

SUSTAINABLE SOURCING AND COST ANALYSIS

TOOL

FOR NATIONAL PARK SERVICE COMMERCIAL SERVICES

With support from the Institute at the Golden Gate, the National Park Service (NPS) released its Healthy Food Choice Standards and Sustainable Food Choice Guidelines in June 2013. In order to support the NPS goals for sourcing healthy and sustainable food and beverage options, the NPS Commercial Services office tasked the Institute at the Golden Gate (the Institute) with developing a regional cost analysis tool to calculate price differentials between commercial and sustainable products. To respond to the existing challenges faced by the NPS and its major concessioners, the Institute has developed a toolkit to assist cost-effective decision-making for sourcing healthy and sustainable food and beverages.

Approach and Methodology

The NPS Healthy and Sustainable Food Program requested the Institute answer a specific question:

What differences in price exist between commercial products currently sourced by NPS concessioners and their healthy, sustainable counterparts, which will promote the National Park Service Healthy Food Choice Standards and Sustainable Food Choice Guidelines (NPS Healthy and Sustainable Food Program)?

With the primary research question in mind, the Institute developed a multi-faceted approach to identify price differentials between commercial and organic, sustainable foods; to listen to the perspectives of NPS Commercial Services and executive chefs at National Park Service sites; and to develop a series of deliverables to address the key question as well as additional concerns which came up during the research process.

Given the breadth and depth of the NPS Healthy and Sustainable Food Program, the Institute first identified gaps in existing data available to NPS. Specifically, these gaps included a geographic understanding of the availability of local and regional food and beverage items; pricing information of products sourced from local farms through regional organizations; perspectives of internal decision-makers at NPS concessioners regarding healthy and sustainable food and beverage sourcing; and pricing information of wholesale items purchased by NPS concessioners from Sysco.

Initially, the Institute conceived of this deliverable as a single Excel-based costing calculator of commercial and sustainable, high demand food products sold by NPS concessioners. To gather an understanding of which food products were sold in highest numbers amongst parks, the Institute interviewed a number of park wide executive chefs, including those at the Lodge at Bryce Canyon, Yellowstone National Park, and Shenandoah National Park. From these interviews, the Institute was informed that specific pricing information between corporate wholesalers and NPS concessioners is publicly unavailable. Additionally, the Institute was able to identify the most popular, highest selling food items within specific sites in the NPS system, which include berries, bananas, salad vegetables, potatoes, Goldfish crackers, black bean burgers, lamb, steak, chicken, and where available, bison. Finally, park wide chefs shared with the Institute specific information regarding the challenges they have faced in making even more progress with the NPS Healthy Food Choice Standards and Sustainable Food Choice Guidelines. A key challenge identified by multiple NPS concessioners is the unavailability of nutritional calculators to analyze the nutritional content of meals served at NPS sites, a standard listed within the NPS Healthy Food Choice Standards and Sustainable Food Choice Guidelines.

Following the information gathering phase, the Institute re-conceptualized the final series of deliverables designed in response to the research question posed by NPS. Given the privileged nature of pricing data

between NPS concessioners and their primary corporate wholesaler, Sysco, the Institute pulled data from the USDA's Agricultural Marketing Service's Market News, a real-time website tracking daily, weekly, monthly, and annual prices of commercial and USDA certified organic commodity crops across regions of the United States. Given the NPS Healthy and Sustainable Food Program's focus on healthy and sustainable foods, the Institute built a relationship with Real Time Farms and the National Good Food Network to identify sources of local and regional foods across the country, namely food hubs. Responsible for on-the-ground aggregation and distribution of local and regional foods, food hubs serve to create an equal playing field for farmers to sell their products and develop sustainable business practices. From these food hubs, the Institute was able to acquire pricing data for wholesale items sold at local and regional geographies. Finally, this data was constructed into an online map allowing NPS concessioners and NPS Commercial Services to identify where sources of USDA certified organic and local, regional food items are located in proximity to NPS sites, and a series of Excel-based worksheets including pricing data at national and regional scopes.

The NPS Healthy and Sustainable Food Program encompasses a variety of recommendations for the National Park Service's major concessioners including: low-fat, fat-free, light, no sugar added, whole grain, trans-fat-free, hormone-free, fair trade, seasonal, local/regional, non-GMO, and shade grown food and beverage items. The Institute sincerely hopes that this four-part toolkit will shed light on specific pricing trends for NPS concessioners and the NPS Commercial Services team as they further progress toward achieving the NPS Healthy Food Choice Standards and Sustainable Food Choice Guidelines in a cost-effective manner.

Scope, Impact, and Deliverables

Each deliverable within the toolkit serves to respond to the key question and additional challenges identified in the process. The four deliverables making up this toolkit include a Google Maps-based feature allowing users to identify sources of local and regional foods near NPS sites; an Excel-based national cost analysis tool; an Excel-based regional cost analysis tool; and recommendations for online nutritional calculators.

I. Mapping Local and Regional Food Sources

A major component of the NPS Healthy and Sustainable Food Program is focused on sourcing local, organic, sustainable products at NPS sites. While the five major concessioners source products via a corporate wholesaler, Sysco, many additional relationships with local farms do exist. To increase the ability of concessioners to identify further sources of local foods, a mapping tool identifying individual NPS sites, regional food hubs, and USDA certified organic facilities has been developed.

II. National Cost Analysis Tool

To identify differences in prices of food products on a national scale, the Institute took data compiled by the USDA on commercial and USDA certified organic retail food prices and developed a cost calculator within an Excel spreadsheet.

By entering the amount of a particular item a user wishes to purchase, the cost calculator will tally the total savings or cost of products in both their commercial and USDA certified organic versions. Given the key question posed to the Institute in this task agreement, this tool provides a quantitative indication of price differentials between generic food items and those that are in line with the NPS Healthy and Sustainable Food Program.

III. Regional Cost Analysis Tool

To identify differences in prices of food products on a regional scale, the Institute took data compiled by USDA on commercial and USDA certified organic retail food prices as well as wholesaler pricing data provided by regional food hubs within an Excel spreadsheet. After considering research indicating that in the year 2013, trends in food prices reflected each other in retail and wholesaler markets, the Institute developed this spreadsheet so users could have an idea of what price fluctuations exist between commercial and regional wholesaler markets. This spreadsheet's emphasis on regional, sustainable food products mirrors that of the NPS Healthy and Sustainable Food Program.

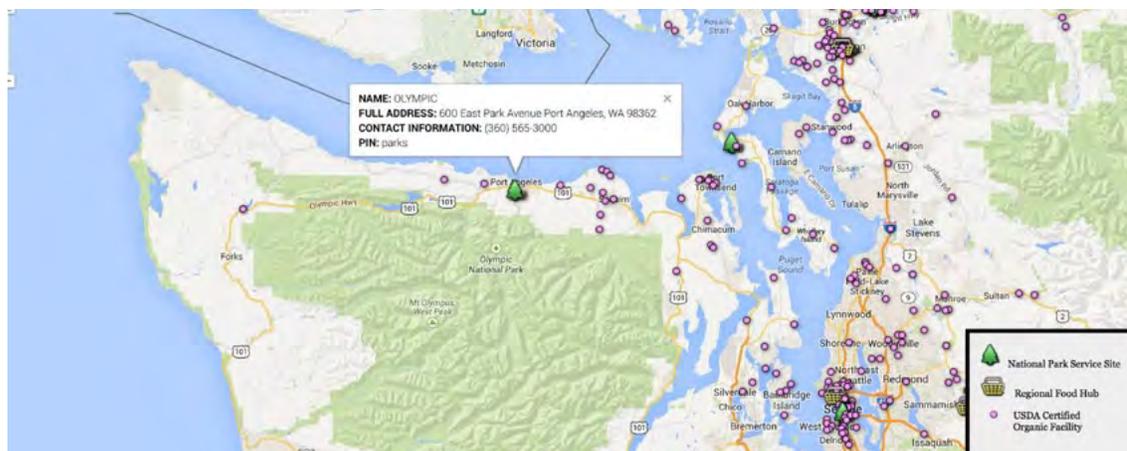
IV. Nutrition Calculator

After interviewing several executive chefs at National Park Service sites, the Institute identified lack of access to nutritional calculators as being a key hurdle facing concessioners. Given the NPS Healthy and Sustainable Food Program's emphasis on healthy foods, the Institute developed a list of suggestions for free and cost-based tools to assist concessioners in developing comprehensive nutritional profiles of food products sold to park visitors.

THE TOOLKIT

I. Mapping Local and Regional Sources of Food

The National Park Service operates over 400 sites of varying sizes and geographic locations. Depending on a park's proximity to sources of sustainable food, NPS and its concessioners operate with varying definitions of what constitutes local and regional foods. The National Park Service defines "local" as less than 400 miles from the point of origin or the state in which a product was produced. Xanterra Parks and Resorts, which operates within the 3,500 square mile area known as Yellowstone National Park, defines "sustainable sourcing" as purchasing items produced within a 500 mile radius or less from the park. Delaware North, the company running Kalaloch Lodge out of Olympic National Park, purchases items from Draper Valley Farms, less than 250 miles from the park. Due to the fluctuating nature of what distance constitutes "local," the Institute has developed a mapping tool allowing concessioners to easily locate farms and food hubs in proximity to their parks.



NPS Healthy and Sustainable Food Sourcing Map [1]

<https://www.google.com/fusiontables/DataSource?docid=1V9dKPGvclxg0SoXOeoa1UROnFeJM54FZ1S1HU>

In the above screenshot from the mapping tool, a user can easily see that there are a number of farms where local food is available – denoted by the purple pinpoint icons – in proximity to Olympic National Park’s headquarters. The Institute hopes that this tool, which was built with data gathered from Real Time Farms and the USDA, will further identify and diversify options for local and regional food sourcing for NPS and its concessioners.

Identification of price points and price differentials

Drawing from the 2013 publicly available data from the USDA’s Agricultural Marketing Service and the list of high demand items from the executive chef interviews, the Institute developed an Excel-based cost analysis tool to calculate seasonal price differentials between commercial, USDA certified organic, and regional food and beverage items. Seasons are defined as winter (January, February, and March); spring (April, May, and June); summer (July, August, and September); and autumn (October, November, and December). Given NPS’ focus on healthy and sustainable sourcing, the Institute has also marked products from the Environmental Working Group’s Dirty Dozen 2013 and Clean 15 2013 lists to identify items with the highest and lowest likelihoods of testing positively for pesticide residues.

According to USDA’s website, “Market News surveys more than 200 retailers, comprising roughly 17,000 individual stores, with online weekly advertised features. Information represents advertised prices for products at major retail supermarket outlets.” Due to retail prices fluctuating depending on a combination of factors including geography, season, the scheduling of holidays, and supply and demand trends and price points published by USDA’s Market News being compiled from a variety of nationwide and regional sources, the data presented within the Institute’s cost analysis tools does contain price points which initially appear inconsistent. For example, the cost of five pounds of a particular item may not equal the cost of one pound of that item times five. However, it is because of the numerous factors affecting price points across retail food sellers in different regions across the country that these perceived inconsistencies exist.

THE TOOLKIT

II. Pricing Across the Nation: A How-To Guide for the National Cost Analysis Tool

On a national scale, data is available for commercial retail and USDA certified organic retail items. Using Excel, the Institute has developed a cost calculator to compare commercial and USDA certified organic retail prices across seasons. Users will note that some rows are highlighted in green while others are white. Green rows within the cost analysis tool identify products that are cost-effective items and in line with the NPS Healthy and Sustainable Food Program, meaning that the USDA certified organic retail prices are less than or equal to commercial retail prices. These items are predicted to be the easiest-to-reach goals for concessioners because their organic varieties cost less than their commercial counterparts.

NPS National Healthy and Sustainable Food Cost Analysis Tool [2]

1	A	B	C	D	E	F	G	H	I	J	K	
Season	Region	Class	Commodity	Variety	Unit	USDA Certified Organic Retail Weighted Average Price	Commercial Retail Weighted Average Price	# Units Ordered	USDA Certified Organic Retail Subtotal	Commercial Retail Subtotal	Price Differential, USDA Certified Organic Retail	
258	SPRING	NATIONAL	VEGETABLES	CUCUMBERS	LONG SEEDLESS	each	\$1.97	5	\$9.85	\$9.85	0.00	
259	SPRING	NATIONAL	FRUITS	BLUEBERRIES	18 oz package	\$4.18	\$3.08	1	\$4.18	\$3.08	1.10	
260	SPRING	NATIONAL	VEGETABLES	BEANS	ROUND GREEN TYPE	per pound	\$2.24	\$1.52	2	\$4.48	\$3.04	1.44
261	SPRING	NATIONAL	VEGETABLES	PEPPERS, BELL TYPE	RED	per pound	\$2.56	\$1.64	1	\$2.56	\$1.64	0.92
262	SPRING	NATIONAL	VEGETABLES	PEPPERS, BELL TYPE	RED	per pound	\$3.00	\$1.86	1	\$3.00	\$1.86	1.14
263	SPRING	NATIONAL	FRUITS	BLUEBERRIES	1 1/2 pint package	\$3.06	\$1.86	1	\$3.06	\$1.86	1.20	
264	SPRING	NATIONAL	FRUITS	STRAWBERRIES	1 lb package	\$2.71	\$1.50	1	\$2.71	\$1.50	1.21	
265	SPRING	NATIONAL	FRUITS	PINEAPPLES	each	\$3.65	\$2.10	1	\$3.65	\$2.10	1.55	
266	SPRING	NATIONAL	VEGETABLES	KALE GREENS	per pound	\$2.44	\$1.02	1	\$2.44	\$1.02	1.42	
267	SPRING	NATIONAL	FRUITS	PLUMS	per pound	\$2.99	\$1.32	1	\$2.99	\$1.32	1.67	
268	SPRING	NATIONAL	FRUITS	GRAPES	BLACK SEEDLESS	per pound	\$2.22	\$1.73	1	\$2.22	\$1.73	0.49
269	SPRING	NATIONAL	FRUITS	TANGERINES	1 lb bag	\$3.78	\$2.17	1	\$3.78	\$2.17	1.61	
270	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	5 lb bag	\$3.26	\$1.44	1	\$3.26	\$1.44	1.82
271	SPRING	NATIONAL	FRUITS	WATERMELONS	RED FLESH SEEDLESS MINIATURE	each	\$4.12	\$2.26	1	\$4.12	\$2.26	1.86
272	SPRING	NATIONAL	VEGETABLES	ASPARAGUS	GREEN	per pound	\$1.90	\$2.05	1	\$1.90	\$2.05	-0.15
273	SPRING	NATIONAL	FRUITS	CLIMATEWIKES	per pound	\$3.00	\$3.09	1	\$3.00	\$3.09	-0.09	
274	SPRING	NATIONAL	ONIONS AND POTATOES	ONIONS DRY	YELLOW	5 lb bag	\$1.99	\$1.73	1	\$1.99	\$1.73	0.26
275	SPRING	NATIONAL	VEGETABLES	BRUSSELS SPROUTS	per pound	\$3.99	\$1.62	1	\$3.99	\$1.62	2.37	
276	SPRING	NATIONAL	FRUITS	APPLES	RED DELICIOUS	5 lb bag	\$4.84	\$2.32	1	\$4.84	\$2.32	2.52
277	SPRING	NATIONAL	VEGETABLES	PEPPERS, OTHER	JALAPENO	per pound	\$4.53	\$1.82	1	\$4.53	\$1.82	2.71
278	SPRING	NATIONAL	FRUITS	APPLES	GRANNY SMITH	5 lb bag	\$3.86	\$1.97	1	\$3.86	\$1.97	1.89
279	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND WHITE	5 lb bag	\$0.90	\$3.99	2	\$1.80	\$7.98	-6.18
280	SUMMER	NATIONAL	FRUITS	PLUMS	ELLER	5 lb bag	\$5.49	\$3.99	1	\$5.49	\$3.99	1.50
281	SUMMER	NATIONAL	FRUITS	APPLES	BRAGGINS	5 lb bag	\$2.76	\$3.99	1	\$2.76	\$3.99	-1.23
282	SUMMER	NATIONAL	VEGETABLES	ARTICHOKES	each	\$0.88	\$1.81	1	\$0.88	\$1.81	-0.93	
283	SUMMER	NATIONAL	FRUITS	APPLES	GALA	5 lb bag	\$3.21	\$3.90	1	\$3.21	\$3.90	-0.69
284	SUMMER	NATIONAL	FRUITS	APPLES	GOLDEN DELICIOUS	5 lb bag	\$4.40	\$4.90	1	\$4.40	\$4.90	-0.50
285	SUMMER	NATIONAL	FRUITS	APPLES	RED DELICIOUS	5 lb bag	\$4.40	\$4.90	1	\$4.40	\$4.90	-0.50
286	SUMMER	NATIONAL	FRUITS	ORANGES	VALENCIA	4 lb bag	\$1.34	\$3.65	1	\$1.34	\$3.65	-2.31
287	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	RUSSET	5 lb bag	\$2.50	\$3.99	1	\$2.50	\$3.99	-1.49
288	SUMMER	NATIONAL	VEGETABLES	CELERY	each	\$1.28	\$1.38	1	\$1.28	\$1.38	-0.10	
289	SUMMER	NATIONAL	VEGETABLES	CELERY	each	\$1.33	\$1.38	1	\$1.33	\$1.38	-0.05	
290	SUMMER	NATIONAL	FRUITS	LIMES	each	\$0.20	\$0.24	1	\$0.20	\$0.24	-0.04	
291	SUMMER	NATIONAL	FRUITS	LIMONS	each	\$0.50	\$0.53	1	\$0.50	\$0.53	-0.03	
292	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	GOLDEN DELICIOUS	5 lb bag	\$3.99	\$3.99	1	\$3.99	\$3.99	0.00
293	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	5 lb bag	\$3.99	\$3.99	1	\$3.99	\$3.99	0.00
294	SUMMER	NATIONAL	VEGETABLES	LETTUCE, COLESLAW	each	\$0.99	\$0.97	1	\$0.99	\$0.97	0.02	
295	SUMMER	NATIONAL	FRUITS	ORANGES	NAVEL	4 lb bag	\$3.99	\$3.97	1	\$3.99	\$3.97	0.02
296	SUMMER	NATIONAL	FRUITS	CHERRIES	RED VARIETIES	per pound	\$3.99	\$3.92	1	\$3.99	\$3.92	0.07
297	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	per pound	\$2.00	\$2.00	1	\$2.00	\$2.00	0.00
298	SUMMER	NATIONAL	FRUITS	WATERMELONS	RED FLESH SEEDLESS TYPE	per pound	\$0.55	\$0.42	1	\$0.55	\$0.42	0.13
299	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	per pound	\$0.99	\$0.84	1	\$0.99	\$0.84	0.15

To understand the utility of this calculator, let's look at the product listed in row 2 of this Excel spreadsheet, 5 lbs bags of round, white potatoes available in the summer. In the above screenshot, it is highlighted in yellow.

As the user shifts right in this spreadsheet, (s)he will come across additional information, including USDA certified organic and commercial retail weighted average prices per unit.

1	Variety	Unit	USDA Certified Organic Retail Weighted Average Price	Commercial Retail Weighted Average Price	# Units Ordered	USDA Certified Organic Retail Subtotal	Commercial Retail Subtotal	Price Differential, USDA Certified Organic Retail
258	LONG SEEDLESS	each	\$1.97	\$1.97	5	\$9.85	\$9.85	0.00
259	18 oz package	each	\$4.18	\$3.08	1	\$4.18	\$3.08	1.10
260	ROUND GREEN TYPE	per pound	\$2.24	\$1.52	2	\$4.48	\$3.04	1.44
261	RED	per pound	\$2.56	\$1.64	1	\$2.56	\$1.64	0.92
262	1 1/2 pint package	each	\$3.00	\$1.86	1	\$3.00	\$1.86	1.14
263	1 lb package	each	\$3.06	\$1.86	1	\$3.06	\$1.86	1.20
264	1 lb package	each	\$2.71	\$1.50	1	\$2.71	\$1.50	1.21
265	each	each	\$3.65	\$2.10	1	\$3.65	\$2.10	1.55
266	per pound	per pound	\$2.44	\$1.02	1	\$2.44	\$1.02	1.42
267	per pound	per pound	\$2.99	\$1.32	1	\$2.99	\$1.32	1.67
268	per pound	per pound	\$2.22	\$1.73	1	\$2.22	\$1.73	0.49
269	1 lb bag	each	\$3.78	\$2.17	1	\$3.78	\$2.17	1.61
270	5 lb bag	each	\$3.26	\$1.44	1	\$3.26	\$1.44	1.82
271	each	each	\$4.12	\$2.26	1	\$4.12	\$2.26	1.86
272	per pound	per pound	\$1.90	\$2.05	1	\$1.90	\$2.05	-0.15
273	5 lb bag	each	\$3.00	\$3.09	1	\$3.00	\$3.09	-0.09
274	5 lb bag	each	\$1.99	\$1.73	1	\$1.99	\$1.73	0.26
275	per pound	per pound	\$3.99	\$1.62	1	\$3.99	\$1.62	2.37
276	5 lb bag	each	\$4.84	\$2.32	1	\$4.84	\$2.32	2.52
277	per pound	per pound	\$4.53	\$1.82	1	\$4.53	\$1.82	2.71
278	5 lb bag	each	\$3.86	\$1.97	1	\$3.86	\$1.97	1.89
279	5 lb bag	each	\$0.90	\$3.99	2	\$1.80	\$7.98	-6.18
280	5 lb bag	each	\$5.49	\$3.99	1	\$5.49	\$3.99	1.50
281	5 lb bag	each	\$2.76	\$3.99	1	\$2.76	\$3.99	-1.23
282	each	each	\$0.88	\$1.81	1	\$0.88	\$1.81	-0.93
283	5 lb bag	each	\$3.21	\$3.90	1	\$3.21	\$3.90	-0.69
284	5 lb bag	each	\$4.40	\$4.90	1	\$4.40	\$4.90	-0.50
285	5 lb bag	each	\$4.40	\$4.90	1	\$4.40	\$4.90	-0.50
286	4 lb bag	each	\$1.34	\$3.65	1	\$1.34	\$3.65	-2.31
287	5 lb bag	each	\$2.50	\$3.99	1	\$2.50	\$3.99	-1.49
288	per pound	per pound	\$1.28	\$1.38	1	\$1.28	\$1.38	-0.10
289	each	each	\$1.33	\$1.38	1	\$1.33	\$1.38	-0.05
290	each	each	\$0.20	\$0.24	1	\$0.20	\$0.24	-0.04
291	each	each	\$0.50	\$0.53	1	\$0.50	\$0.53	-0.03
292	5 lb bag	each	\$3.99	\$3.99	1	\$3.99	\$3.99	0.00
293	5 lb bag	each	\$3.99	\$3.99	1	\$3.99	\$3.99	0.00
294	each	each	\$0.99	\$0.97	1	\$0.99	\$0.97	0.02
295	4 lb bag	each	\$3.99	\$3.97	1	\$3.99	\$3.97	0.02
296	per pound	per pound	\$3.99	\$3.92	1	\$3.99	\$3.92	0.07
297	per pound	per pound	\$2.00	\$2.00	1	\$2.00	\$2.00	0.00
298	per pound	per pound	\$0.55	\$0.42	1	\$0.55	\$0.42	0.13
299	per pound	per pound	\$0.99	\$0.84	1	\$0.99	\$0.84	0.15

NPS National Healthy and Sustainable Food Cost Analysis Tool [3]

The cost analysis calculator can be found in columns I, J, K, L, and M. If a user would like to determine how much more (s)he will spend purchasing two bags of 5 lbs round, white, USDA certified organic potatoes versus two bags of 5 lbs round, white, commercial potatoes during the summertime, (s)he will enter "5" into Column I, # Units Ordered.

Commodity	Variety	Unit	USDA Certified Organic Retail Weighted Average Price	Commercial Retail Weighted Average Price	# Units Ordered	USDA Certified Organic Retail Subtotal	Commercial Retail Subtotal	Price Differential, USDA
245	SALAD	MIXED TYPES	5 lb bag	\$2.02	62.18	3.02	2.19	0.83
246	TRUFFLE POTATOES	FOURTHS	5 lb package	\$2.76	51.86	2.76	1.98	0.78
247	APPLES	GALA	per pound	\$2.12	21.24	2.12	1.24	0.88
248	ARROCCOU		per pound	\$1.88	51.00	1.88	1.00	0.88
249	SALAD	MIKED TYPES	10 - 12 oz package	\$2.78	51.88	2.78	1.89	0.89
250	CILERY	HEARTS	each	\$2.22	51.27	2.22	1.32	0.90
251	SPINACH	FLAT, BABY TYPE	1 lb package	\$2.18	52.27	2.18	1.27	0.91
252	GRAPEFRUIT	RED	each	\$1.91	50.99	1.91	0.98	0.93
253	POTATOES	RUSSET	5 lb bag	\$2.72	51.79	2.72	1.79	0.93
254	APPLES	GOLDEN DELICIOUS	5 lb bag	\$2.45	52.55	2.45	1.55	0.90
255	POTATOES	YELLOW TYPE	5 lb bag	\$2.37	51.44	2.37	1.44	0.93
256	BLUBERRIES		4.5 oz package	\$2.21	52.21	2.21	1.21	1.00
257	LETTUCE, ROMAINE		each	\$2.10	52.08	2.10	1.08	1.02
258	CUCUMBERS	LONG SEEDLESS	each	\$1.97	50.50	1.97	0.90	1.07
259	BLUBERRIES		18 oz package	\$4.18	54.08	4.18	2.08	2.10
260	PEAS	ROUND GREEN TYPE	per pound	\$2.24	51.12	2.24	1.12	1.12
261	PEPPERS, BELL TYPE	RED	per pound	\$2.28	51.84	2.28	1.44	0.84
262	TOMATOES, CHERRY		1 pint package	\$3.00	51.80	3.00	1.80	1.20
263	BLUBERRIES		1 pint package	\$3.00	51.80	3.00	1.80	1.20
264	STRAWBERRIES		1 lb package	\$2.71	51.50	2.71	1.50	1.21
265	PINEAPPLES		each	\$3.45	52.10	3.45	1.60	1.85
266	KALE GREEN		per pound	\$2.44	51.02	2.44	1.02	1.42
267	PLUMS		per pound	\$2.39	51.52	2.39	1.52	0.87
268	GRAPES	BLACK SEEDLESS	per pound	\$3.22	51.73	3.22	1.73	1.49
269	TANGERINES		3 lb bag	\$3.78	52.17	3.78	2.17	1.61
270	POTATOES	YELLOW TYPE	5 lb bag	\$2.36	51.44	2.36	1.44	0.92
271	WATERMELONS	RED FLESH SEEDLESS MINIATURE	each	\$4.12	52.23	4.12	2.23	1.89
272	ASPARAGUS	GREEN	per pound	\$3.00	52.05	3.00	2.05	0.95
273	CLEMENTINES		3 lb bag	\$3.00	53.00	3.00	3.00	0.00
274	ONIONS DRY	YELLOW	5 lb bag	\$3.39	51.73	3.39	1.73	1.66
275	BRUSSELS SPROUTS		per pound	\$3.96	51.63	3.96	1.63	2.33
276	APPLES	RED DELICIOUS	5 lb bag	\$4.84	52.32	4.84	2.32	2.52
277	PEPPERS, OTHER	HALF PINT	per pound	\$4.53	51.82	4.53	1.82	2.71
278	APPLES	GRANNY SMITH	5 lb bag	\$3.86	51.97	3.86	1.97	1.89
279	POTATOES	GOLDEN WHITE	5 lb bag	\$2.90	54.09	2.90	1.09	1.81
280	BRUSSEL	SPROUTS	5 lb bag	\$3.79	52.49	3.79	1.49	2.30
281	APPLES	EMERALD	5 lb bag	\$2.76	53.59	2.76	1.59	1.17
282	ARTICHOKE		each	\$0.88	51.85	0.88	0.85	0.03
283	APPLES	GALA	5 lb bag	\$2.21	53.81	2.21	1.81	0.40
284	APPLES	GOLDEN DELICIOUS	5 lb bag	\$4.10	54.50	4.10	1.50	2.60
285	APPLES	RED DELICIOUS	5 lb bag	\$4.00	54.00	4.00	1.99	2.01
286	ORANGES	VALENCIA	5 lb bag	\$3.84	53.63	3.84	1.63	2.21

The calculator will then determine the USDA certified organic retail and commercial retail subtotals for two 5 lb bags of round, white potatoes purchased in the summer. In Column L, the calculator displays the total price differential of USDA certified organic versus commercial retail costs for the product, which in this example is -\$6.00, meaning that two 5 lb bags of round, white, USDA certified organic potatoes purchased in the summer will be \$6.00 less expensive than two 5 lb bags of round, white, commercial potatoes purchased in the summer.

Commercial Retail Weighted Average Price	# Units Ordered	USDA Certified Organic Retail Subtotal	Commercial Retail Subtotal	Price Differential, USDA Certified Organic Retail minus Commercial Retail	Price Differential Per Unit, USDA Certified Organic Retail minus Commercial Retail
246	1.88	2.73	1.88	0.86	0.86
247	51.24	2.12	1.24	0.88	0.88
248	51.00	1.88	1.00	0.88	0.88
249	51.88	2.78	1.89	0.89	0.89
250	51.32	2.22	1.32	0.90	0.90
251	52.27	2.18	1.27	0.91	0.91
252	50.98	1.91	0.98	0.93	0.93
253	51.79	2.72	1.79	0.93	0.93
254	52.26	1.90	1.00	0.90	0.90
255	51.44	2.37	1.44	0.94	0.94
256	52.21	2.21	1.21	0.96	0.96
257	52.08	2.10	1.08	1.02	1.02
258	50.50	1.97	0.90	1.07	1.07
259	51.08	4.18	2.08	2.10	2.09
260	51.12	2.24	1.12	1.12	1.12
261	51.44	2.28	1.44	1.12	1.12
262	51.86	3.00	1.80	1.14	1.14
263	51.86	3.00	1.80	1.14	1.14
264	51.50	2.71	1.50	1.11	1.11
265	52.10	3.45	1.60	1.85	1.85
266	51.02	2.44	1.02	1.41	1.41
267	51.52	2.39	1.52	1.42	1.42
268	51.73	3.22	1.73	1.49	1.49
269	52.17	3.78	2.17	1.61	1.61
270	51.44	3.96	1.44	1.82	1.82
271	52.26	4.12	2.26	1.86	1.86
272	52.05	3.00	2.05	1.85	1.85
273	51.09	3.00	3.00	0.00	0.00
274	51.73	3.39	1.73	2.26	2.26
275	51.63	3.99	1.63	2.37	2.37
276	52.32	4.84	2.32	2.51	2.51
277	51.82	4.53	1.82	2.71	2.71
278	51.97	3.86	1.97	2.89	2.89
279	54.09	2.90	1.09	3.00	3.00
280	53.81	3.86	1.81	3.20	3.20
281	54.50	2.76	1.89	3.23	3.23
282	53.82	0.60	1.82	1.17	1.17
283	54.50	2.21	1.81	0.79	0.79
284	54.90	0.60	1.90	0.50	0.50
285	54.00	0.60	1.90	0.50	0.50
286	53.63	3.21	1.63	3.31	3.31
287	53.64	2.20	1.63	3.31	3.31

Other tabs within this workbook allow this pricing information to be sorted by price differential and commodity.

NPS National Healthy and Sustainable Food Cost Analysis Tool [6]

1	Price Differential, USDA Certified Organic Retail Subtotal minus Commercial Retail Subtotal	Season	Region	Class	Commodity	Variety	Unit	USDA Certified Organic Retail Average Price	Commercial Retail Weighted Average Price
2	-3.05	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND WHITE	5 lb bag	\$0.39	\$0.39
3	-1.50	SUMMER	NATIONAL	FRUITS	APPLES	RED	1 lb bag	\$2.89	\$2.89
4	-1.42	SPRING	NATIONAL	VEGETABLES	CARROTS		per pound	\$0.84	\$0.84
5	-1.34	SPRING	NATIONAL	FRUITS	ORANGES	VALENCIA	4 lb bag	\$1.43	\$1.43
6	-1.23	SUMMER	NATIONAL	FRUITS	APPLES	BRAEBURN	3 lb bag	\$2.75	\$2.75
7	-1.17	SUMMER	NATIONAL	VEGETABLES	ARTICHOKES		each	\$0.88	\$0.88
8	-1.14	SPRING	NATIONAL	VEGETABLES	COLLARD GREENS		per pound	\$1.29	\$1.29
9	-1.04	SPRING	NATIONAL	FRUITS	LEMONS		per pound	\$1.15	\$1.15
10	-0.93	SPRING	NATIONAL	ONIONS AND POTATOES	ONIONS DRY	RED	per pound	\$1.66	\$1.66
11	-0.91	SPRING	NATIONAL	FRUITS	BLUEBERRIES		8 oz package	\$2.16	\$2.16
12	-0.85	SPRING	NATIONAL	VEGETABLES	CELERY		each	\$1.29	\$1.29
13	-0.80	SPRING	NATIONAL	VEGETABLES	LETTUCE GREEN LEAF		each	\$1.71	\$1.71
14	-0.77	SPRING	NATIONAL	FRUITS	APPLES	MCINTOSH	per pound	\$0.99	\$0.99
15	-0.75	WINTER	NATIONAL	FRUITS	BLACKBERRIES		1.6 - 6 oz package	\$1.39	\$1.39
16	-0.70	SUMMER	NATIONAL	FRUITS	APPLES	GALA	3 lb bag	\$3.21	\$3.21
17	-0.68	SPRING	NATIONAL	FRUITS	APPLES	RED DELICIOUS	1 lb bag	\$2.27	\$2.27
18	-0.62	WINTER	NATIONAL	FRUITS	APPLES	HONEYCRISP	per pound	\$2.22	\$2.22
19	-0.61	SPRING	NATIONAL	VEGETABLES	MUSHROOMS	WHITE	per pound	\$2.82	\$2.82
20	-0.58	SPRING	NATIONAL	VEGETABLES	PEPPERS BELL TYPE	GREEN	each	\$1.85	\$1.85
21	-0.57	SPRING	NATIONAL	VEGETABLES	BROCCOLI		per bunch	\$1.33	\$1.33
22	-0.55	SPRING	NATIONAL	FRUITS	APPLES	GOOSH DELICIOUS	per pound	\$1.48	\$1.48
23	-0.53	SPRING	NATIONAL	FRUITS	ORANGES	NAVEL	each	\$0.99	\$0.99
24	-0.50	SUMMER	NATIONAL	FRUITS	APPLES	GOLDEN DELICIOUS	3 lb bag	\$4.49	\$4.49
25	-0.50	SUMMER	NATIONAL	FRUITS	APPLES	RED DELICIOUS	3 lb bag	\$4.49	\$4.49
26	-0.48	WINTER	NATIONAL	VEGETABLES	MUSHROOMS	WHITE	per pound	\$2.24	\$2.24
27	-0.47	SPRING	NATIONAL	FRUITS	APPLES	RED DELICIOUS	1 lb bag	\$2.21	\$2.21
28	-0.41	SPRING	NATIONAL	FRUITS	GRAPEFRUIT	RED	per pound	\$1.99	\$1.99
29	-0.40	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	3 lb bag	\$3.30	\$3.30
30	-0.40	AUTUMN	NATIONAL	VEGETABLES	MUSHROOMS	WHITE	per pound	\$2.23	\$2.23
31	-0.40	SPRING	NATIONAL	VEGETABLES	SPINACH	BUTTERFLY	per pound	\$1.13	\$1.13
32	-0.40	AUTUMN	NATIONAL	VEGETABLES	EGGPLANT		each	\$0.99	\$0.99
33	-0.39	WINTER	NATIONAL	FRUITS	PEACHES		each	\$1.30	\$1.30
34	-0.34	SPRING	NATIONAL	VEGETABLES	LETTUCE ROMAINE		per pound	\$1.71	\$1.71
35	-0.34	AUTUMN	NATIONAL	FRUITS	APRICOTS		per pound	\$2.11	\$2.11
36	-0.32	SPRING	NATIONAL	FRUITS	BANANAS		per pound	\$1.42	\$1.42
37	-0.31	SUMMER	NATIONAL	FRUITS	ORANGES	VALENCIA	4 lb bag	\$1.41	\$1.41
38	-0.31	AUTUMN	NATIONAL	FRUITS	POMEGRANATES		each	\$1.86	\$1.86
39	-0.30	AUTUMN	NATIONAL	VEGETABLES	BROCCOLI	BARY HERB TYPE	per bunch	\$2.20	\$2.20
40	-0.27	SPRING	NATIONAL	VEGETABLES	CARROTS	BARY FLEED	1 lb bag	\$1.11	\$1.11
41	-0.26	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	per pound	\$1.61	\$1.61
42	-0.23	SPRING	NATIONAL	VEGETABLES	LETTUCE BOSTON		each	\$1.61	\$1.61
43	-0.24	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	5 lb bag	\$2.08	\$2.08

1	Season	Region	Class	Commodity	Variety	Unit	USDA Certified Organic Retail Weighted Average Price	USDA Certified Organic Retail Average Price	Commercial Retail Weighted Average Price	# Units Ordered	USDA Retail
247	AUTUMN	NATIONAL	ONIONS AND POTATOES	ONION DRY	RED	per pound	\$1.52	\$1.52	\$0.18		\$0.18
248	AUTUMN	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW	per pound	\$1.45	\$1.45	\$0.41		\$0.41
249	WINTER	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW MARKED SWEET	3 lb bag	\$3.68	\$3.68	\$2.88		\$2.88
250	WINTER	NATIONAL	ONIONS AND POTATOES	ONION DRY	WHITE	1 lb bag	\$2.99	\$2.99	\$2.29		\$2.29
251	SUMMER	NATIONAL	ONIONS AND POTATOES	ONION DRY	RED	per pound	\$1.99	\$1.99	\$0.95		\$0.95
252	WINTER	NATIONAL	ONIONS AND POTATOES	ONION DRY	WHITE	2 lb bag	\$2.98	\$2.98	\$1.86		\$1.86
253	AUTUMN	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW MARKED SWEET	2 lb bag	\$2.68	\$2.68	\$1.15		\$1.15
254	SUMMER	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW MARKED SWEET	2 lb bag	\$2.99	\$2.99	\$1.41		\$1.41
255	WINTER	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW	1 lb bag	\$1.01	\$1.01	\$1.91		\$1.91
256	WINTER	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW	2 lb bag	\$2.32	\$2.32	\$1.06		\$1.06
257	SUMMER	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW	per pound	\$1.99	\$1.99	\$0.54		\$0.54
258	WINTER	NATIONAL	ONIONS AND POTATOES	ONION DRY	RED	2 lb bag	\$2.89	\$2.89	\$1.43		\$1.43
259	SUMMER	NATIONAL	ONIONS AND POTATOES	ONION DRY	RED	1 lb bag	\$2.99	\$2.99	\$1.99		\$1.99
260	AUTUMN	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW	3 lb bag	\$3.57	\$3.57	\$1.33		\$1.33
261	WINTER	NATIONAL	ONIONS AND POTATOES	ONION DRY	RED	4 lb bag	\$4.97	\$4.97	\$2.22		\$2.22
262	SPRING	NATIONAL	ONIONS AND POTATOES	ONION DRY	YELLOW	3 lb bag	\$3.89	\$3.89	\$1.78		\$1.78
263	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND WHITE	5 lb bag	\$3.99	\$3.99	\$3.10		\$3.10
264	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	1 lb bag	\$3.89	\$3.89	\$4.83		\$4.83
265	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	per pound	\$1.13	\$1.13	\$1.37		\$1.37
266	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	3 lb bag	\$2.08	\$2.08	\$2.32		\$2.32
267	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	RUSSET	5 lb bag	\$3.50	\$3.50	\$2.86		\$2.86
268	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	2 lb bag	\$2.22	\$2.22	\$4.16		\$4.16
269	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW	per pound	\$1.98	\$1.98	\$2.15		\$2.15
270	WINTER	NATIONAL	ONIONS AND POTATOES	POTATOES	RUSSET	per pound	\$0.85	\$0.85	\$0.76		\$0.76
271	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	5 lb bag	\$8.99	\$8.99	\$8.99		\$8.99
272	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	RUSSET	10 lb bag	\$1.95	\$1.95	\$1.82		\$1.82
273	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	per pound	\$1.16	\$1.16	\$2.03		\$2.03
274	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	per pound	\$0.99	\$0.99	\$0.99		\$0.99
275	WINTER	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	per pound	\$0.93	\$0.93	\$0.77		\$0.77
276	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	per pound	\$0.96	\$0.96	\$0.94		\$0.94
277	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	per pound	\$1.08	\$1.08	\$0.99		\$0.99
278	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND WHITE	per pound	\$0.99	\$0.99	\$0.77		\$0.77
279	WINTER	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	per pound	\$1.61	\$1.61	\$0.79		\$0.79
280	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	per pound	\$1.13	\$1.13	\$0.87		\$0.87
281	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	YELLOW TYPE	5 lb bag	\$3.74	\$3.74	\$3.47		\$3.47
282	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	RUSSET	per pound	\$1.02	\$1.02	\$0.75		\$0.75
283	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	RUSSET	1 lb bag	\$1.47	\$1.47	\$1.10		\$1.10
284	SUMMER	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	5 lb bag	\$3.99	\$3.99	\$3.65		\$3.65
285	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	RUSSET	per pound	\$1.24	\$1.24	\$0.84		\$0.84
286	SPRING	NATIONAL	ONIONS AND POTATOES	POTATOES	RUSSET	3 lb bag	\$1.75	\$1.75	\$1.28		\$1.28
287	AUTUMN	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	5 lb bag	\$3.77	\$3.77	\$3.17		\$3.17
288	WINTER	NATIONAL	ONIONS AND POTATOES	POTATOES	ROUND RED	1 lb bag	\$3.84	\$3.84	\$3.13		\$3.13

NPS National Healthy and Sustainable Food Cost Analysis Tool [7]

The national cost analysis tool allows users to easily identify products that are most in line with the goals of the NPS Healthy and Sustainable Food Program, those that are cost-effective and sustainable. In total, 84 items across seasons and in specific units are found to have a lower price point in their USDA certified organic versions than their commercial versions, meaning purchasers will save money by sourcing products that can only contain 95% or more of organic ingredients, meaning no antibiotics, hormones, genetic engineering, radiation or synthetic pesticides or fertilizers can be used. These items include:

Food Items with Low USDA Certified Organic Price Points

- McIntosh, Golden Delicious, Red Delicious, Pink Lady/ Cripps Pink, Fuji, Braeburn, Gala, and Honeycrisp Apples **DD**
- Apricots
- Artichokes
- Bananas
- Blackberries
- Blueberries
- Broccoli
- Carrots
- Celery **DD**
- Clementines
- Collard Greens
- Cucumbers **DD**
- Eggplant **C15**
- Red Grapefruit **C15**
- Red Globe Grapes **DD**
- Lemons
- Lettuce, Boston
- Lettuce, Green Leaf
- Lettuce, Red Leaf
- Lettuce, Romaine
- Limes
- Mangoes
- White Mushrooms **C15**
- Yellow Marked Sweet and Red Onions **C15**
- Navel and Valencia Oranges
- Bosc Pears
- Green Bell Peppers
- Persimmons
- Plums
- Pomegranates
- Yellow, Round Red, Russet, and Round White Potatoes **DD**
- Salad
- Flat Baby Spinach **DD**
- Butternut Squash and Zucchini **DD**
- Vine-Ripened Tomatoes

DD = Environmental Working Group Dirty Dozen

C15 = Environmental Working Group Clean 15

Of these items, many belong on the Environmental Working Group's Dirty Dozen and Clean 15 lists. The Dirty Dozen (marked by DD) identifies commercial food items with the highest likelihood of containing pesticide residues, which has been linked to human health and ecological defects. The Clean 15 (marked by C15) identifies food items with the lowest likelihood of containing pesticide residues. By purchasing these items, NPS concessioners will both save money and improve human health by serving organic versions of the most toxic commercial products. These purchases will also allow NPS concessioners to maintain or improve their profit margins, a concern voiced during the Institute's interviews among park wide executive chefs.

THE TOOLKIT

III. Pricing Across Regions: A How-To for the Regional Cost Analysis Tool

Because of the methodology used by USDA's Market News to calculate pricing data across national and regional geographies, comparisons between data sets can seem inconsistent. For example, the average price of 1 lb bags of retail Fuji apples per region does not equal the price of a 1 lb bag of Fuji apples within the national dataset. USDA's Market News pulls pricing data from over 17,000 sources including online and print retail advertisements. Because these prices can experience rapid fluctuation depending on season, holiday calendars, and supply and demand shifts experienced by individual retailers, each dataset (national, northeast, southeast, midwest, south central, southwest, and northwest) is best utilized independently.

Alongside the national cost analysis spreadsheet, the Institute has developed a regionally focused database to identify commercial, USDA certified organic, and local food and beverage pricing. Drawing from commercial retail, USDA certified organic regional retail, and regional food hub wholesale rates, this workbook allows users to understand the diversity of product offerings and general pricing trends

within specific regions. While commercial and USDA certified organic retail information came from USDA’s Agricultural Marketing Service’s Market News, regional food hub wholesale rates were provided by the National Good Food Network’s (NGFN) Study Hubs. NGFN’s study hubs are located across the United States and represent the diversity of business models, strategies, and marketing practices within the regional food sector.

The regions within this workbook were identified by the USDA:

REGION	STATES	REGIONAL FOOD HUBS
NORTHEAST U.S.	CT, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VT	Common Market Philadelphia; Farm Fresh Rhode Island
SOUTHEAST U.S.	AL, FL, GA, MS, NC, SC, TN, VA, WV	Firsthand Foods; Local Food Hub
MIDWEST U.S.	IA, IL, IN, KY, MI, MN, ND, NE, OH, SD, WI	Cherry Capital Foods
SOUTH CENTRAL U.S.	AR, AZ, CO, KS, LA, MO, NM, OK, TX, UT	Utah’s Own*
SOUTHWEST U.S.	CA, HI, NV	Agriculture and Land-Based Training Association
NORTHWEST U.S.	AK, ID, MT, OR, WA, WY	Idaho’s Bounty

* Not a National Good Food Network food hub

To understand how the regional cost analysis workbook functions, let’s look at one product, carrots, within the Northwest U.S. Below a user can see that multiple entries for carrots are highlighted in yellow. These entries correspond to different seasons of sale, varieties of carrots, and units of measure these carrots were made available for sale.

As a user scrolls to the right, pricing information becomes visible within the spreadsheet. The regional food hub wholesale prices for this product come from Idaho’s Bounty, a food hub sourcing and distributing food products from local farms across the region.

1	SEASON	REGION	CLASS	COMMODITY	VARIETY	UNIT	COMMERCIAL R
90	SUMMER	NORTHWEST U.S.	FRUITS	CANTALOUPS		each	
91	SPRING	NORTHWEST U.S.	FRUITS	CANTALOUPS		per pound	
92	SUMMER	NORTHWEST U.S.	FRUITS	CANTALOUPS		per pound	
93	AUTUMN	NORTHWEST U.S.	VEGETABLES	CARROTS	BABY PEELED	1 lb bag	
94	SPRING	NORTHWEST U.S.	VEGETABLES	CARROTS	BABY PEELED	1 lb bag	
95	SUMMER	NORTHWEST U.S.	VEGETABLES	CARROTS	BABY PEELED	1 lb bag	
96	WINTER	NORTHWEST U.S.	VEGETABLES	CARROTS	BABY PEELED	1 lb bag	
97	ANNUAL	NORTHWEST U.S.	VEGETABLES	Carrots	Carrots, Juicing OG**	40 lb. case Chantefay	
98	ANNUAL	NORTHWEST U.S.	VEGETABLES	Carrots	Carrots, Nantes OG**	30 x 2 lb. bags	
99	ANNUAL	NORTHWEST U.S.	VEGETABLES	Carrots	Carrots, Nantes OG**	25 lb. case	
100	ANNUAL	NORTHWEST U.S.	VEGETABLES	Carrots	Carrots, Nantes OG**	40 lb. case Nantes	
101	AUTUMN	NORTHWEST U.S.	VEGETABLES	CARROTS		1 lb bag	
102	SUMMER	NORTHWEST U.S.	VEGETABLES	CARROTS		1 lb bag	
103	WINTER	NORTHWEST U.S.	VEGETABLES	CARROTS		1 lb bag	
104	AUTUMN	NORTHWEST U.S.	VEGETABLES	CARROTS		2 lb bag	
105	SPRING	NORTHWEST U.S.	VEGETABLES	CARROTS		2 lb bag	
106	SUMMER	NORTHWEST U.S.	VEGETABLES	CARROTS		2 lb bag	
107	WINTER	NORTHWEST U.S.	VEGETABLES	CARROTS		2 lb bag	
108	SUMMER	NORTHWEST U.S.	VEGETABLES	CARROTS		per bunch	
109	WINTER	NORTHWEST U.S.	VEGETABLES	CARROTS		per bunch	
110	WINTER	NORTHWEST U.S.	VEGETABLES	CARROTS		per pound	
111	AUTUMN	NORTHWEST U.S.	VEGETABLES	CAULIFLOWER		per pound	
112	SPRING	NORTHWEST U.S.	VEGETABLES	CAULIFLOWER		per pound	

NPS Regional Healthy and Sustainable Food Cost Analysis Tool – Northwest [8]

NPS Regional Healthy and Sustainable Food Cost Analysis Tool – Northwest [9]

91		per pound	\$1.71	\$1.76
92		per pound	\$1.15	\$0.86
93	BABY PEELED	1 lb bag	\$1.32	\$1.47
94	BABY PEELED	1 lb bag	\$1.59	\$1.71
95	BABY PEELED	1 lb bag	\$0.52	\$1.49
96	BABY PEELED	1 lb bag	\$1.39	\$1.37
97	* Carrots, Juicing OG**	40 lb. case Chantenay		\$47.40
98	Carrots, Nantes OG **	20 x 2 lb. bags		\$49.77
99	Carrots, Nantes OG **	25 lb. case		\$29.63
100	Carrots, Nantes OG **	40 lb. case Nantes		\$39.93
101		1 lb bag	\$1.81	\$0.89
102		1 lb bag	\$0.96	\$0.92
103		1 lb bag	\$1.59	\$1.88
104		2 lb bag	\$1.19	\$1.46
105		2 lb bag	\$1.51	\$1.79
106		2 lb bag	\$1.99	\$1.52
107		2 lb bag	\$2.00	\$2.48
108		per bunch	\$0.97	\$1.85
109		per bunch	\$0.79	\$1.81
110		per pound	\$1.66	\$1.50
111		per pound	\$1.22	\$1.38
112		per pound	\$1.60	\$1.53

UNIT	COMMERCIAL RETAIL PRICE	USDA CERTIFIED ORGANIC RETAIL PRICE	REGIONAL FOOD HUB WHOLESALE PRICE
571 1 lb bag	\$1.32	\$1.47	
572 1 lb bag	\$1.59	\$1.71	
573 1 lb bag	\$0.52	\$1.49	
574 1 lb bag	\$1.39	\$1.37	
575 40 lb. case Chantenay			\$47.40
576 20 x 2 lb. bags			\$49.77
577 25 lb. case			\$29.63
578 40 lb. case Nantes			\$39.93
579 1 lb bag	\$1.31	\$0.89	
580 1 lb bag	\$0.96	\$0.92	
581 1 lb bag	\$1.59	\$1.88	
582 2 lb bag	\$1.19	\$1.46	
583 2 lb bag	\$1.51	\$1.79	
584 2 lb bag	\$1.99	\$1.52	
585 2 lb bag	\$2.00	\$2.48	
586 per bunch	\$0.97	\$1.85	
587 per bunch	\$0.79	\$1.81	
588 per pound	\$1.66	\$1.50	
589 per pound	\$1.22	\$1.38	
590 per pound	\$1.60	\$1.53	
591 per pound	\$1.98	\$1.49	
592 per pound	\$1.48	\$1.27	
593 each	\$1.88	\$2.40	

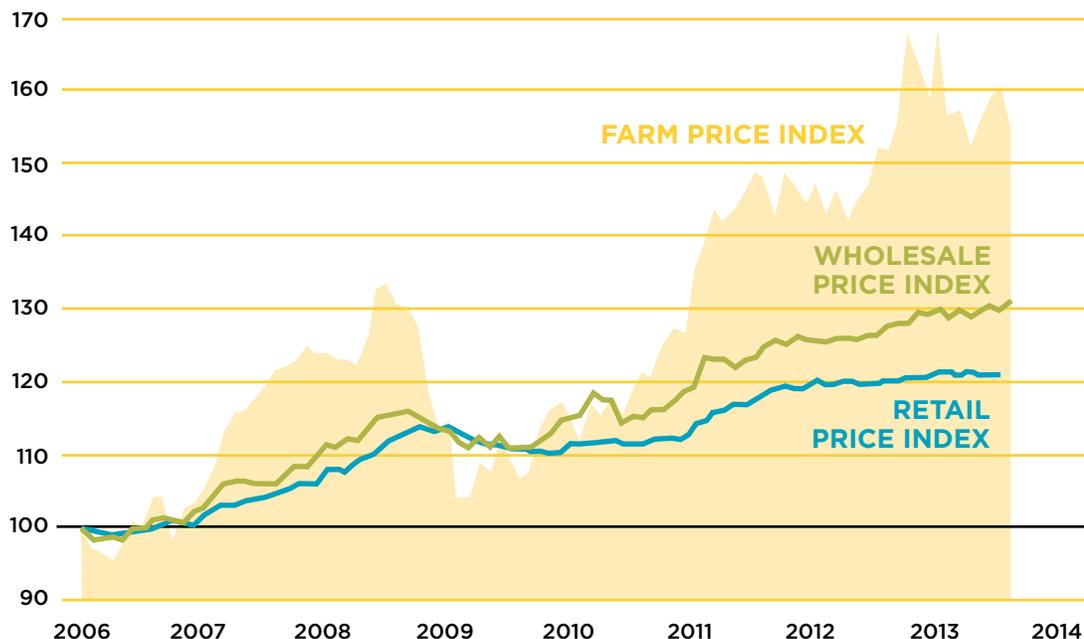
NPS Regional Healthy and Sustainable Food Cost Analysis Tool – Northwest [10]

During the Institute’s conversations with chefs at NPS sites, their commitment to sourcing healthy, sustainable, and artisanal products was clear. Many of the chefs the Institute spoke with highlighted the need for high quality, presentable products to match customer demand and to meet their bottom line. In this spreadsheet, a user is able to see a variety of options and price points for carrot purchases that satisfy both the chef’s preferences and NPS’ commitment to the NPS Healthy and Sustainable Food Program. The different spreadsheets within this workbook provide similar information for the other five regions of the country.

Within both the national and regional cost analysis tools, users will notice a gap in data. Pricing information for commercial wholesale items is publicly unavailable, so the Institute was unable to include those numbers within these tools. However, according to current research, the fluctuations in food prices experienced in the wholesale and retail markets in 2013-14 are roughly consistent as seen in the figure below.¹ Given this research, the Institute recommends that NPS concessioners and NPS Commercial Services calculate the price of commercial wholesale markets from the established price indexes used within this research.

1 R Schnepf (2013), “Farm to Food Price Dynamics,” Congressional Research Service Report for Congress <http://www.fas.org/sgp/crs/misc/R40621.pdf> (accessed 25 February 2014).

Price Indexes for Farm, Wholesale, and Retail Food Products, 2006-2013



Source: The Farm Price Index is the farm food commodities prices-received index from the National Agricultural Statistics Service (NASS), USDA; the Retail Price Index is the Food-at-Home CPI from the Bureau of Labor Statistics (BLS); and the Wholesale Price Index is the Producer Price Index (PPI) for Finished Consumer Foods from BLS.

THE TOOLKIT

IV. Online Nutritional Calculators

Numerous chefs interviewed by the Institute identified the “healthy” portion of NPS Healthy and Sustainable Food Program as challenging to meet. Identifying a lack of tools available to assist concessioners in calculating the nutritional content of meals served, the Institute compiled a list of online tools designed to calculate nutritional information. Of the four suggestions, three are free of charge while the industry standard, MenuCalc, is a cost-based website. This list includes links to the tools, information on how much each tool costs, and a brief list of pros and cons associated with each option.

I. MenuCalc

Pros

- Recommended by the National Restaurant Association
- Ability for user to develop personalized recipes
- Searchable ingredient database and ability to add personalized ingredients

Cons

- Charges a fee based on membership features

II. The Daily Plate

Pros

- Features ability to track food and exercise for individuals

Cons

- Free of charge without upgrades for users interested in weight loss goal-setting and tracking food intake, which are not necessarily in line with the complete needs of concessioners.
- Designed with individuals in mind, not restaurant professionals

III. My Fitness Pal

Pros

- Features ability to track food and exercise for individuals

Cons

- Basic service is free, but additional fees are required for upgrades
- Designed with individuals in mind, not restaurant professionals

IV. Self Nutrition Data

Pros

- Features ability to track food and exercise for individuals
- User can create nutritional analyses and nutritional labels

Cons

- Basic service is free, but additional fees are required for upgrades
- Designed with individuals in mind, not restaurant professionals

Conclusion

With the mapping feature, national and regional cost analysis features, and a recommended list of nutritional calculators, the Institute has produced a comprehensive toolkit addressing both the key question posed by the National Park Service and the challenges voiced by NPS concessioners. The different deliverables within the toolkit will allow users to identify sources of local and regional foods, calculate variations in price between commercial, USDA certified organic, and regional wholesale items, and find online programs to conduct nutritional analyses of dishes served at NPS sites.

Key Considerations and Limitations

During the creation of this toolkit, several key challenges were identified for consideration:

- Given that current concessioners wholesale pricing data is publicly unavailable, the Institute gathered price points from the USDA and regional food hubs. Because commercial and USDA certified organic prices are for retail options and regional prices are for wholesale products, it is not feasible to calculate specific price differentials within the regional database.
- For the purposes of the national cost analysis tool, the Institute has made the assumption that seasonal retail price points follow similar trends as seasonal wholesale price points. Without access to commercial wholesale pricing data from Sysco, more specific price differentials are unavailable for calculation. Using the graph presented earlier in this report, however, users can estimate the percentage markup for retail and wholesale products within the cost analysis tool for the year 2013.
- While the original intention for this deliverable was a regional cost analysis tool including pricing information for stereotypical meals served at national parks, nuances have emerged contributing to the creation of this more detailed three-part toolkit. In order to maintain awareness and sensitivity of how seasonality of products affects price and availability, the Institute chose to include price points that illustrate changes in seasonal costs. To realistically showcase what options exist from suppliers and what parks chefs' serve, the workbooks also include regionally available artisanal products. Due to this decision, the Excel-based workbooks include a large amount of pricing data rather than a more simplistic list of items from stereotypical breakfasts, lunches, and dinners available at national parks.
- Due to efforts to track down regional food hub pricing data retroactively, inconsistencies exist within the regional cost analysis tool. The NGFN study hubs are all in various stages of business development, and their practices for tracking product prices within daily, weekly, monthly, and annual timeframes vary as well. Below is a table explaining what timeframes were utilized to calculate food prices within the regional cost analysis tool.

REGION	REGIONAL FOOD HUBS	FOOD PRICING DATA SOURCE
NORTHEAST U.S.	Common Market Philadelphia; Farm Fresh Rhode Island	Common Market Philadelphia provided food cost data from one day per month. This data was averaged by season for the information presented in the regional cost analysis tool.
SOUTHEAST U.S.	Firsthand Foods; Local Food Hub	
MIDWEST U.S.	Cherry Capital Foods	Cherry Capital Foods provided food cost data from December 30, 2013. This data was presented in the regional cost analysis tool within the autumn season.
SOUTH CENTRAL U.S.	Utah's Own*	
SOUTHWEST U.S.	Agriculture and Land-Based Training Association	
NORTHWEST U.S.	Idaho's Bounty	Idaho's Bounty provided food cost data from January 7, 2014. The company stated to the Institute at the Golden Gate that their wholesale prices tend to not fluctuate drastically over the cost of the year, so the data was presented in the regional cost analysis tool within the annual timeframe.

* Not a National Good Food Network food hub

Opportunities and Next Steps

Throughout the data gathering process for this toolkit, a number of opportunities for further research emerged. To build upon the groundwork set in this effort, recommendations for future efforts include:

- Studying transparency along Sysco’s supply chain. Several chefs the Institute interviewed mentioned assisting local farms in becoming a part Sysco’s supplier network, thus allowing concessioners to source from farms with which they had existing relationships. The process by which a NPS concessioner can assist a preferred source of local food – satisfying both the concessioner’s concerns about customer demand and NPS’ Healthy Food Program goals - to become a part of their established supply chain is open to further research
- Update data on an annual basis. It is highly recommended that NPS partner with USDA’s Market News and the National Good Food Network’s study hubs in order to remain aware of seasonal price changes year by year and season by season. To establish these relationships, it is recommended that utilize the Institute’s food hub network to create a user-friendly platform in which food hubs can directly drop in their daily, weekly, monthly, and annual food pricing data with ease. This platform could be located within a program like Google Drive, where NGFN food hubs can be invited as members to contribute to the NPS Healthy and Sustainable Food Program.
- Build out Excel-based cost analysis tools and mapping feature into an interactive website to allow users to access it online.
- Create a cost analysis tool allowing concessioners to input their own privileged, proprietary pricing data to calculate cost differentials in-house and make recommendations for how National Park Service can benefit from this information.

Given the key research question, ***“What differences in price exist between commercial products currently sourced by NPS concessioners and their organic, sustainable counterparts which will promote the National Park Service Healthy Food Choice Standards and Sustainable Food Choice Guidelines (NPS Healthy and Sustainable Food Program)?”***, the Institute has developed a multi-part toolkit that when used together, NPS concessioners and the NPS Commercial Services Team should be able to tackle the challenges posed by the NPS Healthy and Sustainable Food Program in sourcing nutritious, local, sustainable, and organic food products for park visitors. This tool will help to increase awareness of price fluctuations, easily showcase food sourcing options that are in line with the NPS Healthy and Sustainable Food Program and NPS concessioners’ concerns regarding cost effectiveness, reflect the value of alternative dining options mentioned in the National Park Service’s Healthy Food Choice Standards and Sustainable Food Choice Guidelines, and showcase as many options as possible for purchasing healthy, organic, local, sustainable food and beverage items for guests of the National Park Service.

Contributors to this Report

Interviews

Sam Caldwell — Parkwide Executive Chef, Shenandoah National Park
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 Stefan Larsson — Parkwide Executive Chef, Yellowstone National Park

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 Melissa Tsang — Program Manager, Institute at the Golden Gate

Resources and Links

Publications

Food for the Parks — Case Studies of Sustainable Foods in America's Most Treasured Places:
<http://www.parksconservancy.org/assets/programs/igg/pdfs/food-for-the-parks-report.pdf>
 Food for the Parks — A Roadmap to Success:
<http://www.parksconservancy.org/assets/programs/igg/pdfs/food-for-the-parks-a-roadmap.pdf>
 Farm to Food Price Dynamics: <http://www.fas.org/sgp/crs/misc/R40621.pdf>

Websites

Agricultural and Land-Based Training Association: <http://www.albafarmers.org/>
 Aramark Corporation: <http://www.aramark.com>
 Cherry Capital Foods: <http://cherrycapitalfoods.com/>
 Common Market Philadelphia: <http://commonmarketphila.org/>
 Farm Fresh Rhode Island: <http://www.farmfreshri.org/>
 First Hand Foods: <http://www.firsthandfoods.com/>
 Forever Resorts "Forever Earth" site: <http://foreverearth.net/>
 Idaho's Bounty: <http://www.idahosbounty.org/>
 Local Food Hub: <http://localfoodhub.org/>
 National Good Food Network: <http://www.ngfn.org/>
 National Park Service: <http://www.nps.gov/index.htm>
 National Park Service Commercial Services: <http://www.concessions.nps.gov/>
 Real Time Farms: <http://www.realtimefarms.com/>
 Sysco: <http://www.sysco.com/>
 USDA Market News: <http://www.ams.usda.gov/AMSv1.0/marketnews>
 USDA National Organic Program: <http://www.ams.usda.gov/AMSv1.0/nop>
 Utah's Own: <http://utahsown.utah.gov/>
 Xanterra Parks and Resorts: <http://www.xanterra.com/Environmental-Action-364.html>