2022

FROZEN FRUITS & VEGETABLES

Perceptions, Usage and Expectations among U.S. Consumers and SNAP-Eligible Households

Published by:
AFFI AMERICAN FROZEN FOOD INSTITUTE

Made possible by:
Hillphoenix
a DOVER company

Methodology

- Online survey
- June 2022
- 1,525 consumers modeled to the U.S. Census
- Filters:
  - Ages 18-75
  - Some or all shopping
  - Buy frozen fruit/vegetables
- 639 SNAP-eligible consumers

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Deep dive into frozen fruit and vegetable (FF&V) shoppers to understand:

- Who they are
- Where they shop
- What they buy
- Why they buy
- Applications
- Perceptions
- The influence of innovation and claims
- Supply chain impact
- Pain points and opportunities

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Conducted by: 210analytics

Frozen food consumers

98.4%

Of Americans purchase from the frozen food department at least 1x a year

95.6%

Of frozen food buyers purchase frozen fruits and vegetables at least 1x a year

= **94%** of American households buy frozen fruits and vegetables

Frozen food consumption frequency:

40% High frequency
- Daily
- Every few days

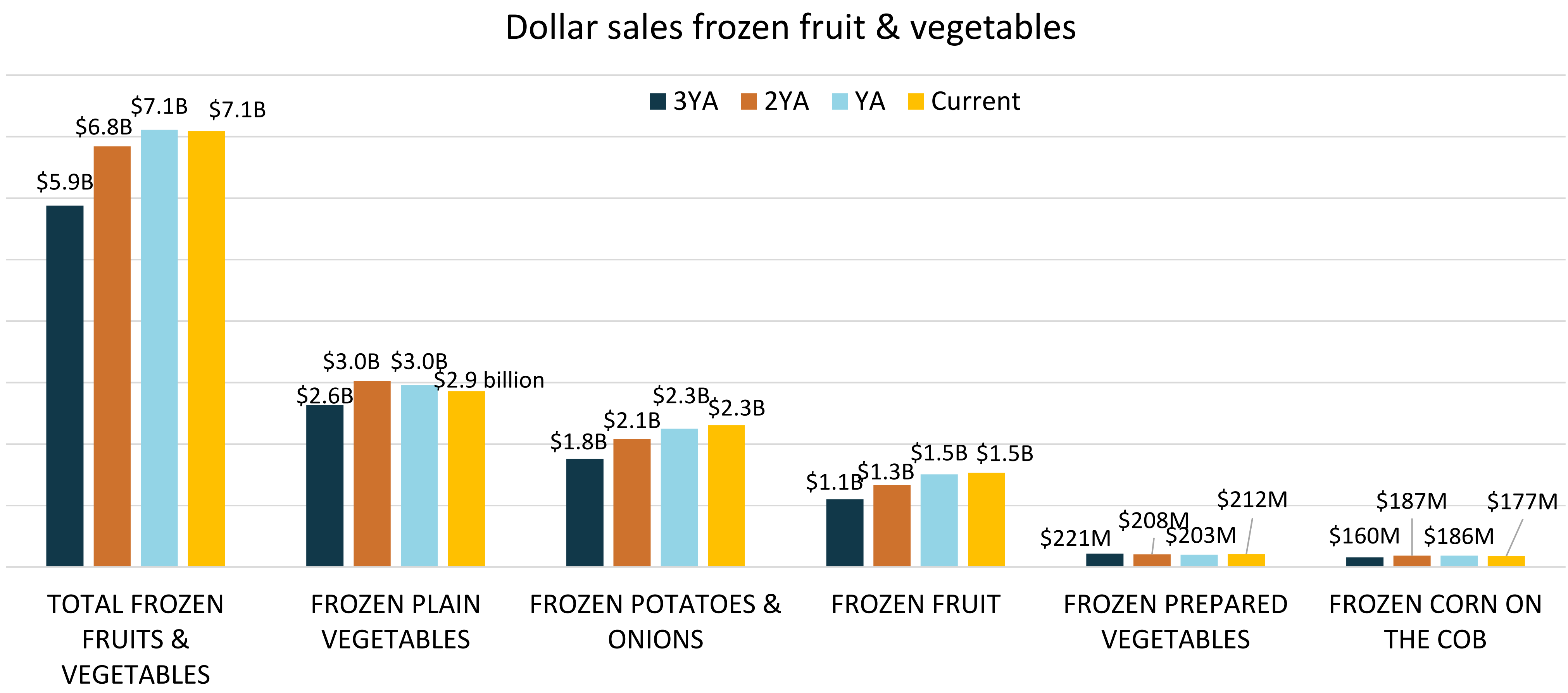
28% Medium frequency
- Weekly

28% Low frequency
- Every few weeks
- Less than 1x/month

2% No frozen foods

Never + < 1x/month + no frozen fruit/vegetables were discontinued from the survey

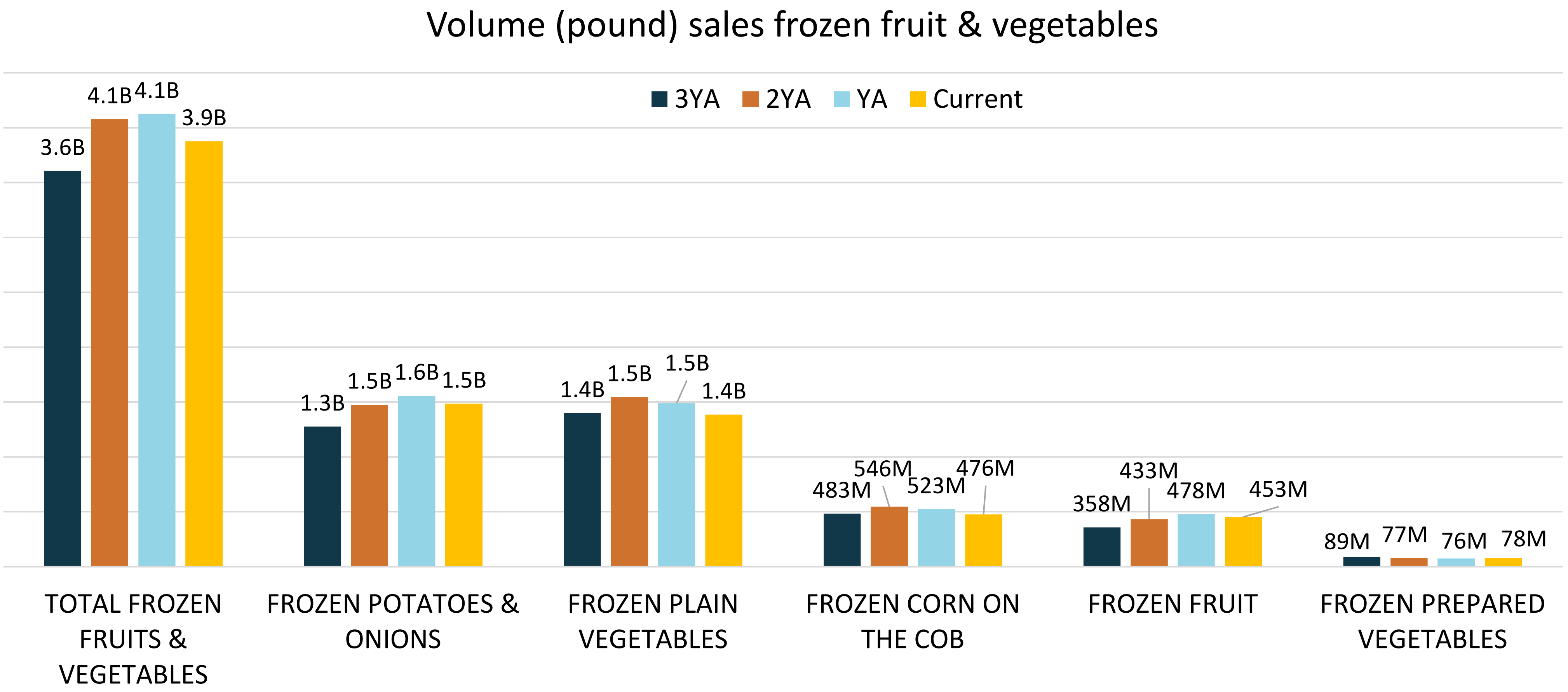
Frozen fruit & vegetable sales – Dollars



Source: IRI, Integrated Fresh, MULO, 52 weeks ending 6/26/2022 vs. YA, 2YA, 3YA

Strong demand in combination with price increases have driven an additional $1.2 billion in sales in a four-year period

Frozen fruit & vegetable sales – Volume



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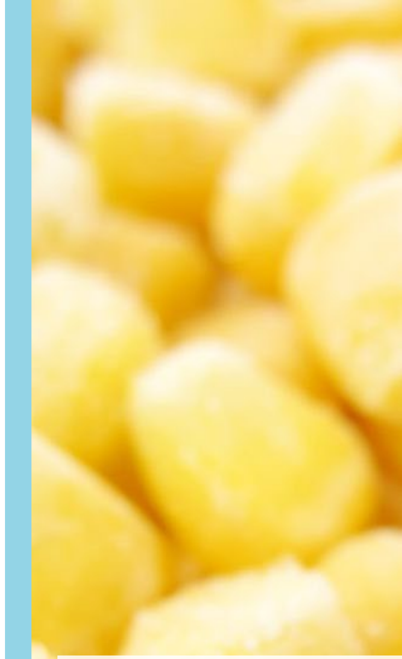


While volume sales of frozen fruit and vegetables are not as high as they were the previous two years, they are 271 million pounds ahead of pre-pandemic

Frozen fruit & vegetable sales growth

	$ SALES	% CHANGE VS. YA	% CHANGE VS. 2YA	UNIT SALES	% CHANGE VS. YA	% CHANGE VS. 2YA	VOLUME SALES	% CHANGE VS. YA	% CHANGE VS. 2YA
Frozen fruits & vegetables	$7.1B	+0.4%	+3.3%	2.7B	-6.1%	-5.4%	3.9B	-5.4%	-5.7%
Fruit	$1.5B	+1.9%	+13.7%	278M	-5.5%	+2.2%	452M	-5.3%	+3.3%
Mixed vegetables	$903M	-2.1%	-3.8%	447M	-6.1%	-6.8%	433M	-6.1%	-9.1%
Broccoli	$486M	-2.5%	-4.0%	253M	-4.9%	-5.9%	246M	-5.1%	-7.9%
Beans	$317M	-0.5%	-7.2%	174M	-6.5%	-13.0%	154M	-7.0%	-14.5%
Corn	$257M	-5.9%	-14.3%	158M	-10.5%	-16.6%	147M	-10.6%	-18.9%
Peas	$242M	-3.7%	-11.6%	144M	-8.9%	-15.2%	131M	-8.7%	-15.8%
Prepared vegetables	$212M	+4.6%	+1.8%	96M	-0.4%	-5.2%	78M	+2.8%	+1.6%
Corn on the cob	$180M	-2.8%	-3.7%	47M	-9.0%	-10.7%	479M	-8.1%	-11.9%
Spinach	$132M	-2.9%	-5.7%	81M	-4.8%	-8.7%	62M	-5.6%	-8.3%
Onion rings	$98M	-8.5%	+6.8%	28M	-18.2%	-1.7%	31M	-17.8%	-2.5%
Squash/zucchini	$59M	-22.1%	-17.2%	20M	-16.4%	-8.8%	16M	-21.1%	-15.5%
Frozen carrots	$27M	-0.8%	-6.3%	22M	-1.5%	-3.5%	17M	-2.4%	-5.2%
Frozen onions	$24M	+2.3%	+3.8%	16M	-2.6%	-1.7%	12M	-3.3%	-3.1%

Source: IRI, Integrated Fresh, MULO, 52 weeks ending 6/26/2022 vs. YA and 2YA

Top 10 growth states
(% $ growth L52 vs. YA)

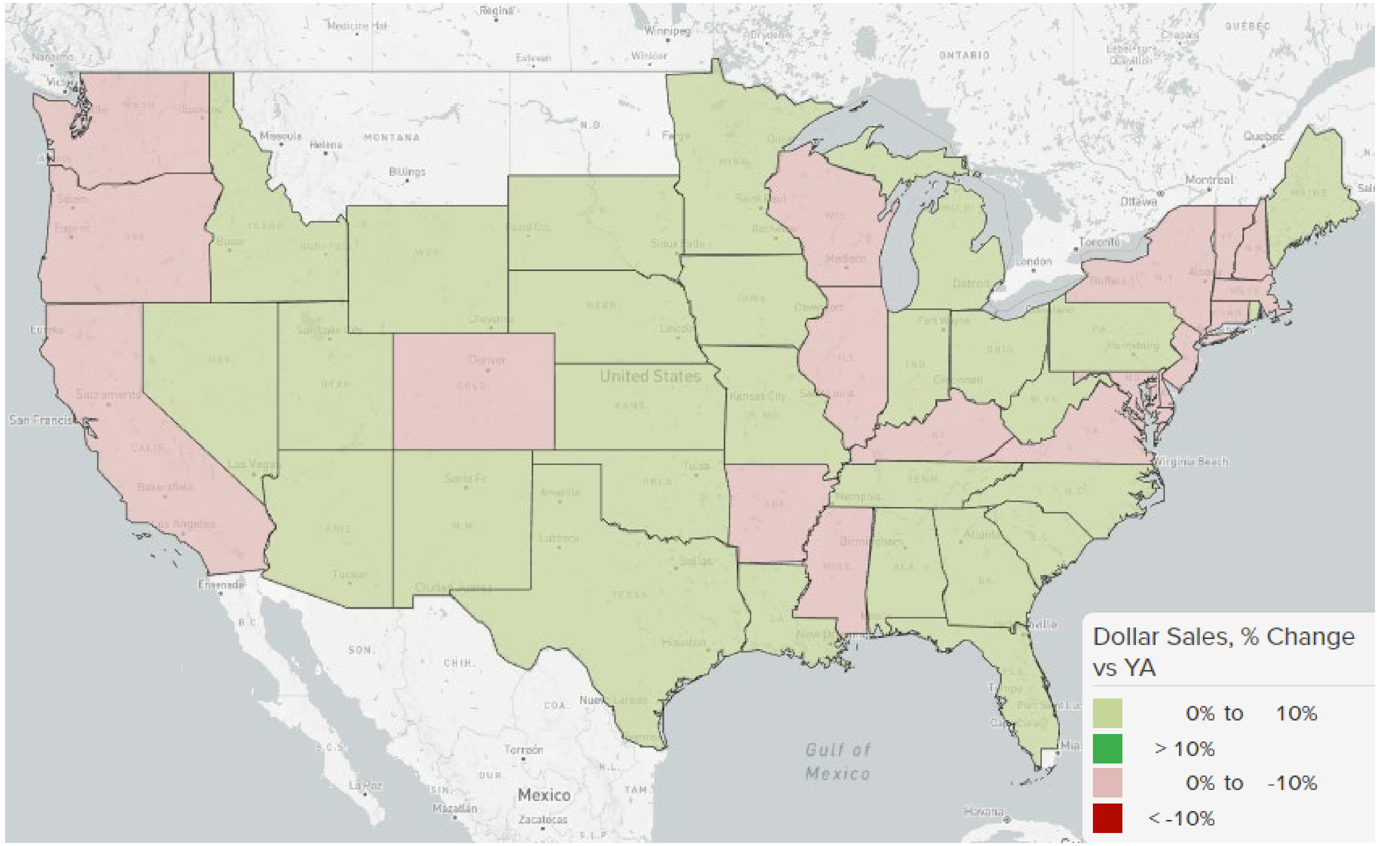
1. Oklahoma
2. Wyoming
3. Arizona
4. Utah
5. Alabama
6. South Dakota
7. Nevada
8. South Carolina
9. Texas
10. Florida

Top 5 selling states
(% $ growth L52 vs. YA)

1. Florida
2. California
3. Texas
4. New York
5. Pennsylvania

Regional performance differs

Impacted by migration patterns as well



Source: IRI, Integrated Fresh, MULO, 52 weeks ending 6/26/2022 vs. YA

With 94% of American households already buying frozen fruits & vegetables, the best growth opportunities lie in a) purchase frequency and b) purchase variety

Frequency of consuming frozen fruits and vegetables

94%

of American households buy frozen fruit and vegetables

Consumption segmentation

22% Light consumers
- <1x month
- Every few weeks

47% Medium consumers
- Every other week
- Weekly

30% Heavy or core consumers
- Every few days
- Daily

Who are America’s **core** frozen fruit & vegetable consumers?

Core FF&V buyers:

30%

of American households consume frozen fruits and vegetables every few days or daily

More likely to be*:

- Older Millennials
- Northeast
- Larger households
- Kids in the household, esp. ages 7-12
- High income

More likely to shop:

- Supercenters, club stores, drug stores and convenience stores

More likely to:

- Buy every single type
- Use them for a wide number of applications

There are no statistically significant differences based on gender, ethnicity or area

25% of SNAP-eligible households are core consumers
46% are medium consumers
29% are light consumers

* Significantly over index versus the general population statistics

America's perceptions, planning and cooking routines — planned vs. backup

Core consumers plan meals with FF&V in mind, but also like to have FF&V as a backup solution

Description of your use of frozen fruits and vegetables (% yes)

68%

Buy FF&V with a specific meal/ day in mind

61% Light consumers
69% Core consumers
61% SNAP-eligible households
67% Middle income
70% High income

87%

I like to have frozen FF&V as a backup solution

83% Light consumers
89% Core consumers
84% SNAP-eligible households
88% Middle income
85% High income

America’s perceptions, planning and cooking routines — food waste

FF&V is a popular solution to combat food waste. According to USDA, $161.1 billion worth of food goes to waste each year, with 27% happening post-harvest.

Description of your use of frozen fruits and vegetables (% yes)

83%

FF&V help me prevent food waste

79% Light consumers
85% Core consumers
81% SNAP-eligible households
85% Middle income
80% High income

68%

Share of consumers who never or hardly ever throw away FF&V because they are too old or freezer burned

64% Light consumers
71% Core consumers
73% SNAP-eligible households
70% Middle income
69% High income

America’s perceptions, planning and cooking routines — convenience

Core consumers like the convenience of being able to purchase a mix of fruits or vegetables in one product

Description of your use of frozen fruits and vegetables (% yes)

86%

FF&V allow me to buy a mix of different fruits or vegetables all at once

81% Light consumers
89% Core consumers
81% SNAP-eligible households
87% Middle income
84% High income

76%

FF&V are an easy solution for fruits/vegetables I don’t know how or want to make from fresh

74% Light consumers
74% Core consumers
71% SNAP-eligible households
79% Middle income
71% High income

America's perceptions, planning and cooking routines — save while eating more

FF&V enable SNAP-eligible and middle-income households to eat more fruit and vegetables while saving money over buying fresh.

Description of your use of frozen fruits and vegetables (% yes)

86%

FF&V make it easier to eat more fruits and vegetables in my diet

75% Light consumers
93% Core consumers
82% SNAP-eligible households
88% Middle income
84% High income

80%

FF&V allow me to save money over buying fresh fruits and vegetables

74% Light consumers
84% Core consumers
80% SNAP-eligible households
82% Middle income
71% High income

Per unit frozen fruit & vegetable pricing

	PRICE/ UNIT	% CHANGE VS. YA	% CHANGE VS. 2YA	% CHANGE VS. 3YA
Frozen fruits & vegetables	**$2.66**	**+6.3%**	**+8.8%**	**+13.0%**
Frozen corn on the cob	$3.82	+5.9%	+6.8%	+9.4%
Frozen fruit	$5.51	+7.3%	+11.0%	+13.0%
Frozen plain vegetables	$1.91	+3.6%	+3.5%	+7.2%
Frozen potatoes/onions	$3.08	+8.8%	+9.2%	+11.0%
Frozen prepared vegetables	$2.21	+5.2%	+7.6%	+14.3%

Source: IRI, Integrated Fresh, MULO, 52 weeks ending 6/26/2022 vs. YA, 2YA and 3YA

Frozen fruit and vegetables have experienced below-average inflation in the past year. The price per unit across total food and beverages has increased 8.7% versus year ago and 17.6% versus 2019. The price per unit for frozen fruit and vegetables have increased 6.3% year-on-year and 13.0% versus 2019.

Frozen vs. fresh base price per pound comparison

Base price per volume comparison frozen vs. fresh fruits and vegetables. Note: fresh has much greater seasonality in prices

Broccoli

Frozen: $2.11
Fresh: $2.55
-17%

Cauliflower

Frozen: $2.65
Fresh: $2.53
+5%

Green beans

Frozen: $1.94
Fresh: $3.24
-40%

Mixed vegetables

Frozen: $2.27
Fresh: $4.54
-50%

Carrots

Frozen: $1.77
Fresh: $1.40
+27%

Corn

Frozen: $1.92
Fresh: $1.83
+5%

Blueberries

Frozen: $3.86
Fresh: $5.51
-30%

Strawberries

Frozen: $3.13
Fresh: $3.76
-17%

Cut pineapples

Frozen: $3.38
Fresh: $4.72
-29%

Cut mango

Frozen: $3.58
Fresh: $5.65
-37%

Source: IRI, Integrated Fresh, MULO, 13 weeks ending 5/15/2022

Where does America shop for frozen fruits & vegetables? **Everywhere!**

	ALL FF&V	CORE FF&V
Supermarket/grocery store	81%	84%
Walmart or Target	73%	79%
Costco, Sam's Club or BJs	35%	41%
ALDI, Lidl, Dollar General or other value stores	28%	31%
Whole Foods, Sprouts or other specialty/organic stores	16%	17%
CVS, Walgreens, Rite Aid or other drug stores	7%	11%
7-Eleven, Casey's, Wawa or other convenience stores	5%	9%
Online-only companies	3%	6%
Other (such as bodegas)	1%	1%

■ Significantly over indexes

33%

Would **buy more FF&V** if they were available in convenience stores, bodegas or other easy in & out stores

- 32% Light consumers
- 33% Core consumers
- 31% SNAP-eligible households
- 33% Middle income
- 31% High income

Income and age affects where shoppers purchase frozen fruits & vegetables

	ALL FF&V	SNAP ELIBLE	MIDDLE INCOME	HIGH INCOME	GEN Z	MILL.	GEN X	BOOMERS
Supermarket/grocery store	81%	76%	80%	84%	81%	75%	83%	88%
Supercenter	73%	71%	76%	66%	76%	85%	70%	60%
Club	35%	11%	36%	49%	46%	38%	33%	26%
Limited assortment or value stores	28%	28%	31%	22%	25%	31%	29%	22%
Specialty/organic stores	16%	6%	15%	25%	22%	22%	13%	6%
Drug stores	7%	6%	7%	8%	12%	12%	5%	1%
Convenience stores	5%	3%	5%	5%	10%	7%	4%	1%
Online-only companies	3%	3%	2%	6%	6%	5%	2%	0%
Other (such as bodegas)	1%	1%	1%	1%	0%	1%	1%	1%

■ Significantly over indexes ■ Significantly under indexes

Frozen fruit & vegetables e-commerce

Types of information shoppers want to see when buying FF&V online:	ALL FF&V	CORE FF&V
Clear picture of the product	62%	68%
Nutritional information	59%	59%
Detailed product description	52%	56%
Number of portions	44%	43%
Production attributes (flash frozen, organic, etc.)	43%	48%
Source details (country, region, farm, etc.)	38%	46%
Recipes	29%	31%
Also-buy suggestions	21%	25%

■ Significantly over indexes

Shopping routines:

68% buy FF&V in-store only

29% buy FF&V in-store and online

3% buy FF&V exclusively online

The likelihood of buying FF&V online mirrors the typical online shopper profile: urbanites in major metro areas, younger, higher income and households with kids

What frozen fruit & vegetable items are purchased?

Share of frozen fruit & vegetable households who buy:

Individual vegetables

69%

Mixed vegetables

64%

Potato-based items

63%

Mixed fruit

53%

Individual fruits

44%

Prepared vegetables

43%

Entrees w/vegetables

41%

Riced/spiralized vegetables

30%

Smoothie mixes

24%

Yogurt/fruit bites

22%

Purchases by usage and income

Share of frozen FF&V households who buy:	ALL BUYERS	LIGHT FF&V	CORE FF&V	SNAP ELIBLE	MIDDLE INCOME	HIGH INCOME
Individual vegetables	69%	59%	77%	68%	71%	68%
Mixed vegetables	64%	52%	74%	56%	65%	65%
Potato-based items	63%	56%	71%	63%	62%	67%
Mixed fruit	53%	41%	57%	41%	54%	54%
Individual fruits	44%	39%	51%	35%	43%	48%
Prepared vegetables	43%	35%	53%	40%	43%	47%
Entrees with vegetables	41%	32%	48%	44%	41%	43%
Spiralized/riced vegetables	30%	26%	36%	21%	30%	34%
Smoothie mixes	24%	18%	27%	12%	22%	28%
Fruit & yogurt bites	22%	15%	28%	13%	22%	25%

- Significantly under indexes
- Significantly over indexes

4.5 items

On average, FF&V buyers purchase 4-5 different items

- 3.7 Light consumers
- **5.2 Core consumers**
- 4.1 SNAP-eligible households
- 4.5 Middle income
- 4.8 High income

2%

Share of FF&V households who **only** purchase frozen potato-based items, such as French fries, tater tots or sweet potato fries

FF&V applications

FF&V usage occasions and applications	ALL BUYERS	LIGHT FF&V	CORE FF&V
Sides to a main entree	63%	49%	71%
Beverages/smoothies	50%	43%	51%
Pasta/rice dishes	44%	36%	52%
Breakfast foods (omelets, etc.)	42%	32%	48%
Desserts	39%	36%	40%
Appetizers	36%	27%	43%
Casseroles	35%	28%	41%
Soups/stews/chowders	35%	23%	47%
Baked items (pie, cobbler, etc.)	33%	29%	37%
Sauces	19%	18%	21%
Dishes for entertaining/get togethers	19%	11%	26%
Compotes/jams/jellies	7%	7%	6%

■ Significantly over indexes ■ Significantly under indexes

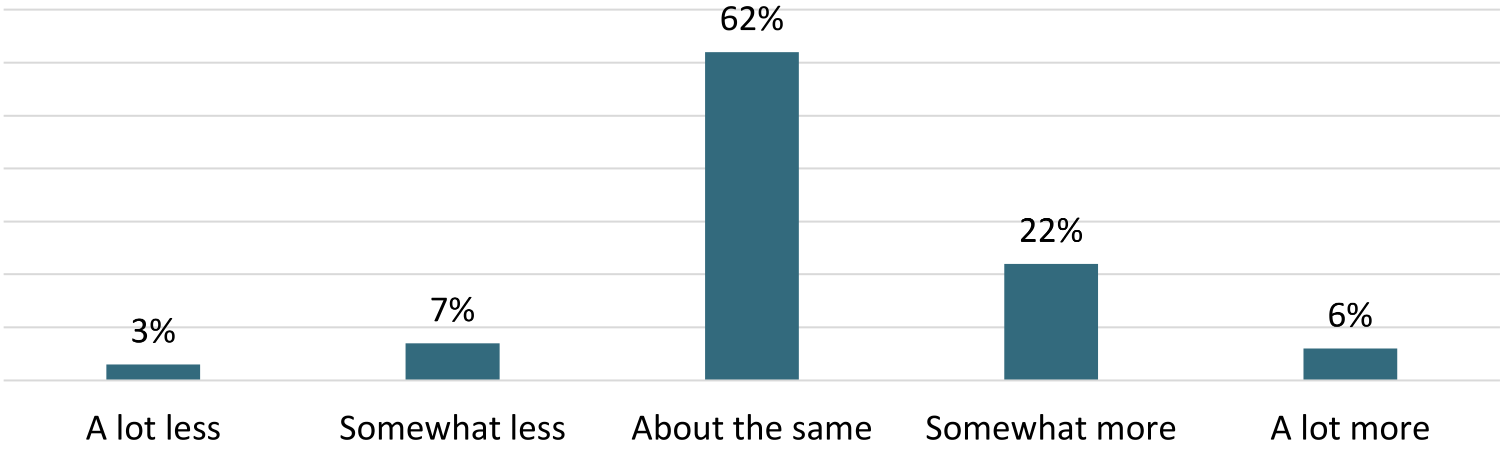
Applications by age and income

FF&V usage occasions and applications	ALL BUYERS	GEN Z	MILL.	GEN X	BOOMERS	SNAP ELIBLE	MIDDLE INCOME	HIGH INCOME
Sides to a main entree	63%	57%	55%	66%	75%	65%	64%	63%
Beverages/smoothies	50%	68%	62%	49%	23%	34%	50%	56%
Pasta/rice dishes	44%	46%	46%	43%	41%	41%	44%	46%
Breakfast foods (omelets, etc.)	42%	43%	52%	39%	29%	35%	45%	36%
Desserts	39%	43%	44%	33%	35%	35%	42%	33%
Appetizers	36%	41%	47%	32%	18%	29%	37%	36%
Casseroles	35%	25%	34%	34%	42%	35%	37%	33%
Soups/stews/chowders	35%	34%	32%	37%	37%	34%	36%	33%
Baked items (pie, cobbler, etc.)	33%	34%	42%	29%	23%	26%	36%	30%
Sauces	19%	22%	25%	19%	7%	12%	20%	21%
Dishes for entertaining/get togethers	19%	21%	23%	18%	12%	12%	20%	20%
Compotes/jams/jellies	7%	9%	10%	7%	2%	4%	7%	9%

■ Significantly over indexes ■ Significantly under indexes

Frozen fruit & vegetable consumption Pre-pandemic comparison

Consumption of FF&V compared with pre-pandemic



10%

Below-average variety
Below-average # of applications

28%

Above-average variety & applications
Narrowing of demographic gaps
Shifts from light → medium → **core** consumers

Over index for buying more (28%):

- Medium consumers (52%)
- Specialty/organic store shoppers (46%)
- Frozen smoothie mix buyers (43%)
- **Core consumers (41%)**
- Middle Atlantic region (38%)
- Families with kids ages 7-12 (38%)
- Urbanites (38%)
- Gen Z (37%)
- Hispanics/Latinos (37%)
- Frozen entrees with FF&V (36%)

Freezer space capacity across segments and incomes

Available freezer space at home	SMALL FRIDGE WITH SMALL FREEZER COMPARTMENT	LARGE FRIDGE WITH FREEZER DRAWER OR COMPARTMENT	MULTIPLE LARGE FRIDGES WITH FREEZER DRAWERS OR COMPARTMENTS	CHEST FREEZER OR STANDALONE FREEZER
All	**14%**	**75%**	**14%**	**24%**
Light consumers	24%	70%	12%	22%
Core consumers	7%	78%	18%	32%
SNAP-eligible	25%	69%	6%	19%
Middle income	12%	77%	13%	22%
High income	10%	76%	22%	32%

■ Significantly over indexes ■ Significantly under indexes

Greater freezer capacity goes hand in hand with more FF&V purchases

29%

Of FF&V buyers have expanded their at-home freezer capacity since the start of the pandemic

- 27% Light consumers
- **32% Core consumers**
- 19% SNAP-eligible households
- 29% Middle income
- 34% High income

51%

Of buyers would buy more FF&V if they had the freezer space

- 47% Light consumers
- **54% Core consumers**
- 53% SNAP-eligible households
- 51% Middle income
- 48% High income

32% of core FF&V consumers have expanded their at-home freezer capacity since the start of the pandemic. Additionally, 54% would buy more if they had more available freezer space. 53% of SNAP-eligible consumers would buy more if they had more freezer space available.

Reasons for eating frozen fruits & vegetables — Top 3

Taste, quality and nutrition are assumed factors for both fresh and frozen fruits and vegetables, not differentiators for frozen. However, nutritional value is a bigger purchase reason for core FF&V consumers.

Shelf life is the 3rd most important reason for buying FF&V. This goes hand-in-hand with 83% of buyers agreeing that FF&V help them prevent food waste

Pick your three main reasons for buying FF&V

■ % of top 3 mentions

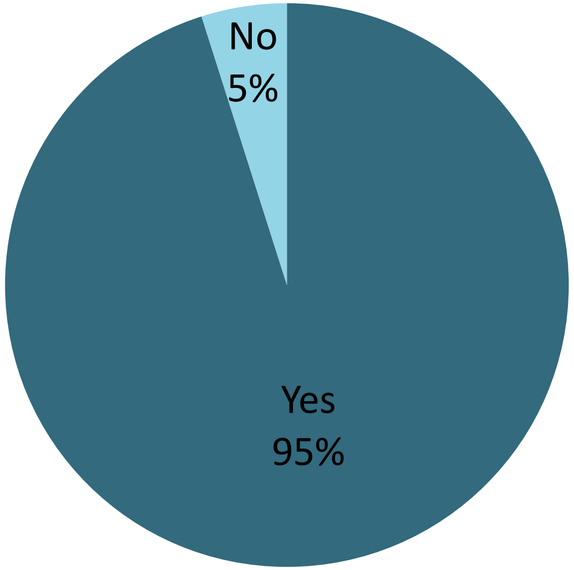
	% of top 3 mentions	LIGHT FF&V	CORE FF&V	SNAP ELIBLE	MIDDLE INCOME	HIGH INCOME
Ease of preparation	48%	47%	46%	48%	47%	50%
Convenience	47%	45%	46%	54%	48%	47%
Last longer	43%	34%	46%	39%	49%	42%
Price	33%	38%	29%	38%	32%	30%
Time savings	25%	27%	23%	24%	26%	25%
Taste	23%	24%	25%	26%	22%	24%
Variety of options	21%	20%	21%	19%	20%	17%
Quality	18%	16%	19%	15%	18%	18%
Nutritional value	16%	13%	21%	15%	16%	15%
Product consistency	9%	9%	8%	4%	9%	13%

■ Significantly under indexes

■ Significantly over indexes

Fresh versus frozen. No!
It’s fresh *and* frozen, say consumers

Share of FF&V buyers who also buy fresh produce



93% of SNAP-eligible households buy fresh produce as well

80%

FF&V hold me over in between shopping trips when running out of fresh produce

75% Light consumers
82% Core consumers
78% SNAP-eligible households
81% Middle income
79% High income

When fresh, when frozen fruits & vegetables?

Share of frozen FF&V households who agreed:	ALL	LIGHT FF&V	CORE FF&V	SNAP ELIBLE	MIDDLE INCOME	HIGH INCOME
Convenience: FF&V when I need something easy or a mix	63%	57%	66%	65%	63%	64%
Timing: FF&V when I need something quickly	49%	45%	50%	45%	52%	44%
Availability: FF&V when I run out of fresh	49%	46%	51%	45%	48%	52%
Specific meal calls for frozen	43%	38%	49%	37%	43%	45%
Always frozen for the particular type of fruit/vegetable	42%	30%	50%	42%	41%	43%

■ Significantly over indexes ■ Significantly under indexes

Other reasons for using FF&V by SNAP-eligible households

"When fresh is too expensive"

"For longer shelf-life"

"Recipe calls for frozen"

"Store I can walk to only has frozen"

"For items out of season"

Interest in health/nutrition claims when buying FF&V is higher among:

- Specialty/organic shoppers (68%)
- Families with kids ages 0-12 (57%)
- Urbanites (56%)
- Core FF&V consumers (55%)
- Gen Z (54%)
- Millennials (54%)

Health/nutrition claims when buying frozen fruits & vegetables

Share of frozen FF&V households who look for:	ALL	LIGHT FF&V	CORE FF&V	SNAP ELIBLE	MIDDLE INCOME	HIGH INCOME
Nutritional value claims (high/low in…)	50%	45%	55%	41%	50%	52%
No artificial ingredients (sweeteners, etc.)	50%	45%	52%	43%	52%	51%
Health benefit claims (Immunity, energy…)	42%	44%	43%	33%	43%	43%
None of these	23%	27%	22%	35%	23%	20%

■ Significantly under indexes
■ Significantly over indexes

Production-related claims when buying frozen fruits & vegetables

Share of frozen FF&V households who look for:	ALL	CORE FF&V	SNAP ELIGIBLE	HIGH INCOME
Fresh frozen	54%	57%	52%	52%
No artificial ingredients	43%	44%	39%	41%
Natural	38%	42%	32%	40%
Grown in the USA	37%	37%	35%	35%
Minimally processed	31%	37%	23%	34%
Organic	28%	29%	18%	39%
Non-GMO	26%	28%	21%	25%
Fair trade	10%	12%	7%	11%
Low carb (Keto/paleo)	10%	10%	9%	8%
Vegetarian/vegan	9%	9%	6%	10%
Kosher	5%	5%	3%	5%
None of these	14%	13%	21%	16%

■ Significantly under indexes
■ Significantly over indexes

Fresh fruit & vegetable packaging innovations

Share of frozen FF&V households:	NOT IMPORTANT	SOMEWHAT IMPORTANT	VERY IMPORTANT
Have re-sealable (open/close) packaging	11%	45%	44%
Have different pack size/ amount options	12%	52%	35%
Have microwave-ready (steam) packaging	24%	47%	30%
Have environmentally-friendly packaging	22%	51%	28%
Have recipes and meal ideas on the package	47%	38%	16%

% very important core FF&V shoppers:

45% Re-sealable (open/close)
37% Package size variety
34% Microwave-ready
33% Environmentally-friendly
18% Recipes and meal ideas

Prompting trial with frozen fruit & vegetables

Looking for new FF&V you haven't had before:

10% Never
32% Rarely
48% Occasionally
10% Frequently

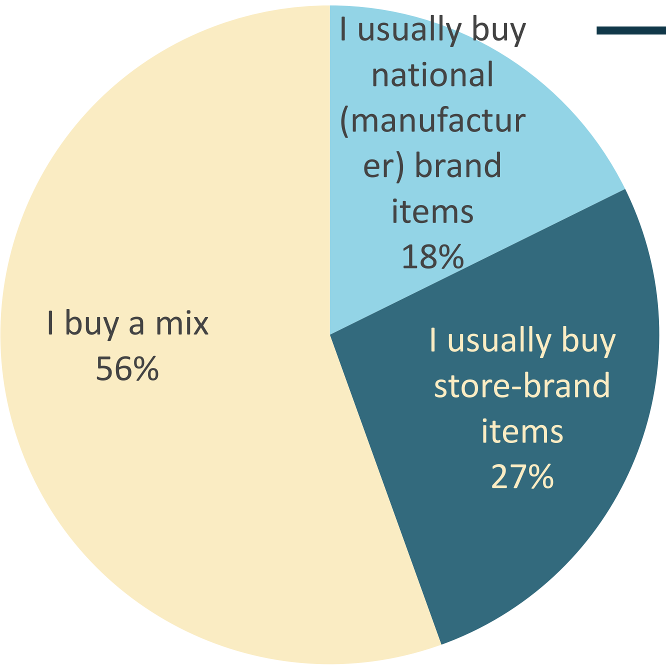
Occasionally + frequently:
47% Light FF&V consumers
70% Core FF&V consumers

Share of household that can be prompted to try new FF&V through:	ALL BUYERS	CORE FF&V	SNAP ELIGIBLE
Good price/promotion	70%	71%	80%
Health benefits	44%	48%	37%
A new item from a familiar brand	42%	46%	42%
Recipe/serving ideas	37%	37%	38%
Recommendation from friends/family/social network	35%	38%	32%
Sampling/cooking demonstration	27%	25%	23%
Attractive packaging	26%	32%	16%
New called out on the package or shelf	18%	14%	17%
On-pack callouts/claims (high protein, low fat)	14%	16%	10%
Food blogs, podcasts, articles, etc.	13%	14%	7%
None of these	2%	2%	3%

■ Significantly over indexes ■ Significantly under indexes

Frozen fruit & vegetables brand preferences

Typical brand preference when buying FF&V



National/manufacturer brand

19% Light consumers
18% Core consumers
13% SNAP-eligible households
16% Middle income
26% High income

What if your preferred FF&V brand is out-of-stock?

68% Buy a different brand of the intended FF&V
18% Buy the same brand but a different FF&V
7% Go to another store to buy it
7% Skip the purchase altogether

Buy a different brand:

62% Light FF&V consumers
70% Core FF&V consumers
63% SNAP-eligible households

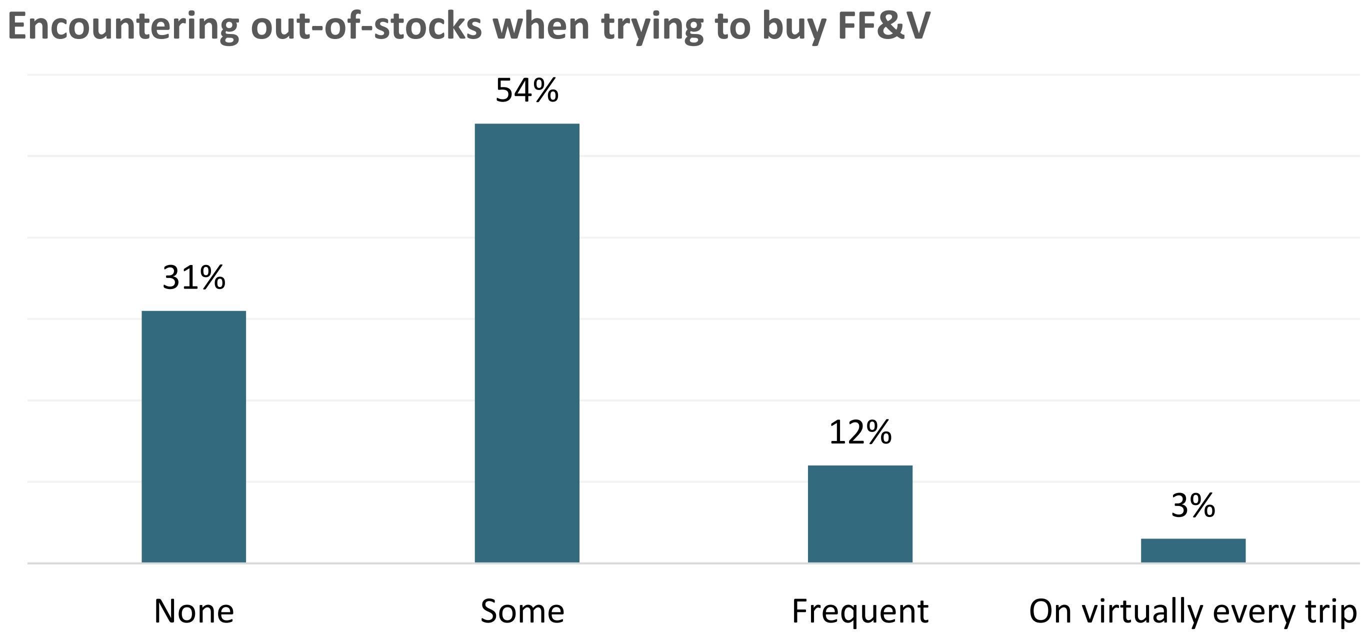
Frozen fruit & vegetable brand performance

	$ SALES	% CHANGE VS. YA	% CHANGE VS. 2YA	UNIT SALES	% CHANGE VS. YA	% CHANGE VS. 2YA	VOLUME SALES	% CHANGE VS. YA	% CHANGE VS. 2YA
Frozen fruits & vegetables	**$7.1B**	**+0.4%**	**+3.3%**	**2.7B**	**-6.1%**	**-5.4%**	**3.9B**	**-5.4%**	**-5.7%**
National brand	$3.7B	-0.4%	+2.7%	1.2B	-8.8%	-8.0%	$1.8B	-8.0%	-6.6%
Store brand	$3.4B	+1.3%	+4.0%	1.5B	-3.6%	-3.1%	$2.1B	-3.1%	-4.9%

Both store and national brands show dollar gains, but unit and volume pressure in the latest 52 weeks compared with one year and two years ago. The store-brand performance is slightly stronger across all measures, but national brands are the larger seller.

Source: IRI, Integrated Fresh, 52 weeks ending 6/26/2022

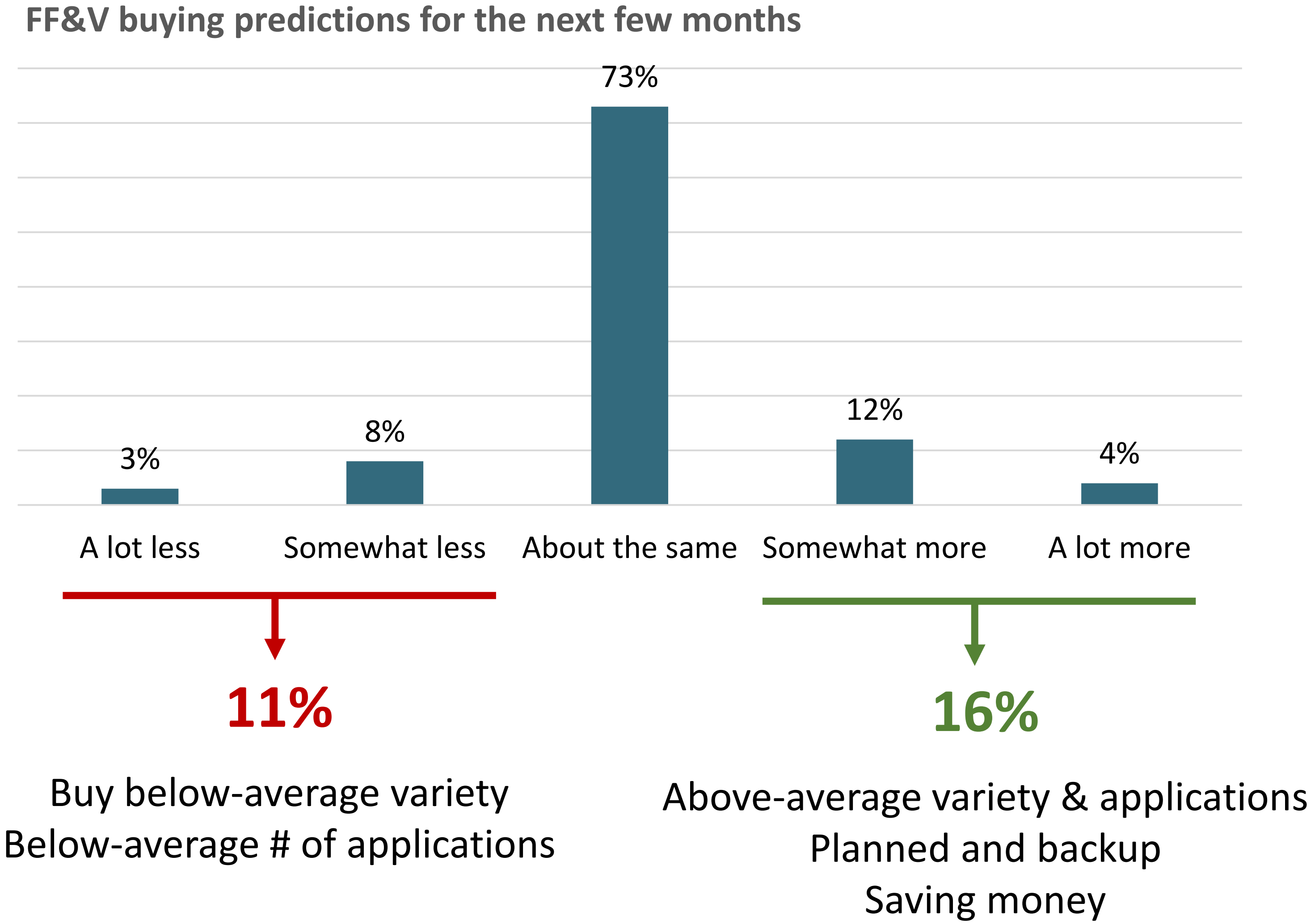
Frozen fruits & vegetables — market conditions



- Supermarkets: 30%
- Supercenter: 29%
- Club: 33%

- Supermarkets: 12%
- Supercenter: 13%
- Club: 12%

Frozen fruits & vegetables — crystal ball



Expect to purchase more	Somewhat more	A lot more
All	**12%**	**4%**
Light consumers	7%	1%
Medium consumers	10%	2%
Core consumers	**18%**	**9%**
SNAP-eligible	10%	3%
Middle income	11%	4%
High income	14%	4%

Key takeaways — Total U.S.

FF&V have high household penetration, which means growth needs to come from buying a greater variety and buying more often

Core consumers, using FF&V every few days or daily, are 30% of the total. Their usage provides a blueprint to grow use among light and medium consumers

Consumers meal plan with FF&V and use them as a backup. They help save money and waste while allowing consumers to integrate more fruit and vegetables in their diets

Greater availability would drive more FF&V spending for 33% of current buyers. Indeed, core consumers buy in a wider range of channels

Core consumers buy a greater variety of FF&V items and use them in a wider set of applications

Freezer capacity is a limitation to purchasing more and freezer capacity directly correlates to usage. Package optimization is a must

It is not frozen versus fresh, but frozen and fresh. Core consumers are just as likely to mix and match the two as light consumers

Core FF&V consumers are much more likely to look for new items, especially from familiar brands, featuring health benefits and in attractive packaging

Growth predictions show most growth will come from current core consumers, complemented with medium users

Key takeaways — SNAP-Eligible Households

SNAP-eligible households make less than $28,000 a year. They are over-represented by female head-of-households and living in the South

SNAP-eligible households are more likely to be light consumers and are less likely to plan meals with frozen in mind

Of SNAP-eligible households 8 in 10 agree FF&V make it easier to eat more fruit & vegetables, prevent food waste and help save money

SNAP-eligible households who buy FF&V perceive them as convenient, easy to prepare and a way to prevent waste but use FF&V across fewer applications

FF&V complement fresh produce purchases among SNAP-eligible households. They buy fewer FF&V varieties and are equally likely to purchase potato-based items

54% of SNAP-eligible consumers would buy more FF&V if they had more freezer space or if they were sold more in more convenient places (31%) such as c-stores and bodegas

Price is an oversized purchase driver among SNAP-eligible households as are private brands. Good prices can help drive new item engagement

13% of SNAP-eligible households expect to purchase more in the next few months — equally likely as the general population

SNAP-eligible households are much less interested in organic, non-GMO and natural, but equally likely to value “grown in the USA”

Appendix

Data tables

Fresh and frozen: pizza toppings

When buying a frozen pizza, do you add any fresh toppings?

10% Don't buy at all
26% Don't add extra toppings
63% Sometimes/always add extra toppings

If yes, what toppings?
75% Extra cheese
58% Extra meat
46% Peppers
46% Onions
42% Mushrooms
30% Basil or other herbs

Other: Olives, pineapple, artichoke hearts, fruit, tomatoes, dates, spinach, shallots, pesto, etc.