowned upon as unethical by some local and state governments, and a growing number of jurisdictions, prompted by grassroots calls for action by local florists, have enacted legislation forbidding deceptive advertising.

Troubles in the sector.

One case study exemplifying the troubles in the wire sector model is the recent difficulties experienced by FTD, which got its start in 1910, when 13 florists agreed to exchange orders for out-of-town deliveries, according to the company history. It acquired online florist ProFlowers and sister brands Shari's Berries and Personal Creations for \$430 million in 2014, in hopes of bringing in more customers with a wider variety of floral and gift products. But the company struggled to integrate the new businesses and also faced new competition from other companies delivering fresh flowers directly to consumers and growing customer resistance to delivery fees as Amazon and other e-commerce companies encouraged them to expect fast, free shipping. FTD came up with a turnaround strategy but sales continued to fall, and financial constraints hampered efforts to reinvest in FTD's businesses. In 2018, total sales across all of FTD's businesses fell 6% to \$1.01 billion. The company lost \$224.7 million in 2018, compared

with \$234 million in 2017, the company said in bankruptcy filings.

Hybrid models reflect the need to be responsive to changing B2B needs.

Not all wire services have had as many difficulties as those who followed the traditional business model more closely. For example, 1-800-Flowers.com is an example of a hybrid model that has pushed the wire service and e-commerce sector beyond where they were originally developed. 1-800-Flowers.com began operations in 1976 as 'Flora Plenty', when James McCann acquired a single retail florist in New York City. He subsequently expanded it to a 14-store chain. Jim's younger brother and current president, Chris McCann, joined the company in 1984. In 1986, Flora Plenty acquired a Texas-based florist named 800-Flowers, along with the rights to the toll free number 1-800-Flowers. In the days when brick-and-mortar retailing was the common practice, Jim made the bold move to adapt telephone commerce as the business model and renamed the company 1-800-Flowers, an innovative and easy to remember name that led to a strong brand recall value amongst customers. The company was one of the first retailers to use 24x7 toll-free numbers and it changed the way the floral industry operated in that floral orders over the phone would soon become the norm. Two years later, in 1988, the company launched BloomNet, its own network of independent florists to facilitate same-day delivery of customer orders. BloomNet would later become a fully-owned subsidiary of 1-800-Flowers.com, offering B2B florist wire services.

In the next few years, while the retail industry was riding the 1-800 wave, the company was already exploring several new ideas in pursuit of the next big technological innovation that would fundamentally alter the way business was done. As a part of this initiative, the company explored the possibility of selling through the internet and as early as 1991, the company had its own website. The results were not immediate since internet retailing was practically non-existent at that time due to the lack of supporting infrastructure. However, the launch of several web browsers between 1993-1995 kick-started the e-commerce era and 1-800-Flowers online sales volume increased significantly after 1995. To reflect the changing times and to emphasize the role of the internet in the company's business strategy going forward, 1-800-Flowers was rechristened 1-800-Flowers.com in 1998. The company was one of the first retailers to directly sell over the internet and, as with telephone retailing, the internet retailing model revolutionized the floral industry landscape. Suddenly, customers had access to the products offered by hundreds of florists across the country through 1-800-Flower.com's website. From the company's standpoint, this meant increased product variety along with the added benefit of reduced investment in inventory and infrastructure. The internet retailing model pioneered by 1800-Flowers.com has become a standard in the floral industry.

1-800-Flowers.com had always been a leader in adopting technology to drive business and it lived up to its reputation when the third wave (the first wave was 1-800- numbers and the second

wave was e-commerce) to sweep the retail industry came around — mobile and social commerce. It launched the floral-industry’s first mobile gift center in 2008, and has since then won numerous awards for its apps in the mobile commerce space. In 2009, the company partnered with social commerce provider Alvenda (now renamed 8th Bridge) to become the first retailer ever to open a fully operational store inside Facebook where customers could purchase and make payments without leaving the social media website. Since then, many retailers have followed suit. 1-800-Flowers.com is also a pioneer in social marketing, partnering with Facebook, Twitter, and many other blogging websites to reach customers directly and in a cost effective manner. The company further invested and innovated in the social and mobile media space in line with its theme ‘So-Lo-Mo’ (Social-Local-Mobile), which recognized the growing importance of mobile commerce and social networking to 1-800Flowers.com’s future growth and marketing plans.

Some believe this multifaceted delivery mechanism to be one of the keys to the company’s success. Other companies have “hybrid” business models with some accenting the original intention of wire services (e.g. FlowerShopNetwork.com) and others following a more modern e-commerce approach offering unique SKU’s (e.g. BloomNation).

Resources regarding the wire services section:

[Boghossian, 2012. SWOT analysis for the installation of Teleflora direct marketing system for April flowers](#)

[Cision PR Newswire, 2019. Teleflora acquires Interflora UK from FTD](#)

[Effects of tariffs on floral industry survey](#)

[EnterpriseDB, 2009. FTD Replicates Oracle to EnterpriseDB](#)

[Floral Management, 2014. Is FTD’S Proflower Acquisition Pro-Florist? Florists weigh the pros, cons and what ifs of the bigger arrangement — and FTD defends the master design](#)

[FloraNext. What are floral wire services?](#)

[Forbes. BloomNation wants to be miracle grow for main street florists](#)

[FTD Companies, Inc. Business is “blooming” on Google Cloud platform](#)

[FTD Press Release, 2018. FTD Companies, Inc. announces fourth quarter and full year 2018 financial results](#)

[Google Cloud. About FTD](#)

[IBISWorld Industry Report. OD5069 Online Flower Shops in the U.S. \(fee-based publication\)](#)

[Kilbride, 2019. Overview of FTD](#)

[Micro Focus. Teleflora: visual COBOL enables endless optimization opportunities with new tools for the modern developer](#)

[Suntibavivattana, 2012. Extending the vase life of mixed flower bouquets](#)

[Teleflora. Benefits of membership](#)

[TIME Magazine, 2015. This budding startup is changing how you buy flowers](#)

[The Profitable Florist, 2017. Wire services: A fresh perspective](#)

[Watkins Flowers of Distinction, 2015. Why we dropped FTD and Teleflora](#)

[Weloveflorists.com. Are you considering a floral wire service?](#)

Wholesale Florists

According to the 2017 U.S. Economic Census, administered by the U.S. Census Department, there were 3,504 flowers, nursery stock, and florist supplies wholesaler establishments with 46,736 employees. However, anecdotal reports place the number of wholesale florist businesses between 700 and 1,500. According to the industry trade association of wholesalers, the Wholesale Florists and Florists' Suppliers Association (WF&FSA), there were about 500 floral wholesalers in the U.S. specializing in the distribution of cut flowers and related products. WF&FSA reports those businesses averaged sales of \$3.9 million. Fresh flowers accounted for 85% of sales and hard goods the remaining 15%.

What accounts for this discrepancy? Who are the extra wholesalers? What explains total sales several times higher than the level estimated by the industry trade association while at the same time per establishment sales are half those of each WF&FSA wholesaler? WF&FSA membership is primarily those wholesalers who focus on cut flower products and does not include nursery or other plant distributors.

The Traditional Role of Wholesale Florists

The 4th edition of SAF's publication entitled **The Changing Floriculture Industry: A Statistical Overview** contains an excellent section discussion of the traditional role of wholesale florist in the industry and this section relies heavily on that report. In the "old" days, traditional floral wholesalers fulfilled a number of indispensable functions for their retail florist customers, including product sourcing and handling, imparting product knowledge, and serving as creditors. Many still do today. Wholesalers were "middlemen" who gathered the floriculture production in bulk from nearby sources, (usually local flower growers or producers), and sold it to their retail florist customers. In short, they were consolidators of product and supplies from various sources who then sold smaller units of merchandise downstream. The typical floral wholesaler specialized in providing cut flowers, hard goods, or both to America's neighborhood retail flower shops. Some wholesalers bought product on consignment from the growers, sold what they could at the best price available, and paid the growers a portion of the sale.

A wholesaler also provided a line of credit to the retail florist, particularly to the new shop owner who had relatively little money on hand. Even today, the wholesaler is often the first to know when a retailer is in financial trouble. Another traditional role of floral wholesalers was to identify trends based on retail florist demand and pass that information on to the growers. The farms in turn would modify production to meet this shifting demand. This model sometimes broke down due to a wholesaler's disinclination to deal with unfamiliar product, disrupt ongoing relationships with manufacturers and growers, or distrust of the retailer's perspective. On the other hand, some growers did not trust the wholesaler's perspective on what should be produced and shipped. This sometimes led to an oversupply of "commodity" or common flowers, as growers were unwilling to go out on a limb and produce unfamiliar or trendy products. Another role of wholesalers, traditionally and today is to serve as the retailers' principal source of care and handling information and first-hand advice on the use and availability of specific flowers and plants.

Wholesalers typically service the retail trade by finding product that retailers were unable to locate or could accomplish the task more efficiently by making products available from a wide array of growers and manufacturer sources. Consolidation of retail activities has made this service less valuable to the largest retailers but continues to be a valuable service for the average-sized retail florist. Wholesalers typically stock a wide array of cut flower and non-perishable items for their clients. When coupled with daily or frequent delivery services wholesalers provide valuable "just-in-time" inventory services. This service allows retailers to better manage their perishable inventories to reduce perishable shrink and to be more responsive to an ever more demanding customer.

Until recently, even as the production of cut flowers for the U.S. market shifted overseas, the market channels connecting grower and wholesaler were distinct with just the importer role added. The importer facilitated the overseas shipment, pre-cooled the flowers and dealt with U.S. Customs regulations and passed the product on to distributors. Import distributors and grower/importers arranged domestic shipping and sold product to floral wholesalers. Wholesalers, in turn, sold and delivered flowers, plants, and supplies to retail flower shops. Roles were simple and market channels well defined.

The Changing Role of Wholesale Florists

Due to the perishable nature of cut flowers, advancements in transportation and communication throughout the last century have had a great effect on the floral industry. With production now settling in the most climatically correct parts of the world, such as South America, flowers are expedited to distant markets through a network of communications and transportation solutions. With advances in communications and technology, retailers are no longer limited to buying from terminal market wholesalers. Automated payment tools and instant communications tools can be used globally and have resulted in today's blurred market channels.

The traditional channel relationship of flower grower to importer, to wholesaler, to retailer, is just one of many options today in varying channel relationships. Today selling relationships exist between any and all of the segments in the channel. Many companies exploit a variety of (omnichannel) relationships to best serve their clientele, even if that clientele is the consumer. Backward and forward integration is common within the industry and decisions are based primarily on prevailing economics. The current dynamics are forcing development of business solutions to the needs of specific segments or subsets of segments at varying levels within the industry. Today, companies operating in floral distribution channels develop channel solutions to meet the needs of specific segments within the industry that share common requirements based on costs and not on who the customer is. Wholesalers who understand their true costs and who are satisfying the needs of their clients are continuing to provide viable and valuable services.

Adding to the pressure on wholesalers are newly formed online grower auctions, a concept that has appeared only within the past several years. These auctions provide services that mimic many of those offered traditionally by the wholesaler, but they provide product directly from the importer to anyone with a computer. Florists who can manage longer delivery lead times and larger quantities have taken advantage of lower service options up the channel. In addition there are retailer "buyers' groups" -- individual shop owners who band together and negotiate as a group to secure lower prices and better service from growers, importers, or wholesalers.

The proliferation of information available to consumers and retail florists over the internet puts them at still another advantage over the wholesaler. Online information is available to almost anyone, allowing buyers to identify sources and to compare prices. With this knowledge, retail florists with an internet connection can buy “direct-wholesale” from importers, growers, and manufacturers.

The Future for Wholesale Florists

Why do not more retailers skip the middleman wholesaler and buy direct from the farms? For one thing, wholesalers are skilled in dealing with growers and with the various agents involved in the international trade of perishable goods, quality guarantees, and identifying reliable supply sources. Most retailers do not have the time or expertise to do so. In addition, retailers often do not care to deal in freight, brokers’ fees and duties. Plus, the wholesalers or importers have ready access to literally hundreds of farms and suppliers.

Transportation logistics play a major role in the shipment of perishables like flowers. In Miami, air freight and trucking are big business. Flowers arrive from overseas producers, are unloaded from airline cargo holds to refrigerated Customs House brokers in secure fenced-in areas of cooling facilities near the airport. Once inspected and released, they travel to importers’ facilities where they are re-cooled. From there, the flowers are sorted by customer and are shipped to a wholesaler or are sent directly to mass merchandisers in refrigerated trucks. Few airlines specialize in shipping cut flowers from South America to the U.S. A lack of backloads, that is, product going from the U.S. back to these countries, makes airline profitability difficult.

Some wholesalers specialize in service to mass merchandisers, particularly if the mass merchandiser does not purchase direct from growers or importers. The financial clout of the mass merchandiser, to whom price of a product can be the most important consideration, routinely places pressure on the wholesaler to cut prices and/or provide extra services. Some wholesalers actively pursue mass merchandiser customers by offering bouquet-making services at the wholesalers' facilities. However, the trend of late has been to produce floral bouquets in South America. This service is particularly appealing to discount clubs and supermarkets.

According to the IBISWorld Industry Report 42493 **Flower & Nursery Stock Wholesaling in the U.S.**, this sector is affected by operation activities in its key downstream markets, such as florists and supermarkets. During the current period, industry operators were adversely affected by declining demand from florists. Although supermarkets and similar mass retailers have increased their demand for industry products, this trend has not offset the decline of the industry. Typically, wholesalers provide floral products to buyers that cannot purchase directly from suppliers because their purchase quantities are too low to meet minimum order requirements.

However, consolidations in the downstream industries have produced more sophisticated customers with increased buying power and negotiating strength, providing more opportunities for customers to avoid wholesalers and purchase directly from farms. Unlike small-scale florists, where strong working relationships between buyers and sellers can influence sourcing decisions, large retailers are primarily concerned with cost-efficiency resulting in more price pressures on industry operators.

Collectively, these factors have triggered more intense price competition between industry operators. Moreover, some operators have to offer more favorable terms to maintain relationships with large customers, which has placed more pressure on industry operators' profitability. Additionally, according to a survey conducted by the **Produce Marketing Association**, large mass-marketers report receiving the majority of their fresh cut flowers and greens either directly from growers or through Miami importers. These sellers are able to offer lower prices than industry operators, making them more attractive to retail clients. In an attempt to offer comparable prices, industry operators will forgo passing on rising input and operating costs to consumers, hindering profit margins. Therefore, wholesalers must compete among themselves and with external operators to secure business.

Over the five years to 2024, the wholesale sector is projected to remain on a similar trajectory as the previous period. While the improving economy will help industry demand, internal and external competition will continue to stifle revenue. Consequently, industry revenue is expected to decline at an annualized rate of 1.3% over the five years to 2024. Despite favorable macroeconomic conditions, declining demand from florists is expected to continue hindering industry growth. Furthermore, marriage rates are expected to decline during the period which will translate to fewer weddings; this will negatively affect industry revenue, as weddings provide a substantial source of demand.

The wholesale sector is facing considerable long-term challenges. Pricing pressures from downstream industries will continue to limit industry expansion. As retail florists, garden centers, and supermarkets have been active in consolidation activities, their enhanced purchasing power prevents industry operators from passing increasing operating costs on to customers. Moreover, industry operators are expected to suffer additional encroachment from external operators. Some cost-effective retailers tend to purchase industry products directly from importers and suppliers for lower unit costs. Even more, some large mass-marketers have the ability to source directly from foreign growers, particularly Latin America. As retailers expand their floral departments to include larger volume and varieties of cut flowers and nursery stock, their demand from wholesaling industry will decline. Therefore, large retailers opting for alternative suppliers will continue to siphon demand away from traditional wholesalers over the next five years.

As a result, many wholesalers are expected to restructure the operation for eliminating intermediaries and mitigating costs. There is an increasing number of operators expanding their offices to sourcing origins for ensuring supplies. The pattern of operators acting as importers is expected to intensify during the outlook period. For example, one of the nation's largest wholesale florists operates its own international shipping department and even has an ownership stake in a cargo agency and handling facility in Ecuador. This has enabled the company to take control of its own supply chain and enhance efficiency. Additionally, some operators increasingly use local supplies to add a point of differentiation and build emotional connections with customers.

Overall, constrained profitability will lead traditional wholesalers to continue to exit the industry; operators that cannot integrate new operations are likely to exit first. Over the five years to 2024, IBISWorld projects that the number of wholesaling enterprises will decline at an annualized rate of about 1.4%.

Resources regarding the wholesale florist section:

[BBC Worklife, 2019. Why are flowers so expensive?](#)

[Bizminer Industry Report. NAICS 42493 Flower & Nursery Stock Wholesaling in the U.S.](#)
(fee-based publication)

[Bizminer Industry Report. NAICS 424930 Flower, Nursery Stock, and Florists Supplies Merchant Wholesalers](#) (fee-based publication)

[Bizminer Industry Report. NAICS 424930.04 Plants Wholesale](#) (fee-based publication)

[Bizminer Industry Report. NAICS 424930.06 Florist Suppliers Wholesale](#) (fee-based publication)

[Claro, 2004. Managing business networks and buyer-supplier relationships](#)

[Effects of tariffs on floral industry survey](#)

[IBISWorld Industry Report. 42493 Flower & Nursery Stock Wholesaling in the U.S.](#) (fee-based publication)

[International Floriculture Expo, 2016. Trends in the fresh-flower supply chain](#)

[SAF, 2007. The Changing Floriculture Industry: A Statistical Overview](#) (only available in print)

[Suntibavivattana, 2012. Extending the vase life of mixed flower bouquets](#)

The Grower Sector

Domestic Growers

Overview of the market

Participants engaged in producing Green Industry products include growers of floriculture crops, nursery crops, and turfgrass sod. Floriculture crops include bedding plants, potted flowering plants, foliage plants, cut cultivated greens, and cut flowers. As distinguished from nursery crops, floriculture crops are generally herbaceous. Bedding and garden plants consist of young flowering plants (annuals and perennials) and vegetable plants. They are grown in flats, trays, pots, or hanging baskets, usually inside a controlled greenhouse environment, and sold largely for gardens and landscaping.

Potted flowering plants are largely sold in pots for indoor use. The major potted flowering plants are poinsettias, orchids, florist chrysanthemums, and finished florist azaleas. Foliage plants are also sold in pots and hanging baskets for indoor and patio use, including larger specimens for office, hotel, and restaurant interiors. Cut flowers are usually sold in bunches or bouquets with cut foliage. The most popular cut flowers are roses, carnations, gladioli, and chrysanthemums. Leatherleaf ferns are the leading cut foliage. Combining cut flowers and cut greens in bouquets or other flower arrangements is a value-added retail option.

The market outlets for floriculture crops are florists, garden centers, mass merchandisers, supermarkets, chain stores, discount stores, home improvement centers, hardware stores, landscape contractors, and re-wholesaler distributors. Other retail outlets include farmers markets, flea markets, and street vendors. Since cut flowers are perishable and live floral crops are sensitive to variations in temperature, they usually require cool transportation and storage conditions that preserve and prolong their quality before final sale. The demand for floral crops, especially cut flowers, is highly seasonal. Sales are normally highest from February through May and in the fall. Sales of cut flowers peak during holidays such as Valentine's Day and Mother's Day. Poinsettia plants are sold mostly from Thanksgiving to Christmas. Cut flowers and foliage plants, however, are increasingly popular throughout the year as indoor home and workplace decorations.

Wholesale sales of floriculture products are usually handled by salespersons who have established relationships with large buyers. Marketing programs often include numerous trade shows, advertising in trade publications, catalogs, and direct mail. Close planning with large buyers (referred to as partnering) is required to secure long-term markets and to ensure that the right product mix is produced; however, demand for different products can still vary substantially from year to year. Sales and many variable expenses (costs-of-goods-sold) are highly seasonal, with up to 50% of sales in the second quarter of a typical year. Cash flow is uneven throughout the year, therefore, cash management is important. Technical knowledge of plants and pests is important for greenhouse management although many of the everyday tasks (cultural practices) are routine and do not require highly specialized labor. However, automation has proven to be effective but expensive. Greenhouse operations can often be very sophisticated, with automatic irrigation and fertilization (sometimes referred to as fertigation), and heating/cooling air and lighting systems driven by a variety of sensors. Innovations demanded by big-box retailers (such as custom packaging and labeling, bar codes, scanners, and electronic data interchange between suppliers and buyers) are now used by many producers.

In recent years, there has been considerable consolidation among large growers, largely in response to consolidation occurring at the retail level. The rise of large, nationwide plant retailers like home centers and mass merchandisers has created a marketing opportunity for growers who can supply the volume these customers require. Some firms have “expanded” their operations through acquisitions during the past decade, mainly to service these big customers. Large growers are geared to service big customers (big-box retailers and large landscape installation/distribution companies) by handling large volumes, which has the effect of discouraging smaller-volume buyers. Independent garden centers, retail nurseries, and smaller landscape firms tend to be supplied by small-to-medium sized growers. Proximity and premium product quality are more important to these smaller-sized buyers than low price because their targeted end consumer is more interested in quality and breadth of retail selection. Keeping plants alive and healthy is a challenge for many consumers, and smaller retail operations typically have more technically knowledgeable staff than mass retailers to assist customers with expert plant care advice.

According to the latest **USDA-NASS Floriculture Crops** report, the 2018 wholesale value of floriculture crops is up 6% from the 2015 valuation. The total crop value at wholesale for all growers with \$10,000 or more in sales is estimated at \$4.63 billion for 2018, compared with \$4.37 billion for 2015. California continues to be the leading state with crops valued at \$1.20 billion. Florida, the next largest producer, was down 9% from 2015 to \$946 million in wholesale value. These two states account for 46% of the total value. For 2018, the top 5 states are California, Florida, Michigan, New Jersey, and Pennsylvania, which account for \$3.04 billion, or 66%, of the total value. The number of producers for 2018, at 6,386, was up 8% from the 2015

count of 5,913. Total covered area for floriculture crop production was 859 million square feet in 2018, up 12% from the 2015 area of 767 million square feet. The average peak number of hired workers employed on operations in 2018 was 19. A total of 4,437 operations hired workers during 2018. Overall, 69% of operations used some hired labor during 2018, a decrease of 6% from 2015.

The USDA 2017 **Census of Agriculture**, a mandatory survey conducted every five years in all 50 states for all agricultural producers. Dr. Marvin Miller, of the Ball Horticultural Company, says the 2017 report had “both some surprises and some expected results.” First, when compared to the 2012 Census, the total number of farms in the U.S. was down 3.2% to 2,042,220 farms, with 2017 sales reported down 1.6% to \$388.5 billion. Average income per farm was up 1.7% over the five-year period, to \$190,245. For the nursery, greenhouse, floriculture and sod sector, the total number of farms was off 11% to 46,970 operations in 2017 from the 52,751 reported in 2012. However, sales were up 11.4% to \$16.2 billion in 2017 compared to \$14.5 billion in 2012. Narrowing the scope further to floriculture crops (cut flowers, potted flowering plants, foliage plants and bedding/garden plants), there were 5.6% fewer operations (25,370 in 2017 compared to 26,884 firms in 2012), but sales increased a total of 5.2% over the five-year period to \$6.19 billion. In contrast, nursery crop producers were down in number, off 20.5% to 16,420 firms from 2012’s 20,650 firms, while sales increased 15.4% to \$5.89 billion. Sales of plant propagative materials have been segregated. Sales of cuttings, seedlings, liners and plugs increased 10.1% over the five-year period to \$644.4 million for 2017, with 1,992 operations participating in 2017 sales, an increase of 32.0% in firm numbers over 2012. For bedding/garden plants, operations were down 8.0% in number to 16,241 firms in 2017. Sales increased a total of 6.5% over the five-year period to \$3.894 billion in 2017. For potted flowering plants, firm numbers increased 7.7% to 5,837 operations in 2017, while sales increased 6.7% to \$1.050 billion for 2017. For foliage plants, firm numbers up 16.8% for 2017 to 3,142 operations. Surprisingly, reported sales were off a dramatic 20.3% to \$449.2 million for 2017. Looking at the data, it appears that Hurricane Irma had a huge impact on reported 2017 sales in the Sunshine State, as Florida, which often accounts for over two-thirds of nationwide foliage plant production and sales, barely accounted for half (50.1%) of the 2017 sales tally. For cut flowers and cut florist greens, firms number up 15.2% to 6,768 operations for 2017. Sales up 17.8% to 672.0 million for 2017. For all other floriculture crops, firm number down 17.2% to 1,513 operations for 2017. Sales up 11.2% to \$127.1 million for 2017.

According to the **IBISWorld** report entitled **Plant and Flower Growing in the U.S.**, the grower sector has experienced challenges over the five years to 2018, resulting in revenue decreasing an annualized 0.6% to \$13.6 billion, despite expected growth of 0.8% in 2018 alone. The influx of low-cost cut flower imports from Colombia and Ecuador has challenged the domestic industry’s price competitiveness in recent years, with imports expected to rise in 2018. This influx of

imports has somewhat stemmed, although import levels have remained elevated during the period. Over the five years to 2018, the trade-weighted index, which measures the value of the U.S. dollar against the currencies of major trading partners, increased an annualized 2.9%. This increase has served to make U.S. exports comparatively more expensive on foreign markets and imports less expensive on domestic markets. Despite this premium, however, rising exports to Canada and the Netherlands have helped mitigate further declines in industry revenue.

During the period, the number of establishments is anticipated to have fallen an annualized 1.1% to 46,053, highlighting the heightened effects of import penetration and competition within the industry. Additionally, overall demand has been weak over the five years to 2018. Demand for floriculture products from florists has been declining, falling an annualized rate of 1.1%. Moreover, demand from flower and nursery stock wholesaling has also declined an annualized 0.5% during the same period. Additionally, large retailers such as Walmart, Inc. and The Home Depot, Inc. have taken over a substantial portion of the retail market for flowers and nursery items; these companies have the power to set low prices, thereby pricing many independent operators out of the market. However, demand from nurseries and garden stores has increased at an annualized rate of 1.5% which has offset revenue declines somewhat.

Over the next five years to 2023, IBISWorld forecasts that industry revenue will return to slight growth, with revenue increasing an annualized 1.3% to reach \$14.5 billion. Overall, demand from florists is expected to continue weakening which will partially hinder industry revenue growth. However, international trade conditions are expected to favor industry exports, while imports are expected to decline due to the gradual depreciation of the dollar. Overall, the Plant and Flower Growing industry has weathered harsh conditions and is expected to blossom over the next five years as a result of expected export growth.

According to IBISWorld, the Plant and Flower Growing industry is in decline. Increased competition from importers has constrained domestic floriculture growth, stunting growth in both industry revenue and industry value added. Industry value added (IVA), a measure of the industry's contribution to the overall economy, is expected to grow an annualized 2.2% over the 10 years to 2023. Meanwhile, U.S. GDP is forecast to grow at an annualized rate of 2.2% as well. This industry is in decline, despite the consistency in IVA growth. During the current period, this statistic has been biased upward by rising wages and profitability.

The number of enterprises is expected to fall an annualized 0.7% over the 10-year period to 2023. Competitive forces have led to industry consolidation with many producers losing their market as transportation and communication become more integrated and efficient. For example, plant and flower producers in California can now compete with operators in Florida or South Carolina thanks to refrigerated shipping. While this capability has led to size and efficiency gains

for some operators, it has also signaled the end for many others who can no longer remain competitive.

There have been pockets of growth in some industry segments. Product differentiation and the promotion of new flowers and indoor plants are contributing factors. In the past five years, an emphasis on quality has driven product development. In particular, improvements in the vase life of cut flowers and flower life for potted plants have been important in meeting consumer demands. However, these developments have not been able to curb the detrimental effect of price competition. Domestic plant and flower growers typically use local outlets like farmers' markets to target consumers who are conscious of sustainability issues. Although there have been improvements in technologies, such as irrigation improvements and disease resistant, genetically modified crops, the rate of technological change is slowing. For these reasons, IBISWorld analysis reveals that the Plant and Flower Growing industry is in the decline stage of its life cycle.

According to the **Dun & Bradstreet First Research** report on **Nursery & Floriculture Production**, farm labor is typically low paying. Most workers in the industry are unskilled laborers who receive low wages. Average hourly wages for U.S. nursery and floriculture production workers are significantly lower than the national average. Labor costs account for about 40% of total production expenses. The industry employs large numbers of highly skilled managers with strong technical knowledge. Due to highly seasonal demand for nursery products, many workers are hired for just a few months of the year. The injury rate for workers at nursery and floriculture production facilities in the U.S. is more than 80% higher than the national average.

According to a **North American Specialty Cut Flower Production and Postharvest Survey**, there has been an increase in the demand for local specialty cut flowers and a corresponding increase in production in the United States and Canada. To assess the needs of the industry, 1,098 cut flower producers and handlers in the United States and Canada were electronically surveyed regarding their current cut flower production and postharvest problems, and customer issues. The results showed that the main production problem was insect management; crop timing was the second most important problem and disease management was the third. Crop timing encompasses a range of related issues such as determining the correct harvest stage, harvest windows that are too short, flowering all at once, or lack of control when the crop is ready to harvest. The main postharvest problems were temperature management, hydration, and flower food management. Timing and stem length were the 2 most mentioned species-specific production issues, with each one listed by 10% or more of the respondents for 8 of the total 31 species. Regarding on-farm postharvest handling, hydration and vase life were the 2 most mentioned issues; they were reported for 5 and 3 species, respectively. For postharvest during

storage and transport, damage and hydration were the most common issues; these were listed for 3 species each. The most commonly mentioned customer complaints were vase life and shattering, which were reported for 6 and 2 species, respectively. These results will allow researchers and businesses to focus on the major cut flower production and postharvest issues and on crops that are most in need of improvement in North America.

Effect of Hemp and Cannabis

Relaxed federal regulation of industrial hemp cultivation is prompting some farmers and nursery operators to make investments in the burgeoning industry. The 2018 Farm Bill made the cultivation of industrial hemp federally legal. Cannabidiol (CBD) - a non-psychoactive compound some consumers feel offers relaxing and anti-inflammatory benefits - has been the chief driver of hemp demand, according to the Wall Street Journal. While the FDA is still evaluating whether to allow hemp-derived CBD in food and dietary supplements, such products already exist in a legal gray area and are sold in several U.S. states. Other potential hemp applications include paper, flooring, and as a reinforcing fiber in concrete. Nursery growers can cultivate hemp for fiber or seeds as a cover crop; hemp for making CBD is typically grown in greenhouses, according to researchers at Kansas State University. Some nurseries have added hemp greenhouses to provide seedling starter plants to industrial hemp farmers.

According to a report from the **University of California Agricultural Issues Center**, changes in legal cannabis production in the counties that also grow cut flowers is most likely to be noticeable for greenhouse facilities, hired labor and management expertise. The magnitude of the impact will be determined in part by is the scale of the growth in legal cannabis production and the resources it is likely to command. The size of production of legal cannabis in California after January 2018 is subject to much uncertainty. Similarly, it is uncertain how much of that cannabis is likely to be produced in greenhouse facilities. The volume of cannabis expected to be grown using mixed-light greenhouses is assumed to be no more than 700,000 pounds. This estimate is likely at the high end of the range given estimates that much of California consumption will continue to be cultivated outside the legal system, outdoor and indoor production is likely to remain substantial, and most projections of cannabis consumption in California is below 3 million pounds.

Given estimates of about two ounces per square foot of greenhouse space, 700,000 pounds of cannabis flower output would use about 5.6 million square feet. Data indicate about 100 million square feet of California greenhouse use for cut flowers and another 100 million square feet of greenhouse space used for other crops in recent years. Thus, cannabis would use between 3% to 6% of the current greenhouse space used in California. Since greenhouse space can be expanded, this does not seem likely to be a major factor, after some initial adjustment. Moreover,

competition for space within the major cut flower growing region of California will depend significantly on restrictions and taxes placed on cannabis cultivation by county regulations, which are currently being drafted.

Cultivation of cannabis is labor intensive. Using recent data on labor use in greenhouse cultivation, about 9,400 workers would likely be used to cultivate the 700,000 pounds of greenhouse cannabis. Given the size of the farm labor market (and the broader labor market in the region), 9,400 workers is a small share of the total labor pool. Farm labor markets are relatively tight now given low unemployment, but a significant part of the cannabis cultivation labor force will likely be drawn from the non-farm workforce. The biggest potential impact may be on demand for expertise in the management of intensive greenhouse cultivation businesses. Reports from current managers say that cannabis is a challenging plant to grow successfully. Managers with experience and knowledge of growing a variety of plants in a greenhouse setting and managing that operation will be especially valued.

Is the Industry Showing Signs of Maturing?

A maturing industry is one that is moving from rapid growth to significantly slower growth. An industry is said to be mature when nearly all potential buyers are already users of the industry's products. Market demand consists mainly of replacement sales to existing users, with growth hinging on the industry's ability to attract new buyers and convince existing buyers to increase their usage. In the case of consumer goods industries, maturity means that they typically have a growth rate under 5% – roughly equal to the growth of the customer base or economy as a whole. An industry's transition to maturity does not begin on an easily predicted schedule. Industry maturity can be forestalled by the emergence of new technological advances, frequent product innovations, or other driving forces that keep rejuvenating market demand. Nonetheless, when growth rates do slacken, the onset of market maturity usually produces fundamental changes in the industry's competitive environment including some of which we are seeing in the floriculture industry:

- Slowing growth in demand is generating more head-to-head competition for market share. Firms that want to continue on a rapid-growth track are starting to look for ways to entice customers away from competitors. In such situations, price cutting, increased advertising, and other aggressive tactics to gain market share are common.
- Buyers are becoming more sophisticated, often driving a harder bargain or requiring additional services in order to repeat purchases. Since buyers have experience with the product and are familiar with competing brands, they are better able to evaluate different brands and can use their market power (knowledge) to negotiate a better deal with vendors.

- Competition is producing a greater emphasis on cost and service. As growers all begin to offer the product attributes buyers prefer, buyer choices increasingly depend on which grower offers the best combination of price and service.
- Growers are experiencing a topping-out problem in adding new facilities. Reduced rates on industry growth mean slowdowns in capacity expansion for input manufacturers and slowdowns in new store growth for retail chains. With slower industry growth, adding too much capacity too soon can create oversupply conditions that adversely affect company profits well into the future.
- Product innovation and new end-user applications are becoming harder to come by. Breeders/growers find it increasingly difficult to create new product features and sustain buyer excitement.
- International competition continues to increase. Growth-minded domestic firms are starting to seek out opportunities in foreign markets. Some companies, looking for ways to cut costs, relocate growing operations to countries with lower wage rates. Industry leadership passes to companies that succeed in building strong competitive positions in most of the world's major geographic markets and in winning the biggest global market shares.
- Industry profitability is being influenced by tighter margins. Slower growth, increased competition, more sophisticated [and maybe fewer] buyers that place greater demands on their vendors, stagnant price levels, and occasional periods of overcapacity have put pressure on industry profit margins. Weaker, less-efficient firms are usually the hardest hit.
- Stiffening competition has induced a number of mergers and acquisitions among former competitors, driving the weakest firms out of the industry, and producing industry consolidation in general. Inefficient firms and firms with weak competitive strategies can achieve respectable results in a fast-growing industry with booming sales. But the intensifying competition of a maturing market throws second-and-third-tier competitors into a survival-of-the-fittest contest.

Strategic Moves in a Maturing Industry

As the new competitive character of floriculture industry maturity begins to hit full force, any of several strategic moves can strengthen a growers' competitive position including pruning the product line, improving value chain efficiency, trimming costs, accelerating marketing and sales promotion efforts, and acquiring struggling competitors.

- Pruning marginal products and sizes – A wide selection of plant materials and sizes sometimes has competitive value during the growth stage, when buyers needs are still evolving. But such variety can become too costly as price competition stiffens and profit

margins are squeezed. Maintaining many product “versions” works against achieving production economies at the growing level and can increase inventory stocking costs for re-wholesale distributors and retailers. In addition, the prices of slow-selling plants may not cover their true costs. Pruning marginal products from the product mix opens the door for cost savings and permits more concentration on items whose margins are highest and/or where the firm has a competitive advantage.

- More emphasis on value chain innovation – Efforts to reinvent the industry value chain can have a fourfold payoff: Lower costs, better product or service quality, greater capability to turn out multiple or customized product variations (upgrades), and shorter design-to-market cycles. Growers can mechanize high-cost activities, re-design production practices to improve labor efficiency, build flexibility into the “assembly” process so that customized product versions can be easily produced, and increase the use of advanced technology (robotics, computerized controls, and automated/guided vehicles.) Suppliers of parts and components, input manufacturers, distributors, and buyers can collaborate on the use of internet technology and e-commerce techniques to streamline various value chain activities and implement cost-saving innovations.
- A stronger focus on cost reduction – Stiffening price competition gives growers extra incentive to drive down unit costs. Company cost reduction initiatives can cover a broad front. Some of the most frequently pursued options are pushing suppliers for better prices, implementing tighter supply chain management practices, cutting low-value activities out of the value chain, developing more economical product designs, streamline order processing and pulling, reengineering internal processes using e-commerce technology, and shifting to more economical distribution arrangements and systems (e.g. racking systems).
- Increasing sales to existing customers – In a mature market, growing by taking customers away from rivals may not be as appealing as expanding sales to existing customers. Strategies to increase purchases by existing customers can involve providing complementary items and ancillary services, and finding more ways for customers to use the product. Developing deeper relationships with key buyers (through personal visits, customized mailings, etc.) will more often than not pay big dividends.
- Purchasing rivals – In a maturing market, sometimes a firm can acquire the facilities and assets of struggling rivals quite cheaply. Bargain-priced acquisitions can help create a low-cost position if they also present opportunities for greater operating efficiency. In addition, the acquired firm’s customer base can provide expanded market coverage and opportunities for greater scale economies. The most desirable acquisitions are those that will significantly enhance the acquiring firm’s competitive strength.
- Building new or enhanced capabilities – The stiffening pressures of competition in a maturing or already mature market can often be combated by strengthening the company’s resource base and competitive capabilities. This can mean adding new

competencies or capabilities (by either making or buying them), deepening existing competencies to make them harder to imitate, or striving to make core competencies more adaptable to changing customer requirements and expectations.

Strategic Pitfalls in Maturing Industries

Perhaps the biggest strategic mistake a company can make as the floricultural industry matures is steering a middle course between low cost, differentiation, and focusing; blending efforts to achieve low cost with efforts to incorporate differentiating features and efforts to focus on a limited (niche or cache) target market. Such strategic compromises typically result in a firm ending up stuck in the middle, with a fuzzy strategy, too little commitment to winning a competitive advantage, an average image with buyers, and little chance of springing into the leading ranks of the industry.

Other strategic pitfalls include being slow to adapt existing competencies and capabilities to defend against stiffening competitive pressures, concentrating more on protecting short-term profitability than on building or maintaining long-term competitive position, waiting too long to respond to price cutting by rivals, over-expanding in the face of slowing growth, overspending on advertising and sales promotion efforts in a losing effort to combat the growth slowdown, and failing to pursue cost reductions and/or production efficiencies soon enough or aggressively enough.

There is little doubt that the grower sector has been characterized by unprecedented innovation and change over the last couple of decades. However, slowing growth in demand means tighter margins (along with other aforementioned factors), which points to a maturing market. Survival in the next decade will require a progressive mindset and perhaps a willingness to strengthen existing or develop new core competencies (which may incur greater risk). While the crystal ball may be somewhat fuzzy in terms of the growth and nature of consumer demand, there is little doubt that innovation will continue to be a requisite skill in ensuring the survivability and profitability of floricultural firms in the future.

Bloomcheck program

As a means of leveling the playing field with international growers, BloomCheck, California's first sustainable cut flower certification program, was developed as a means of differentiating domestically-grown flowers relative to imported ones. The BloomCheck program establishes best practices for cut flower farms to assure these farms are socially equitable, environmentally sustainable and economically viable. To ensure rigor and objectivity, BloomCheck is managed by one organization. Its standards are set by a second organization and accreditation and audits

are conducted by a third. SureHarvest, the BloomCheck standards setter, is an agricultural firm that provides sustainability solutions for growers and agrifood companies. SureHarvest collaborates with clients to design and operate world-class sustainability programs. Protected Harvest, the BloomCheck accreditation and auditing firm, is an independent nonprofit organization with a board of environmental scientists and practitioners who independently certify and label farmers' use of stringent environmental and sustainable growing standards. Buyers of Protected Harvest-certified products can be assured that claims of environmental and social sustainability performance are specific, measurable and verifiable. Protected Harvest growers are assessed and audited on water, air, and soil quality, wildlife protection, and social impacts on workers and the community.

Resources regarding the domestic grower section:

[2014 Census of Horticultural Specialties](#)

[2017 Census of Agriculture](#)

[AHBE Lab. Where have all the flowers gone: the disappearance of the California cut flower industry](#)

[AIPH International Statistics - Flower and Plants 2018](#) (fee-based publication)

[AIPH Report - Ornamental Horticulture: A Growing Market?](#) (fee-based publication)

[AIPH Report - Production and Markets: The Future of Ornamentals](#) (fee-based publication)

[Anjali, 2015. Product diversification in floriculture](#)

[BBC Worklife, 2019. Why are flowers so expensive?](#)

[California Cut Flower Commission, 2012. Annual Report California Flowers: Making a Difference](#)

[California Cut Flower Growers and Shippers. Economics of the California Cut Flower Industry and Potential Impacts of Legal Cannabis](#)

[Caldecourt, 2015. Homeless supermodels/ How to avoid raising perfect but unwanted flowers](#)

[Chandler, 2011. Genetic modification in floriculture](#)

[Connolly, 2017. Cut flower prices at farmers markets: a bouquet pricing study](#)

[Dataplanet, 2015. Exports from the U.S. trade by commodity group database - live trees, plants, bulbs, etc.; cut flowers, etc. USA 2002-2018 \(fee-based publication\)](#)

[Dun & Bradstreet First Research Report - Nursery & Floriculture Production \(fee-based publication\)](#)

[Effects of tariffs on floral industry survey](#)

[Floral Business, 2016. The lure of local: Merchandising American grown flowers](#)

[FloralDaily, 2019. Slow flower growers stand united across states](#)

[Greenhouse Grower. State of the Industry Report 2019](#)

[Greenhouse Management. BloomNation Cut Flowers](#)

[GrowerTalks, 2019. Marvin crunches the Census of Ag](#)

[Hall, 2006. The U.S. floriculture industry: structural changes, marketing practices, and economic impacts](#)

[Hoogeveen, 2019. Flower power: finding optimal plant cutting strategies through a combination of optimization and data mining](#)

[IBISWorld Industry Report. 11142 Plant Growing in the U.S. \(fee-based publication\)](#)

[Loyola, 2019. North American specialty cut flower production and postharvest survey 2019](#)

[Modern Farmer, 2016. A flower-farming renaissance: America's slow flower movement](#)

[Suntibavivattana, 2012. Extending the vase life of mixed flower bouquets](#)

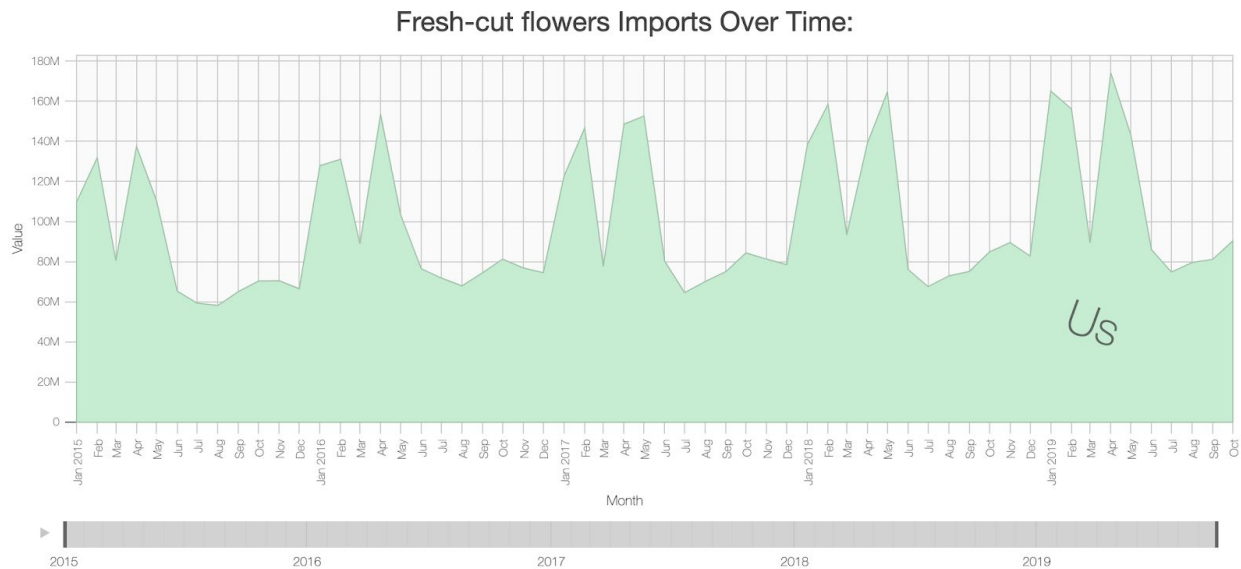
[Tay, 2003. Herbaceous ornamental plant genebank: its role in the floriculture industry](#)

[Technology and Operations Management: MBA Student Perspective, 2017. A digitally-enabled supply chain in bloom](#)

International growers

U.S. Imports

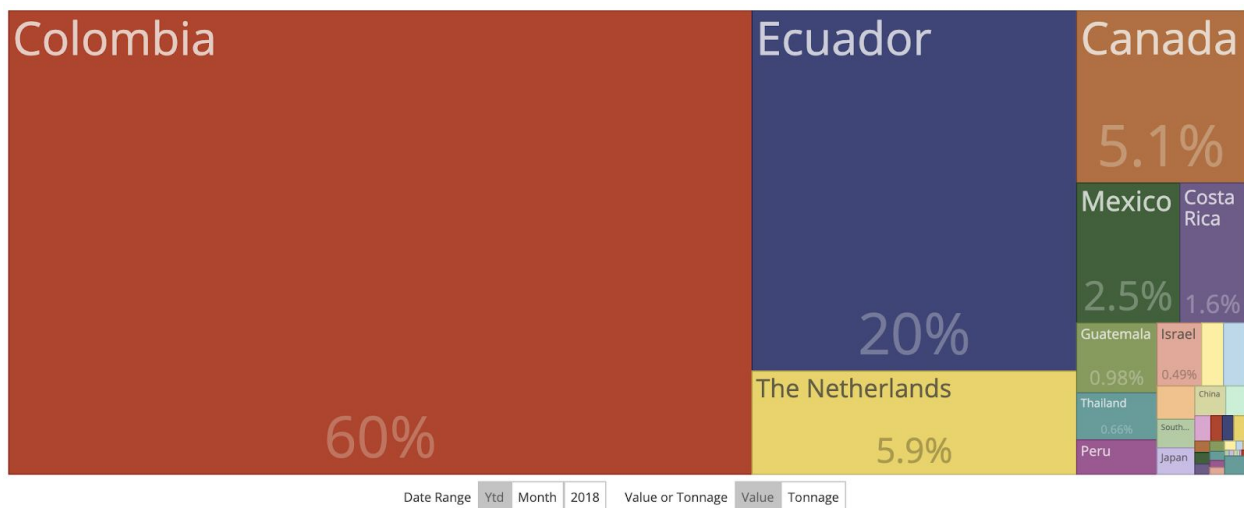
Fresh-cut flowers, the No. 265 import by value totaled \$90.41 million for the month of October 2019, \$1.14 billion through October of 2019, and \$1.24 billion for all of 2018, according to the latest annual data available, according to U.S. Census Bureau data analyzed. U.S. imports of fresh-cut flowers increased 6.51% from \$1.07 billion to \$1.14 billion through the first 10 months of 2019 when compared to the same period in 2018. The category ranked 265 through October among the roughly 1,265 import commodity groupings as classified by the U.S. Census. It ranked No. 285 for the last full year (2018) with a total value of \$1.24 billion, a \$60.37 million, 5.11% increase from the 2017 total.



Through October 2019 the leading sources were No. 1 Colombia, No. 2 Ecuador, No. 3 The Netherlands, No. 4 Canada, and No. 5 Mexico. The leading gateways were No. 1 Miami International Airport, No. 2 Los Angeles International Airport, No. 3 John F. Kennedy International Airport, No. 4 Buffalo Peace Bridge, NY, and No. 5 Otay Mesa Freeway Border Crossing, CA.

- U.S. imports from No. 1 Colombia increased \$48.93 million, 7.69%, (60.1% of all shipments).
- U.S. imports from No. 2 Ecuador increased \$11.8 million, 5.34%, (20.4% market share).
- U.S. imports from No. 3 The Netherlands increased \$3.43 million, 5.37%, (5.9% market share).
- U.S. imports from No. 4 Canada increased \$2.6 million, 4.7%, (5.1% market share).
- U.S. imports from No. 5 Mexico increased \$1.75 million, 6.46%, (2.5% of all shipments).

All totaled, 93.99% of all these fresh-cut flowers imports to the United States were shipped from the top five markets through October of this year. That is equal to \$1.07 billion of the \$1.14 billion total. The two leading exporters of fresh-cut flowers to the U.S., Colombia, and Ecuador, accounted for 60% and 20%, respectively, of the U.S. imports during 2018. As stated earlier, the passage of the Andean Trade Preference Act in 1991 lifted duties on many exports from Colombia, Ecuador, Bolivia, and Peru, including flowers. This U.S. law was designed to disrupt cocaine trafficking, and though it has since expired, it dramatically altered the global flower market by connecting flower farms from these nations with the global economy (First Research).



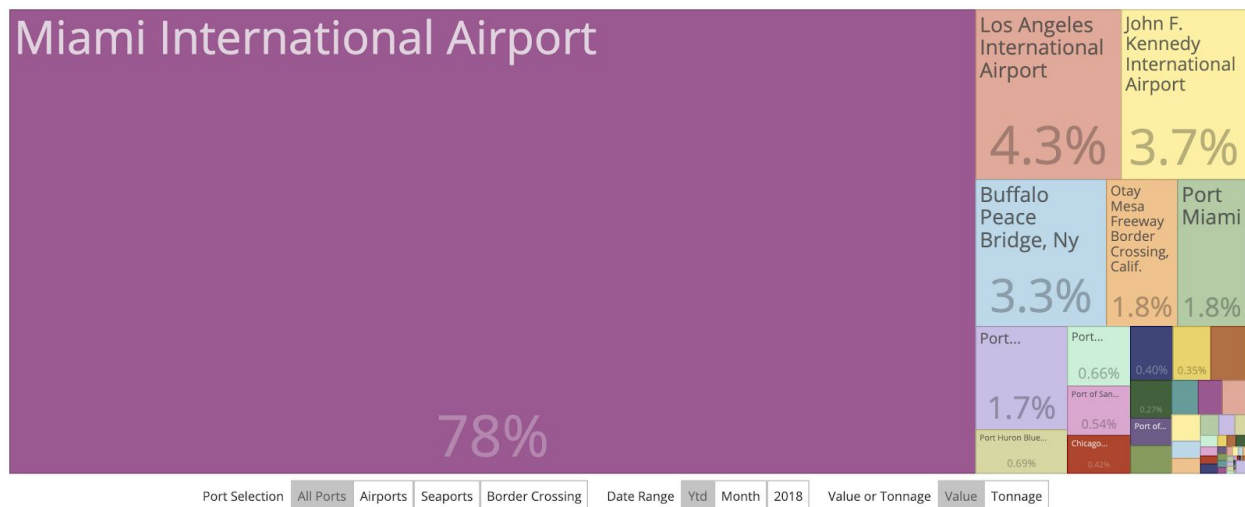
In 2018, the leading sources of cut flowers were (in rank order): Colombia, Ecuador, the Netherlands, Canada, and Mexico. The leading gateways were No. 1 Miami International Airport, No. 2 Los Angeles International Airport, No. 3 John F. Kennedy International Airport, No. 4 Buffalo Peace Bridge, NY and No. 5 Otay Mesa Freeway Border Crossing, CA.

Looking at specific airports, seaports and border crossings, the top five ports of entry through the first 10 months of the year were:

- Miami International Airport rose 4.94% compared to last year to \$890.94 million.
- Los Angeles International Airport rose 5.7% compared to last year to \$49.23 million.

- John F. Kennedy International Airport rose 6.13% compared to last year to \$42.09 million.
- Buffalo Peace Bridge, NY rose 8.95% compared to last year to \$38.12 million.
- Otay Mesa Freeway Border Crossing, Calif. rose 7.49% compared to last year to \$20.82 million.

There are several hundred airports, seaports and border crossings that handle international trade; they are, in turn, part of the roughly four dozen U.S. Customs districts. All totaled, 91.3% of all these fresh-cut flowers imports to the United States were shipped to the top five ports through October 2019. That is equal to \$1.04 billion of the \$1.14 billion total.



Canada was by far the top U.S. export destination for cut flowers and plants in 2017. During this time, exports to Canada grew by 17.1% to \$102.8 million, accounting for 75.4% of total U.S. exports of cut flowers and plants. The countries rounding out the top five export destinations for these products were closely ranked but well behind Canada. These countries included the Bahamas (5.5% of the total), the Netherlands (4.3% of the total), Spain (2.0% of the total), and Turks & Caicos Islands (1.8% of the total). Among these countries, the Turks & Caicos Islands posted the largest increase in U.S. exports of cut flowers and plants (178.6%) followed by the Bahamas (72.2%).

Rest of the world

Kenya, Colombia, and Ecuador increased their share of global cut flower exports from a combined 25% to 35% between 2005 and 2015, according to 2016 data from UN-Comtrade, Royal FloraHolland, and Rabobank. Ethiopia's share grew from less than 1% to nearly 10% during the same time frame. Such growth came at the expense of traditional powerhouse the

Netherlands, whose share fell from 50% to 43%. Cut flowers, such as tulips, lilies, pansies, and roses, are the 332nd most traded product in the world. During 2016, it is estimated that almost U.S. \$9.4 billion worth of cut flowers was exported worldwide, while another U.S. \$9.39 billion was imported globally. That same year, the world's largest exporter of cut flowers was the Netherlands, representing 47% or U.S. \$4.4 billion worth of global exports. Following the Netherlands, the world's largest exporters of cut flowers during 2016 were Colombia, totaling 15% or U.S. \$1.4 billion of global exports, and Ecuador, accounting for 9.4% or U.S. \$883 million. Other major exporters of cut flowers are Kenya, Ethiopia, and Belgium. Meanwhile, on a continental level, Europe is clearly the largest exporter of cut flowers in the world, representing a staggering 56% or U.S. \$5.2 billion of global exports in 2016.

In terms of imports, Europe is also by far the largest purchaser of cut flowers. During 2016, Europe accounted for 70% or U.S. \$6.6 billion of global imports. Within Europe, the largest importers of cut flowers is Germany, totaling 15% or U.S. \$1.4 billion worth of global imports. Following Germany, the second largest European importer of cut flowers is the Netherlands, with 11% or U.S. \$992 million of global imports. However, as with exports, the official amount imports into the Netherlands can be skewed due to the country's role as Europe's commercial gateway, this dynamic is known as the Rotterdam-Antwerp Effect. Other major European importers are the United Kingdom, France, Russia, Belgium, and Italy. However, on a national basis, the United States is the largest importer of cut flowers, accounting for 18% or U.S. \$1.73 billion worth of global imports during 2016.

In the case of the United States, a major consumer of cut flowers, the bulk of its foreign supply comes from Colombia. During 2016, Colombia provided 59% or U.S. \$1 billion of the cut flower imports into the United States, a commercial relationship facilitated by the standing Free Trade Agreement (FTA) between the two countries. During 2016, the United States imported a total of U.S. \$14.4 billion worth of goods from Colombia. That year, the main Colombian import into the United States was crude petroleum, which represented 42% or U.S. \$6 billion of Colombia's import into the U.S. market. Other major exports from Colombia into the United States were gold, totaling 12% or U.S. \$1.74 billion; coffee, accounting for 7.4% or U.S. \$1.1 billion; and the aforementioned cut flowers, representing 7.1% of all U.S. imports from Colombia.

With the ongoing increase of oil prices, which is currently trading at approximately U.S. \$70 per barrel, is also strengthening the Colombian Peso (COP). After the upcoming presidential election in Colombia, a strengthened peso is expected to boost the purchasing power of the national market, thus boosting imports, as well as increase the value of investments in-country. Currently, international investors should take advantage of the favorable exchange rate window to enter the Colombian agribusiness sector, before the peso stabilizes at a lower exchange rate that is closer to its long-term average.

Rabobank's 2016 World Floriculture Map, published in cooperation with Royal FloraHolland, highlights some key global trends in the very diverse floriculture sector. On the consumption side of the business, the rise of online floriculture sales is definitely one of these trends. Although the U.S. floriculture market is showing signs of recovery, the total global floriculture market is still rather fickle. In Europe, the picture is very varied. The Russian market has been declining, resulting in decreasing and changing cut flower imports. The Netherlands is still a major junction in global cut flower trade, but the four cut flower exporters close to the equator—Colombia, Kenya, Ecuador, and Ethiopia—are gathering speed. Colombia is also steaming ahead and has become a frontrunner in cut-flower sea freight. Looking at the future, predictability will become more difficult. Therefore, companies in the global floriculture market must be prepared for the unexpected.

The ornamental plant sector is very diverse and includes the production of floral crops such as cut flowers and cut foliage, flower bulbs, potted flowering as well as foliage plants and bedding plants. Global floral production value is estimated at U.S. \$55 billion tree nursery—the production of trees, shrubs and other hardy plants—is worth another U.S. \$35 billion but whereas cut flowers, cut foliage and flower bulbs are traded globally, mainly from south to north, more bulky live plants, such as potted plants and nursery products, are mainly traded regionally.

Potted plants and nursery products are bought through a wider range of retail channels than cut flowers. However, there is one major trend impacting both categories: the rise of online sales. The market share of online sales of cut flowers in total cut flower sales ranges from 4% in Russia to 10% in the U.K. Online potted indoor plant sales already account for 7% in Germany, 8% in Russia, France, and the Netherlands, and 12% in online retail forerunner the U.K. It seems that garden centers are challenged as they are the ones losing most market share in the U.K., France, Germany, and the Netherlands.

Total global floriculture sales, regardless of the channel of purchase, have become rather fickle in the last eight years, as indicated by global trade figures. Volatile exchange rates had a major impact on these figures, too. It is uncertain if the uptick in cut flower trade, in both 2014 and 2015, will last. Some of the main floriculture markets are showing clear signs of recovery, others are flat or even in decline. The world's largest import market for cut flowers is the U.S. In the U.S., floral sales have increased for four consecutive years. Ecuador has profited most from the surge in the U.S.' cut flower imports. Mexico and Canada have also grown their share in the U.S. market. Imports from Colombia, by far the largest supplier to the U.S., have not kept pace with total imports.

The European picture is more diverse when it comes to both market development and overall expenditure levels. One of the main changes seen is Russia's decreasing appetite for (imported) flowers. Up to 2013, Russia's share in global flower imports rose steeply, but since the economic and political turmoil in Russia, imports have been declining. Moreover, the origin of trade flows to Russia has clearly changed. Ecuador, Kenya, and Italy have grown their market share in Russia's cut flower imports, mainly at the expense of the Netherlands. Russia has not banned flowers from the E.U., but the decreasing value of the Russian rouble has made imported products more expensive, and on top of that, exporters have become more hesitant to do business in Russia. This has mainly hit Dutch floriculture exporters.

The Dutch share in global cut flower exports has continued to decline since we first published a World Flower Map in 2005. Currently, the Dutch share stands at 43%. As the cut flower production area measures only 4380 ha (both covered and in the open field), the Netherlands is still a major junction in international floriculture trade. However, for the first time the four rising flower stars—Colombia, Kenya, Ecuador, and Ethiopia—have passed the share of the Netherlands in 2015 and now account for 44% in global cut flower exports. Just two years ago, their share was 33% (in 2005 it was 25%). While roses are the main cut flower traded by these four countries, Colombia has a relatively diversified product range and is also the largest exporter of chrysanthemums and the second largest global exporter of carnations in the world. Despite low production costs, a favourable climate, large farm size, and increasing efficiency and quality, it remains challenging to grow cut flowers in these countries. There is (hardly) any domestic demand, producers have to deal with (a lack of) air freight capacity and high transportation costs, volatile exchange rates, and challenging political and social circumstances.

Where possible, exporting nations try to move away from expensive and relatively unsustainable air freight. Colombia is leading global sea freight in cut flowers. Part of Colombia's market share gain in the global chrysanthemum market is related to the use of container shipping. In East-Africa, the infrastructure is not yet developed well enough to boost these countries' cut flower transportation over sea.

The selected observations may mark the beginning of a new era in floriculture. A new era driven by major global events, such as the uncertainty caused by the current global geopolitical turmoil (more protectionism, difficult business environments), the fast-developing digital world and the rising importance of sustainability in floriculture. To be a leader rather than a laggard, floriculture suppliers should be prepared for the unexpected. This implies that floriculture businesses may need to become more flexible and robust at the same time, in order to cope with various future scenarios. Furthermore, companies may need to explore opportunities to spread into other markets and/or sourcing countries/regions, enter digital marketing channels and adopt more sustainable supply chains.

Unlike most fresh products, there is a challenge to gather large quantities demanded by retailers but for cut flowers it is opposite (**Sustainable networks in the flower industry**, 2005). Most farm's specialize in growing one or two flower varieties, possibly in different colors. Retailers and florists require large varieties of flowers in small volumes. Aside from auctions, the conduct of growers and wholesalers in floral is not much different than in other fresh-product chains. Switching between suppliers is very common at the retail level. This forms a contrast with the requirements set by retailers, such as preferred suppliers, category management, and labeling.

Resources regarding the international grower section:

[Ahmed, 2018. Royal FloraHolland: Strategic Supply Chain of Cut Flowers Business](#) (fee-based publication)

[Altmann, 2015. Developments and trends in the flower and plant market for 2015-2016](#)

[Andean Trade Preference Act: impact on U.S. industries and consumers and on drug crop eradication and crop substitution, 2009, 14th report, inv. 332-352](#) (fee-based publication)

[Anjali, 2015. Product diversification in floriculture](#)

[BBC. Cut flower trade- How the global industry is transforming](#)

[BBC Worklife, 2019. Why are flowers so expensive?](#)

[Beneragama, 2016. Research and development and innovations in floriculture: lessons form the market giants for developing countries like Sri Lanka](#)

[Bensen-Rea, 2015. Small firm specialisation in global value chains: evidence from the cut flower industry](#)

[Briercliffe, 2017. Growing the global market for ornamentals](#)

[Caldecourt, 2015. Homeless supermodels/ How to avoid raising perfect but unwanted flowers](#)

[CBI Ministry of Foreign Affairs. CBI Trade Statistics: Cut Flowers and Foliage](#)

[Chandler, 2011. Genetic modification in floriculture](#)

[de Keizer, 2015. Floricultural supply chain network design and control: industry needs and modelling challenges](#)

[Dun & Bradstreet First Research Report. Florists](#) (fee-based publication)

[Effects of tariffs on floral industry survey](#)

[ESRI. A rose from Colombia](#)

[Evers, 2014. Social and economic upgrading in floriculture global value chains: flowers and cuttings GVCs in Uganda](#)

[FloralDaily, 2019. Colombia: New vacuum cooling facility solidifies the chain](#)

[FloralDaily, 2019. Significant increase in sea transport: Colombian foliage exports in figures](#)

[Flower Export Barriers: A Comparative Study in Colombia, Mexico and Ecuador 2017](#)
(fee-based publication)

[Gebreeyesus, 2015. Firm adoption of international standards: evidence from the Ethiopian floriculture sector](#)

[Hanks, 2016. A review of production statistics for the cut-flower and foliage sector 2015 \(part of AHDB Horticulture funded project PO BOF 002a\)](#) (fee-based publication)

[Hernández, 2015. Of Flower Blooms and Female Booms: The Impact of The Flower Industry on Female Outcomes](#)

[Hoogeveen, 2019. Flower power: finding optimal plant cutting strategies through a combination of optimization and data mining](#)

[Hornberg, 2007. Kenya's cut-flower cluster](#) (fee-based publication)

[International Floriculture Expo, 2016. Trends in the fresh-flower supply chain](#)

[Jia, 2016. Growing the floriculture industry in China](#)

[Kambil, 2008. Information Technology, Competition and Market Transformations: Re-engineering the Dutch Flower Auctions](#)

[Kargbo, 2010. The progress and issues in the Dutch, Chinese and Kenyan floriculture industries](#)

[Leopard, 2011. Postharvest performance of selected Colombian cut flowers after three transport systems to the United States](#)

[Lopez, 2017. Flower export barriers: A comparative study in Colombia, Mexico, and Ecuador](#)

[Loyola, 2019. South and Central America Cut Flower Production and Postharvest Survey 2019](#)

[Mendez, 1991. The development of the Colombian cut flower industry](#)

[Moriasi, 2014. Factors Affecting Competitiveness of Kenyan Cut Flower in the International Market](#)

[Muhammed, 2010. The Impact of Preferential Trade Arrangements on EU Imports from Developing Countries: The Case of Fresh Cut Flowers](#)

[Muhammed, 2013. Violence, instability, and trade: evidence from Kenya's cut flower sector \(fee-based publication\)](#)

[Nhu Le, 2015. Examining the performance of the alternative cut flower supply chains for smallholder producers in Da Lat Using a pluralistic approach](#)

[Patel-Campillo, 2010. Rival commodity chains: Agency and regulation in the U.S. and Colombian cut flower agro-industries](#)

[Patel-Campillo, 2015. Transforming Global Commodity Chains: Actor Strategies, Regulation, and Competitive Relations in the Dutch Cut Flower Sector \(fee-based publication\)](#)

[Pizano, USAID. The USA Flower Market](#)

[PMA, 2015. Colombia floral market](#)

[Prado, 2015. Deepening understanding of certification adoption and non-adoption of international-supplier ethical standards \(fee-based publication\)](#)

[Rabobank. World Floriculture Map 2016](#)

[Raina, 2011. Marketing behaviour and information sources utilization pattern of flower growers](#)

[Raynolds, 2012. Fair trade flowers: global certification, environmental sustainability, and labor standards](#)

[Reid, 2009. Importing change: Canadian competition and the U.S. floriculture industry](#)

[Riisgaard, 2011. Prospects for labour in global value chains: labour standards in the cut flower and banana industries](#) (fee-based publication)

[Rombach, 2017. Understanding preferences of German flower consumers: the desire for sustained beauty](#) (fee-based publication)

[SAF, 2019. A sea of change in transportation](#) (fee-based publication)

[Sarrientos, 2014. Gender and global value chains- challenges of economic and social upgrading in agri-food](#)

[Schimmenti, 2013. Behaviour of consumers of conventional and organic flowers and ornamental plants in Italy](#) (fee-based publication)

[Singh, 2013. No roses without thorns: Global consumers of cut flowers as political actors](#)

[Suntibavivattana, 2012. Extending the vase life of mixed flower bouquets](#)

[Superfloral, 2019. Miami's gateway reputation continues to grow in floral](#)

[The Dutch Ministry of Economic Affairs, Agriculture & Innovation, 2012. A Study on the Kenyan-Dutch Horticultural Supply Chain](#)

[The State of the Industry: Colombia and Ecuador](#)

[UN-Comtrade Data](#)

[U.S. International Trade Commission. Industry & Trade Summary: Cut Flowers](#)

[Usman, 2015. Estimation of consumers demand functions of cut-flower products: a case study of Pakistan, Punjab](#) (fee-based publication)

[van Uffelen, 2005. Floriculture World Wide; production, trade and consumption patterns show market opportunities and challenges](#)

[Vega, 2008. Transportation costs of cut flowers: A comparison across major exporting countries](#)

[Velez, 2007. Colombian Floriculture: A case of competitive entrepreneurship, with social and environmental responsibility, in a country under difficult and changing conditions](#)

[Wijnands, 2005. Sustainable networks in the flower industry.](#)

[Wijnands, 2006. International Flower Networks: Transparency and Risks in Marketing Channel Choice](#)

[World City, U.S. Trade Numbers. Imports: fresh-cut flowers](#)

[Yeshiwas, 2018. Social, Economical and Environmental Issues of Floriculture Sector Development in Ethiopia](#)

Step 2: Gaps in information that need further research

1. E-commerce sector analysis

Of all the numerous reports we have gathered during this project, the information regarding the B2C e-commerce sector is the most scarce and the data that does exist is very generalized and sometimes includes firms that are not part of the floral industry. Therefore, the true size of the e-commerce sector cannot be estimated from the information we have in hand. Additionally, B2B side of e-commerce is generally unstudied. Some of the questions that could be addressed under this project would include the following:

E-commerce B2B sector analysis

- To what extent does channel conflict prevent you from selling online?
- What e-commerce technologies need to be adopted in order to sell through Amazon?
- How has direct-to-consumer movement affected wholesale and retail businesses?
- What is the role and penetration of B2B e-commerce within the distribution channel?
- How extensively are retailers using B2B e-commerce to procure product?
- Are wholesalers offering live, real-time inventories of bunches/stems online?
- How many firms are conducting B2B e-commerce? How fast is B2B growing?
- What barriers prevent businesses from conducting B2B e-commerce?
- How has SKU management changed? Are there new/integrated systems with partners?
- Does anyone use AI/robotics for warehouse management systems or retail applications?
- What is the breakdown of omnichannel sales? (i.e. How many growers sell to florists, growers sell to end consumers, wholesalers sell to end consumers?)
- Do businesses conduct data mining/analyses on their business?
- Which one marketing channel helps your organization reach customers most effectively?
- What digital experience technology(ies) is your company most likely to make new investments in by 2022?

Methodology:

Inventory current (and future) usage of B2B e-commerce in industry (similar to case studies) by surveying each sector. Lists would be obtained from each of the funding entities and analyses conducted by sector.

E-commerce B2C sector analysis

- What is the market share of Amazon and other direct-to-consumer markets?
- How many firms are conducting B2C e-commerce?
- How quickly is B2C e-commerce growing?
- Are profit margins greater in e-commerce than in the traditional supply chain?
- What type of payment systems are used?
- How successful is social media at attracting new consumers to the brand?
- How many firms are using 1, 2, or 3 forms of social media or have designated personnel for communications/social media?
- Are firms engaging in social media buying?
- How successful is potted plant/houseplant e-commerce?
- What is the market share of potted plant/houseplant e-commerce?
- What volume of flowers are sold to consumers via e-commerce?
- How many firms are using AI to better serve consumers?
- How do these firms “market” themselves to consumers? Only search engine inquiry?
- Do firms pay attention to consumer comments/discussion about their business online?

Because of the potential data restrictions on the B2C side, we recommend focusing on the B2B market with this round of investigation.

2. Event/studio florists

Presently, there is a dearth of information regarding event and studio florists in the United States. To fill this gap, we propose a project to quantify the number of event/studio florists, while developing a better understanding of how they operate and where they obtain their resources from. Potential methods that we can use to investigate these questions include: (1) surveying wholesale florists to estimate how many event and studio florists they service in their respective regions and then extrapolating from these estimates; (2) obtaining contact lists of florist businesses from project collaborators and surveying the entire population to categorize and establish baseline operating practices; and (3) finding online communities of event and studio florists and asking them to participate in focus group and/or individual interviews. Another possible action would be to use the NAICS-related lists once the misclassification issues have addressed, however that may take some time before that happens. In the interim, some of the questions that could be addressed under this project using one of the other methods would include the following:

- How many event/studio florists exist? What is the size of the segment? How fast is the segment growing?
- Are they primarily in urban or rural areas?
- What are the demographic characteristics of the event/studio florists?
- How do they operate?
- Where do they obtain their resources from?
- What communication tools could be used to reach event/studio florists?
- What percent of the wedding/event market do these companies represent?
- Where online do these floral communities exist?
- How do these florists educate themselves/receive education?
- What opportunities/barriers do they face as a startup?
- Where do they attract clients from?
- Do they know all of their clients personally before working with them i.e. is their client-based network dependent?
- What is a typical timeline for acquiring product and planning an event for a studio florist?
- Do they seem themselves as different than brick-and-mortar florists?
- Are they interested in opening brick-and-mortar establishments at some point for their business?
- How much of their product is obtained directly from growers?
- How many people do they employ? Wage levels?
- What level of salary does the primary florist/owner have?
- Is being a event/studio florist a stepping stone or a long-term career path?
- How familiar are studio florists with the structure of the cut flower industry?
- What inspires them to pursue being an event/studio florist?
- Average COGS or overhead each month?
- Average annual revenue?
- What months are their busiest? Which are their least busy months?
- What is the breakdown of orders for holidays, events, and/or non-holidays?
- What do they feel are their greatest challenges as a studio florist?
- What is the success rate of studio florists? (i.e. for every 5 florists who create start-ups, 2 are successful)
- What do event/studio florists think their value proposition is?
- How do they find information about the industry and stay up to date on trends?
- Do they only serve local clientele, or do they travel? How far does their customer base extend?

3. Profitability analysis of the industry

Because many of the interview participants expressed concerns related to profitability within their respective sector in cut-flower industry, a further investigation into industry profitability seemed warranted. Specifically, we propose to evaluate **rising costs for major inputs** used throughout the floral supply chain. We could also analyze selected **overhead-related costs** (benefits, insurance, etc.) and differences in **compensation rates** by sector. Another factor that influences profitability directly is the amount of **shrinkage that occurs by sector** in the supply chain. Anecdotal estimates of shrink in the floral industry are around 15-20% of sales. The PMA Floral Trends Report puts mass market floral shrink at 11% of sales, but verifiable data for other floral sectors is not available. Yet, as profit margins in the industry become more squeezed, it is critical to understand how much shrink is occurring, the types of shrink that are most prevalent, and where in the supply chain shrink is most encountered. It is also important to know the points in the supply chain that flower quality “slippage” occurs. Potential methods to collect these shrink-related data include surveying large, mid-size, and small firms at all levels of the supply chain (growers, importers, supermarkets, wholesalers, florists) to determine actual shrinkage at each level. Baseline benchmarks could then be developed for each sector that can be compared using time series data in the future.

4. NAICS code inaccuracy

As discussed in the [data limitations](#) section of the report, the NAICS code data are not an accurate measure of the number of firms in the industry nor the sales they represent. There are considerable misclassification errors that currently exist in the data that diminish the reliability of any previous estimates of the floral industry’s size and economic impact. This is an important issue because most, if not all, of the information about our industry is based on the NAICS coding system. There is simply no way to know for sure how many companies operate in each sector of the floral industry, how many multi-location companies there are and how many locations do they have, whether or not the number of companies been increasing or decreasing each year. The suggested methodology for addressing these data issues involves meeting with representatives from the Census Bureau and identifying existing NAICS classification protocols, and then determining the best approach on which to base the estimates in the future.

5. Transportation and Logistics

The cut-flower industry is heavily reliant on transportation of products via air freight, sea freight, and refrigerated trucking. We know which cooling methods are most economical and which are the quickest. We also know which aspects of transportation affect longevity such as relative humidity, temperature, and carbon dioxide levels. But there are other questions that need to be addressed such as what packing method prevents the most dehydration or impact damage? Will our industry be able to incorporate technologies such as driverless vehicles? What percentage of total transportation is sea freight and what is the estimated increase in this over the next 5 years? Who are Amazon's delivery partnerships with? What techniques minimize damage of fresh product and promote longevity (i.e. types of boxes and packaging)? What percent of sales are delivered vs. picked up? What is the extent of outsourcing of delivery? What is a typical payload for delivery? What is the cost per mile? Has consolidation impacted any of this? Is there any disruption in the "last mile of delivery" for floral? If so, how will it impact delivery? What is the current and future impact that the Uber and Amazon models are having on the delivery service, including pricing, hiring, contract labor, and owning company vehicles?

Miscellaneous Topics:

6. Which flowers are substitutes for others?

This project was recently completed by our team through a FMRF grant looking at cut flower substitutions, floral design attributes, and consumer perception of flower pricing.

7. Domestic and international production and import/export statistics by areas

With this project, we would evaluate details about domestic and international production. We would analyze the imports and exports of cut flowers by country/geographical region.

8. Why is flower enjoyment and usage so different among worldwide consumers?

This project would ascertain what makes the U.S. consumer different from European and other geographical consumers through market analysis and surveys. This could involve looking at the price elasticity of demand for flowers by major region.

9. Are there new floral market segments to explore? (e.g. Home decor, office, etc.)

This project would identify potential new market segments for the industry and investigate the potential size of these segments.

10. What is the value of a physical location?

This project would evaluate the underlying value of having a retail physical location. Performance metrics could be compared to those of a studio florist or an e-commerce establishment.