

# Study of Current and Former Vegetarians and Vegans

companion to the initial findings • december 2014

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## Tables & Methodology



# Methodology

- Prior to data collection, the survey was piloted with 13 individuals.
- The full study was fielded between May 7 and May 18, 2014 using an online survey. Invitations to the sample were provided by Harris Interactive (see their website for information about their sampling procedures).
- Invitations were sent to a U.S. representative sample aged 16 years and over (those 17 and over responded).
- After data cleaning, 11,399 respondents participated in the study.
- All questions were mandatory. Of the 1,387 current and former vegetarians/vegans who participated, 1,313 (95%) completed the survey.
- The prevalences of current and former vegetarians/vegans are based on a snapshot in time, meaning that some of the current vegetarians/vegans could one day abandon their diet. Likewise, some former vegetarians/vegans may re-adopt the diet in the future.
- This study only explored dietary vegetarianism/veganism, as opposed to other aspects such as those to do with clothing, entertainment, household products, etc. While in the survey the language related only to diet, in this report the terms *vegetarianism* and *veganism* have been used as a shorthand for dietary vegetarianism and veganism.
- The online survey included distinct branching for each of the four groups (former vegetarians, former vegans, current vegetarians, and current vegans). Specific wording was based on whether the respondent was answering about a vegetarian or vegan diet as well as whether this was currently being followed or had been adhered to in the past. Some items in the survey used reverse wording. All of these distinctive wording choices have been shorthanded in the report.
- On the following page the various paths available to respondents are displayed. Of note:
  - Respondents did not know the purpose of the survey or the surveying organization prior to answering the first food list, which was done to help limit an under-reporting of animal product consumption.
  - If a respondent had in the past been both a former vegetarian and a former vegan, they were classified as the more recent of the two.
  - Individuals who moved from a vegan diet to a vegetarian diet were not counted as former vegans, but rather as current vegetarians.
  - A multi-step verification process was used to identify current and former vegetarians/vegans to ensure accurate classification.
    - Former vegetarians/vegans were required to: 1) indicate using a food list that they were an omnivore, 2) self-identify as having formerly eaten a vegetarian or vegan diet, and 3) indicate using a food list that when they were a vegetarian/vegan they did not eat meat (or in the case of vegans any animal products).
    - Current vegetarians/vegans were required to: 1) indicate using a food list that they did not eat meat (or in the case of vegans any animal products), and 2) self-identify with the label (i.e., as currently eating a vegetarian or vegan diet).
    - Had only a two-step verification process been used for former vegetarians/vegans (i.e., the first food list and self-identification as a former vegetarian/vegan) and a one-step process for current vegetarians/vegans (i.e., the first food list), the prevalences would have been 21% and 4% respectively, as opposed to 10% and 2%.

# Limitations

- Self-reporting errors, particularly for lapsed vegetarians/vegans who had the heavier burden of memory recall.
- Social desirability bias, especially for former vegetarians/vegans.
- Nonresponse bias (i.e., those who declined the invitation to participate in the survey).
- Respondent quality issues, including internal inconsistencies, incomplete surveys, etc.
- Based on the confidence intervals for our sample and the U.S. population, our sample appears to be older, wealthier, more educated, less racially diverse, and has greater representation from females and those from the Midwest and Northeast (see Table 2).

# Respondent Paths

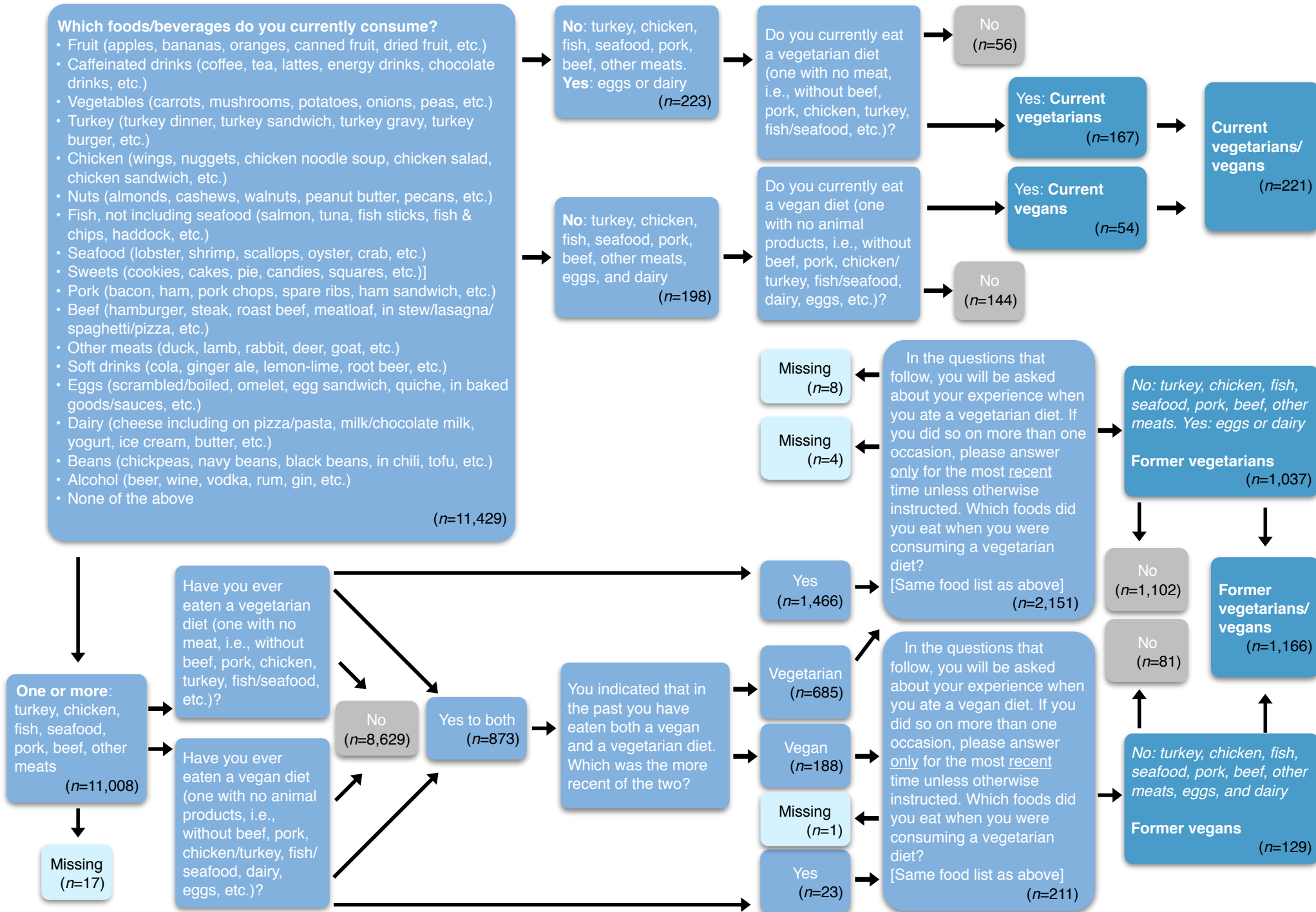


Table 1. Demographics for Current & Former Vegetarians/Vegans

	Former vegetarians/vegans	Current vegetarians/vegans	Statistical significance (t-test)	
<b>Average age</b>	48 years	42 years	***	Former n=1,104 Current n=211 Former min=17 max=96 Current min=18 max=80
	Former vegetarians/vegans	Current vegetarians/vegans	Statistical significance (chi-squared test)	
<b>Age categories</b>	12% 16–29 years 43% 30–49 years 27% 50–64 years 17% 65+ years	16% 16–29 years 60% 30–49 years 17% 50–64 years 7% 65+ years	***	Former n=1,104 Current n=211
<b>Gender</b>	69% female	74% female		Former n=1,101 Current n=209 (removed 5 “Other” – 3 former & 2 current)
<b>Region of U.S.</b>	20% Northeast 23% Midwest 29% South 27% West	27% Northeast 19% Midwest 27% South 27% West		Former n=1,103 Current n=211 (removed 1 “Not listed” under former)
<b>Education</b>	1% Less than high school 9% High school 28% Some college (including Associate degree) 62% Bachelor’s degree or higher	1% Less than high school 8% High school 27% Some college (including Associate degree) 64% Bachelor’s degree or higher		Former n=1,103 Current n=211
<b>Political orientation</b>	21% Conservative 41% Neutral 39% Liberal	14% Conservative 34% Neutral 52% Liberal	**	Former n=1,103 Current n=211
<b>Race/ethnicity</b>	6% African American or Black 6% Asian/Pacific Islander 3% Hispanic, Latino, or Spanish origin 80% White 4% Other race/ethnicity (including two or more)	4% African American or Black 7% Asian/Pacific Islander 4% Hispanic, Latino, or Spanish origin 80% White 5% Other race/ethnicity (including two or more)		Former n=1,102 Current n=211
<b>Religion</b>	47% Christian (Catholic, Protestant, etc.) 5% Jewish 3% Buddhist or Hindu 5% Other religion (including two or more) 40% Do not actively practice a religion	34% Christian (Catholic, Protestant, etc.) 3% Jewish 9% Buddhist or Hindu 7% Other religion (including two or more) 47% Do not actively practice a religion	***	Former n=1,102 Current n=211

\*p < .05 \*\*p < .01 \*\*\*p < .001

Table 2. Demographics for Full Sample & U.S. Population

Demographics		Full sample (n=11,399)		95% CI	U.S. Pop. Mean (%)	95% CI
		#	Mean (%)			
<b>Average age</b>		–	51.2	50.9, 51.4	45.9	45.8, 45.9
<b>Age categories</b>	17 to 29	994	8.7	8.2, 9.2	14.6	14.6, 14.7
	30 to 49	4,446	39.0	38.1, 39.9	34.4	34.4, 34.5
	50 to 64	3,388	29.7	28.9, 30.6	33.9	33.9, 34.0
	65+	2,569	22.5	21.8, 23.3	17.0	17.0, 17.0
<b>Gender**</b>	Male	4,803	42.1	41.2, 43.0	48.6	48.6, 48.6
	Female	6,596	57.9	56.0, 58.8	51.4	51.4, 51.4
<b>Region of U.S.</b>	Midwest	2,887	25.3	24.5, 26.1	21.6	21.6, 21.7
	Northeast	2,459	21.6	20.8, 22.3	18.3	18.3, 18.3
	South	3,593	31.5	30.7, 32.4	37.0	37.0, 37.0
	West	2,389	21.0	20.2, 21.7	23.1	23.0, 23.1
	Not Applicable	71	0.6	0.5, 0.8	–	–
<b>Race</b>	African American or Black	828	7.3	2.9, 3.6	11.7	11.7, 11.8
	Asian	368	3.3	2.7, 3.4	5.0	5.0, 5.1
	Hispanic, Latino, or Spanish origin	366	3.2	2.9, 3.6	13.8	13.8, 13.9
	White	9,449	83.7	83.0, 84.4	66.7	66.6, 66.7
	Other race/ethnicity (including two or more)***	277	2.5	2.2, 2.7	2.7	2.6, 2.8
<b>Average Internet Usage (hours/week)</b>		11,370	31.3	19.3, 43.3	–	–
<b>Education</b>	Less than 12th grade, no diploma	154	1.4	1.1, 1.7	16.0	15.7, 16.2
	High School Graduate or GED	1,536	13.5	12.9, 14.1	28.1	27.9, 28.3
	Some college/vocational/Associate's Degree	3,847	33.8	33.0, 34.7	30.5	30.4, 30.7
	Undergraduate/Post-graduate degree	5,837	51.3	50.4, 52.2	25.4	24.9, 25.9

Table 2. (cont'd)

Demographics		Full sample (n=11,399)			U.S. Pop. Mean (%)	95% CI
		#	Mean (%)	95% CI		
Household Income	Less than \$10,000	488	4.3	3.9, 4.7	30.9	30.7, 31.2
	\$10,000 to \$19,99	863	7.6	7.1, 8.1	16.0	15.9, 16.2
	\$20,000 to \$29,99	1,065	9.4	16.5, 17.8	13.2	13.0, 13.3
	\$30,000 to \$39,99	1,190	10.5	8.8, 9.9	10.4	10.3, 10.5
	\$40,000 to \$49,99	1,024	9.0	9.9, 11.0	7.7	7.8, 7.8
	\$50,000 to \$59,99	1,043	9.2	8.5, 9.5	5.6	5.5, 5.7
	\$60,000 to \$69,99	859	7.6	8.6, 9.7	4.1	4.0, 4.2
	\$70,000 to \$79,99	842	7.4	7.1, 8.0	2.8	2.8, 2.9
	\$80,000 to \$89,99	566	5.0	6.9, 7.9	2.0	2.0, 2.1
	\$90,000 to \$99,99	543	4.8	4.6, 5.4	1.4	1.3, 1.4
	\$100,000 or more	1,950	17.2	4.4, 5.2	5.9	5.8, 6.0
	Prefer not to answer	939	8.3	7.8, 8.8	–	–

*Note: The demographics for the entire sample are based on those reported from the data collection company and are subject to limitations.*

*\*American Community Survey, 2008-2012*

*\*\* If Gender = Other and not missing in the data collection company file, the gender becomes male or female as reported in the data collection company file*

*\*\*\* Includes Middle Eastern, Native American/Native Hawaiian*

Table 3. Transitions

	Former vegetarians/ vegans	Current vegetarians/ vegans	Statistical significance (t-test)	
<b>Average age at first adoption of a vegetarian/vegan diet</b>	34 years	25 years	***	Former <i>n</i> =1,124 Current <i>n</i> =212 Former min=0 max=86 Current min=0 max=75
	Former vegetarians/ vegans	Current vegetarians/ vegans	Statistical significance (chi-squared test)	
<b>Transitioned to a vegetarian/vegan diet over a matter of days/ weeks</b>	65%	53%	***	Former <i>n</i> =1,124 Current <i>n</i> =212 Former "Don't Know"=240 Current "Don't Know"=25

\**p* < .05 \*\**p* < .01 \*\*\**p* < .001

Table 4. Adherence

	Former vegetarians/ vegans	Current vegetarians/ vegans	Statistical significance (chi-squared test)	
<b>Up to 3 months</b>	34%	5%	***	Former <i>n</i> =1,124 Current <i>n</i> =212 Former "Don't Know"=92 Current "Don't Know"=6
<b>4–11 months</b>	19%	8%		
<b>1–2 years</b>	18%	7%		
<b>3–5 years</b>	9%	12%		
<b>6–10 years</b>	6%	8%		
<b>More than 10 years</b>	6%	58%		
<b>Don't know</b>	8%	3%		

\**p* < .05 \*\**p* < .01 \*\*\**p* < .001

Table 5. Significant Others

Former vegetarians/vegans ( <i>n</i> =1,118)	Former vegetarians/vegans
Not living with a significant other when they stopped eating a vegetarian/vegan diet	51%
Living with a significant other when they stopped eating a vegetarian/vegan diet	49%
Living with a non-vegetarian/vegan significant other when they stopped eating a vegetarian/vegan diet	33%
Living with a vegetarian/vegan significant other when they stopped eating a vegetarian/vegan diet	16%

Table 6. Motivations for Eating a Vegetarian/Vegan Diet

	Former vegetarians/ vegans ( <i>n</i> =1,161)	Current vegetarians/ vegans ( <i>n</i> =219)	Statistical significance (chi-squared test)
*Health	58%	69%	**
*Taste preferences	31%	52%	***
*Animal protection	27%	68%	***
*Feelings of disgust about meat/animal products	27%	63%	***
*Concern for the environment	22%	59%	***
Cost	16%	21%	
Social influence (From friends, family, significant other, etc.)	15%	11%	
*Social justice or world hunger	12%	29%	***
*Religious/spiritual beliefs	10%	22%	***
Wanting to follow a food trend	8%	7%	

\**p* < .05 \*\**p* < .01 \*\*\**p* < .001



Table 7. Vitamin B12 (Testing)

Frequency of B12 checks using laboratory tests	Former vegetarians/vegans	Current vegetarians/vegans	Statistical significance (chi-squared test)	
Never	76%	42%	***	Former n=1126 Current n=212 Former "Don't Know"=57 Current "Don't Know"=19
Less than 1 time per year	6%	18%		
Yearly	9%	23%		
Multiple times per year or more frequently	4%	8%		
Don't know	5%	9%		

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

Table 8. Vitamin B12 (Food Consumption)

	Former vegetarians/vegans (n=1116)	Current vegetarians/vegans (n=211)
<p><b>26% of former vegetarians/vegans and 16% of current vegetarians/vegans indicated that none of the B12 foods were a regular part of their diet.</b></p> <p>All respondents were asked to indicate which items in a list of foods were a regular part of their diet. The purpose of the question was to gauge whether they had a regular source of B12, defined as one of the following: fortified meat alternatives, fortified non-dairy milk, fortified breakfast cereals, multivitamin, fortified nutritional yeast, and B12 supplement. The list also included a number of "distractor foods" (grapefruit, quinoa, coconut oil, pistachios, lentils, and vitamin D supplement) to help mask the purpose of the question. Note: current and former vegetarians may have also gotten B12 from eggs/dairy.</p>	26%	16%

Table 9. Difficulties with Vegetarian/Vegan Diet

Category	Item	Former vegetarians/ vegans (agree/strongly agree)	Current vegetarians/ vegans (agree/strongly agree)	Statistical significance (chi-squared test)	Greater difficulty for former vegetarians/ vegans	
Inconvenience	I found (find) it complicated to prepare vegetarian/vegan meals	22%	11%	***	✓	Former n=1,151 Current n=218
	I found (find) it time consuming to prepare vegetarian/vegan meals	29%	18%	***	✓	Former n=1,151 Current n=218
	I had (have) trouble finding restaurants where I could (can) eat/food I could (can) grab on the go	39%	48%	*		Former n=1,151 Current n=218
	I did not (do not) have easy access to a health food store or a grocery store with a health food section	23%	10%	***	✓	Former n=1,151 Current n=218
	I had (have) to prepare both vegetarian/vegan and non-vegetarian/vegan meals	30%	22%	*	✓	Former n=1,151 Current n=218
	I had (have) to rely on someone else to do the grocery shopping	10%	7%		✓	Former n=1,151 Current n=218
	I have found (found) my vegetarian/vegan diet difficult during a time of transition (changing residences, traveling, starting a new job, etc.)	28%	18%	**	✓	Former n=1,151 Current n=218
Taste	I craved/was tempted (crave/am tempted) by beef or pork	35%	7%	***	✓	Former n=1,147 Current n=218
	I craved/was tempted (crave/am tempted) by poultry (chicken, turkey, etc.)	37%	9%	***	✓	Former n=1,147 Current n=218
	I craved/was tempted (crave/am tempted) by fish/seafood	33%	8%	***	✓	Former n=1,147 Current n=218
	I was (am) bored with my food options	38%	12%	***	✓	Former n=1,147 Current n=218
	I was (am) a picky eater	26%	34%	*		Former n=1,147 Current n=218
	I found (find) insufficient comfort/pleasure in vegetarian/vegan foods	24%	6%	***	✓	Former n=1,147 Current n=218
	I felt (feel) deprived at restaurants or parties	32%	20%	***	✓	Former n=1,147 Current n=218

Table 9 (cont'd)

Category	Item	Former vegetarians/ vegans (agree/strongly agree)	Current vegetarians/ vegans (agree/strongly agree)	Statistical significance (chi-squared test)	Greater difficulty for former vegetarians/ vegans	
Social	I felt (feel) the important people in my life were (are) unsupportive of my vegetarian/vegan diet	23%	11%	***	✓	Former n=1,142 Current n=216
	I had (have) insufficient interaction with other vegetarians/vegans	49%	25%	***	✓	Former n=1,142 Current n=216
	I was not (am not) actively involved in a vegetarian/vegan group or organization (potluck, online community, etc.)	84%	71%	***	✓	Former n=1,142 Current n=216
	I found (find) it problematic to eat around non-vegetarians/vegans	21%	15%	*	✓	Former n=1,142 Current n=216
	I disliked (dislike) that my vegetarian/vegan diet made (makes) me stick out from the crowd	63%	41%	***	✓	Former n=1,142 Current n=216
	I did not (do not) regularly share vegetarian/vegan meals with the person(s) I lived (live) with	31%	22%	*	✓	Former n=1,015 Current n=166 (removed N/A)
Motivations	I started (have started) to doubt the animal protection benefits of a vegetarian/vegan diet	17%	8%	*	✓	Former n=309 Vegetarians/ Vegans n=145 (removed N/A)
	I started (have started) to doubt the environmental benefits of a vegetarian/vegan diet	14%	7%		✓	Former n=258 Current n=125 (removed N/A)
	I started (have started) to doubt the cost benefits of a vegetarian/vegan diet	29%	15%		✓	Former n=182 Current n=46 (removed N/A)
	I started (have started) to doubt the health benefits of a vegetarian/vegan diet	21%	6%	***	✓	Former n=662 Current n=148 (removed N/A)
	I started (have started) to doubt the religious/spiritual benefits of a vegetarian/vegan diet	13%	9%		✓	Former n=113 Current n=47 (removed N/A)

Table 9 (cont'd)

Category	Item	Former vegetarians/ vegans (agree/strongly agree)	Current vegetarians/ vegans (agree/strongly agree)	Statistical significance (chi-squared test)	Greater difficulty for former vegetarians/ vegans	
Motivations (cont'd)	I started (have started) to experience less pressure from others (friends, family, significant other, etc.) to eat a vegetarian/vegan diet	27%	35%			Former n=175 Current n=23 (removed N/A)
	I started (have started) to doubt the social justice/world hunger benefits of a vegetarian/vegan diet	18%	16%		✓	Former n=132 Current n=61 (removed N/A)
	I started (have started) to have less appreciation for the taste of vegetarian/vegan foods	15%	7%	*	✓	Former n=357 Current n=113 (removed N/A)
	I started (have started) to lose interest in following the vegetarian/vegan food trend	56%	29%		✓	Former n=89 Current n=14 (removed N/A)
	I started (have started) to feel less disgusted by meat/animal products	8%	25%	***		Former n=305 Current n=132 (removed N/A)
Health	I was (am) taking too many vitamins/supplements	9%	8%		✓	Former n=1,134 Current n=213
	I was (am) not confident I was (am) getting the right nutrients	25%	9%	***	✓	Former n=1,134 Current n=213
	I was (am) on a low fat or raw diet	16%	15%		✓	Former n=1,134 Current n=213
	I was (am) concerned about the impact my vegetarian/vegan diet was having on my health	23%	10%	***	✓	Former n=1,134 Current n=213
	I was (am) frequently fatigued or light-headed	17%	13%		✓	Former n=1,134 Current n=213
	I always felt (feel) hungry	27%	10%	***	✓	Former n=1,134 Current n=213
	I frequently visited (visit) a health care professional for diet-related issues	6%	8%			Former n=1,134 Current n=213
	I had (have) concerns about vegetarian/vegan nutrition for my children and/or during my/my partner's pregnancy	17%	17%			Former n=805 Current n=144

Table 9 (cont'd)

Category	Item	Former vegetarians/vegans (agree/strongly agree)	Current vegetarians/vegans (agree/strongly agree)	Statistical significance (chi-squared test)	Greater difficulty for former vegetarians/vegans	
Other	I found (find) it costs too much to eat a vegetarian/vegan diet	26%	12%	***	✓	Former n=1,131 Current n=212
	I did not (do not) see vegetarianism/veganism as part of my identity	58%	11%	***	✓	Former n=1,131 Current n=212
	I began (have begun) to feel it is too difficult to be “pure” with my vegetarian/vegan diet	43%	11%	***	✓	Former n=1,131 Current n=212
	I was (am) unclear about the definition of a vegetarian/vegan diet	14%	3%	***	✓	Former n=1,131 Current n=212

\*p < .05 \*\*p < .01 \*\*\*p < .001

Table 10. Former Vegetarians/Vegans' Past Diet

Number of times former vegetarians/vegans switched from a vegetarian/vegan diet to one that includes meat		
1	53%	n=1,113 “Don't Know”=190
2	17%	
3	6%	
4	2%	
5 or more	6%	
Don't know	17%	

Table 11. Former Vegetarians/Vegans' Past Diet Change (Age Breakdowns)

<b>Switched from a vegetarian/vegan diet to one that includes meat more than once</b>	30% (all ages)	30% (16–29 years) 32% (30–49 years) 32% (50–64 years) 21% (65+ years)	n=1,113 “Don't Know”=190
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Table 12. Current Vegetarians/Vegans' Past Diet Change

<b>Previous switch from a vegetarian/vegan diet to one with meat and then back to a vegetarian/vegan diet (n=211)</b>	16% (all ages)	12% (16–29 years) 14% (30–49 years) 28% (50–64 years) 7% (65+ years)
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Table 13. Former Vegetarians/Vegans' Daily Servings of Animal Products

Former vegetarians/vegans' average daily frequency of consumption (n=1,108)	
<b>Dairy</b>	0.9 servings/day
<b>Eggs</b>	0.4 servings/day
<b>Chicken</b>	0.3 servings/day
<b>Beef</b>	0.2 servings/day
<b>Turkey</b>	0.2 servings/day
<b>Fish</b>	0.2 servings/day
<b>Pork</b>	0.1 servings/day
<b>Seafood</b>	0.1 servings/day
<b>Other meats</b> (duck, lamb, rabbit, deer, goat, etc.)	0.03 servings/day

Note: average daily frequency of consumption refers to how many servings per day (on average) respondents indicated they consume with, for example, 0.9 servings/day being just shy of one full serving.

Table 14. Proportion that Consumes the Listed Animal Products

	Omnivores	
	With and without a history of vegetarianism/veganism (n=11,008)	Former vegetarians/vegans (n=1,166)
<b>Chicken</b>	95%	93%
<b>Dairy</b>	94%	95%
<b>Eggs</b>	92%	93%
<b>Beef</b>	89%	81%
<b>Pork</b>	83%	74%
<b>Turkey</b>	79%	80%
<b>Fish</b>	76%	79%
<b>Seafood</b>	62%	62%
<b>Other Meats</b> (duck, lamb, rabbit, deer, goat, etc.)	26%	31%

Table 15. Former Vegetarians/Vegans' Frequency of Consumption of Animal Products

Former vegetarians/vegans (n=1,108)	Never	Less than 1 time per month	1–3 times per month	1 time per week	2–6 times per week	1 time per day	2 or more times per day
<b>Dairy</b>	2.5%	2.8%	4.3%	7.9%	36.2%	30.1%	16.2%
<b>Eggs</b>	2.3%	6.0%	16.2%	25.5%	39.1%	9.8%	1.0%
<b>Chicken</b>	4.5%	6.4%	17.1%	27.7%	41.2%	2.3%	0.8%
<b>Beef</b>	13.5%	12.8%	20.9%	28.8%	21.8%	1.8%	0.4%
<b>Turkey</b>	8.2%	27.4%	24.2%	23.3%	14.4%	1.9%	0.6%
<b>Fish</b>	12.5%	17.5%	28.0%	27.8%	12.8%	0.8%	0.5%
<b>Pork</b>	18.6%	16.7%	24.2%	27.5%	11.9%	0.9%	0.2%
<b>Seafood</b>	22.3%	26.7%	26.6%	17.4%	6.1%	0.5%	0.3%
<b>Other meats</b> (duck, lamb, rabbit, deer, goat, etc.)	53.5%	30.1%	10.2%	4.5%	1.4%	0.4%	0%