

Where is the U.S. Floral Market Now Headed? A Look Back and a Look Ahead.

Prince & Prince Propose an Update to Their U.S. Consumer Floral Tracking Survey

Thomas L. Prince, Prince & Prince, Inc., Columbus, Ohio

Note: Floral industry veterans may likely add salient facts and events to this historical journey through the U.S. floral market over the past 20+ years. Your comments on this reporting are welcome.

The first human cases of COVID-19 were identified in Wuhan, People's Republic of China, in December 2019 (Page et al. 2021). On March, 11th, 2020, Covid-19 was officially declared a pandemic by the World Health Organization (Keith and Gharib, 2020). On the very next day, March 12th, 2020, there were over 1,500 confirmed cases in the U.S., and 41 confirmed deaths due to the Covid-19 virus in the states of California, Florida, Georgia, Kansas, New Jersey, South Dakota, and Washington. And that was just the beginning. In the days, weeks, and months following, the U.S. case load and death count due to Covid-19 kept rising daily, and most retail businesses throughout the U.S., including florists and plant shops, shut down their operations to help curb the spread of the virus (although many garden centers and supermarkets remained open thru curbside pick-up, in-store mask mandates, and on-line shopping).

As we approach the 4-year "Remembrance Juncture", with more than one million American deaths attributed to Covid-19, and nearly 7 million deaths worldwide (as of mid-September, 2023), many of us in the floral industry can recount tragic stories of what Covid-19 did to our families, our friends, our businesses, and associates in the floral industry. And luckily, or through the power of mankind, medical support and vaccines, or through the grace of God (or a higher power), most of us survived Covid-19. Although the Covid-19 virus and its

many variants are still with us today, the lethality of the virus in the U.S. is much reduced now. And the strength of last February's Valentine's Day floral sales (Prince & Prince, 2023; Tighe, 2023), and floral sales from the most recent Mother's Day holiday (Prince, 2023), signals to us that the U.S. consumer is again eager to purchase floral products (or as some would say, "eager to generate smiles!"). So at this juncture, with Covid-19 largely behind us, Prince & Prince (P&P) believes now is an opportune time to look forward and assess the future of the U.S. floral market with an updated survey of U.S. consumer floral purchasing over the 2023 season.

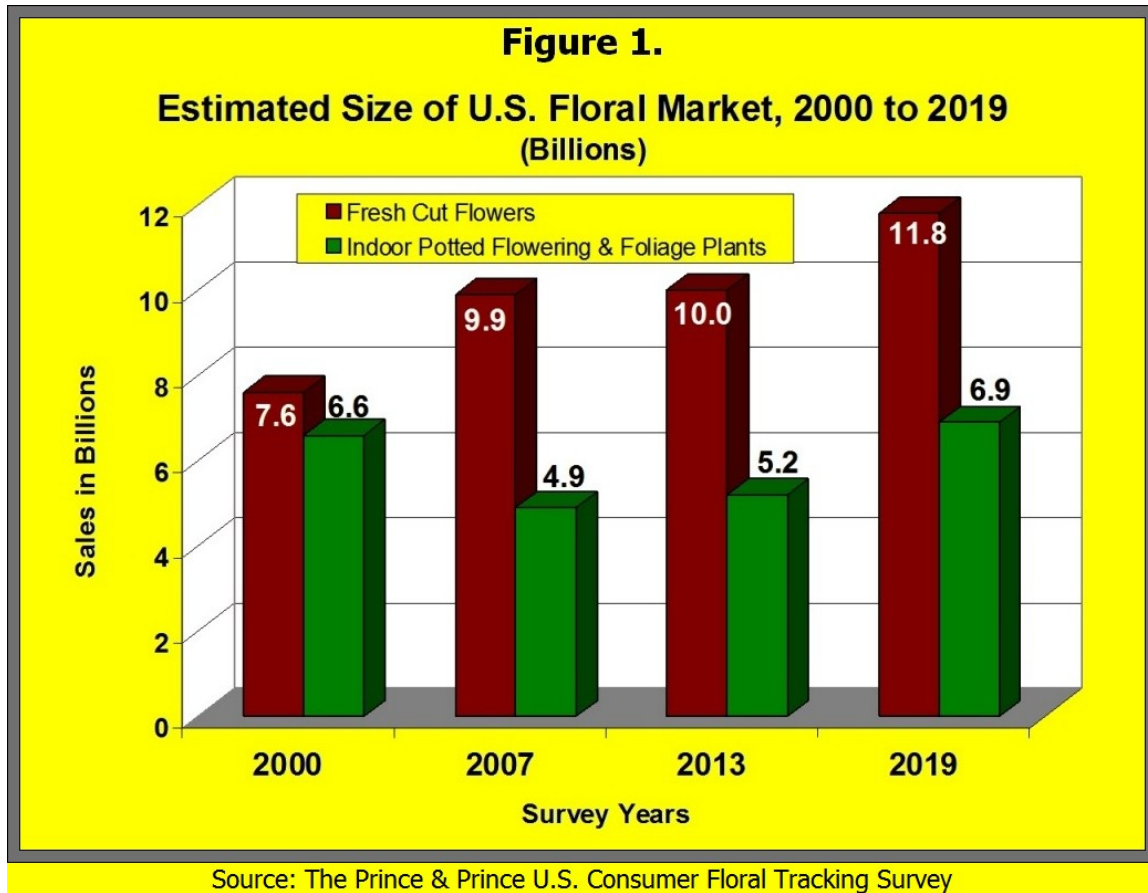
It is quite fortuitous that P&P conducted its last "look" (survey) of the U.S. floral market in 2019, prior to the Covid-19 pandemic (Prince & Prince, 2020). That P&P survey captured over 100 metrics on cut-flower and indoor potted plant purchasing from over 1,000 randomly-selected floral-buying households, including the following: 1) Household dollar spending on fresh cut flowers and indoor potted flowering and foliage plants and planters, 2) Types of fresh cut flowers and indoor potted plants purchased, 3) Holidays, events, and occasions of floral purchasing (including "everyday" floral purchases), 4) Identified floral businesses where those floral purchases were made (businesses categorized into eight key floral channels, including the On-Line/Internet), and a detailed consume evaluation of those floral channels (30 attributes of customer service performance, experiences with the floral products purchased, and overall customer satisfaction), and 5) Nine key demographic measurements of the floral-buying household, including age, household income, educational attainment, urbanization level of market, U.S. region, and household composition (e.g. children, teenagers, and retirees within the household, and single-person households).

With the proposed 2023 survey update, P&P has the ability to track all the changes that have occurred in these consumer floral-purchasing metrics since the pandemic, in effect, establishing "trend lines" for each metric prior to and after the pandemic. Collectively, these

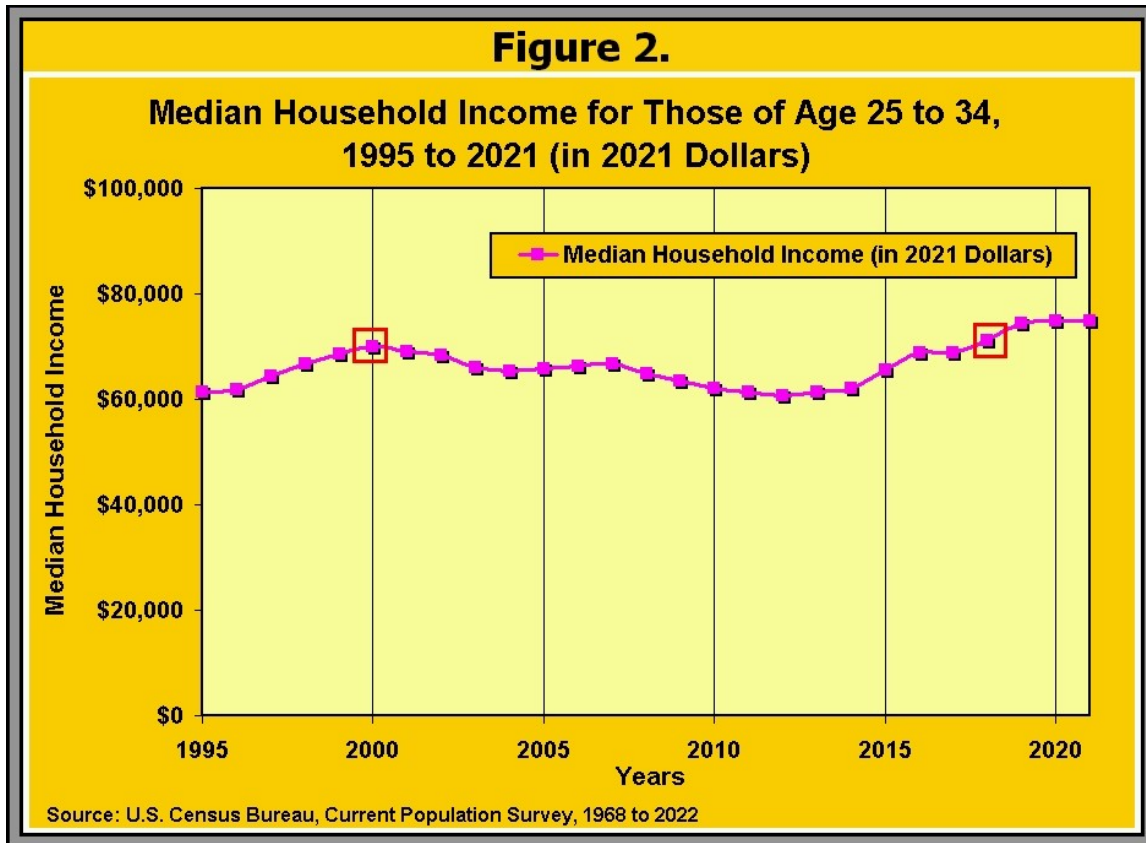
updated trend lines, along with historical survey trend lines over seven prior P&P surveys (way back to 1996), assist P&P in defining both the current and future floral market. In addition, the potted plant portion of the new P&P floral research can update the recent 2021 AFE consumer research relative to the “pandemic plant-buying boom” (Forney, 2022) to better identify the new consumers gained and to gauge the level of their plant-purchasing now, post-pandemic (e.g. increase, decrease, or no change in potted plant purchasing). Thus, P&P believes that a review of the P&P consumer floral research over the past 20 years, and a 2023 update can be beneficial in defining where the U.S. floral market is now, and where it is headed. The motto of the P&P U.S. Consumer Floral Tracking Survey is the following: “Understanding where we have been, Knowing where we are now, and Projecting where we are going!”

The U.S. Floral Market from 2000 to 2019

The last national consumer floral survey conducted by P&P was in 2019, and from that research, prior P&P surveys, and historical U.S. Census data on households (McCue, 2023), P&P computed the projected market value of U.S. household cut-flower and indoor potted plant purchasing across four study years from year 2000 to 2019 (Figure 1). The data in Figure 1 reveals that back in the year 2000, the U.S. consumer floral market had a collective retail value of \$14.2 billion dollars, of which \$7.6 billion comprised all fresh cut-flowers (including floral arrangements, cut roses, bouquets, corsages, and “stems to arrange”), and \$6.6 billion comprised all indoor potted flowering plants, foliage plants, and indoor planters. Both valuations include any delivery/ service fees associated with the floral purchase (outdoor bedding, garden, vegetable, perennial, and landscape plants are **not** included in our “floral survey”, as we consider these horticultural products to be part of “gardening” and “home landscaping”). At that time, both key sectors of the floral industry, cut flowers, and indoor potted plants, were somewhat equal, dollar-wise in sales, in driving the growth of the floral industry.



The new Millennium era also encompassed the initial expansion of Internet-based businesses (called Dotcom businesses), where 20 to 30-somethings were earning 6-figure incomes in developing web sites and providing Internet-related services to businesses, as nearly one-half of all adults in the U.S. were already on-line by early 2000 (Pew Research Center, 2021). Historical data from the U.S. Census Bureau (Figure 2) also reveals that younger households (aged 25 to 35), many employed in the tech/Internet sector at that time, showed a strong increase in household income (around year 2000), and not surprisingly, some of that higher income was spent on floral products (discussed later in this report). Shortly after the Dotcom bust a couple years later, median household incomes for these younger-aged households retreated, and that decline in household income for this younger-aged segment largely continued for many years. It took nearly 18 years (2018) for median household incomes



for these younger-aged households to rise above their prior peak in year 2000. However, since 2018, these younger-aged households commenced and maintained a rise in household income that may be underlying recent floral-purchasing trends.

In that year of 2000, the prior period development of new floral channels were starting to make their mark, all wanting a slice of the \$14 billion dollar floral market in the U.S. Two retail channels held dominant share for consumer **cut flower sales**: Retail florists, collectively with 60%, and supermarkets (chains and independents) with 25% (P&P survey share estimates are based on consumer dollars spent, not product units). Discount & super-discount stores (e.g. Walmart, Meijer), wholesale stores (e.g. Costco, Sam’s Club, BJ’s), traditional garden centers, farmer’s markets and national Internet-based businesses (e.g. 800-Flowers, ProFlowers, FTD) all had small, but not insignificant share of cut flower sales in year 2000, each garnering between two and three percentage points of consumer cut-flower purchasing dollars.

On the potted plant side of the industry, the retail channels had already become more diverse by year 2000. The three dominant channels in year 2000 for **indoor potted plants** were retail florists, supermarkets, and traditional garden centers with 32%, 24%, and 16%, respectively, of consumer indoor potted plant purchasing (garden centers were much more involved with outdoor gardening and bedding/ perennial plants that were growing rapidly during that decade). Although those three channels were the largest, home/ hardware centers (e.g. Lowes, Home Depot) claimed nearly 11% share of indoor potted plant sales, and discount & super-discount stores collectively claimed another 9%. So actually, in year 2000, there were already five major retail channels for indoor potted plants, each vying for the consumers' \$6.6 billion dollars of indoor potted plant purchasing.

From year 2000 to 2007, the cut-flower sector of the floral industry expanded, reaching nearly \$10 billion by 2007, while the indoor potted plant sector receded to just under \$5 billion. The mass-marketing of fresh cut flowers expanded rapidly during this period, with supermarkets obtaining nearly one-third of all consumer cut-flower spending by 2007, Internet businesses attaining nearly 8% share, and wholesale stores and discount & super-discount stores each with about 5% share, while florist shop share of consumer cut-flower purchasing had dropped to under 50% (from 60% in year 2000). Although certain channels were rapidly expanding during this period (2000 to 2007), there also was a product mix shift happening within the mass-market floral channels toward more cut flower products and less indoor potted plants. This shift was due partly to labor-saving merchandising and technological advancement for cut flowers (e.g. refrigerated, low-maintenance merchandising displays, floral preservative treatments, etc.) that were not as amenable to potted plants, which required more labor for plant maintenance. In addition, there was an explosion of new, colorful, and novelty cut flower varieties that increased consumer interest and allure. Containing labor costs and improving profitability at mass market floral operations, especially for "full-service" floral

departments, also was an increasing concern of mass-market floral management during this era of floral expansion, as noted from P&P market research sponsored by the Produce Marketing Association (PMA; Prince & Prince, 2003). The increased usage of the pre-made floral bouquet and pre-made floral arrangement became “the solution” for many mass-market floral managers. At P&P, we designate this era from year 2000 to 2007, “The March of the Cut Flowers!”

Near the end of 2007, the U.S. commenced the “Great Recession of 2008”, the longest and deepest economic downturn in the U.S. economy since the Great Depression of 1929, largely brought about by shenanigans in the banking and mortgage sectors of the U.S. economy, including the collapse of the sub-prime mortgage market and the infamous MBS, mortgage-backed securities (Duignan, 2019). The carnage of that lengthy recession rippled across the country, from coast to coast, in industry after industry, and the floral industry was not immune. The 2008 recession was particularly destructive to traditional retail florist shops, as nearly one-half of all florist shops across the U.S. had either closed or were consolidated by 2010 (less single-location florist shops and less multiple-shop operations). This loss of retail florist businesses and generally lower floral sales throughout the U.S. led to the closure and consolidation of many regional wholesale florists, as well as small to mid-sized regional growers, and a few large growing operations. Although P&P did not survey U.S. households in 2008, a P&P nationwide survey of consumer households was conducted later in 2010 (data not shown), and at that time, the number of U.S. households purchasing any type of floral product was still 10 percent lower than in 2007, before the recession. Figure 1 shows that the U.S. floral market did not fully recover from the Great Recession of 2008 until about 5 years later.

The 2013 P&P survey of U.S. floral-buying households largely revealed a return of the floral market to 2007 levels, in terms of overall household floral purchasing, with cut flowers reaching \$10 billion, and indoor potted flowering and foliage plants reaching a little over \$5 billion. While the U.S. market value of overall floral sales in 2013 was a bit higher than in 2007,

the level of floral sales at the various retail channels had changed dramatically over that 6-year period. According to P&P survey estimates, the florist shop share of total consumer **cut-flower sales** dropped an additional 10 percentage points over those six years (from 2007 levels), while supermarkets gained nearly six percentage points, wholesale stores gained more than three percentage points, and Internet-based businesses gained two percentage points. On the potted plant side of the retail channels, florist shops lost an additional 11 percentage points in indoor potted plant share, while Internet-based businesses gained more than six percentage points, home/ hardware stores gained more than four, and supermarkets gained three percentage points in indoor potted plant share.

The next 6-year period from 2013 to 2019 marked a broad expansion in both the cut flower and indoor potted plant sectors of the industry. Consumer cut-flower spending rose to \$11.8 billion dollars, an 18% increase from 2013, while consumer indoor potted plant spending rose to a surprising \$6.9 billion dollars, a 33% increase from 2013. By 2019, the rate of consumer indoor potted plant purchasing (percentage increase since 2013) had actually out-paced the rate of consumer cut-flower purchasing (almost doubled the rate of increase). To many, this signaled a potential shift in consumer purchasing of floral products (more indoor potted gain, less cut-flower gain, in a relative sense), even though consumer indoor potted plant purchasing was at a much lower aggregate level than consumer cut-flower purchasing (by about \$5 billion dollars). So this building dynamic within the floral industry also begs for a 2023 survey to determine if the cut-flower and potted plant trends up to 2019 have continued into 2023, or if they have changed, post pandemic.

From 2013 to 2019, the on-line/Internet channel was the lead gainer in share for consumer **cut-flower sales** (gaining 4 percentage points), while supermarkets largely maintained share from the earlier period, and florist shops lost seven share points (however, in reality, a portion of the on-line/Internet share gets credited back to the florist shop channel as

florist shops fulfill a portion of those on-line “order-gatherer” floral sales; P&P’s floral channel shares are stated from the consumer’s perspective). At the end of 2019, supermarkets held the lead position in U.S. consumer cut-flower share with 37%, florist shops came in second with 29% share, and the on-line/Internet channel was ranked third with 14% share. Wholesale clubs and discount & super-discount store were tied for fourth position, each with 6% cut-flower share. All other channels each received 3% or less in cut-flower share in 2019.

On the potted plant side of the industry, florist shops, the on-line/Internet channel, and discount & super-discount stores all showed small to moderate-sized gains in potted plant share in 2019, compared to the earlier period, whereas supermarkets and home/hardware centers both witnessed share declines. By the end of 2019, florist shops had the highest potted plant share with 27%, supermarkets were ranked second with 22% share, home/hardware centers were third with 13% share, the on-line/Internet channel was fourth with 11% share, discount & super-discount stores and garden centers were tied for fifth place, each with 10% potted plant share, and wholesale clubs were ranked 6th with about 4% potted plant share. All other channels each received 2% or less in potted plant share in 2019. These channel share percentages for potted plants revealed that in 2019 no one channel had a dominant position in the U.S. consumer potted plant market.

The 2023 P&P Survey Identifies Impact of Covid-19

One of the key strengths of the P&P consumer floral research is the ability to track floral purchasing trends across various consumer demographic groups over time (e.g. age groups, household income groups, rural communities, suburban households, central city metros, single male/ single female households, children and teenagers within the household, etc.). The recurring cross-sectional survey allows P&P to understand the floral-purchasing trends of each demographic group, and when this information is tied to U.S. Census demographic trends and projections, the collective data can provide insight into the future of the U.S. floral market.

However, the Covid-19 pandemic and its aftermath, constituted a proverbial “economic shock” to the U.S. economy, and to the U.S. floral market. Thus, the proposed 2023 survey will assist P&P in determining the key changes related to consumer floral purchasing since 2019, and the ramifications of the pandemic on the level of floral purchasing, the types of floral products purchased, the holidays and events of floral purchase, and the retail channels where floral purchases are made, as well as the demographic composition of U.S. floral-buying households, now that the pandemic is largely over.

Consumer Cut-Flower Purchasing Trends By Age Group

Of the nine demographic metrics that the P&P survey collects about floral buyers, the one metric where the floral industry seems to have most interest is the age distribution of the floral buyer. Figure 3 shows the aggregate cut-flower purchasing of the one-thousand plus survey respondents for each of five P&P nationwide surveys, 1996 thru 2019, segmented by five age groups: Under age 35, 35 to 44, 45 to 54, 55 to 64, and age 65 and older. Each bar in

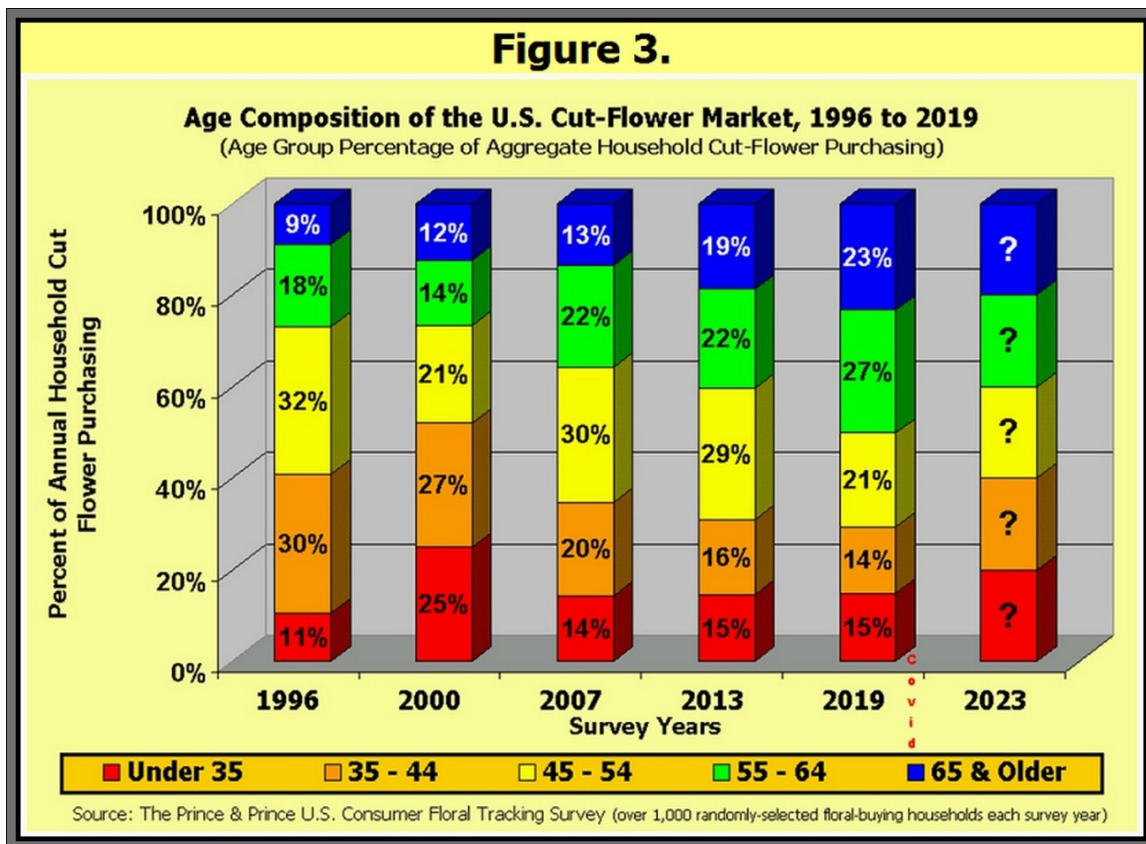


Figure 3 represents the total household spending on cut flowers for that study year, and each colored-segment within the bar represents the percentage dollar spending by each age group.

Back in 1996, the initial year of the P&P consumer floral tracking survey, those households aged 35 to 44 and those aged 45 to 54 collectively held dominant purchasing share for fresh cut flowers (62% of consumer cut-flower spending). At that time, these two age groups largely defined the “Baby Boomer” generation, a strong floral-purchasing group in the 1980’s and 90’s, and a group that continued strong floral purchasing through the following decades. At the time, when media sources questioned, “Who is buying flowers today?” the answers from SAF (Society of American Florists) often had the words. “a female, aged 35 to 54, and with a household income of \$50,000 and above”. The rise in household floral purchasing by “Boomers” during this era also coincided with the expanding roll of women in the corporate business workforce throughout the U.S. (Columbus native Les Wexner, former chairman of The Limited, also rode this demographic wave to success in women’s fashion apparel).

By year 2000, a demographic bump in cut-flower purchasing was revealed by the P&P survey, as younger-aged households (under age 35), as a group, doubled their prior level of cut-flower purchasing (11% to 25%). This purchasing occurred during the Internet “Dotcom Bubble Era” from the late 90’s up to year 2000 (discussed previously). The lesson learned from this period was that when younger-aged households had more discretionary income, they purchased more fresh cut flowers, and a lot more! However, when the Dotcom Bubble fully burst in 2001, cut flower purchasing for this youngest age group also declined. The year 2007 P&P survey later evidenced that decline in cut-flower purchasing by the youngest age group (down from 25% in 2000 to 14% in 2007). In 2007, the Baby Boomer segment (now the 45 to 54 and 55 to 64 age groups) were more than 10 years older than in 1996, and they continued to dominated cut-flower purchasing, but to a somewhat lesser degree than in 1996 (collectively 52% of consumer cut-flower spending in 2007).

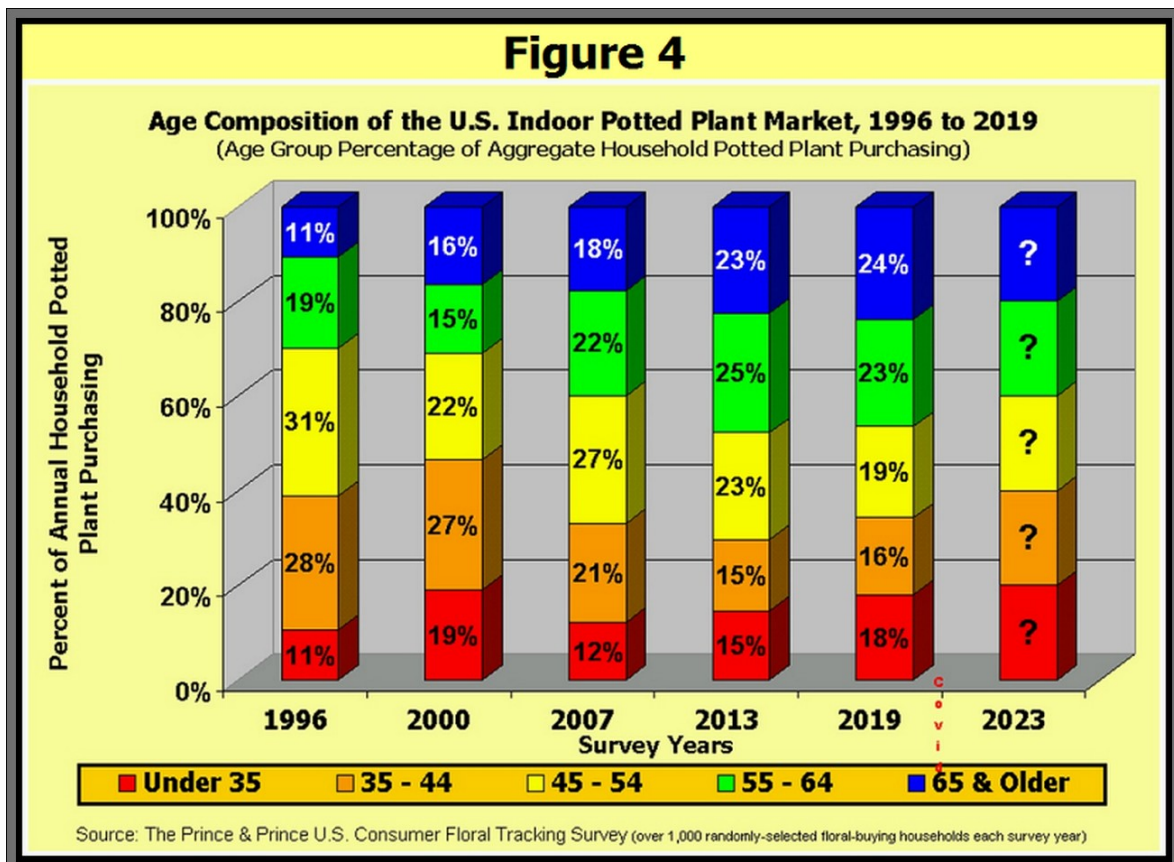
At the completion of the 2013 P&P floral survey, and after the recovery from the 2008 Great Recession, the “retiree market”, those households aged 65 and older, began to be looked at by marketers in a more serious fashion, especially in the healthcare arena. In the floral industry, these “senior buyers” now commandeered nearly one-fifth of consumer cut-flower spending. In addition, this eldest of the age groups tracked by P&P was also growing in total floral purchasing power, as each year more Baby Boomers entered the retiree portal (P&P plans to do more in-depth floral reporting on the “65 & Older” floral-buying group in the near future).

The 2019 survey conducted by P&P marked a noted comparison in floral purchasing among two key age groups: the newest Millennial segment and the Baby Boomer segment. 2019 marked a time period in the U.S. where the number of Millennials in the U.S. population (72.1 million) just surpassed the number of Baby Boomers in the population (71.6 million). However, if one “rounds” the figures to the nearest million, we can readily describe the overall size of each group as equal. In 2019, Millennials generally represented those aged 23 to 38, largely represented by our “Under 35” age group in Figure 3 (red portion of the 2019 bar), and Baby Boomers generally represented those aged 54 to 74, largely represented by our “55 to 64” and “65 & older” age groups in Figure 3 (green and blue portion of 2019 bar). Examining Figure 3, the Baby Boomers had 50% share of all cut flower purchasing in 2019, while Millennials had only 15%. Thus, Baby Boomers had more than three times the level of cut-flower purchasing than Millennials in 2019, when both groups, across the nation, were nearly equal in size in the U.S. population. Now this cut-flower buying comparison among age groups is a bit faulty, as one cannot ascribe all the cut-flower sales of those over the age of 65 to “Baby Boomers”, as this age group also contains “The Silent Generation”, those between the ages of 74 to 91 in 2019 (a much smaller group, compared to Boomers). But even if one deducts, say 10 percentage points of cut-flower purchasing (an educated guess) from the “Baby Boomer” group, to adjust for purchasing by the “Silent Generation”, Baby Boomers, as a group,

still purchased more than double the level of cut-flowers as Millennials in 2019. A few key questions for the floral industry are the following: 1) How long will the relatively strong cut-flower purchasing of Baby Boomers be maintained as they age in the U.S. population?, and 2) What can be done to stimulate more cut-flower purchasing among Millennials? P&P plans to explore these two questions in more detail, and provide some answers in future reporting.

Consumer Potted Plant Purchasing Trends By Age Group

Figure 4 shows a similar depiction of the U.S. floral market as Figure 3, except the product is indoor potted plants, rather than of cut flowers. Each bar in Figure 4 represents the total indoor potted plant spending for that study year, and each colored-segment within the bar represents the percentage spending by each age group in dollars. Back in 1996, the indoor potted plant market in the U.S. was just slightly older than the cut-flower market. At that time, the Baby Boomer segment (ages 35 to 54) also dominated the indoor potted plant market



with nearly 60% share. Both sectors of the industry (cut flower and potted plant) had the same small percentage of sales for those under age 35, 11%. The indoor plant market also experienced a similar “bump” in sales among these younger buyers in year 2000, but the rise in potted plant share was not as dramatic as with cut flowers (11% in 1996 to 19% in 2000). This upward trend in potted plant purchasing had also receded by 2007, as with cut flowers.

From year 2000 thru 2013, the 65 and older age group, while not dominant in indoor potted plant purchasing, this eldest group attained more share in plant purchasing, relative to cut flowers, over those study years (about four percentage points more). One might interpret the age trends over time by saying that the U.S. potted plant buyer aged somewhat sooner than the cut flower buyer. One interesting age trend that P&P intends to follow is the continuing potted plant share gain for the under 35 age group that started in 2007 at 12%, rose to 15% in 2013, and rose again to 18% in 2019. That is a fairly strong plant purchasing trend across three study periods (13 years). This potted plant purchasing trend was also noted by corporate mass-market floral buyers during discussions at the 2016 PMA-sponsored Fresh Connections Floral Anaheim meetings in California (Prince, 2016). Will that potted plant share gain continue in 2023? Note that we do not see a similar “under 35” share gain on the cut-flower side of the industry, but will that commence in 2023? So why are younger consumers becoming more interested in indoor potted plants? Are more young people buying indoor plants? Are those that are currently purchasing just spending more dollars? Or are both occurring? Are the plant purchasing trends regional? Urban vs. rural? Or across the nation? P&P intends to explore these consumer potted plant trends in future reporting.

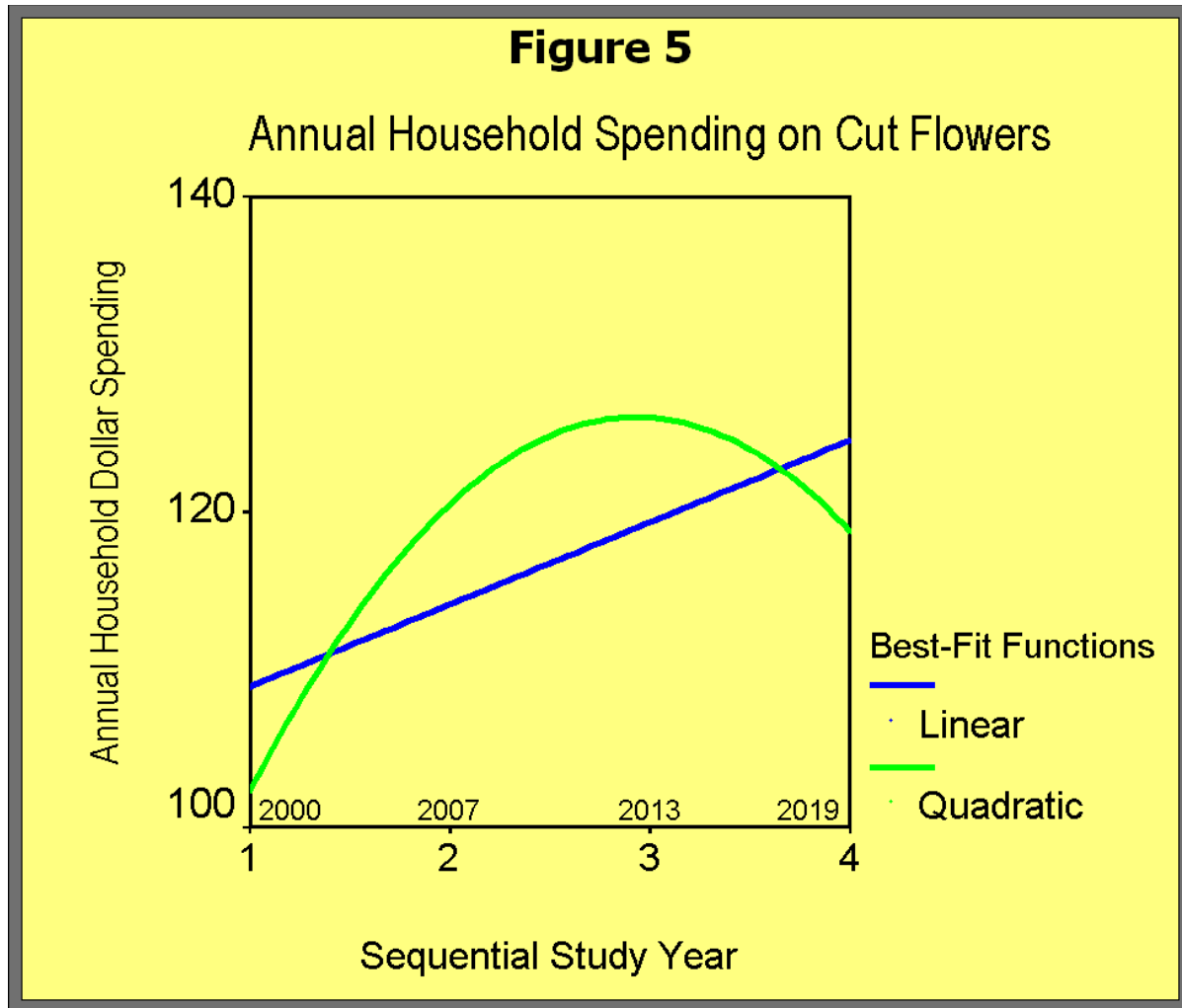
Where is the U.S. Floral Market Headed in 2025?

Given the pervasive market shock of the Covid-19 Pandemic in the U.S. and elsewhere, P&P is largely dependent on the updated survey statistics that will be provided by the 2023 consumer survey to make any reliable floral market predictions for the future. The 2023

consumer survey will help identify the floral metrics that have changed in the U.S. post-pandemic, and to what degree. If one makes the big assumption that the U.S. floral market will return to pre-Covid-19 levels, and that going forward, all consumer floral purchasing trends of 2019 and prior years will continue, unabated, into the future, then P&P can readily make a projection for 2025 based on past survey data. Assuming Covid-19 has no impact, making a 2025 floral market projection will require an understanding of U.S. household cut flower and indoor potted plant spending trends over time, and that analysis follows.

Household Cut-Flower Spending Trends, Year 2000 to 2019

Figure 5 shows the “best-fit trend lines” for annual household cut-flower spending from our 1,000+ floral-buying households across the study years 2000, 2007, 2013, and 2019 (labeled Sequential Study Year 1 thru 4). To determine the functional form of the data relationships, P&P performed single degree-of-freedom orthogonal contrasts (ANOVA, Analysis of Variance) on the survey data to test for significant linear, quadratic, and cubic relationships for household cut-flower dollar spending across the four time periods. Once the significant functional forms were determined, ordinary least-squares regression analysis (OLS) was used to define “best fit” linear, quadratic, and cubic trend lines applied to the purchasing data (over 4,300 household spending data points across the four studies). These trend lines (or curves) defined the historical trends for consumer household cut-flower spending (dollars) over the near 20-year period. The SPSS Manova and CurveFit programs were used to implement the statistical analyses and charts (SPSS Inc., 1999).



Both linear and quadratic trend lines were statistically significant at the 95% confidence level, and so our focus is on the highest-level significant polynomial, the quadratic trend line (green colored line). The most simplistic trend line over the time periods, linear (blue-colored line), gives us a “general view” of the household cut-flower purchasing trend over the past two decades, up slightly. Note that if P&P had purchasing data for only two study periods, P&P could only conduct a linear regression function (two points define a line), which, in this case, would limit our understanding of the true data relationships. With three study periods, linear and quadratic functions can be examined, and with four study periods (year 2000, 2007, 2013, and 2019), linear, quadratic, and cubic functions (two turning points along the curve) can be examined with our ANOVA model. So there is value for a researcher in having a market study

conducted over multiple time periods, as it provides the researcher more depth of statistical analysis in understanding the specific patterns of market trends.

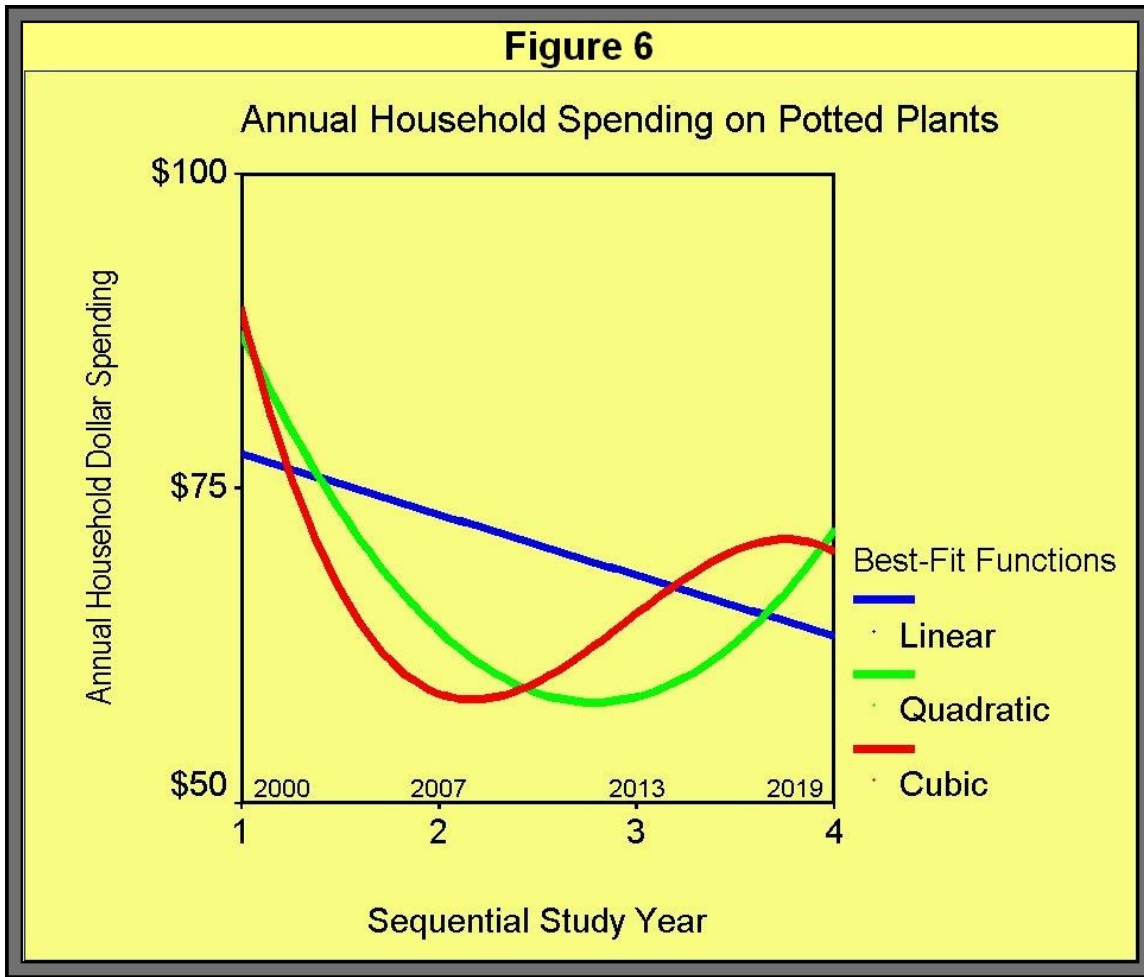
The quadratic trend line (green line above) shows that household cut-flower spending rose relatively quickly from just over \$100 per floral-buying household in 2000 to a little over \$120 by 2007, and then rose further, but at a slower pace, to about \$125 by 2013, and then declined from 2013 to 2019, settling back to just under \$120. However, the market context of these time periods must be defined to better understand these household purchasing trends. Between 2000 to 2007, during “The March of the Cut Flowers”, household floral purchasing was shifting among the floral channels from traditional higher-service and higher-priced florist shops to lower-service and lower-priced supermarkets and other mass-market floral channels. So it is somewhat surprising that average household dollar purchasing of cut-flowers actually increased during this period, given the general purchasing shift among floral outlets, shifting from higher-priced, higher service floral offerings to lower-priced, lower-service offerings. This strength in household cut-flower dollar purchasing surely buttressed “The March!”

The slower gain in cut-flower spending from 2007 to 2013 can largely be attributed to the Great Recession of 2008, which took a full five years for market recovery. During the six years after the recession, from 2013 to 2019, the slight drop in household cut-flower spending was somewhat difficult to explain, initially, as the overall U.S. market was growing considerably during this time period. However, when P&P examined the floral market “participation rate” for each study period, the answer became clear. From 2013 to 2019, the floral market “participation rate”, an estimate of the percentage of U.S. households that make at least one floral purchase annually (an estimate made by P&P thru survey bridging and calibration), that percentage had increased nearly 10% from 2013 to 2019, a larger gain than at any prior study period. So a relatively large expansion in the number of U.S. households participating in the floral market from 2013 to 2019 likely led to the slight decline in household cut-flower spending

(on average). As newer buyers enter a market, they usually spend less initially, compared to more “seasoned” or mature buyers, thus pulling down the overall average spending level. So although the level of cut-flower spending per household was slightly lower in 2019 (under \$120), the swelling in the total number of households purchasing cut flowers (both increases in household “participation rate” and growth in the total number of U.S. households by 2019) led to the higher market valuation in 2019, \$11.8 billion in cut-flower sales.

Household Indoor Potted Plant Spending Trends, Year 2000 to 2019

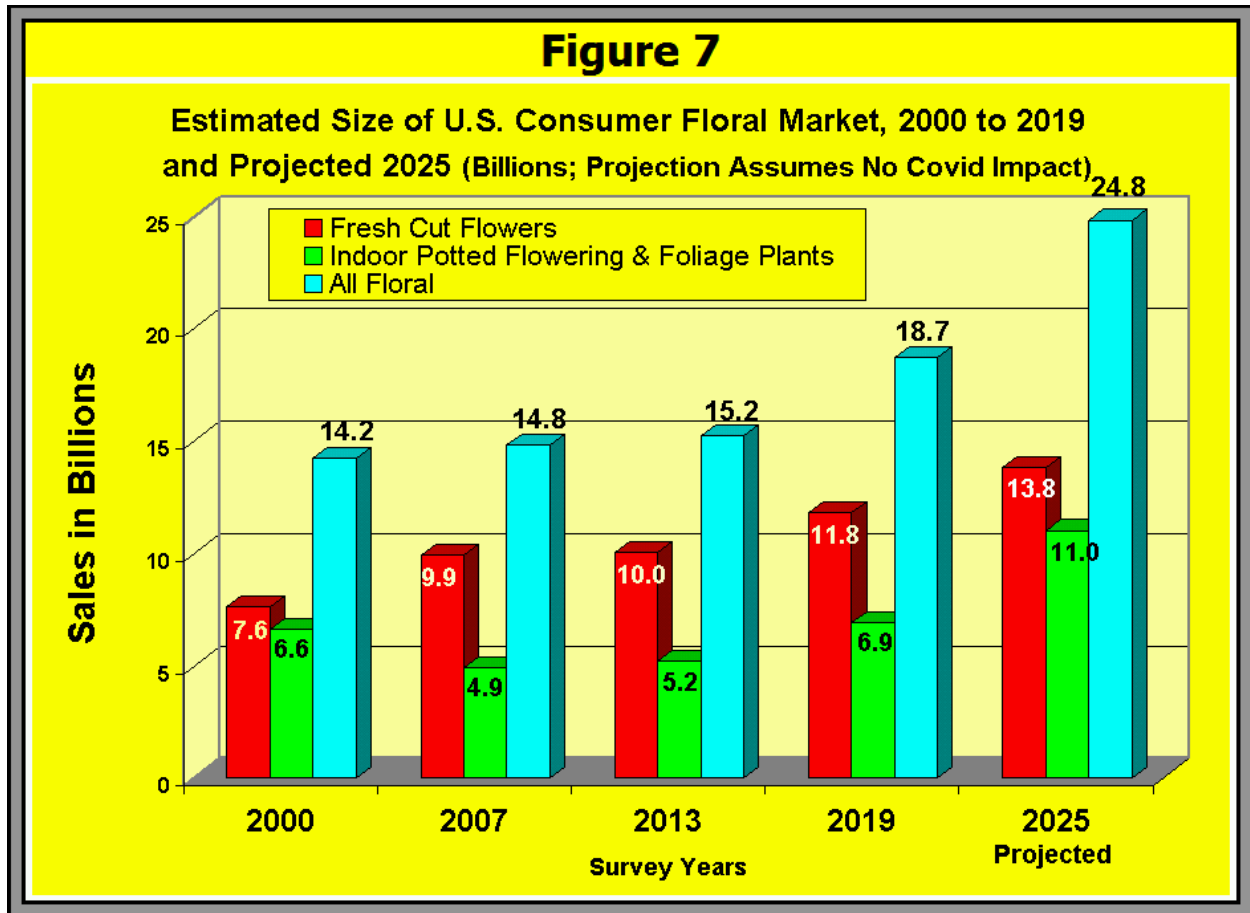
The best-fit trend lines for household purchasing of indoor potted plants is shown in Figure 6. Again, the “best fit” linear, quadratic, and cubic functions were applied to the data to define historical trend lines for household indoor potted plant spending. All trend functions for potted plant spending (linear, quadratic, and cubic) were statistically significant at the 95% confidence level. Again, the focus in the chart (Figure 6) is on the highest-level significant polynomial, the cubic trend line (red colored line), which differs from the quadratic trend line (green colored line), and the linear trend line (blue). Back in year 2000, indoor potted plant spending was nearly \$90 per floral-buying household, only about \$10 shy of household cut-flower spending. While the following seven-year time frame from year 2000 to 2007 showed an expansion in household cut-flower spending, the opposite trend was occurring for indoor potted plant spending (spending decreases). These trend lines across both cut flower and indoor potted plant sectors suggests that increases in household cut-flower spending from year 2000 to 2007 came largely at the expense of indoor potted plant spending. However, the following six years from 2007 to 2013 revealed a re-bounce in indoor potted plant spending, and this gain in household spending continued to just prior to 2019. The wane in household potted plant spending approaching 2019 can be attributed to the expansion of the floral market size (increase in the number of floral-buying households in the U.S.), a trend that was shown in the cut-flower sector during this same time frame. That rapid expansion in floral-buying



households (2013 to 2019) likely put a damper on the growth of the household’s spending level for indoor potted plants (on average) for 2019, as shown in the chart (red-colored line; cubic trend line). Although the average household spending trend of indoor potted plants had moderated in 2019, the number of floral-buying households in the US continued to rise, resulting in the \$6.9 billion market valuation for 2019.

Floral Market Projection for 2025 (Assuming NO Impact of Covid-19)

Figure 7 shows the 2025 P&P U.S. floral market projection for “Fresh Cut Flowers”, “Indoor Potted Flowering & Foliage Plants”, and the combined “All Floral” category, assuming no impact of Covid-19 and with past floral demand trends (year 2000 to 2019) projected forward. The methods and assumptions for the 2025 projection are contained in the Appendix.



The 2025 projection reveals a total U.S. floral market value of nearly \$25 billion, with nearly \$14 billion in fresh cut-flower sales and \$11 billion in indoor potted flowering and foliage plants and planters. The increased level of projected growth in the indoor potted plant sector, relative to cut flowers, is clearly evident in this market projection. At face value, this projection for both floral sectors appears somewhat “rosy”, and given the up and down gyrations U.S. businesses experienced throughout the onslaught of the Covid-19 pandemic (not addressed in this projection), we consider this an “upper-bound” estimate. However, there is quite a bit of trend data underlying these market projections. Again, the results from the 2023 P&P U.S. Consumer Floral Tracking Survey will identify the specific impact of Covid-19 on household floral

purchasing and help identify the shape and direction of the consumer cut-flower and potted plant demand trends going forward.

Summary

The Covid-19 pandemic provided a “market shock” to the U.S. economy and to economies around the world. In 2023, it appears that the major effects of the pandemic have run their course. Thus, P&P believes that now is the time to launch the 2023 P&P U.S. Consumer Floral Tracking Survey to identify the key changes in the consumer floral market that have occurred attributable to the Covid-19 pandemic, and to better understand floral demand trends going forward. These changes include potential changes in the specific floral products purchased, level of household floral spending, outlets (channels) of floral purchasing, level of holiday, occasion, and everyday floral purchasing, and the market demographics of floral purchasers; all the key metrics captured in the P&P survey. P&P’s collection of seven U.S. consumer floral market surveys conducted over the past 20+ years (going back to 1996) provides a rich database for floral market analysis and projections, and given that the last P&P survey was conducted in 2019 (prior to the pandemic effects), a 2023 survey update could readily establish “trend lines” (prior to and after the pandemic) for the 100+ floral-purchasing metrics captured in the survey, thus providing valuable market information for the floral industry. In addition, the various research questions probed in this reporting will be answered with the 2023 research update. If there was ever a time to update the P&P U.S. Consumer Floral Tracking Survey, we believe that time is now.

Appendix

Assumptions and Methods for the 2025 Floral Market Projections

Since the P&P consumer survey collects annual cut-flower and indoor potted plant dollar spending estimates for the entire household (over 1,000 household spending estimates nationwide for each survey year), P&P utilizes U.S. Census data on household numbers and U.S. households projections made by the Joint Center for Housing Studies (JCHS) at Harvard University for their floral market projections (McCue, 2023). P&P then attenuates the total U.S. household projection to reflect “U.S. floral-buying households” via the floral participation rate, an estimate of the percentage of all U.S. households that make at least one floral purchase annually (cut flower and/or indoor potted plant purchase). P&P derives this participation estimate through survey bridging and calibration among several P&P national floral surveys. This adjustment is made to reflect “non-buyers” in the floral market, as one cannot assume that every U.S. household is a floral-buying household. P&P then applies the average household cut-flower and indoor potted plant spending estimates from the survey to the floral-buying household numbers to derive the U.S. floral market projections.

As in any market projection, assumptions are made with respect to the household data trends projected forward. For the U.S. household cut-flower spending projection for 2025, P&P assumes that the tempering of household spending in Fig. 5 from year 2013 to 2019 (quadratic trend line), due to the rapid market expansion of floral buyers during that period, that this effect would wane over time, and that the trend going forward would be reflective of the longer-term linear spending trend. For the household potted plant spending projection for 2025, P&P assumes that the tempering of household spending approaching year 2019 (Fig. 6; cubic trend line) would also wane over time for the same reason, and that the trend going forward would be reflective of the quadratic spending trend. For both spending projections, the 2019 floral participation rate was used in the calculations (no projected increase or

decrease in household floral participation). The model parameters of the linear and quadratic trend lines were used to compute the 2025 projection estimates. Both projections make no provisions for the Covid-19 pandemic, as that market information will be captured with the upcoming 2023 P&P U.S. Consumer Floral Tracking Survey.

About the P&P U.S. Consumer Floral Tracking Survey

The P&P U.S. Consumer Floral Tracking Survey identifies the types of U.S. consumer households who buy fresh floral products, what they buy, where they buy, when they buy, why they buy, & how much they spend on fresh cut flowers & indoor potted flowering/ foliage plants and planters. Over 1,000 randomly-selected floral-buying households throughout the U.S. participate in the survey during each survey period. In addition to measuring household floral purchasing, the survey also provides a comprehensive evaluation of the many floral businesses, outlets, and web sites that market floral products through a 30-attribute consumer rating of these businesses and outlets/web sites.

P&P has been tracking U.S. household floral purchasing behavior for more than 20 holidays, events, and occasions, and for more than 20 categories of floral product over the past 20+ years with the P&P tracking survey (Prince & Prince, 2020). The survey methodology employs both a random-selection of U.S. households via a mail-based survey with monetary incentives, and a random selection of U.S. households through a nationally representative Internet-based survey panel. This “mixed-mode” survey methodology using both mail and Internet survey modes has been shown to greatly improve the quality and representation of the overall survey results (Dillman et al., 2014).

P&P plans to commence a 2023 tracking survey of U.S. floral-buying households later this Fall/Winter. Please contact P&P if your company has interest in becoming a P&P Research Sponsor. Research Sponsors receive the complete floral tracking survey results (current and historical floral-purchasing trends) thru a one-day, on-site seminar with Q&A presented to a

company's management team, and the complete 800+ slide presentation on a flash drive. Sponsors also receive exclusivity of the floral market information for a one-year period following the completion of the consumer research (one-year data embargo period). Interested parties should contact P&P for research sponsorship opportunities (email Tom Prince at 2640939@gmail.com).

About P&P

Dr. Thomas Prince, and his brother, Dr. Timothy Prince (both formerly of The Ohio State University, Department of Horticulture), co-founded Prince & Prince, Inc. (P&P) in 1990. The company is a leading marketing research specialist in the floral and green plant industry. Over the past 30+ years, P&P has completed more than 75 major marketing research projects and countless reports for the floral industry in the U.S., and has also conducted floral market projects in Canada, and in Europe. P&P has research experience in both experimental research design and in survey research design, and often combine both research domains in the conduct of P&P research for their clients. P&P conceptualize, design, and implement market research projects and product value analyses for floral companies and floral associations up and down the entire floral distribution channel. For more information, visit the web site at www.FloralMarketResearch.com, or e-mail Tom at 2640939@gmail.com

Literature Cited

Dillman, D.A., Smyth, J.D. and Christian, L.M. (2014). *Internet, Phone, Mail, and Mixed-Mode Surveys (Fourth Edition)*. Hoboken, NJ: John Wiley & Sons, Inc.

Duignan, B. (2019). "Great Recession". *Encyclopedia Britannica*. <https://www.britannica.com/topic/great-recession>.

Forney, J.M. (2022). *Houseplant Purchasing Trends*. *Grower Talks*, Jan. 1, 2022 edition. Ball Publishing, West Chicago, IL.

Keith, T. and Gharib, M. (2020). *A Timeline of Coronavirus Comments From President Trump and WHO*. National Public Radio. Washington, DC.

McCue, D. (2023). *The Surge in Household Growth and What It Suggests About the Future of Housing Demand*. Joint Center for Housing Studies, Harvard University.

Page, J., Hinshaw, D. and McKay, B. (2021). "In Hunt for Covid-19 Origin, Patient Zero Points to Second Wuhan Market - The man with the first confirmed infection of the new coronavirus told the WHO team that his parents had shopped there". The Wall Street Journal, February 26, 2021.

Pew Research Center (2021). Internet/ Broadband Fact Sheet, (Fact Sheet April 7th, 2021). Washington, DC: Pew Research Center.

Prince, T.L. (2023). Prince & Prince Forecast 59 Million U.S. Households to Purchase Floral Products for Mother's Day 2023. (P&P Market Report). Columbus, OH: Prince & Prince, Inc.

Prince, T.L. (2016). The Floral Landscape: Deep Dive Research - - A 2015 Survey of Mass Market Floral Buyers. Presentation at the Produce Marketing Association's 2016 Fresh Connections Floral Anaheim. Anaheim, CA. Produce Marketing Association, Newark, DE.

Prince, T.L. and Prince, T.A. (2023). Prince & Prince Forecast \$3.6 Billion Dollars in U.S. Consumer Floral Purchasing for Valentine's Day 2023. (P&P Market Report). Columbus, OH: Prince & Prince, Inc.

Prince, T.L. and Prince, T.A. (2020). The 2019 Prince & Prince U.S. Consumer Floral Tracking Survey (On-Site Seminar with Q&A). Columbus, OH: Prince & Prince, Inc.

Prince, T.L. and Prince, T.A. (2003). Trends in Mass-Market Floral Buying, Operations, Sourcing & Merchandising (On-Site Seminar with Q&A). Columbus, OH: Prince & Prince, Inc.

SPSS Inc. (Released 1999). SPSS (Statistical Package for the Social Sciences) for Windows, Version 10.05. (Base, Advanced Models, Categories, and Conjoint) Chicago, SPSS Inc.

Tighe, D. (2023). Total expected Valentine's Day spending in the United States from 2009 to 2023 [Infographic]. Statista. <https://www.statista.com/statistics/285028/us-valentine-s-day-sales/>