



**Federal Trade Commission**

**E-Cigarette Report**

**for 2019-2020**

ISSUED: 2022

## Executive Summary

In 2018, seeing data about the increased popularity of e-cigarette products, particularly among youth, the Federal Trade Commission (“FTC” or “Commission”) decided to study the e-cigarette industry’s domestic sales and marketing, as it has for many decades studied the cigarette and smokeless tobacco industries.<sup>1</sup>

In 2019, the FTC issued identical Orders to File Special Reports (“Orders”) under Section 6(b) of the FTC Act to six of the country’s largest domestic e-cigarette manufacturers, who together comprised virtually all of the e-cigarette market measured by the Nielsen Company. The Orders sought information from these companies as to their e-cigarette sales and advertising and promotional activities for the years 2015, 2016, 2017, and 2018. The information collected was used to publish the FTC’s first E-Cigarette Report in March 2022.

In 2021, the Commission sent another round of Orders covering the years 2019 and 2020 to those companies among the original recipients who were still marketing e-cigarettes. This report summarizes the information provided in response to the Commission’s 2021 Orders, including information gathered through follow-up questions.

### Key Findings

In this second E-Cig Report, the Commission observed four important market trends, related to sales, flavors, discounting, and sampling.

The data we collected revealed that the dramatic growth in e-cigarette sales by the

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<sup>1</sup> In 2018, 8.1 million adults in the United States or 3.2% of adults were current e-cigarette users, while 20.8% of high school students and 4.9% of middle school students were current e-cigarette users.

reporting manufacturers continued during 2019, but apparently ceased in 2020. E-cigarette product sales for the reporting companies, which had increased from \$304.2 million in 2015 to \$2.046 billion in 2018, grew to \$2.703 billion in 2019 and then declined to \$2.224 billion in 2020. It appears that this decline in sales for the reporting companies may not represent that large a decline in total e-cigarette sales, but rather a shift to products sold by new or growing market participants. National survey data appears to show national cartridge-based unit sales declining and disposable product sales increasing in 2020.<sup>2</sup> The Commission hopes to shed light on this in future reports and is sending its Orders to additional e-cigarette companies to strengthen the data it collects going forward.

Second, the data show a significant reduction in the sales of “other” flavored cartridges popular with youth, indicating that the FDA’s 2020 enforcement policy prohibiting the sale of flavored cartridge-based products other than menthol<sup>3</sup> has been effective in limiting the availability of these products to youth. “Other” flavored cartridge-based products plummeted from 42.1% of cartridges sold and given away in 2018 to 0.8% in 2020, but menthol cartridge-based products surged to 63.5% of cartridges sold and given away. At the same time, publicly available sources indicate that sales of disposable e-cigarettes, which were exempt from the

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<sup>2</sup> CDC Foundation, *Monitoring U.S. E-Cigarette Sales: National Trends*, October 2020, <https://www.cdcfoundation.org/E-cigaretteSalesDataBrief?inline> (based upon Information Resources, Inc. data). Between February 2020, when FDA’s flavor policy became effective, and October 2020, the market share of cartridges decreased from 81.1% to 67.8% and the market share of disposables increased from 18.8% to 32.1%.

<sup>3</sup> “Enforcement Priorities for Electronic Nicotine Delivery Systems (ENDS) and Other Deemed Products on the Market Without Premarket Authorization” (January 7, 2020; 85 FR 720) (available at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/enforcement-priorities-electronic-nicotine-delivery-system-ends-and-other-deemed-products-market>).

FDA’s enforcement policy and continue to be available in a wide variety of flavors, have increased substantially.<sup>4</sup> “Other” flavored disposables made up 77.6% of disposables sold in December 2020.<sup>5</sup> National survey data indicate a more than 1,000% increase in disposable e-cigarette use among youth from 2019 to 2020.<sup>6</sup> The national survey data also show that fruit and mint flavored e-cigarettes continue to be extremely popular with youth, and that menthol and candy/dessert flavored products were popular among youth.<sup>7</sup>

Third, price discounting reached a record high in 2019 (\$182.3 million) and, although it declined somewhat in 2020 (\$169.1 million), it was the largest category of advertising expenditures reported by the recipient companies. Studies indicate that consumers are clearly responsive to price changes of tobacco products – with youth more responsive to price changes than adults.<sup>8</sup> In considering the available studies demonstrating that tobacco use among youth is responsive to price changes, the U.S. Surgeon General concluded that use of price-reducing

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<sup>4</sup> Hannah Hammond, *Disposable E-Cigarette Sales Take Off*, CSP Daily News, Feb. 11, 2021, <https://www.cspdailynews.com/tobacco/disposable-e-cigarette-sales-take#page=0>.

<sup>5</sup> CDC Foundation, *Monitoring E-Cigarette Use Among Youth*, aggregate data through 10/31/21, <https://www.cdcfoundation.org/programs/monitoring-e-cigarette-use-among-youth>.

<sup>6</sup> Wang TW, Neff LJ, Park-Lee E, et al., “E-Cigarette Use Among Middle School and High School Students – United States – 2020;” *Morbidity and Mortality Weekly*, 69(37); 1310-1312 (2020).

<sup>7</sup> *Id.* In 2020, some e-cigarette products were sold in packaging that “imitate[d] packaging for food products that often are marketed and appeal to youth, such as Cinnamon Toast Crunch cereal, Twinkies, Cherry Coke and popcorn.” “FDA Notifies Companies, Including Puff Bar, to Remove Flavored Disposable E-Cigarettes and Youth-Appealing E-Liquids from Market for Not Having Required Authorization,” (July 20, 2020) (available at <https://www.fda.gov/news-events/press-announcements/fda-notifies-companies-including-puff-bar-remove-flavored-disposable-e-cigarettes-and-youth>).

<sup>8</sup> U.S. Department of Health and Human Services, *Preventing Tobacco Use Among Youth and Young Adults. A Report of the Surgeon General* (2012), at 524.

promotions has led to higher rates of tobacco use among youth.<sup>9</sup> The prevalence of price discounting for e-cigarettes is therefore concerning.

Fourth, the data revealed that spending on sampling and the distribution of free and deeply discounted e-cigarette products more than doubled in two years to \$140.1 million, making it the second largest expenditure category in 2020. The FDA prohibited sampling in 2016 to limit youth access to tobacco products.<sup>10</sup> The increased spending occurred because following the ban on free e-cigarette samples, some companies began offering e-cigarette products for \$1 or a similar highly discounted price in order to evade the spirit, if not the letter, of the FDA's sampling ban.

In addition to the four key findings discussed above, the report notes that, due to volatility in the disposable e-cigarette market, the reporting manufacturers appear to not be representative of the disposables market as a whole. In particular, only two of the five manufacturers that received the Commission's Orders continued to market disposable e-cigarettes in 2020, and those that did provided more limited offerings. In addition, the 2019-2020 period saw a number of new market entrants. As a result, although the data collected show that sales of disposable e-cigarettes declining from \$74.7 million in 2018 to \$69.3 million in 2019 and then to \$59.3 million in 2020, most published data indicate that the market for e-

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<sup>9</sup> *Id.* at 530.

<sup>10</sup> "Deeming Tobacco Products To Be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Restrictions on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products" 81 Fed. Reg. 28974, 28986 (May 10, 2016).

cigarette disposables grew significantly after 2018.<sup>11</sup> New market entrants most likely account for this discrepancy.<sup>12</sup>

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<sup>11</sup> See CDC Foundation, *Monitoring U.S. E-Cigarette Sales: National Trends*, October 2020, <https://www.cdcfoundation.org/E-cigaretteSalesDataBrief?inline> (based upon Information Resources, Inc. data); Hannah Hammond, *Disposable E-Cigarette Sales Take Off*, CSP Daily News, Feb. 11, 2021, <https://www.cspdailynews.com/tobacco/disposable-e-cigarette-sales-take#page=0> (based upon Nielsen data).

<sup>12</sup> The two most popular brands of disposable devices in April 2021, neither of which was covered by a Commission 6(b) order, had a combined 75.3% share of the disposable market. Truth Initiative, *E-cigarettes: Facts, stats and regulations*, <https://truthinitiative.org/research-resources/emerging-tobacco-products/e-cigarettes-facts-stats-and-regulations>.

## I. INTRODUCTION

This is the Federal Trade Commission’s second report on e-cigarette sales, advertising, and promotion and it contains data for 2019 and 2020. The prior report presented data for 2015 through 2018.<sup>13</sup>

The Commission has published similar reports on cigarette and smokeless tobacco sales and marketing expenditures since 1967 and 1987, respectively. In February 2019, when it released its Cigarette Report for 2018 and its Smokeless Tobacco Report for 2018, the FTC issued a statement that it “lack[ed] similar data about the rapidly growing market for e-cigarettes, and as a result the FTC’s and the public’s understanding of the overall market for nicotine-based products [wa]s substantially incomplete.”

In order to assist policymakers, the public, and itself to better understand that market, the Federal Trade Commission issued compulsory process orders (“Orders”) in October 2019 to six leading domestic e-cigarette manufacturers (“the manufacturers” or “the companies”) requiring them to report detailed information on their e-cigarette sales and advertising and promotional activities for calendar years 2015, 2016, 2017, and 2018.<sup>14</sup> In February 2021, the Commission

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<sup>13</sup> The first Commission report, Federal Trade Commission E-Cigarette Report for 2015-2018, issued in March 2022, can be found at: <https://www.ftc.gov/reports/e-cigarette-report-2015-2018>.

The data contained in the tables appended to this report are also in an electronic spreadsheet available at: <https://www.ftc.gov/ecigarettedata>.

<sup>14</sup> A generic version of the Order seeking data for 2015 through 2018 can be found at: [https://www.ftc.gov/system/files/attachments/press-releases/ftc-study-e-cigarette-manufacturers-sales-advertising-promotional-methods/generic\\_e-cigarette\\_6b\\_order\\_to\\_file\\_a\\_special\\_report\\_0.pdf](https://www.ftc.gov/system/files/attachments/press-releases/ftc-study-e-cigarette-manufacturers-sales-advertising-promotional-methods/generic_e-cigarette_6b_order_to_file_a_special_report_0.pdf).

The owners of one manufacturer did not have data from the period before they acquired the company and did not report the company’s activities in 2015 or 2016. Therefore, aggregate data

issued slightly revised Orders for calendar years 2019 and 2020 to the five original recipients that were still selling e-cigarette products.<sup>15</sup>

The Orders covering data for 2019 and 2020 were sent to: Fontem US, Inc.; JUUL Labs, Inc.; Logic Technology Development LLC; NJOY, LLC; and R.J. Reynolds Vapor Company. Fontem US, Inc., a subsidiary of Imperial Brands plc, markets e-cigarette products under the blu brand name. JUUL Labs, Inc. markets the JUUL brand e-cigarette products, and currently is the largest domestic e-cigarette manufacturer in terms of sales. Logic Technology Development LLC, a subsidiary of Japan Tobacco International, markets e-cigarette products under the Logic brand name. NJOY, LLC markets the NJOY brand of e-cigarette products, which were among the first e-cigarette products introduced in the United States. R.J. Reynolds Vapor Company, a subsidiary of Reynolds American, Inc., markets e-cigarette products under the Vuse brand name.

## **II. E-CIGARETTE PRODUCT TYPES**

E-cigarettes are battery-powered devices that deliver aerosolized e-liquid, usually containing nicotine, when inhaled.<sup>16</sup> They include vape pens and personal vaporizers. Some e-

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from 2015 and 2016 are not strictly comparable to aggregate data from subsequent years.

The sales, advertising, and promotional expenditure figures contained in this report and in the electronic spreadsheet are in nominal dollars and have not been adjusted for inflation.

<sup>15</sup> The Commission also issued an Order for 2015 through 2018 data to Nu Mark LLC, a subsidiary of Altria Group, Inc. that marketed the MarkTen and GreenSmoke brands of e-cigarette products through the end of 2018, when it stopped manufacturing and distributing e-cigarette products.

A generic version of the Order seeking data for 2019 and 2020 can be found at: <https://www.ftc.gov/reports/order-file-special-section-6b-report-e-cigarette-products-calendar-year-2021-generic-text>.

<sup>16</sup> Although the Commission's definition of e-cigarettes could include cannabis vaping devices, none of the recipients of the Commission's Orders sold such devices during the period covered



cigarette systems have rechargeable batteries and are refillable. Closed refillable systems (“cartridge systems”) consist of rechargeable devices that use sealed cartridges, pods, or tanks (“cartridges”) pre-filled with e-liquid that are replaced when the e-liquid is used up. Such pre-filled cartridges are usually designed to work with one brand’s or one manufacturer’s products. Closed non-refillable systems (“disposables”) come with pre-filled e-liquid and non-rechargeable batteries. Open system products are rechargeable devices and have tanks that are manually filled by the user with e-liquid. Generally, an open system device can be filled with e-liquid sold by any entity.

### **III. E-CIGARETTES SOLD AND GIVEN AWAY**

As reported in Table 1, total e-cigarette sales of the reporting manufacturers grew from \$2.046 billion<sup>17</sup> in 2018 to \$2.703 billion in 2019 and then decreased to \$2.224 billion in 2020. Indirect sales, through retailers, which were 92.1% of total dollar sales in 2018, were 91.6% of total dollar sales in 2019 and 92.3% in 2020. The companies’ direct sales to consumers increased from \$131.3 million in 2018 to \$219.9 million in 2019 and then declined to \$157.6 million in 2020. Highly discounted sales of products for \$1 or less decreased from \$31.3 million

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by the Orders, and the data collected by the Commission do not include information about cannabis vaping devices. As discussed below, the recipients reported selling nicotine-free products.

The Commission’s e-cigarette definition does not encompass battery-operated devices that heat, but do not burn, tobacco or the cigarette products used in such devices.

<sup>17</sup> All sales figures and advertising and promotion expenditures discussed in the text of this report that are stated in billions are rounded to the nearest million, those stated in millions are rounded to the nearest hundred thousand, and those stated in thousands are rounded to the nearest thousand. The precise, unrounded figures are in the tables at the end of the report.

in 2018 to \$6.7 million in 2019 and then grew to \$13.3 million in 2020.<sup>18</sup>

### Cartridge-Based Systems

The reporting manufacturers' best-selling e-cigarette products have been cartridge system products. Cartridge-based systems can be distributed as individual devices, individual cartridges, multiple cartridges bundled together, one or more cartridges bundled with one or more devices, or multiple devices bundled together. As reported in Table 1, sales of cartridge products by the reporting manufacturers increased from \$1.969 billion in 2018 (representing 96.3% of total sales) to \$2.633 billion in 2019 (97.4% of total sales) and then declined to \$2.165 billion in 2020 (97.3% of total sales).

As reported in Tables 2A and 2B, sales of one or more cartridges by themselves rose from \$1.560 billion in 2018 to \$2.196 billion in 2019 and \$2.081 billion in 2020. Sales of cartridge and device bundles decreased from \$240.4 million in 2018 to \$132.7 million in 2019 and \$2.7 million in 2020. Devices sold by themselves made up 8.5% of cartridge system sales in 2018 (\$168.3 million), 11.6% in 2019 (\$304.8 million), and 3.8% in 2020 (\$81.2 million).

Direct sales of cartridge system products made up 6.2% of their overall dollar sales in 2018, 8.0% in 2019, and 6.8% in 2020. Heavily discounted sales for \$1 or less dropped from 1.6% of dollar sales in 2018 to 0.3% in 2019 and then grew to 0.6% in 2020.

Combined sales and giveaways<sup>19</sup> of cartridges grew from 831.3 million cartridges in

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<sup>18</sup> The Commission's Order asked the reporting manufacturers to report sales for \$1 or less separately from indirect and direct sales although they could have occurred at retail or directly through company representatives.

<sup>19</sup> The Commission's definition of E-Cigarette Products given away included all products distributed for free, whether given for free to retailers or wholesalers for subsequent sale to consumers, or given for free to retailers, wholesalers, or consumers through sampling, a free trial promotion, coupons for free product, or otherwise.

2018, to 976.7 million in 2019 and then decreased to 943.2 million in 2020. Combined sales and giveaways of devices increased from 30.5 million devices in 2018 to 33.9 million in 2019 and then decreased to 21.0 million in 2020. Giveaways of cartridges decreased from 3.1 million cartridges in 2018 to 189,000 in 2019 and 30,000 in 2020. Giveaways of devices declined from 313,000 in 2018 to 89,000 in 2019 and 5,000 in 2020. At the same time, devices sold for \$1 or less (by themselves or with cartridges) grew from 7.6% of devices sold or given away in 2018 (2.3 million devices) to 23.8% in 2019 (8.1 million devices) and 63.9% in 2020 (13.4 million devices). Cartridges sold for \$1 or less were 0.5% of cartridges sold or given away in 2018, 0.01% in 2019, and 0.0007% in 2020.

#### Disposable E-Cigarettes

As reported in Table 1, sales of disposable, non-refillable e-cigarette products by the reporting manufacturers declined from \$74.7 million in 2018 (representing 3.7% of total sales) to \$69.3 million in 2019 (2.6% of total sales) and \$59.3 million in 2020 (2.7% of total sales). It appears, however, there were new entrants selling disposable products and that contrary to the FTC's data, total sales for e-cigarette disposables have grown significantly.<sup>20</sup>

As reported in Table 3, the reporting companies sold or gave away 17.2 million disposable e-cigarettes to consumers in 2018, 16.1 million in 2019, and 13.3 million in 2020. Of those sales and giveaways, indirect sales accounted for 89.4% in 2018, 89.4% in 2019, and 88.0% in 2020. Giveaways were 0.5% in 2018, 0.1% in 2019, and 0.07% in 2020. Sales for \$1 or less represented 0.1% of disposables sold or given away in 2018 and 2019. In 2020, there

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<sup>20</sup> Based on Nielsen data, it appears that unit sales of disposable e-cigarettes grew 211.8% between November 2019 and November 2020, having grown 12.3% the year before. See Hannah Hammond, *Disposable E-Cigarette Sales Take Off*, CSP Daily News, Feb. 11, 2021, <https://www.cspdailynews.com/tobacco/disposable-e-cigarette-sales-take#page=0>.

were virtually no sales of disposables for \$1 or less. Again, it appears that the data from the Order recipients alone paint an incomplete picture of disposable sales.

#### Open System Products

As reported in Table 1, open system products have represented less than 0.1% of the sales of the reporting manufacturers since 2018. Open system products tend to be sold at specialized vape shops and it is likely that the reporting manufacturers account for only a fraction of the overall sales for such products.

Tables 4A and 4B provide information on the sales of open system products. As mentioned above, such product sales make up a small portion of sales by the reporting manufacturers. Therefore, those tables are not discussed in this report beyond noting that by 2020, the reporting manufacturers had apparently abandoned the open system market, with negative sales.<sup>21</sup>

#### **IV. CHARACTERISTICS OF E-CIGARETTE PRODUCTS**

##### Flavors

Tables 5A and 5B report the flavor characteristics of e-cigarette products sold or given away. The four primary flavor categories reported are tobacco flavors (e.g., absolute tobacco, classic tobacco, Carolina bold, and sweet original); mint (e.g., wintermint, spearmint, and wintergreen); menthol flavors (e.g., bold menthol); and “other” flavors. For 2015 through 2018, the Commission required the companies to report menthol and mint flavors in a single category; it asked the companies to report menthol and mint separately for 2019 and 2020. The tables provide breakdowns of the “other” flavors. The subcategories include alcohol flavors (e.g., bourbon blend, Havana wine, mimosa, and peach schnapps); beverage flavors (e.g., caramel

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<sup>21</sup> Negative sales represent returns of products sold in a prior year.

cafe, java jolt, chai, and lemon tea); candy or dessert flavors (e.g., mint chocolate, lemon poppy seed, apple crumble, and chestnut croissant); fruit flavors (e.g., cherry, strawberry, watermelon, and mixed berry); fruity mint or menthol flavors (e.g. strawberry mint, berry mint, pear mint, and iced fruit); spice flavors (e.g., vanilla, ginger, cinnamon, and aniseed); and other flavors that do not fit in any of the above categories.

Several events affected the data on flavors. In November 2018, Juul, the largest e-cigarette manufacturer, stopped selling flavors other than tobacco, menthol, and mint in retail locations and, in October 2019, it stopped selling such “other” flavors online.<sup>22</sup> In January 2020, FDA amended its enforcement policy guidance such that companies that continued to sell flavored cartridge-based products (other than tobacco and menthol flavored) could face prosecution for failure to have premarket authorization.<sup>23</sup> The amended policy does not apply to disposable or open system products, which may have led to the surge in sales of disposables described below, particularly those that were “other” flavored.

In 2018, the most popular flavor category of e-cigarette cartridges was the “other” category, representing 42.1% of all cartridges sold or given away. The popularity of “other” flavored cartridges dropped to 14.3% of cartridges in 2019 and to 0.8% in 2020. The most popular subcategory of the “other” flavor category was fruit-flavored, which represented 29.7%

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<sup>22</sup> See, e.g., Matthew Perrone, *Juul halts sales of fruit, dessert flavors for e-cigarettes*, Associated Press, Oct. 17, 2019, <https://apnews.com/article/d3beff8e79934a828edf35de0ba4c2a3>.

<sup>23</sup> “Enforcement Priorities for Electronic Nicotine Delivery Systems (ENDS) and Other Deemed Products on the Market Without Premarket Authorization” (January 7, 2020; 85 FR 720) (available at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/enforcement-priorities-electronic-nicotine-delivery-system-ends-and-other-deemed-products-market>).

of cartridges sold or given away in 2018, 11.5% in 2019, and 0.8% in 2020. The popularity of mint and menthol-flavored cartridges combined grew from 36.9% in 2018, to 60.8% in 2019, and 63.5% in 2020. Mint accounted for 44.1% of cartridges sold or given away in 2019 and -.06% in 2020. Menthol accounted for 16.7% of cartridges in 2019 and 63.5% in 2020. The percentage of tobacco-flavored cartridge products sold or given away grew from 21.0% in 2018, to 24.9% in 2019, and 35.7% in 2020.

For completeness, the Commission is providing summaries of the data it received from the reporting manufacturers about disposable e-cigarettes, but as described above, disposables made up only a small percentage of the products sold by those manufacturers during this period and appear to not accurately represent the market for such products. According to the data collected from reporting manufacturers, the most popular flavor category of disposables in 2018 was the “other” flavor category, representing 37.4% of all devices sold or given away. The popularity of “other” flavored devices increased to 39.3% in 2019 and then decreased to 23.5% in 2020. The most popular subcategory of the “other” flavor category was fruit-flavored, which represented 33.2% of disposable devices sold or given away in 2018, 35.2% in 2019, and 18.4% in 2020. The popularity of mint and menthol-flavored disposables combined increased from 27.2% in 2018 to 29.7% in 2019 and 36.9% in 2020. Mint accounted for 7.4% of disposables in 2019 and 9.6% in 2020. Menthol accounted for 22.3% of disposables in 2019 and 27.3% in 2020. The percentage of tobacco flavored products decreased from 35.4% in 2018 to 31.0% in 2019, and then increased to 39.6% in 2020.

In contrast, information collected for the CDC Foundation by Information Resources, Inc. showed that, in December 2020, “other” flavored disposables made up 77.6% of disposables

sold, mint made up 8.6%, menthol 6.2%, and tobacco only 7.6%.<sup>24</sup> New market entrants and reduced disposable offerings from the reporting manufacturers likely account for this discrepancy.

### Nicotine Concentrations

The Commission asked the reporting companies to provide the nicotine concentrations of each of their products as measured in milligrams of nicotine per milliliter (“mg/ml”) of e-liquid. Tables 6A and 6B report nicotine concentration in ranges and averages. For cartridge products, the average nicotine concentration increased from 49.4 mg/ml in 2018 to 52.3 mg/ml in 2019 and then decreased to 51.2 mg/ml in 2020.

### Bundling

Tables 7A and 7B provide details with respect to the bundling of cartridge system products. In 2018, 97.7% of cartridges were distributed separately from a cartridge system device. This percentage grew to 99.1% in 2019, and over 99.9% in 2020. In 2018, 26.1% of cartridges sold or given away were distributed in bundles containing two cartridges, which increased to 31.4% in 2019 and 43.8% in 2020. In 2018, 56.3% of cartridges were sold or given away together in bundles containing four cartridges. That increased to 63.2% in 2019 and then decreased to 55.1% in 2020. Few bundles contained more than four cartridges; only 0.007% in 2019 and 0% in 2020 of cartridges were sold or given away in bundles of five or more, down from 1.1% in 2018.

The proportion of devices sold or given away together with cartridges declined from 63% in 2018 to 26.9% in 2019 and to 2.6% in 2020. Almost no cartridge system devices sold or given

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<sup>24</sup> CDC Foundation, *Monitoring E-Cigarette Use Among Youth*, aggregate data through 10/31/21, <https://www.cdcfoundation.org/programs/monitoring-e-cigarette-use-among-youth>.

away in 2019 were bundled together with other such devices and none were in 2020.

Table 8 provides details with respect to the bundling of disposable e-cigarette products. In 2019 and 2020, 2.1% and 1.2%, respectively, of disposable e-cigarettes were sold or given away in bundles of five or more and the rest were distributed individually. In 2018, 3.7% of disposables were sold or given away in bundles of five or more.

## **V. ADVERTISING AND PROMOTIONAL EXPENDITURES BY CATEGORY**

Tables 9A and 9B show the annual expenditures of the reporting manufacturers on e-cigarette advertising and promotion.<sup>25</sup> The tables list the amounts spent on the different types of media advertising (e.g., magazines) and sales promotion activities (e.g., distribution of coupons).<sup>26</sup>

The reporting manufacturers spent \$1.033 billion on e-cigarette advertising and promotion in 2019, up from \$643.5 million in 2018.<sup>27</sup> Total advertising and promotion then declined to \$719.9 million in 2020.

Spending on television advertising, which was \$7.6 million in 2018, increased to \$93.8 million in 2019. This category includes advertising on broadcast, cable, and satellite television

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<sup>25</sup> The reported figures include all advertising and promotional expenditures related to e-cigarettes, regardless of whether such expenditures would constitute “commercial speech” or would be protected from law enforcement action under the First Amendment. They do not include the costs of employing full-time company employees or any overhead expenses attributable to the activities of such company employees. They do not include advertising that will only be seen or heard by the trade.

<sup>26</sup> Numerous expenditures could have been reported in more than one expenditure category. The Orders instructed the manufacturers in which category to report an expenditure when it fell in multiple categories, but often told them to do so “to the extent practicable.” The Orders also said that expenditures should be included in only one category to the extent practicable.

<sup>27</sup> Definitions of the advertising and promotional expenditure categories appear in the Appendix to this report.



channels, Internet television (e.g., Hulu, Netflix, Amazon Prime), and webisodes, but does not include product placement. The Commission is not reporting the amount spent on television advertising in 2020 because only one company reported spending in that category.<sup>28</sup>

As in prior years, no company reported advertising e-cigarettes before or during movies in 2019 or 2020.

The Commission asked about radio advertising, including Internet radio, audio streaming services (e.g., Pandora and Spotify), and podcasts. The manufacturers reported spending \$54.2 million on radio advertising for e-cigarettes in 2019, up from \$4.5 million in 2018. Radio advertising expenditures then decreased to \$10.2 million in 2020.

The Commission is not reporting the amount spent on other audio-visual advertising in 2019 or 2020, as was the case with respect to 2018. The Commission defined other audio-visual advertising as audio and/or visual advertising other than TV, movie, or radio advertising, product placement, social media, endorsements, or transit advertising. It could include advertising on screens or monitors in commercial establishments, such as video arcades or retail shops, and video games.

In 2019 and 2020, the manufacturers reported spending nothing on product placement in the creative content of any program or performance. The Commission did not report product

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<sup>28</sup> If only one company reported spending money on a particular type of advertising or promotion in a year, the Commission is not reporting that expenditure in order to avoid potential disclosure of individual company data. For this reason, the Commission is not separately reporting the amount(s) spent in 2019, 2020, or either year on television advertising, “other audio-visual” advertising, endorsements, newspaper advertising, transit advertising, retail-value-added promotions involving free e-cigarette products, retail-value-added promotions involving free items other than e-cigarette products, non-branded specialty item distribution, consumer engagement that took place outside of adult-only facilities, and sponsorship.

In Table 9, “NA” appears where the Commission is not reporting the expenditure in a category for this reason. The unreported expenditures are included in the “Other” category.

placement expenditures in 2018.

Spending on company websites directed to persons located in the United States decreased from \$11.6 million in 2018 to \$8 million in 2019 and \$4.7 million in 2020.

The Commission inquired about advertising on company-controlled social media accounts or channels (e.g., Facebook, Twitter, Instagram, Snapchat, Reddit, and YouTube) directed to persons located in the United States, including company-authored posts and replies, and re-posts of other users' content. The category excludes expenses related to celebrities, social media influencers, or other endorsers. Expenditures in this category increased from \$577,000 in 2018 to \$1.4 million in 2019, and then decreased to \$1.3 million in 2020.

The reporting category "other Internet and digital advertising" could include, among other things, banner, display, pop-up, and native advertising on third-party Internet sites, search advertising, sponsored digital content, advertising using a short message service (SMS text), multimedia messaging (MMS), instant messaging (IM), and direct messaging (DM), and advertising viewed in apps or video games. Spending on other Internet and digital advertising increased from \$22.3 million in 2018 to \$79.2 million in 2019 and then decreased to \$36.6 million in 2020.

The reporting companies spent \$6.8 million in 2019 to procure endorsements of e-cigarette products by celebrities, social media influencers, brand ambassadors, or other endorsers, up from \$4.3 million in 2018. The companies reported that they made no expenditures on endorsements in 2020.

The reporting manufacturers spent \$16.1 million on direct mail marketing in 2019, which decreased to \$11.1 million in 2020. The companies had spent \$4.3 million on direct mail marketing in 2018. Email marketing expenditures for e-cigarettes increased from \$430,000 in

2018 to \$630,000 in 2019 and then decreased to \$165,000 in 2020.

The companies reported spending \$57.7 million on newspaper advertising in 2019. Only one of them had newspaper advertising expenditures in 2018 or 2020, so the Commission is not reporting those expenditures.

The amount reported on magazine advertising of e-cigarettes rose from \$5.2 million in 2018 to \$13 million in 2019 and then declined to \$2.7 million in 2020. This category includes advertising appearing in digital editions of magazines that are nearly identical to print editions.

Spending on outdoor advertising rose from \$1.0 million in 2018 to \$19.1 million in 2019, then declined to \$7.2 million in 2020. Outdoor advertising includes billboards; signs and placards in arenas, stadiums, and shopping malls, whether they are open-air or enclosed; and any other advertising placed outdoors.

The manufacturers reported no spending in 2020 on transit advertising, that is advertising on or in private or public vehicles and ads placed at, on, or in any bus stop, taxi stand, transportation waiting area, subway or train station, airport, or any other transportation facility. Transit advertising expenditures were \$667,000 in 2018. The Commission is not reporting transit advertising expenditures in 2019.

Spending on point-of-sale advertising — advertising displayed or distributed at a physical retail location — went up from \$45.9 million in 2018 to \$85.7 million in 2019, then declined to \$61.8 million in 2020.

The largest promotions spending category in 2018, 2019, and 2020 was price discounts paid to cigarette product retailers or wholesalers to reduce the price of e-cigarette products to consumers. The manufacturers reported spending \$182.3 million on price discounts in 2019 and \$169.1 million in 2020, up from \$155.1 million in 2018.

Promotional allowances paid to wholesalers declined from \$141.4 million in 2018 to \$126.8 million in 2019, when it was the second largest expenditure category, and \$113.6 million in 2020, when it was the third largest expenditure category. Examples of promotional allowances paid to wholesalers might include payments for volume rebates, incentive payments, value-added services, promotional execution, and satisfaction of reporting requirements.

Promotional allowances paid to retailers also declined from \$73.9 million in 2018 to \$51.2 million in 2019, before ticking back up to \$56.8 million in 2020. Examples of promotional allowances paid to retailers might include payments for stocking, shelving, displaying, and merchandising brands, slotting fees, volume rebates, incentive payments, and the cost of e-cigarette products given to retailers for free for subsequent resale to consumers.

Price discounts and promotional allowances together represent 34.9% of advertising and promotional expenditures in 2019 and 47.2% in 2020, down from 57.5% in 2018.

The reporting manufacturers spent \$44.2 million in 2019 on coupons to reduce the retail cost of e-cigarette products, up from \$36.5 million in 2018. Spending then declined to \$19.3 million in 2020.

The Commission asked the companies about retail-value-added expenditures — promotions involving free products given to consumers at the point of sale, including online, in connection with a purchase of e-cigarette products. Some such promotions involve free e-cigarette products (e.g., buy two, get one free or buy a device and get a free e-liquid) while others involve other free products (e.g., buy two, get a free t-shirt). Because only one company reported spending in this category, the Commission is not reporting the expenditures in 2019 or 2020 on retail-value-added promotions involving free e-cigarette products. The manufacturers reported spending \$11.3 million in 2018 on such promotions. The companies reported spending

\$3.1 million in 2020 on retail-value-added promotions involving items other than free e-cigarette products. The Commission is not reporting the expenditures on such promotions in 2018 or 2019.

The manufacturers reported that they spent nothing in 2019 or 2020 on branded specialty item distribution — that is, the selling or giving consumers items such as t-shirts, caps, sunglasses, key chains, or sporting goods bearing the brand name of an e-cigarette product. They spent \$212,000 in 2018 distributing such items. The companies also reported that, as in 2018, they made no expenditures in 2020 on specialty item distribution involving products not bearing an e-cigarette product brand name. The Commission is not reporting the expenditures on the distribution of such items in 2019 because only one company reported spending in this category. When the distribution of items, whether branded or non-branded, is combined with the sale of e-cigarettes, the associated expenditures are reported as retail-value-added expenditures.

Sampling includes the distribution of free e-cigarette products and the distribution of e-cigarette products sold at a price of \$1 or less.<sup>29</sup> Sampling includes the costs of the products themselves and all costs of organizing and conducting the sampling. The companies reported sampling spending of \$111.9 million in 2019 (the third largest expenditure category) and \$140.1 million in 2020 (the second largest expenditure category), up from \$58.1 million in 2018.

The Commission inquired about expenditures for public entertainment events (e.g.,

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<sup>29</sup> Highly discounted sales became more popular following the 2016 effective date of FDA's Deeming Regulation, which asserted jurisdiction over all tobacco products and, among other things, prohibited free sampling of tobacco products. *See* Deeming Tobacco Products To Be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Restrictions on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products, 81 Fed. Reg. 28974 (May 10, 2016).

concerts or sporting events) that take place in adult-only facilities and that promote e-cigarette products. Expenditures in connection with such events grew from \$2.3 million in 2018 to \$4.3 million in 2019 and \$10.1 million in 2020. As in prior years, the companies did not report any expenditures in 2019 or 2020 on public entertainment events promoting e-cigarette products that took place outside of adult-only facilities.<sup>30</sup>

The manufacturers reported spending \$16.1 million in 2019 on consumer engagement (not involving the distribution of free e-cigarette products) that took place inside adult-only facilities, up from \$12.8 million in 2018. The companies reported spending nothing in this category in 2020. The Commission is not reporting expenditures in 2019 or 2020 on consumer engagement that took place outside of adult-only facilities, because, as in all prior years, only one company reported such expenditures.

Because only one company reported spending in this area, the Commission is not reporting expenditures in 2019 or 2020 on sponsoring sports teams or individual athletes. The companies reported that they did not sponsor sports teams or individual athletes in 2018.

Finally, the Commission inquired about expenditures related to advertising or promotion through college campus programs including the use of brand ambassadors, campus representatives, or on campus or off campus events or promotions. This category is duplicative of expenditures for other categories. For all reporting years, the manufacturers stated that they spent nothing on such college campus programs.

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<sup>30</sup> Some expenses related to public entertainment events could have been reported under the sampling category.

## **VI. PRODUCT PLACEMENT**<sup>31</sup>

The Commission asked the e-cigarette manufacturers whether, in 2019 or 2020, they or their agents: compensated anyone engaged in product placement in motion pictures, television shows, video games, magazines, or other publications (“in creative content”); solicited the appearance of e-cigarettes in creative content, or paid money or other compensation (including free product) in connection with the appearance of any e-cigarette product brand imagery in creative content; or granted approval for the appearance of an e-cigarette product in creative content. All of the reporting companies said they had not engaged in any of those activities.

## **VII. AGE VERIFICATION**

All of the reporting companies maintained websites to advertise and sell their e-cigarette brands. The Commission inquired about any mechanisms used to deter entry onto those websites by underage persons. The companies used self-certification in 2019 and 2020, asking website visitors to confirm that they were either 18 or 21 years of age.<sup>32</sup> Three of the companies required throughout the time period that individuals attest they were 21 years or older; in early 2019, one company switched from requiring visitors to be 18 years of age to requiring them to be 21; and one company simply stated that it required visitors to certify they were “of legal age.”

During 2019 and 2020, all of the reporting manufacturers used third-party age verification services before allowing customers to purchase e-cigarette products directly on their

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<sup>31</sup> See Federal Trade Commission E-Cigarette Report for 2015-2018 for discussions of the e-cigarette manufacturers’ activities in prior years with respect to: product placement; age verification; social media accounts; affiliates; and celebrities, influencers, and endorsers.

<sup>32</sup> In 2019, amendments to the Food, Drug, and Cosmetics Act raised the nationwide minimum legal sales age for tobacco products from 18 years to 21 years. See 21 U.S.C. § 906(d)(5).

websites.<sup>33</sup> They collected information including name, date of birth, and address and/or telephone number and matched it to information in databases in order to verify that prospective customers were at least 21 years of age. The nature of age verification varied between the companies and over time. One company allowed the submission and matching of the last four digits of a consumer's Social Security number ("SSN digits") or the uploading of government-issued identification ("ID") when a more general verification failed, but started, in 2020, to require all potential customers under 27 years of age to upload an ID. A second company required the submission and matching of SSN digits or the uploading of an ID together with a matching "selfie." A third company required the submission and matching of SSN digits or the completion of a knowledge-based authentication employing a series of multiple-choice questions referencing then-current and historical data derived primarily from government sources. The other two companies required matching of SSN digits, one throughout the time period and the other starting in January 2020. Two of the companies also noted that they used two-factor authentication, one starting in January 2019 and the other in August 2019. One company noted that its system locked the consumer's age-verified name, so a consumer could not use a different name in the credit card, billing address, or shipping address sections.

All of the companies reported that in 2019 and 2020 they followed state laws with respect to obtaining an adult signature upon delivery. One company stated that starting in February

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<sup>33</sup> In March 2021, the Preventing Online Sales of E-Cigarettes to Children Act took effect, prohibiting the United States Postal Service from shipping e-cigarette products and requiring online e-cigarette sellers to verify the age of consumers through commercially available (or similar) databases and obtain proof of age from persons accepting delivery. As reported, other carriers such as DHL, FedEx and the United Parcel Service ("UPS") have also implemented bans on shipping e-cigarette products. Therefore, direct sales are likely to significantly decline in 2021.



2020, UPS required adult signatures for all e-cigarette product deliveries and that because of the extent of its use of UPS, almost all deliveries from that point on required adult signature.

Another company reported that beginning in stages between April and October 2019, it also required adult signature for the first completed purchase on an account and any time there was a mismatch between the billing and shipping address on an order.

The Commission asked the manufacturers about their mechanisms to prevent underage individuals from joining their mailing lists and loyalty programs in 2019 and 2020. All the companies required consumers to be 21 years old to join their mailing lists or loyalty programs. To be on their mailing lists, three of the companies required third-party age verification, one required self-certification, and one relied on self-certification until March 2019, when it switched to third-party age verification.

Two companies said they had loyalty programs and a third said that it offered a non-traditional program through which participants could obtain discounts on up to two replacement devices per year. All three companies stated that they required third-party age verification in order to enroll in those programs.

## **VIII. SOCIAL MEDIA ACCOUNTS**

Two of the five companies said that in 2019 and 2020 they only used social media accounts for non-promotional communications, e.g., customer service. Three of the companies used social media accounts to promote their e-cigarette products in 2019 or 2020. Two companies said they maintained Twitter, Instagram, and Facebook accounts to advertise their e-cigarette products, and one of them also used a YouTube account until December 2020.<sup>34</sup> The

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<sup>34</sup> Twitter, Facebook/Instagram, and YouTube do not themselves sell e-cigarette or tobacco advertising.

final company used a YouTube account to advertise e-cigarette products and also used Facebook and Instagram accounts between July 2019 and September 2020.

The companies that used social media accounts reported that they used tools made available by the social media platforms, which permit account holders to designate age restrictions. Before allowing an individual to access a company account, the platforms confirm that the individual meets the designated age – based either on the age the individual reported when creating a personal account for the platform or on an affirmation that the user was of a certain required legal age in response to a challenge question. One of the e-cigarette manufacturers reported that it hired a third party to manually review its social media followers and remove fraudulent profiles and those that appeared to be under 21 years of age.

#### **IX. AFFILIATES**

Three of the five manufacturers said that they did not use online affiliate programs to market their e-cigarette products in 2019 or 2020. One company had an affiliate program that primarily partnered with deal websites such as Groupon or Slick Deals, but also used vaping blog affiliates. Another company had a limited affiliate program for four months during 2019 for the publication of promotional codes to be used for making purchases from its website.

#### **X. CELEBRITIES, INFLUENCERS, AND ENDORSERS**

The FTC asked the companies whether they engaged in marketing using celebrities, social media influencers, or other endorsers (collectively “influencers”) during 2019 or 2020. Two companies said that they did not use influencers. One said that it engaged influencers to publish product reviews online between January and March 2019. Another company utilized social media influencers and other adult endorsers until October 2019 to create content on the influencers’ social media pages and on the company’s websites and social media accounts. The

final company ran consumer testimonials in 2019, hired radio personalities to share their switching stories, and until September 2019, had an endorsement arrangement with a talk show host. None of the companies reported using influencers in 2020.

One company said that it reviewed all paid influencer social media posts before and after they were posted. A second company said its legal department was involved in reviewing and overseeing certain influencer messaging and content prior to publication. A third company said it reviewed all influencer scripts.

**Table 1**  
**Total Product Sales and Percentages of Total Sales**  
**(2015-2020)**

	2015		2016		2017		2018	
Total sales	\$304,170,139		\$487,791,646		\$782,269,969		\$2,045,622,966	
Cartridge systems	\$259,984,551	85.47%	\$417,302,598	85.55%	\$707,415,500	90.43%	\$1,969,019,051	96.26%
Disposables	\$44,185,495	14.53%	\$68,404,886	14.02%	\$72,420,899	9.26%	\$74,683,954	3.65%
Open systems	\$92	0.00%	\$2,084,163	0.43%	\$2,427,812	0.31%	\$1,535,492	0.08%
Indirect sales	\$268,574,337	88.30%	\$436,160,722	89.42%	\$690,224,679	88.23%	\$1,883,091,677	92.05%
Direct sales	\$35,480,901	11.66%	\$50,047,078	10.26%	\$90,605,887	11.58%	\$131,274,855	6.42%
Sales for \$1 or less	\$114,901	0.04%	\$1,583,847	0.32%	\$1,439,403	0.18%	\$31,256,434	1.53%

	2019		2020	
Total sales	\$2,702,811,187		\$2,223,795,406	
Cartridge systems	\$2,633,333,620	97.43%	\$2,164,546,108	97.34%
Disposables	\$69,274,687	2.56%	\$59,250,133	2.66%
Open systems	\$193,583	0.01%	-\$834	0.00%
Indirect sales	\$2,476,210,392	91.62%	\$2,052,886,910	92.31%
Direct sales	\$219,856,446	8.13%	\$157,595,133	7.09%
Sales for \$1 or less	\$6,744,349	0.25%	\$13,313,364	0.60%

**Table 2A**  
**Cartridge System Sales and Giveaways and Percentages of Total Sales**  
**(2015-2018)**

	2015		2016		2017		2018	
Cartridge system sales	\$259,984,551		\$417,302,598		\$707,415,500		\$1,969,019,051	
Cartridge sales	\$197,187,253	75.85%	\$338,234,357	81.05%	\$567,174,474	80.18%	\$1,560,395,293	79.24%
Device sales	\$649,055	0.25%	\$3,810,583	0.91%	\$23,614,906	3.34%	\$168,305,746	8.55%
Cartridge & device bundle sales	\$62,148,238	23.90%	\$75,257,657	18.03%	\$116,626,415	16.49%	\$240,318,013	12.21%
Indirect sales	\$225,163,505	86.61%	\$367,124,417	87.98%	\$622,341,019	87.97%	\$1,816,012,985	92.23%
Direct sales	\$34,706,146	13.35%	\$48,594,334	11.64%	\$83,635,077	11.82%	\$121,830,755	6.19%
\$1 sales	\$114,901	0.04%	\$1,583,847	0.38%	\$1,439,403	0.20%	\$31,175,312	1.58%
Total cartridges sold & given away	169,281,616		211,062,325		313,626,942		831,349,329	
Cartridges sold indirectly	152,178,291	88.99%	190,647,050	90.33%	286,283,022	91.28%	790,440,407	95.08%
Cartridges sold directly	12,225,256	7.22%	15,839,150	7.50%	22,703,264	7.24%	33,502,457	4.03%
Cartridges sold for \$1 or less	272,420	0.16%	2,878,860	1.36%	2,766,371	0.88%	4,338,265	0.52%
Cartridges given away	4,605,649	2.72%	1,697,265	0.80%	1,874,285	0.60%	3,068,201	0.37%
Total devices sold & given away	7,814,159		8,849,196		11,824,626		30,466,903	
Devices sold indirectly	6,953,901	88.99%	7,866,147	88.89%	11,004,545	93.06%	26,993,075	88.60%
Devices sold directly	100,612	1.29%	173,633	1.96%	442,840	3.75%	850,367	2.79%
Devices sold for \$1 or less	28,278	0.36%	328,816	3.72%	177,280	1.50%	2,310,951	7.59%
Devices given away	731,368	9.36%	480,600	5.43%	199,961	1.69%	312,510	1.03%

**Table 2B**  
**Cartridge System Sales and Giveaways and Percentages of Total Sales**  
**(2019-2020)**

	2019		2020	
Cartridge system sales	\$2,633,333,620		\$2,164,546,108	
Cartridge sales	\$2,195,797,626	83.38%	\$2,080,565,721	96.12%
Device sales	\$304,839,736	11.58%	\$81,203,408	3.75%
Cartridge & device bundle sales	\$132,696,259	5.04%	\$2,729,832	0.13%
Indirect sales	\$2,415,511,724	91.73%	\$2,003,415,959	92.56%
Direct sales	\$211,101,250	8.02%	\$147,816,787	6.83%
\$1 sales	\$6,720,647	0.26%	\$13,313,362	0.62%
Total cartridges sold & given away	976,656,877		943,180,991	
Cartridges sold indirectly	919,757,576	94.17%	901,905,290	95.62%
Cartridges sold directly	56,601,584	5.80%	41,239,688	4.37%
Cartridges sold for \$1 or less	109,205	0.01%	6,333	0.00%
Cartridges given away	188,512	0.02%	29,680	0.00%
Total devices sold & given away	33,851,529		21,042,495	
Devices sold indirectly	25,010,441	73.88%	7,234,693	34.38%
Devices sold directly	684,560	2.02%	355,837	1.69%
Devices sold for \$1 or less	8,067,283	23.83%	13,447,132	63.90%
Devices given away	89,245	0.26%	4,833	0.02%

**Table 3**  
**Disposable Sales and Giveaways and Percentages of Total Sales**  
**(2015-2020)**

	2015		2016		2017		2018	
Disposable sales	\$44,185,495		\$68,404,886		\$72,420,899		\$74,683,954	
Indirect sales	\$43,410,770	98.25%	\$67,178,662	98.21%	\$66,396,135	91.68%	\$66,058,562	88.45%
Direct sales	\$774,726	1.75%	\$1,226,224	1.79%	\$6,024,764	8.32%	\$8,544,270	11.44%
Sales for \$1 or less	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$81,123	0.11%
Total sold & given away	7,802,219		12,879,262		15,838,443		17,226,341	
Indirect sales	7,727,777	99.05%	12,635,814	98.11%	14,609,115	92.24%	15,402,865	89.41%
Direct sales	58,144	0.75%	157,888	1.23%	1,221,223	7.24%	1,706,549	9.91%
Sales for \$1 or less	0	0.00%	0	0.00%	0	0.00%	22,752	0.13%
Given away	16,298	0.21%	85,560	0.66%	8,105	0.05%	94,175	0.55%

	2019		2020	
Disposable sales	\$69,274,687		\$59,250,133	
Indirect sales	\$60,574,533	87.44%	\$49,474,662	83.50%
Direct sales	\$8,676,452	12.52%	\$9,775,469	16.50%
Sales for \$1 or less	\$23,702	0.03%	\$2	0.00%
Total sold & given away	16,072,942		13,270,159	
Indirect sales	14,366,110	89.38%	11,679,252	88.01%
Direct sales	1,662,942	10.35%	1,581,200	11.92%
Sales for \$1 or less	23,956	0.15%	2	0.00%
Given away	19,934	0.12%	9,705	0.07%

**Table 4A**  
**Open System Sales and Giveaways and Percentages of Total Sales**  
**(2015-2018)**

	2015		2016		2017		2018	
Open system sales	\$92		\$2,084,163		\$2,427,812		\$1,535,492	
E-liquid sales	\$57	65.52%	\$815,107	39.14%	\$1,347,033	55.46%	\$1,147,756	74.75%
Device sales	\$0	0.00%	\$1,182,794	56.80%	\$951,038	39.16%	\$314,167	20.46%
E-liquid & device bundle sales	\$30	34.48%	\$84,427	4.05%	\$130,800	5.39%	\$73,586	4.79%
Indirect sales	\$62	67.39%	\$1,857,643	89.13%	\$1,487,524	61.27%	\$1,020,130	66.44%
Direct sales	\$30	32.61%	\$226,519	10.87%	\$940,288	38.73%	\$515,362	33.56%
Sales for \$1 or less	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%
Total e-liquids sold & given away	1,135		200,543		261,665		193,862	
E-liquids indirect sales	1,134	99.91%	157,439	78.51%	171,184	65.37%	121,526	62.69%
E-liquids direct sales	1	0.09%	43,091	21.49%	89,526	34.27%	54,632	28.18%
E-liquids sold for \$1 or less	0	0.00%	0	0.00%	0	0.00%	0	0.00%
E-liquids given away	0	0.00%	13	0.01%	955	0.36%	17,704	9.13%
Total devices sold & given away	1		197,368		112,573		40,664	
Devices indirect sales	0	0.00%	177,778	90.07%	82,128	72.96%	23,980	58.97%
Devices direct sales	1	100.00%	19,589	9.93%	30,292	26.91%	16,682	41.02%
Devices sold for \$1 or less	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Devices given away	0	0.00%	1	0.00%	153	0.14%	2	0.00%



**Table 4B**  
**Open System Sales and Giveaways and Percentages of Total Sales**  
**(2019-2020)**

	2019		2020	
Open system sales	\$193,583		-\$834	
E-liquid sales	\$144,259	91.70%	-\$2,185	261.78%
Device sales	-\$8,915	-5.67%	-\$1,527	182.99%
E-liquid & device bundle sales	\$21,966	13.96%	\$2,877	-344.77%
Indirect sales	\$124,135	64.12%	-\$3,712	444.77%
Direct sales	\$69,448	35.88%	\$2,877	-344.77%
Total e-liquids sold & given away	15,653		-63	
E-liquids indirect sales	13,422	85.75%	-205	324.92%
E-liquids direct sales	2,231	14.25%	142	-224.92%
Total devices sold & given away	778		24	
Devices indirect sales	-553	-71.00%	-118	-485.44%
Devices direct sales	1,331	171.00%	142	585.44%

\* Negative sales represent returns of products sold in a prior year.

**Table 5A**  
**Percentages of Cartridges, Disposables, and E-Liquid Containers with Various Flavors**  
**(2015-2018)**

	2015	2016	2017	2018
<b>Cartridge flavors</b>				
Tobacco	47.24%	39.80%	34.26%	20.96%
Menthol or Mint	39.00%	38.04%	36.26%	36.90%
All other	13.76%	22.16%	29.47%	42.14%
-Alcohol	0.11%	0.14%	0.04%	0.03%
-Beverage	3.56%	4.07%	5.37%	3.47%
-Candy/Dessert	4.47%	7.26%	6.67%	4.38%
-Fruit	4.72%	8.95%	15.27%	29.70%
-Fruit & Menthol/Mint	0.00%	0.02%	0.19%	0.09%
-Spice	0.90%	1.72%	1.04%	0.50%
-Other	0.00%	0.00%	0.88%	3.96%
<b>Disposable flavors</b>				
Tobacco	52.05%	45.64%	38.52%	35.44%
Menthol or Mint	25.95%	22.42%	25.72%	27.16%
All other	22.00%	31.94%	35.76%	37.40%
-Candy/Dessert	0.00%	0.00%	0.07%	0.12%
-Fruit	22.00%	26.81%	31.96%	33.16%
-Spice	0.00%	0.00%	3.73%	4.12%
<b>E-liquid bottle flavors</b>				
Tobacco	12.78%	35.07%	32.97%	27.94%
Menthol or Mint	14.45%	30.15%	36.12%	28.04%
All other	72.78%	34.78%	30.91%	44.02%
-Alcohol	8.46%	0.18%	0.26%	0.12%
-Beverage	0.00%	0.69%	1.62%	15.27%
-Candy/Dessert	30.66%	1.97%	4.68%	2.32%
-Fruit	27.31%	28.52%	18.10%	21.47%
-Fruit & Menthol/Mint	0.00%	2.09%	3.20%	1.10%
-Spice	3.17%	1.31%	3.06%	3.74%
-Other	3.17%	0.03%	0.00%	0.00%

**Table 5B**  
**Percentages of Cartridges, Disposables, and E-Liquid Containers with Various Flavors**  
**(2019-2020)**

	2019	2020
<b>Cartridge flavors</b>		
Tobacco	24.93%	35.70%
Menthol	16.67%	63.53%
Mint	44.13%	-0.06%
All other	14.27%	0.83%
-Alcohol	0.00%	0.00%
-Beverage	1.11%	0.03%
-Candy/Dessert	0.74%	0.00%
-Fruit	11.53%	0.79%
-Fruit & Menthol/Mint	0.34%	0.00%
-Spice	0.31%	0.02%
-Other	0.23%	0.00%
<b>Disposable flavors</b>		
Tobacco	31.04%	39.62%
Menthol	22.30%	27.29%
Mint	7.37%	9.59%
All other	39.29%	23.49%
-Candy/Dessert	0.02%	0.00%
-Fruit	35.25%	18.45%
-Spice	4.03%	5.04%
<b>E-liquid bottle flavors</b>		
Tobacco	21.67%	-122.10%
Menthol	20.64%	138.58%
Mint	0.06%	0.00%
All other	57.62%	83.52%
-Alcohol	-0.15%	-7.81%
-Beverage	29.38%	-98.43%
-Candy/Dessert	-0.41%	21.90%
-Fruit	10.71%	121.44%
-Fruit & Menthol/Mint	0.00%	0.00%
-Spice	2.91%	30.79%
-Other	15.18%	0.00%

\* Negative sales represent returns of products sold in a prior year.

**Table 6A**  
**Percentages of Cartridges, Disposables, and E-Liquid Containers**  
**Within Various Nicotine Concentration Ranges and Their Average Nicotine Concentrations**  
**Measured in Milligrams of Nicotine per Milliliter of E-liquid**  
**(2015-2018)**

	2015	2016	2017	2018
<b>Cartridges - nicotine concentration</b>				
0	0.21%	0.18%	0.03%	0.02%
1-10.99	0.58%	0.46%	0.01%	0.01%
11-20.99	11.42%	6.75%	8.21%	13.07%
21-30.99	15.52%	16.05%	10.67%	5.65%
31-40.99	0.82%	10.72%	20.62%	9.21%
41-50.99	0.00%	0.18%	1.33%	0.91%
51-60.99	71.44%	65.66%	59.13%	71.13%
Average	47.46	47.23	46.79	49.41
<b>Disposables - nicotine concentration</b>				
0	-0.06%	0.13%	0.00%	0.00%
11-20.99	28.72%	7.17%	1.93%	0.00%
21-30.99	71.34%	92.57%	68.91%	55.07%
31-40.99	0.00%	0.00%	1.20%	2.35%
41-50.99	0.00%	0.01%	7.16%	4.37%
51-60.99	0.00%	0.11%	18.49%	28.25%
61-70.99	0.00%	0.00%	2.31%	9.95%
Average	25.04	27.06	34.53	39.53
<b>E-liquid Bottle - nicotine concentration</b>				
0	0.00%	1.06%	1.06%	1.62%
1-10.99	27.22%	89.37%	53.36%	35.19%
11-20.99	13.13%	2.83%	32.60%	11.49%
21-30.99	0.00%	6.30%	12.98%	30.77%
31-40.99	29.60%	0.23%	0.00%	0.00%
41-50.99	0.00%	0.00%	0.00%	20.94%
51-60.99	30.04%	0.22%	0.00%	0.00%
Average	32.35	7.75	11.84	21.83

**Table 6B**  
**Percentages of Cartridges, Disposables, and E-Liquid Containers**  
**Within Various Nicotine Concentration Ranges and Their Average Nicotine Concentrations**  
**Measured in Milligrams of Nicotine per Milliliter of E-liquid**  
**(2019-2020)**

	2019	2020
Cartridges - nicotine concentration		
0	0.02%	0.01%
1-10.99	0.01%	0.00%
11-20.99	4.82%	5.49%
21-30.99	5.51%	10.60%
31-40.99	11.77%	9.24%
41-50.99	0.01%	0.00%
51-60.99	77.86%	74.66%
Average	52.31	51.22
Disposables - nicotine concentration		
0	0.00%	0.00%
11-20.99	0.00%	0.00%
21-30.99	49.13%	54.65%
31-40.99	2.14%	-0.20%
41-50.99	6.42%	1.67%
51-60.99	27.97%	23.30%
61-70.99	14.35%	20.58%
Average	41.74	41.90
E-liquid Bottle - nicotine concentration		
0	7.06%	1.08%
1-10.99	-5.99%	316.18%
11-20.99	-5.33%	292.76%
21-30.99	42.16%	-224.92%
31-40.99	0.00%	0.00%
41-50.99	62.10%	-285.10%
Average	38.81	-124.79

\* Negative sales represent returns of products sold in a prior year.

**Table 7A**  
**Bundling of Cartridge System Components**  
**(2015-2018)**

	2015	2016	2017	2018
% Devices bundled with cartridges	97.10%	95.40%	88.12%	63.03%
% Devices not bundled with cartridges	2.90%	4.60%	11.88%	36.97%
% Cartridges bundled with devices	4.88%	4.13%	3.33%	2.31%
% Cartridges not bundled with devices	95.12%	95.87%	96.67%	97.69%
# of devices bundled together				
1 device	100.01%	100.00%	99.98%	100.00%
2 or more devices	-0.01%	0.00%	0.02%	0.00%
# of cartridges bundled together				
1 cartridge	4.50%	4.30%	5.05%	4.88%
2 cartridges	71.77%	69.16%	58.42%	26.06%
3 cartridges	3.58%	14.83%	11.41%	11.64%
4 cartridges	1.31%	4.27%	22.05%	56.33%
5 cartridges	18.84%	7.44%	0.09%	0.02%
6 or more cartridges	0.00%	0.00%	2.98%	1.06%

**Table 7B**  
**Bundling of Cartridge System Components**  
**(2019-2020)**

	2019	2020
% Devices bundled with cartridges	26.90%	2.55%
% Devices not bundled with cartridges	73.10%	97.45%
% Cartridges bundled with devices	0.93%	0.03%
% Cartridges not bundled with devices	99.07%	99.97%
# of devices bundled together		
1 device	100.00%	100.00%
2 or more devices	0.00%	0.00%
# of cartridges bundled together		
1 cartridge	1.63%	0.66%
2 cartridges	31.41%	43.83%
3 cartridges	3.73%	0.44%
4 cartridges	63.23%	55.07%
5 cartridges	0.00%	0.00%
6 or more cartridges	0.00%	0.00%

**Table 8**  
**Percentages of Disposables Sold or Given Away Individually or in Bundles**  
**(2015-2020)**

	2015	2016	2017	2018
1	100.00%	100.00%	92.29%	96.30%
5	0.00%	0.00%	2.70%	3.70%
20	0.00%	0.00%	2.06%	0.00%
100	0.00%	0.00%	2.95%	0.00%

	2019	2020
1	97.91%	98.81%
5	1.89%	0.72%
20	0.20%	0.47%
100	0.00%	0.00%



**Table 9A**  
**Advertising and Promotional Expenditures**  
**(2015-2018)**

	2015	2016	2017	2018
TV advertising	\$18,765,588	\$13,706,190	\$5,994,063	\$7,590,297
Movie advertising	\$0	\$0	\$0	\$0
Radio advertising	\$1,949,099	\$1,519,965	\$1,308,292	\$4,505,002
Other audio-visual advertising	\$0	\$0	N/A	N/A
Product placement	N/A	\$113,012	N/A	N/A
Company Internet sites	\$5,171,616	\$7,888,889	\$8,888,138	\$11,616,875
Social media	N/A	N/A	\$779,291	\$577,285
Other Internet and digital advertising	\$6,389,902	\$8,908,004	\$12,392,570	\$22,315,874
Endorsements	\$287,950	\$104,381	\$4,431,029	\$4,287,431
Direct mail marketing	N/A	N/A	\$1,249,778	\$4,325,312
Email marketing	\$66,648	\$225,703	\$152,984	\$430,359
Newspaper advertising	\$0	\$0	\$0	N/A
Magazine advertising	\$2,451,090	\$7,072,483	\$4,884,538	\$5,240,440
Outdoor advertising	\$969,603	\$2,815,302	\$2,854,201	\$1,028,472
Transit advertising	N/A	\$3,453,245	\$2,319,535	\$666,682
Point-of-sale advertising	\$13,365,702	\$26,462,177	\$21,445,036	\$45,872,667
Price discounts	\$11,184,584	\$33,709,537	\$33,648,290	\$155,124,847
Promotional allowances paid to retailers	\$28,430,304	\$36,305,608	\$40,944,305	\$73,852,950
Promotional allowances paid to wholesalers	\$21,072,195	\$29,273,783	\$52,326,119	\$141,375,232
Coupons for reduction of purchase price	\$22,788,155	\$20,395,598	\$27,154,852	\$36,461,104
Retail-value-added - free e-cigarette products	\$60,115	\$5,616,750	\$10,586,295	\$11,311,627
Retail-value-added - free items other than e-cigarette Products	N/A	N/A	\$0	N/A
Specialty item distribution - branded	N/A	N/A	N/A	\$211,770
Specialty item distribution - not branded	\$0	\$0	\$0	\$0
Sampling	\$22,962,323	\$32,439,417	\$14,153,277	\$58,083,793
Public entertainment - adult-only facilities	N/A	\$3,024,758	N/A	\$2,303,716
Public entertainment - not adult-only facilities	\$0	\$0	\$0	\$0
Consumer engagement - adult-only facilities	\$1,613,769	\$8,537,860	\$1,701,784	\$12,771,648
Consumer engagement - not adult-only facilities	N/A	N/A	N/A	N/A
Sponsorship	\$0	\$0	\$0	\$0
All other	\$40,280,324	\$29,401,798	\$31,341,033	\$43,587,550
<b>Total reportable expenditures</b>	<b>\$197,808,967</b>	<b>\$270,974,462</b>	<b>\$278,555,410</b>	<b>\$643,540,932</b>
Campus promotion	\$0	\$0	\$0	\$0

**Table 9B**  
**Advertising and Promotional Expenditures**  
**(2019-2020)**

	2019	2020
TV advertising	\$93,786,067	N/A
Movie advertising	\$0	\$0
Radio advertising	\$54,182,097	\$10,243,086
Other audio-visual advertising	N/A	N/A
Product placement	\$0	\$0
Company Internet sites	\$7,972,951	\$4,720,225
Social media	\$1,370,151	\$1,255,990
Other Internet and digital advertising	\$79,185,896	\$36,632,537
Endorsements	\$6,792,765	\$0
Direct mail marketing	\$16,112,008	\$11,148,762
Email marketing	\$630,821	\$164,761
Newspaper advertising	\$57,746,568	N/A
Magazine advertising	\$12,967,789	\$2,744,355
Outdoor advertising	\$19,076,783	\$7,196,454
Transit advertising	N/A	\$0
Point-of-sale advertising	\$85,709,226	\$61,769,932
Price discounts	\$182,269,887	\$169,074,590
Promotional allowances paid to retailers	\$51,163,171	\$56,780,807
Promotional allowances paid to wholesalers	\$126,783,783	\$113,626,836
Coupons for reduction of purchase price	\$44,154,292	\$19,283,623
Retail-value-added - free e-cigarette products	N/A	N/A
Retail-value-added - free items other than e-cigarette Products	N/A	\$3,070,220
Specialty item distribution - branded	\$0	\$0
Specialty item distribution - not branded	N/A	\$0
Sampling	\$111,860,067	\$140,074,983
Public entertainment - adult-only facilities	\$4,265,926	\$10,052,027
Public entertainment - not adult-only facilities	\$0	\$0
Consumer engagement - adult-only facilities	\$16,134,780	\$0
Consumer engagement - not adult-only facilities	N/A	N/A
Sponsorship	N/A	N/A
All other	\$60,847,782	\$75,178,082
<b>Total reportable expenditures</b>	<b>\$1,033,012,809</b>	<b>\$719,947,048</b>
Campus promotion	\$0	\$0

## **APPENDIX**

### Advertising and Promotional Expenditure Categories for 2019 and 2020

**TV Advertising:** Advertising on broadcast, cable, and satellite television channels, Internet television (e.g., Hulu, Netflix, Amazon Prime), and webisodes (e.g., web shows on YouTube), including spot ads, long-form commercials, and sponsored programming; but excluding, to the extent practicable, expenditures in connection with Product Placement, Social Media, Endorsements, or Public Entertainment (Adult-Only and Not Adult-Only).

**Movie Advertising:** Advertising spots before or during movies, including in movie theaters, on DVDs, and streamed movies (e.g., a movie streamed on Hulu); but excluding, to the extent practicable, expenditures in connection with TV Advertising, Product Placement, or Endorsements.

**Radio Advertising:** Advertising on broadcast, satellite, Internet radio, audio streaming services (e.g., Pandora and Spotify), and podcasts, including spot ads, long-form commercials, and sponsored programming; but excluding, to the extent practicable, expenditures in connection with Product Placement, Social Media, or Endorsements.

**Other Audio-Visual Advertising:** Audio, audio-visual, and video advertising not covered by TV Advertising, Movie Advertising, Radio Advertising, Product Placement, Social Media, Endorsements, or Transit Advertising, including advertising on screens or monitors in commercial establishments, such as video arcades or retail shops, and video games.

**Product Placement:** All expenditures for product placement in the creative content of any program or performance (e.g., movies, television shows, Internet series, video games, and other broadcast and digital media).

**Company Internet Sites:** All expenditures for any Company-owned or -operated Internet site, or any site operated on its behalf, that contains information about the Company's e-cigarette products, and that is directed to persons located in the United States; but excluding, to the extent practicable, expenditures in connection with Email Marketing, Coupons for Reduction of Purchase Price, Public Entertainment – Not Adult-Only Facilities, or Sponsorship.

**Social Media:** Advertising on any Company-controlled social media account or channel (e.g., Facebook, Twitter, Instagram, Snapchat, Reddit, YouTube) that is directed to persons located in the United States, including Company-authored posts and replies, and re-posts of other users' content on Company-controlled accounts or channels; but excluding expenses related to celebrities, social media influencers, brand ambassadors, or other endorsers endorsing e-cigarette products, which should be reported as Endorsements.

**Other Internet and Digital Advertising:** All expenditures for Internet or digital advertising directed to persons located in the United States that are not covered by TV Advertising, Movie Advertising, Radio Advertising, Other Audio-Visual Advertising, Product Placement, Social Media, Endorsements, or Email Marketing, including banner, display, pop-up, and

native advertising on third-party Internet sites, search advertising, sponsored digital content, advertising using a short message service (SMS text), multimedia (MMS) messaging, instant messaging (IM), and direct messaging (DM), and advertising viewed in apps or video games; but excluding, to the extent practicable, expenditures in connection with Coupons, Retail-Value-Added (Free E-Cigarette Products and Other Free Items), Specialty Item Distribution (Branded and Not Branded), Sampling, Public Entertainment (Adult-Only and Not Adult-Only), Consumer Engagement (Adult-Only and Not Adult-Only), or Sponsorship.

**Endorsements:** All expenditures to procure the mention or use of e-cigarette products by a celebrity, social media influencer, or other endorser, in any situation; but excluding expenditures related to an actor mentioning or using an e-cigarette product when assuming the role of a character, which should be reported as Product Placements.

**Direct Mail Marketing:** Direct mail marketing; but excluding, to the extent practicable, expenditures in connection with Endorsements, Email Marketing, Coupons, Retail-Value-Added (Free E-Cigarette Products and Other Free Items), Specialty Item Distribution (Branded and Not Branded), Sampling, Public Entertainment (Adult-Only and Not Adult-Only), Consumer Engagement (Adult-Only and Not Adult-Only), or Sponsorship.

**Newspaper Advertising:** Newspaper advertising, including print advertising and native advertising; but excluding, to the extent practicable, expenditures in connection with Endorsements, Coupons, Retail-Value-Added (Free E-Cigarette Products and Other Free Items), Specialty Item Distribution (Branded and Not Branded), Sampling, Public Entertainment (Adult-Only and Not Adult-Only), Consumer Engagement (Adult-Only and Not Adult-Only), or Sponsorship. To the extent that advertising appearing in print editions of newspapers also appears in nearly identical digital editions of the newspapers, such expenditures should be reported here, but other advertising on a newspaper website should be reported in Other Internet and Digital Advertising.

**Magazine Advertising:** Magazine advertising, including print advertising and native advertising; but excluding, to the extent practicable, expenditures in connection with Endorsements, Coupons, Retail-Value-Added (Free E-Cigarette Products and Other Free Items), Specialty Item Distribution (Branded and Not Branded), Sampling, Public Entertainment (Adult-Only and Not Adult-Only), Consumer Engagement (Adult-Only and Not Adult-Only), or Sponsorship. To the extent that advertising appearing in print editions of magazines also appears in nearly identical digital editions of the magazines, such expenditures should be reported here, but other advertising on a magazine website should be reported in Other Internet and Digital Advertising.

**Outdoor Advertising:** Billboards; signs and placards in arenas, stadiums, and shopping malls, whether any of the foregoing are open-air or enclosed; and any other advertising placed outdoors, regardless of their size; but excluding, to the extent practicable, expenditures in connection with Endorsements, Transit Advertising, Point-of-Sale Advertising, Coupons, Retail-Value-Added (Free E-Cigarette Products and Other Free Items), Specialty Item Distribution (Branded and Not Branded), Sampling, Public Entertainment (Adult-Only and Not Adult-Only), Consumer Engagement (Adult-Only and

Not Adult-Only), or Sponsorship. Expenditures for advertising placed inside physical retail locations, whether facing inward or outward, which should be reported in Point-of-Sale Advertising.

**Transit Advertising:** Advertising on or within private or public vehicles and all advertisements placed at, on or within any bus stop, taxi stand, transportation waiting area, subway or train station, airport or any other transportation facility; but excluding, to the extent practicable, expenditures in connection with Endorsements, Outdoor Advertising, Coupons, Retail-Value-Added (Free E-Cigarette Products and Other Free Items), Specialty Item Distribution (Branded and Not Branded), Sampling, Public Entertainment (Adult-Only and Not Adult-Only), Consumer Engagement (Adult-Only and Not Adult-Only), or Sponsorship.

**Point-of-Sale Advertising:** Advertising materials displayed or distributed at a physical retail location; but excluding, to the extent practicable, expenditures in connection with in store video advertising (which should be reported as Other Audio-Visual Advertising), Coupons, Retail-Value-Added (Free E-Cigarette Products and Other Free Items), Specialty Item Distribution (Branded and Not Branded), Sampling, Public Entertainment (Adult-Only and Not Adult-Only), Consumer Engagement (Adult-Only and Not Adult-Only), or Sponsorship.

**Price Discounts:** Expenditures paid to e-cigarette product retailers or wholesalers to reduce the price of e-cigarette products to consumers, including off invoice discounts, buy downs, voluntary price reductions, and trade programs; but excluding, to the extent practicable, expenditures in connection with Coupons or Retail-Value-Added – Free E-Cigarette Products.

**Promotional Allowances Paid to Retailers:** All expenditures for promotional allowances paid to E-Cigarette Product retailers to facilitate the sale or placement of any E-Cigarette Product, including, but not limited to, payments for stocking, shelving, displaying, and merchandising brands, slotting fees, volume rebates, incentive payments, and the cost of E-Cigarette Products given to retailers for free for subsequent resale to consumers; but excluding, to the extent practicable, expenditures in connection with Other Audio-Visual Advertising, Other Internet and Digital Advertising, Direct Mail Marketing, Newspaper Advertising, Magazine Advertising, Outdoor Advertising, Point-of-Sale Advertising, and Price Discounts.

**Promotional Allowances Paid to Retailers:** All expenditures for promotional allowances paid to E-Cigarette Product retailers to facilitate the sale or placement of any E-Cigarette Product, including, but not limited to, payments for volume rebates, incentive payments, value-added services, promotional execution, and satisfaction of reporting requirements; but excluding, to the extent practicable, expenditures in connection with Other Audio-Visual Advertising, Other Internet and Digital Advertising, Direct Mail Marketing, Newspaper Advertising, Magazine Advertising, Outdoor Advertising, Point-of-Sale Advertising, and Price Discounts.

**Coupons for Reduction of Purchase Price:** All expenditures associated with coupons used to reduce the retail cost of e-cigarette products (whether distributed in person, by mail, online, or otherwise and whether redeemed at the point of sale, by mail, online, or otherwise), including all redemption expenses and costs associated with promoting, designing, printing, and distributing the coupons. This includes coupons with offers such as “buy 2 e-cigarette products and get 50% off the price of a third product.” Coupons for free e-cigarette products or for e-cigarette products sold at a price of \$1 or less, with no purchase or payment required to obtain the coupons are reported as Sampling.

**Retail-value-added – Free E-Cigarette Products:** All expenditures associated with promotions involving free e-cigarette products that are given to consumers at the point of sale, including online, in connection with a purchase of e-cigarette products (e.g., buy two, get one free or buy a device and get free e-liquid), whether or not the free products are physically bundled together with the purchased products. For e-cigarette products bundled together to be reported in this category, one or more of the products in the bundle must be promoted as free.

**Retail-value-added – Free Items Other Than E-Cigarette Products:** All expenditures associated with promotions involving free items other than e-cigarette products that are given to consumers at the point of sale, including online, in connection with a purchase of e-cigarette products (e.g., buy two, get a free t-shirt), whether or not the free products are physically bundled together with the purchased products. For product bundles to be reported in this category, the products in the bundle that are not e-cigarette products must be promoted as free.

**Specialty Item Distribution – Branded:** All costs of distributing any items (other than e-cigarette products, written or electronic publications, and items whose sole function is to advertise or promote e-cigarette products) that bear the name, logo, or an image of any portion of the package of any e-cigarette product, when the items are not given to consumers at the point of sale (e.g., a branded umbrella redeemed with loyalty program points). The expenditures reported are the net cost to the Company, i.e., payments received from consumers for such items should be deducted.

**Specialty Item Distribution – Not Branded:** All costs of distributing any items (other than e-cigarette products, written or electronic publications, and items whose sole function is to advertise or promote e-cigarette products) that do not bear the name, logo, or an image of any portion of the package of any e-cigarette product, when the items are not given to consumers at the point of sale (e.g., a gift card to an online music retailer redeemed with loyalty program points). The expenditures reported are the net cost to the Company, i.e., payments received from consumers for such items should be deducted.

**Sampling:** All costs of sampling of e-cigarette products, including the costs of the products themselves and all costs of organizing, promoting, and conducting the sampling. Sampling includes the distribution of e-cigarette products sold at a price of \$1 or less. Sampling also includes the distribution of e-cigarette products for consumer testing or evaluation when consumers are able to use the products outside of a facility owned or operated by the

Company or its agents, but not the cost of actual clinical testing or market research associated with such distributions. Coupons distributed for free e-cigarette products or e-cigarette products sold at a price of \$1 or less, with no purchase or payment required to obtain the coupons, should be reported in this category.

**Public entertainment – Adult-Only Facilities:** All expenditures for public entertainment events (including, but not limited to, concerts and sporting events) referring or relating to e-cigarette products that take place in an Adult-Only Facility, includes expenditures promoting or sponsoring such events. Whenever such activities are combined with the consumer engagement in adult-only facilities, the expenditures connected with consumer engagement should be reported solely in Consumer Engagement – Adult-Only Facilities.

**Public Entertainment – Not Adult-Only Facilities:** All expenditures for public entertainment events (including, but not limited to, concerts and sporting events) referring or relating to e-cigarette products, at facilities that are open to persons under the legal age, including expenditures promoting or sponsoring such events. Whenever such activities are combined with the consumer engagement in facilities open to persons under the legal age, the expenditures connected with consumer engagement should be reported solely in Consumer Engagement – Not Adult-Only Facilities.

**Consumer Engagement – Adult-Only Facilities:** All expenditures for consumer engagement in adult-only facilities, when such activities do not involve the distribution of free e-cigarette products, e-cigarette products sold at a price of \$1 or less, or coupons for free e-cigarette products or e-cigarette products sold at a price of \$1 or less with no purchase or payment required to obtain the coupons, including any third-party agency fees, and excluding the cost of any coupons distributed.

**Consumer Engagement – Not Adult-Only Facilities:** All expenditures for consumer engagement at facilities open to persons under the legal age, when such activities do not involve the distribution of free e-cigarette products, e-cigarette products sold at a price of \$1 or less, or coupons for free e-cigarette products or e-cigarette products sold at a price of \$1 or less with no purchase or payment required to obtain the coupons, including any third-party fees, and excluding the cost of any coupons distributed in the course of consumer engagement activities.

**Sponsorship:** All expenditures for sponsorship of sports teams or individual athletes; but excluding, to the extent practicable, expenditures in connection with Endorsements. This category excludes expenditures promoting or sponsoring sporting events, which should be reported as Public Entertainment (Adult-Only or Not Adult-Only).

**All Other:** All expenditures for any advertising or promotional expenditures not covered by another reporting category.

**Campus Promotion:** All expenditures related to advertising or promotion through college campus programs, including but not limited to, compensation to campus representatives or brand ambassadors, expenditures for organizing, promoting, or conducting any campus

events or promotions, whether on campus or off campus, and all expenditures for implementing such programs or events. This category is duplicative of expenditures for other categories.