

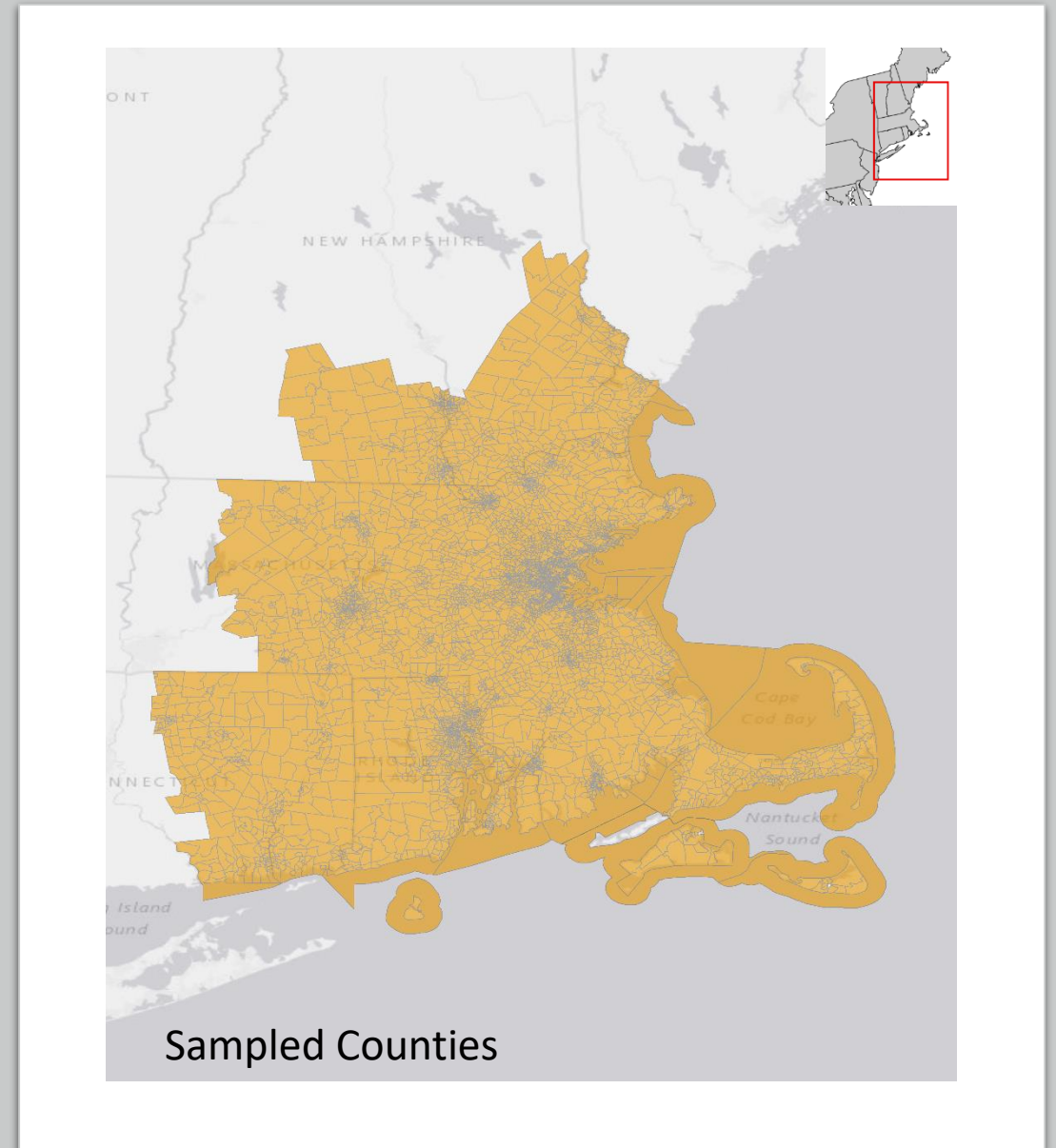
Survey to Evaluate Recreational Benefits of Nutrient Reductions in Coastal New England Waters *Pretest Results (OMB Control #2080-0084)*

July 9, 2018 OMB discussion



Survey Summary

- EPA's Office of Research and Development is conducting a revealed preference survey to estimate use values for recreation, and how those values are affected by water quality
- The survey also explores people's perceptions of water quality
- The survey is a mixed-mode internet and mail survey of randomly-selected households in New England counties within 100 miles of Cape Cod



Pretest administration summary

- Invitation letters mailed to 370 randomly selected individuals in our sample area on May 15, 2018
 - Survey invitations did not include monetary or other incentive
 - Individuals were given a web address and individual PIN to log in; letter also contained a QR code that could be scanned to directly access the survey
- Reminder letter mailed on May 22, 2018
- Second reminder letter with paper survey mailed on June 5, 2018
- Data collection cutoff June 25, 2018

MAY 2018						
SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE 2018						
SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Response summary

							Rcvd. after cutoff	
Date	5/22/2018	5/29/2018	6/5/2018	6/12/2018	6/19/2018	6/26/2018	7/9/18	
Number of Completed Surveys (WEB)	11	23	30	33	34	36	36	
Number of Partial Surveys (WEB)	4	11	12	11	12	12	12	
Number of Completed Surveys (PAPER)					9	13	17	
TOTAL Completed Surveys (WEB & PAPER) as of 6/25/18	11	23	30	33	43	49	53	
% web	100%	100%	100%	100%	79.1%	73.5%	67.9%	
% paper					20.9%	26.5%	32.1%	
Average Length of Survey (min)	21.6	16.5	18.2	17.8	17.3	17.7		
Shortest Length of Survey (min)	5.2	2.4	2.4	2.4	2.1	2.1		
Longest Length of Survey (min)	52.7	52.7	59.5	59.5	59.5	59.5		
Average Length of Survey (min) (with 3 surveys >50min. deleted)							15	

Response rates

total sample mailed	370
undeliverable	61
partial responses	12
completed surveys (as of July 6)	53
partial plus completed	65
Response rates: completed/(total mailed - undeliverable)	
completed surveys	17.2%
partial completes (online only)	3.9%
completed plus partial	21.0%
(Updated July 9, 2018)	

Demographics

Summary Statistics:

Compared to U.S. Census Bureau for our sample area

	Pre-test Sample	Population (in our sample area)
Male	60%	49%
White	95%	81%
Hispanic	0%	10%
Age		
Median	61.5 yrs.	41.1 yrs.
18-34	2%	30%
35-49	24%	25%
50-64	35%	26%
65+	39%	19%
Income		
<20k	0%	14%
20-59k	32%	28%
60-99k	27%	22%
100-200k	32%	26%
>200k	8%	9%
Education		
High School/GED	17%	26%
Bachelors	28%	23%
Graduate Degree	47%	15%

Participation Rates:

Compared to NOAA's Ocean Recreation Survey for New England Coastal Counties

Activity	N	% Participate	NOAA % Participate
Activity on the shore	30	88.2	
Birding/wildlife viewing	18	52.9	
Fishing	10	30.3	11.2
Hunting	1	3.0	
Jetskiing	0	0.0	
Kayaking/canoeing/rowing	10	30.3	
Kiteboarding/windsurfing	0	0.0	
Motorboating	7	21.2	
Paddleboarding	1	3.0	
Sailing	4	12.1	
Scuba diving	2	6.1	
Shellfishing	6	17.6	5.4
Skimboarding	0	0.0	
Snorkeling	3	9.1	
Spearfishing	0	0.0	
Surfing/boogie boarding	4	12.1	
Swimming/body surfing	18	52.9	
Tubing/waterskiing	0	0.0	
Wading	17	50.0	
Other	2	6.1	
Non-participants	16	32.7	
Any activity	33	67.3	57.8

Days per year:

Compared to NOAA's
Ocean Recreation Survey
for New England Coastal
Counties

Days per year of saltwater recreation in New England from pretest sample				
N	Mean	Std. Dev.	Min	Max
32	38.7	7.7	1	192

NOAA Ocean Recreation Expenditure Survey			
New England coastal counties	Residents	Nonresidents	All
Avg. number of days per year	25.3	19.5	24.2

Mapping page in web survey: able to accurately locate places where people went

Where did you go in **New England**?
Please place a PIN on the map to
mark where you went. You can
navigate using the map, or use the
search function and/or dropdown
menus.

Select State

Rhode Island ▾


Select Town

Charlestown ▾

Search for a Place

east beach

Examples: beach name, street name,
marina, or park name.

 Search

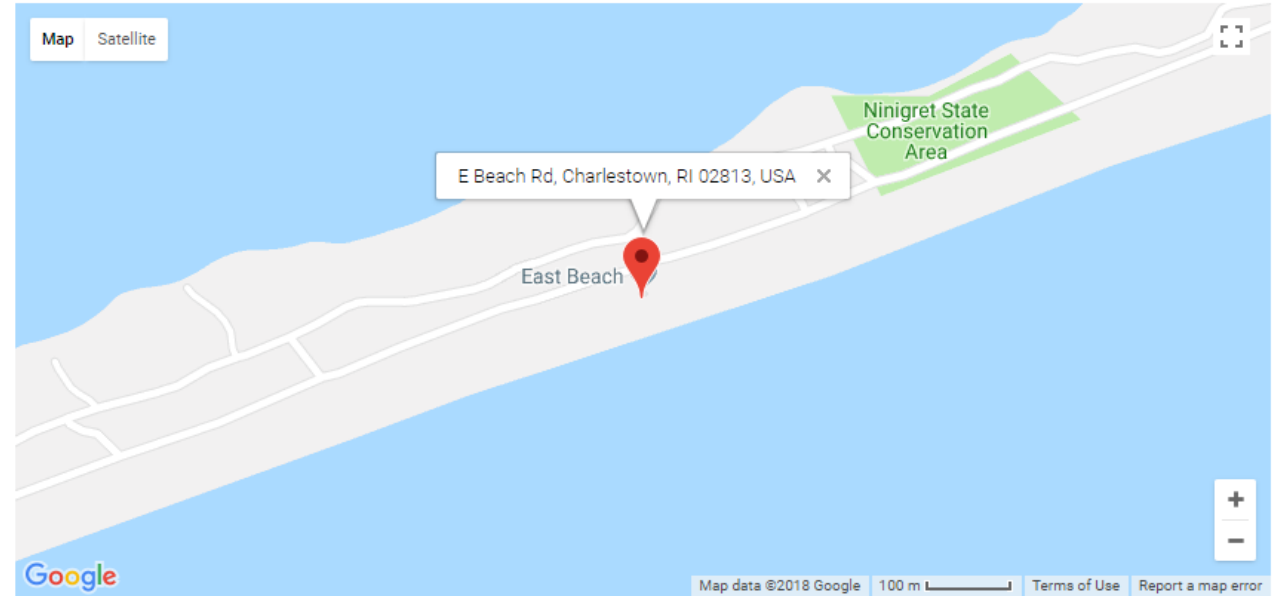
I can't find the place on the
map/I don't remember the name.

Confirm Location

Is this the correct place?

E Beach Rd, Charlestown, RI
02813, USA

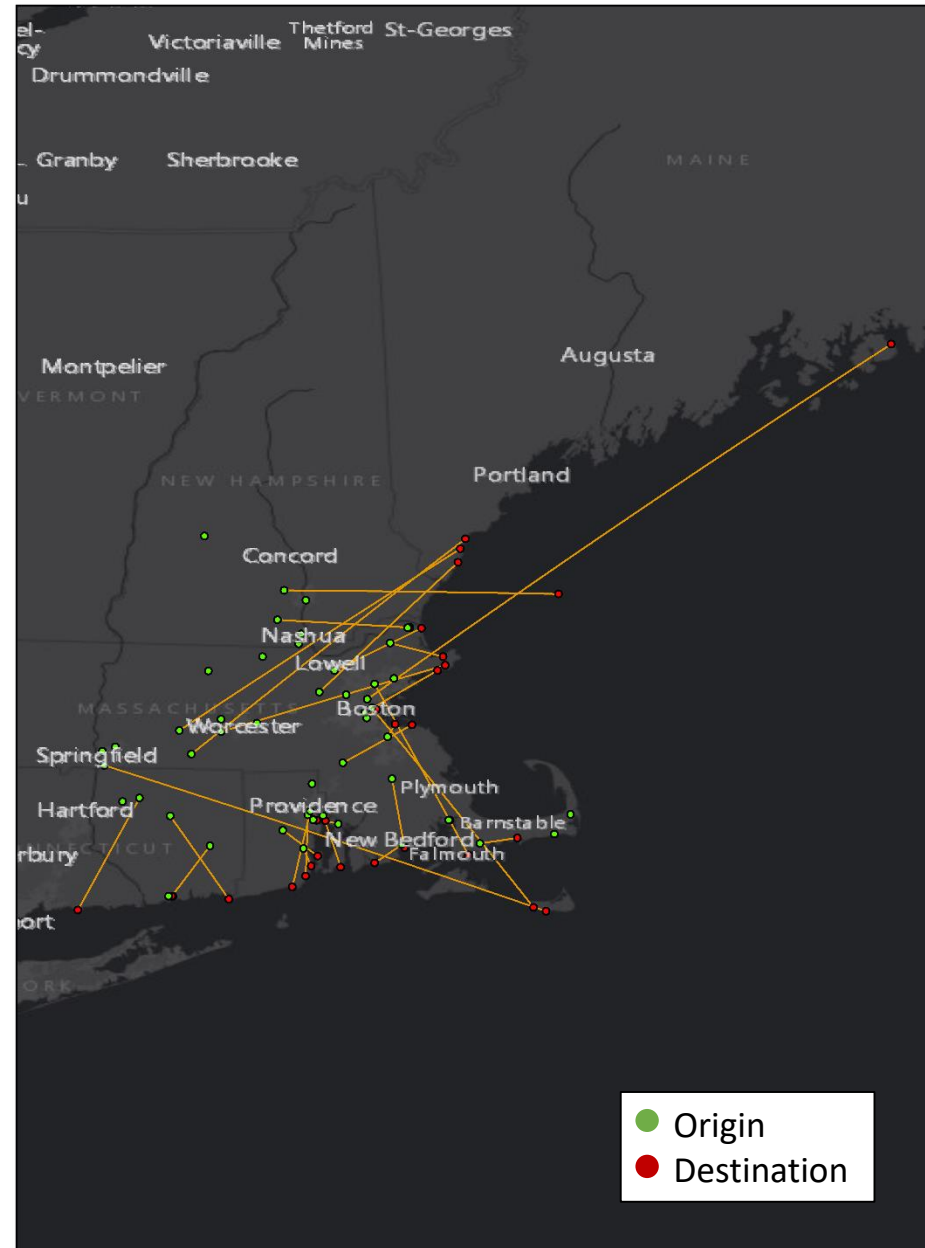
Confirm Location/Next



Use the + and - buttons at the bottom-right of the window to zoom in and out. Click and drag to move the map. Click to place a PIN on the map

Reset

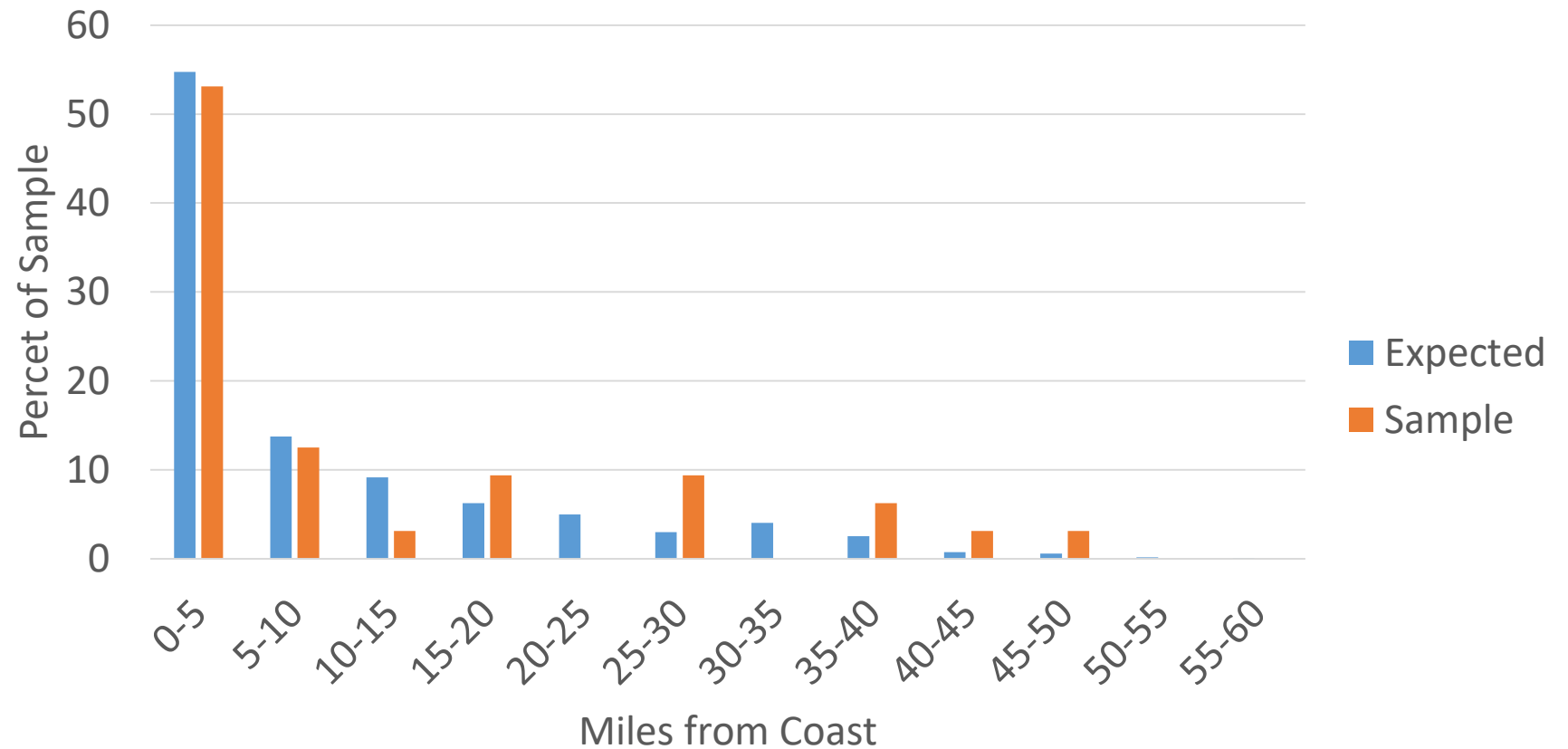
Origins and destinations of respondents (includes single and multi-day trips)



Sample is not geographically skewed

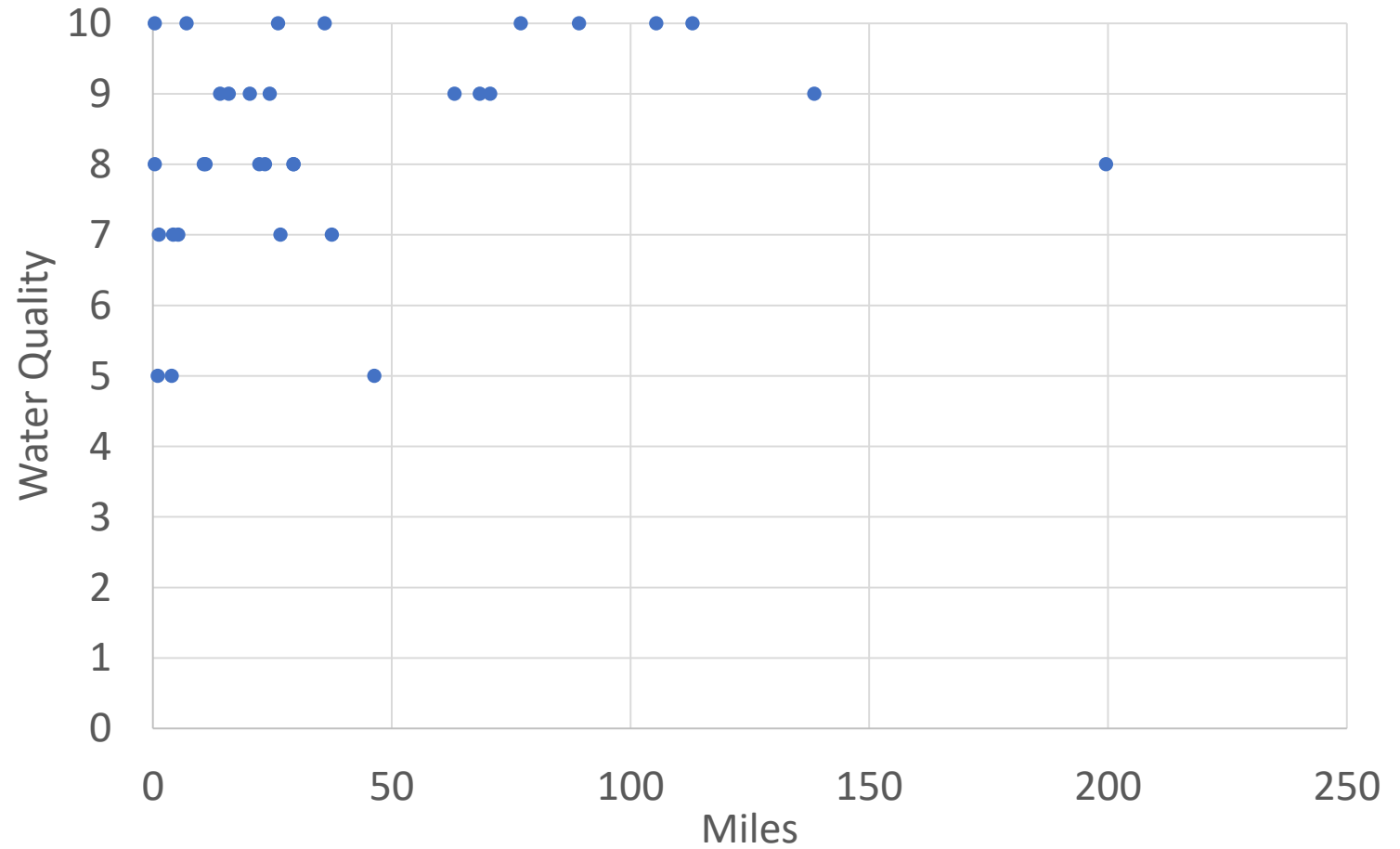
- Chart shows closest distance to coast for all people in sampled population (blue) and pretest respondents (orange).
- Illustrates the makeup of our sample in terms of the distance from their home to the coast.

Geographic Distribution (Home to Coast)



General trend is that longer distances are travelled for better water quality

Water Quality Ratings by Distance to Destination



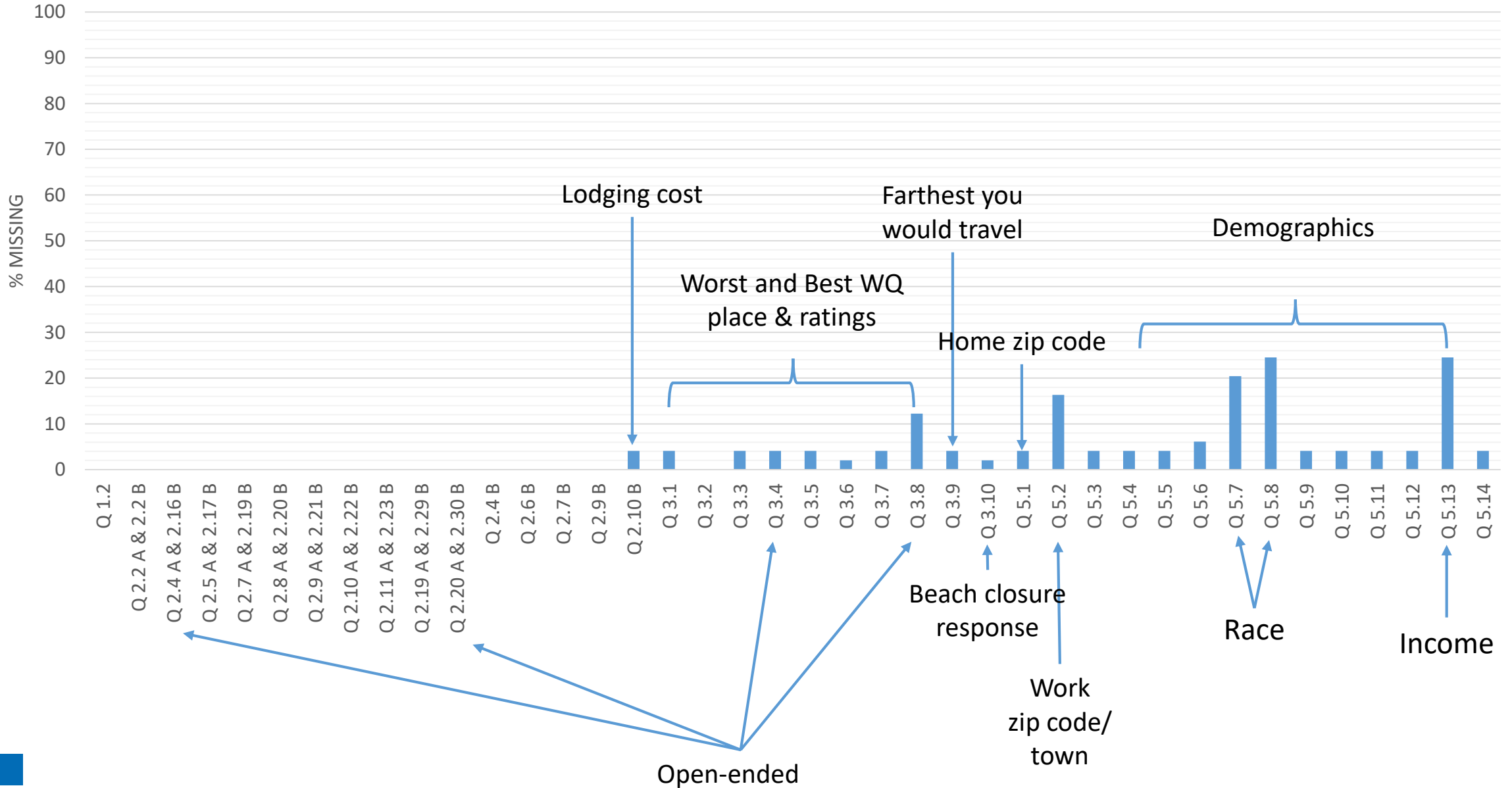
Places with WORST water quality

Place	WQ Rating	Comment
HarborWalk, Boston, MA	1	smell, visual appearance
Revere Beach	1	smell
Sabin Point, Riverside, RI	1	Knowing there is a sewage treatment plant up-stream and overspill into the bay..
Oakland Beach, Warwick, RI	1	The bad odor that exists coming from the water. This beach is also mentioned i..
560 Menauhant Rd, East Falmouth, MA	3	the pond is filling in with sand & water flow in & out is not adequate
Red River Beach, Harwich, MA	3	Eelgrass is gone. Use to be clear water. Now it is a vegetable soup when the..
Misquamicut, Westerly, RI	4	lots of algae
227 Thames St, Groton, CT	4	industrial plants, EB, Sub Base
East Matunuck State Beach, South Kingstown, RI	4	Red Tide
46 Bay Ave, Warwick, RI	4	There is always trash on the beach and a high percentage of seaweed and algal ..
50 Triton Way, Mashpee, MA	5	there was a lot of brown gloppy algae(?) in the water ,, everywhere!
1014 E Rodney French Blvd, New Bedford, MA	5	The amount of trash
Boston Harbor, Boston, MA	5	oily, trash in the water
2-12 Carroll St, Chelsea, MA	5	Trash, hearsay
India Point Park, Providence, RI	5	small, urban environment, noise
920 Ocean Blvd, Hampton, NH	6	Lots of seaweed and trash

Places with BEST water quality

Place	WQ Rating	Comment
Crane Beach, Ipswich, MA	10	Beautiful beach; well cared for
Refuge Rd, Newbury, MA	10	I've never seen any trash and it always smells fresh and clean
S Shore Rd, Little Compton, RI	10	Water is clear. No seaweed, sea lice, etc. Sand is clean.
Niantic, East Lyme, CT	9	clear
Watch Hill, Westerly, RI	9	it's clear, almost never any trash and periodic stripers seen
Deep River, CT	9	clarity, lack of odor
Craigville Beach, Centerville, MA	9	It was a very nice clean beach and marsh area
Miacomet Rd, Nantucket, MA	9	no trash, no oil, no smell, wildlife in the water
596 Sound Dr, Mt Desert, ME	9	Well maintained
Salisbury Beach State Reservation, Salisbury, MA	9	Assume because of island location. Seclusion
Boardwalk Rd, Sandwich, MA	9	Clear, no litter, lots of wildlife
Ogunquit Beach, Ogunquit, ME	9	It just seems very clean...nice clear water, very little trash around.
Bar Island Trail, Sorrento, ME	9	No rotten smell or murky water. Tide pools had periwinkles.
469 E Beach Rd, Charlestown, RI	9	The water color appears to look clear and fresh.
130 Old County Rd, Rockport, MA	8	Very clear water. Healthy diversity of flora and fauna.
Long Sands Rd, York, ME	8	clean

Item non-response rates



Summary

- Overall, pretest survey worked well
 - Responses made sense for all questions, indicating successful wording
 - 4 people confused “best/worst” place for water quality – will address this with added emphasis in full survey
 - Able to easily identify where people went for both paper and web versions
 - Low item non-response – primarily for open-ended questions (which are not needed for analysis), race and income, and for some of the other optional questions
 - Open-ended comments indicate that answers are well-considered by respondents
 - Respondents included more recreation participants than anticipated, resulting in higher participant response than expected
- Response rate for main survey should be higher than for pretest
 - Pretest conducted before the start of the recreation season
 - Main survey should occur in August

Proposed minor changes for full sample

See Attachment 5 for details of revisions

- Minor proposed survey edits
 - Increase emphasis on “worst” and “best” water quality perception questions
- Administration:
 - Change addresses from “Name” to “[State] Household”
 - Add text to reminder letters telling people that, if they have started the online survey but did not complete it and wish to complete it online, they can log in and be returned to the same point where they left off.
 - Add text to letter with paper survey telling people that, if they have already answered the survey online, they do not need to return the paper survey.

Full Survey Schedule

- Goal is to implement the full survey by the end of the summer season.
- Estimated timing:
 - Printing:
 - Issue request for quotes through GPO July 13-20
 - Contract with printer by July 27 – August 3
 - Deliver of first letters by August 20-27
 - Mail first letters between August 21-28, 2018
 - Reminder letter mailed one week later
 - Paper survey mailed 2 weeks after reminder, September 4-11, 2018