

TASK 6  
EXISTING CONDITIONS REPORT

STATE PROJECT 302-008



APPENDIX F

POTENTIAL RAIL PASSENGER SURVEY REPORT

## Task 6.1.8 Potential Rail Passenger Survey Results

# Potential Rail Passenger Survey Report

## Overview

Task 6.0 of the Danbury Branch EIS project is intended to provide an analysis of the existing transportation, rail, bus, highway conditions, and intermodal opportunities (including bicycle and pedestrian) in the Danbury Branch/Route 7 corridor between South Norwalk and New Milford. It also includes an analysis of the transportation effects and an analysis of the costs and benefits of each of the alternatives under consideration.

As part of this analysis, the URS Project Team developed and conducted two types of surveys for the Danbury Branch EIS. The first, a survey of existing passengers on the Danbury Branch to ascertain their various characteristics, preferences, and desires was previously reported. The results of the second survey, a non-rail user telephone survey are presented in this report.

The rail passenger survey consisted of a questionnaire distributed to riders on board the Danbury Branch commuter trains (On-Board Survey). The URS Team designed the questionnaire, assigned a survey crew, conducted the survey, and analyzed and documented the survey results presented in this report.

## Introduction

This report provides findings of a survey conducted among commuters living in specified towns near the Danbury Branch Metro-North Line. The survey was designed to elicit commuter opinions and input on a wide range of topics. The study team completed a total of 400 surveys among commuters living near the Danbury Branch study corridor.

This report summarizes statistics collected from telephone interviews conducted among customers September 29 through October 15, 2008. All interviews were conducted during this time.

The *Danbury Branch Area Commuter Telephone Survey* included the following areas for investigation:

- Mode of transportation currently used;
- History of using Metro-North;
- Perceptions of the market; and
- Demographics.

Following this Introduction, Section II - contains and explains the methodologies employed in completing this *Danbury Branch Area Commuter Telephone Survey*, the margins for error and the confidence level for the statistics collected.

Section III - contains Highlights made after a careful analysis of the data which is presented in narrative format in the Summary of Findings, Section IV.

Section V - is the Appendix containing a copy of the survey instrument utilized, a cross-tabulation table, additional cross-tabulation frequencies and the composite aggregate data.

## METHODOLOGY

The survey utilized a quantitative research design using a questionnaire developed to collect commuter views. Actual wording of each question is contained in the Appendix of this report.

A total of 400 surveys among commuters living near the Danbury Branch were conducted. Respondents qualified if they regularly commute anywhere from two to seven times weekly to such places as work, school or business activities, if they do not currently use Metro-North train services for their regular commute, and if they commute to a specific list of zip codes.

Survey design is a careful, deliberative process to ensure fair, objective and balanced surveys. Further, all scales used (either numeric, such as one through ten, or wording such as strongly agree, somewhat agree, somewhat disagree or strongly disagree) are balanced evenly. And, placement of questions is carefully accomplished so that order has minimal impact.

Completion rates are a critical aspect of any telephone survey research. Because one group of people might be easier to reach than another group, it is important that concentrated efforts are made to reach all groups to an equal degree. A high completion rate means that a high percentage of the commuters within the original sample were actually contacted, and the resulting sample is not biased toward one potential audience. CRPP maintained an **83%** completion rate on all calls made to commuters during the survey. And, a high completion rate often indicates an interest in the topic.

CRPP used a callback procedure to ensure the randomness of the sample and to reduce non-response bias. When a randomly selected commuter was not available during the first telephone contact, additional callbacks were made in order to complete the interview.

All telephone interviews were conducted from CRPP headquarters, located in Trumbull, Connecticut. Research was conducted primarily during the hours of 5:00 p.m. and 9:00 p.m. weekdays and 10:00 a.m. and 4:00 p.m. on weekends. The survey was conducted September 29 through October 15, 2008.

All facets of the *Danbury Branch Area Commuter Telephone Survey* were completed by CRPP's researchers and senior staff. These aspects included survey design, pre-testing, computer programming, fielding, coding, data entry, editing, validation, verification, computer analysis, analysis and report writing.

Statistically, a sample of 400 surveys represents a margin for error of +/-5.0% at a 95% confidence level. In theory, a sample of area commuters will differ no more than +/-5.0% than if all commuters were contacted and included in the survey. That is, if random probability sampling procedures were reiterated over and over again, sample results may be expected to approximate the larger population values within plus or minus 5.0% -- 95 out of 100 times.

Readers of this report should note that any survey is analogous to a snapshot in time and results are only reflective of the time period in which the survey was undertaken. Should concerted public relations or information campaigns be undertaken during or shortly after the fielding of the survey, the results contained herein may be expected to change and should be, therefore, carefully interpreted and extrapolated.

Furthermore, it is important to note that all surveys contain some component of “sampling error.” Error that is attributable to systematic bias has been significantly reduced by utilizing strict random probability procedures. This sample was strictly random in that selection of each potential commuter was an independent event, based on known probabilities.

Each qualified commuter had an equal chance for participating in the study. Statistical random error, however, can never be eliminated but may be significantly reduced by increasing sample size.

## **HIGHLIGHTS**

### **MODE OF TRANSPORTATION**

- While the majority of respondents (85.5%) reported making their weekly commute by “driving alone,” more than ten percent (13.0%) also reported “driving or riding with others” during their weekly commute.
- Respondents reported making their round trip commute, on average, slightly more than four times per week (4.06).
- On average, commuters living among the Danbury Metro-North line reported their commute time as 28.82 minutes each way.
- Further, commuters living among the Danbury line reported spending, on average, \$46.98 each week, for total commuting fuel costs.

### **METRO-NORTH**

- Three-quarters of all commuters living among the Danbury Branch (72.8%) reported to be either “very aware” or “somewhat aware” of Metro-North train services such as schedules, logistics, costs and destinations.
- Despite not utilizing the train service for their weekly commute, respondents reported making, on average, 3.57 trips annually on Metro-North for reasons other than commuting.
- Top reasons reported for not using Metro-North train service or not using it more often for reasons other than a commute included the following: “no need to use the train,” “it’s not close by/not convenient,” “prefer driving,” “hard to get to different destinations after train” and “only use it for entertainment/NYC.”

- When asked to estimate what the price would be for their weekly commute if they used Metro-North as opposed to their current mode of transportation, respondents reported the following:

Estimated average cost to use Metro-North= \$49.01

Estimated average fuel cost using current transportation = \$46.98

### **THE MARKET**

All respondents were read a list of improvements and/or enhancements to the Danbury Branch and asked how likely, if made, each might influence them to begin using Metro-North for their weekly commute.

- The improvements/enhancements which were reported as having the greatest impact included the following: “lower cost of train fares,” “lower cost of parking fees” and offering “a more convenient train schedule.”
- The improvements/enhancements which were reported as having the least impact included the following: “a new intermediate station in Georgetown” and “trains being better equipped for physical disabilities.”
- Top reasons reported among respondents for not using Metro-North train service for their regular commute included the following: “too far from home,” “I use my car more often,” “it’s not convenient,” “train does not go to my destination,” “no need to commute by train” and “I am too close to work to use it.”
- Finally, respondents reported the cost of gasoline would need to reach \$4.82 (MEAN) per gallon before they would make a concerted effort to use Metro-North train service for their regular commute.

### **CROSS TABULATION REVIEW**

To further analyze and cross tabulate the data collected, each of the proposed Danbury Branch improvements were pulled from the data and ran, individually, by each of the demographic questions along with each of the various commuting habits. Those cross tabulations showing significant differences, when compared against the composite aggregate data, are presented below.

Those respondents making “2 or more trips on Metro-North, for reasons other than a commute,” reported an increased likelihood to use the train for their commute if the following improvements were made:

- More parking at existing stations
- A more convenient train schedule
- Lower cost of train fares
- Lower cost of parking fees

When those “riding alone,” “riding with others” and those with “4 or less round trip commutes per week” were pulled from the data and viewed separately, the level of impact, based on proposed improvements to Metro-North, were statistically insignificant when compared with results found in the composite aggregate data.

However, those respondents making “5 or more round trip commutes per week” reported an increased likelihood to use the train for their commute if the following improvements were made:

- Decreasing travel time by 20%
- A more convenient train schedule
- A new intermediate station in Georgetown
- More parking at existing stations
- Lower cost of train fares

Interestingly, those respondents with children living at home appear slightly more aware of Metro-North train services when compared with those respondents who have no children living at home. Additionally, those respondents with children living at home appear more likely to use the train for reasons other than a commute one or more times per year.

Those respondents ages 34 and younger appear less likely to:

- Make a round trip commute 3 days a week or less
- Enjoy driving a car over taking the train

Those respondents ages 34 and younger appear more likely to:

- Make a round trip commute 3 days a week or more
- Use Metro-North one or more times a year for reasons other than a commute
- Consider taking the train if gas prices, per gallon, reach \$5.00 or more

Those respondents making \$100,000 or more annually are more likely to:

- Report awareness of services offered by Metro-North
- Use Metro-North for reasons other than a commute one or more times annually

## **SUMMARY OF FINDINGS**

Respondents qualified for the survey if they regularly commute anywhere from two to seven times weekly to such places as work, school or business activities, if they do not currently use Metro-North train services for their regular commute, and if they commute to a specific list of zip codes.

The Summary of Findings presents results collected for commuters living along the Danbury Branch study corridor.

### **MODE OF TRANSPORTATION**

To begin the survey, all respondents were asked to report what mode of transportation they utilize most frequently when making their regular weekly commute.

As presented in the table below, the majority of all respondents reported “driving alone” most frequently.

<i>How do you make your regular weekly commute?</i>	<i>Danbury</i>
Drive alone;	85.5%
Drive or ride with others;	13.0
Are dropped off;	---
Take a bus;	1.2
Walk; or	---
Ride a bike	0.2

All respondents were then asked to report the number of days, each week; they make this round trip commute.

As presented in the table below, respondents reported making their round trip commute, on average, slightly more than four times per week.

<i>Average days each week you make this round trip commute.</i>	<i>Danbury</i>
0	0.2%
1	1.0
2	18.5
3	16.5
4	7.7
5	49.4
6	4.0
7	2.0
Depends	0.2
Don't know/unsure	0.5
<b><i>Average (without “don't know” responses)</i></b>	<b><i>4.06</i></b>

All respondents were asked to report how long their one-way commute is from door-to-door (in minutes) each time they make it.

On average, commuters living along the Danbury Line reported a commute time of 28.82 minutes each way. Detailed findings may be found in the table below.

<i>How long is your one-way, door-to-door commute each time you make it?</i>	<i>Danbury</i>
1-15 minutes	24.4%
16-30 minutes	42.9
31-45 minutes	17.7
46-60 minutes	6.5
61-75 minutes	2.3
76-90 minutes	1.3
91 or more minutes	0.2
Depends	4.2
Don't know/unsure	0.5
<b>Average (without "don't know" responses)</b>	<b>28.82</b>

In addition to time, researchers asked all respondents to approximate how much money they spend, on a weekly basis, for the cost of fuel used in their weekly commute.

Detailed findings are presented in the table below.

<i>How much you spend on the cost of fuel used in your commuting?</i>	<i>Danbury</i>	<i>Danbury (w/o DKs)</i>
\$0-10 per week	5.0%	6.3
\$11-25 per week	15.2	19.2
\$26-50 per week	33.7	42.4
\$51-75 per week	14.4	18.3
\$76-100 per week	5.8	7.2
\$101-125 per week	1.2	1.6
\$126-150 per week	1.0	1.2
\$151-175 per week	---	---
\$176-200 per week	0.3	0.4
\$200 or more per week	0.7	0.8
Depends	2.0	2.5
Don't know/unsure	20.7	---
<b>Average (without "don't know" responses)</b>	<b>\$46.98</b>	<b>\$46.98</b>

### **METRO-NORTH**

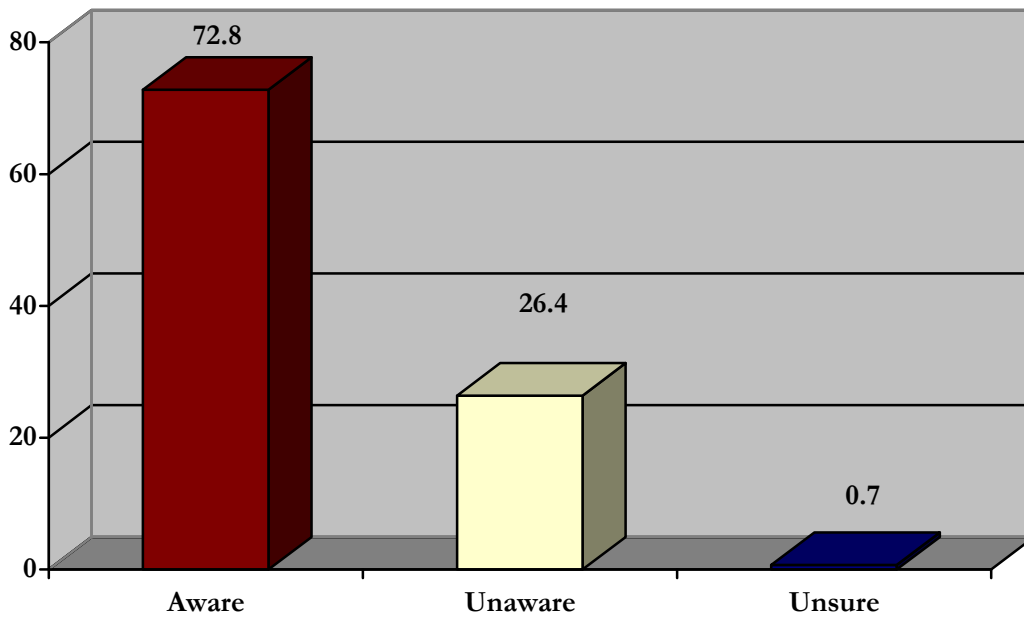
Researchers asked all respondents to report their awareness of Metro-North train services such as schedules, logistics, costs and destinations.

Detailed findings may be found in the table and chart located below.



<b>Awareness of Metro-North train services such as schedules, logistics, costs and destinations?</b>	<b>Danbury</b>
Very aware	34.9%
Somewhat aware	37.9
Somewhat unaware	5.7
Not at all aware	20.7
Don't know/unsure	0.7
<b>Total aware</b>	<b>72.8</b>
<b>Total unaware</b>	<b>26.4</b>

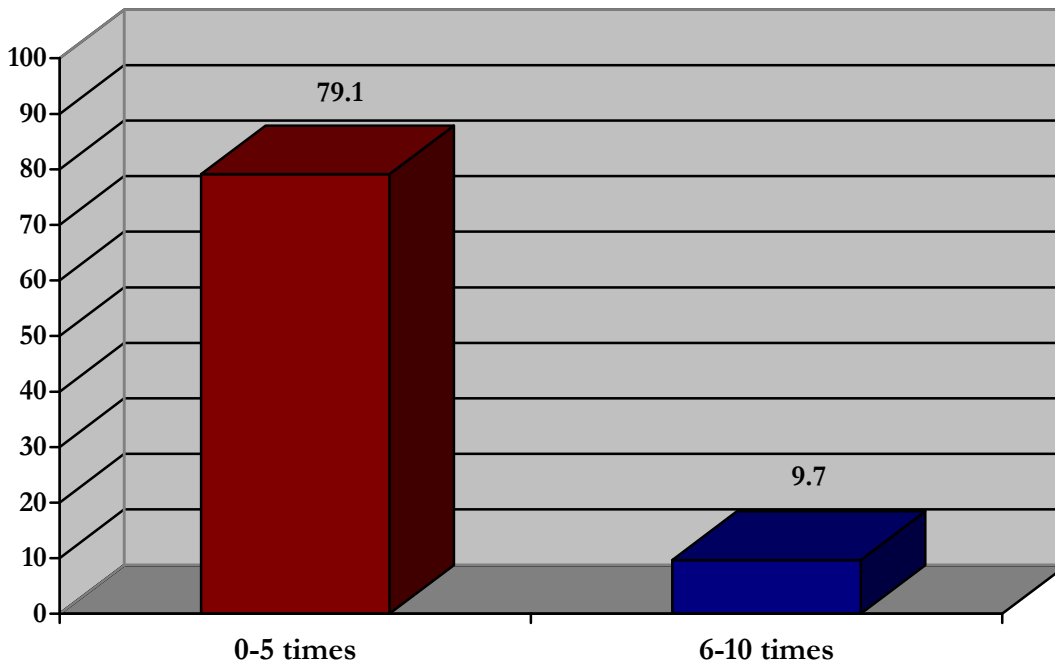
Awareness of Metro-North services



Despite not utilizing Metro-North train service for their weekly commute, all respondents were asked to approximate the number of times, on an annual basis, they use Metro-North for reasons other than commuting.

<i>Number of times you use Metro-North for reasons other than a commute?</i>	<i>Danbury</i>	<i>Danbury (w/o DKs)</i>
0-5 times per year	79.1%	82.3
6-10 times per year	9.7	10.2
11-15 times per year	4.2	4.4
16-20 times per year	0.8	0.8
21-25 times per year	1.2	1.3
25 or more times per year	1.0	1.0
Don't know/unsure	3.5	---
Refused	0.5	---
<b>Average (without "don't know" responses)</b>	<b>3.57</b>	<b>3.57</b>

Number of times, per year, you use Metro-North for reasons other than a commute?



In an open-ended format question, respondents were asked to identify the reasons why they don't use Metro-North train service or don't use it more often for reasons other than a commute.

<i>Reasons you don't use Metro-North train service or don't use it more often for reasons other than a commute</i>	<i>Danbury</i>
No need to use the train	23.2%
It's not close by/not convenient	22.7
Prefer driving	13.0
Hard to get from train to destination	11.0
Only use it for entertainment/NYC	8.7
Sometimes it's cheaper to drive	3.7
Don't know/unsure	3.7
Takes too long	3.0
Don't like riding the train	2.2
More parking is needed at the station	2.0
Too old to travel by train	1.5
I am disabled	1.2
Do use it a good amount of time	1.2
No specific reason	1.0
The train does not go close to my job	0.7
Overcrowded	0.2
Too much equipment to get on the train with	0.2
Not safe	0.2
Only to visit relatives	0.2

In an effort to better understand perceptions of the cost that is associated with riding Metro-North for their commute, researchers asked respondents to report what they believe they would pay to use Metro-North train service for their regular, weekly commute.

Detailed findings may be found in the table below.

<i>Estimation of what you believe you would pay Metro-North train service for your regular, weekly commute?</i>	<i>Danbury</i>	<i>Danbury (w/o DKs)</i>
\$0-10	3.2%	15.9
\$11-20	1.3	6.1
\$21-30	3.0	14.6
\$31-40	1.5	7.3
\$41-50	3.5	17.1
\$51-75	4.7	23.1
\$76-100	2.5	12.2
\$101 or more	0.7	3.7
Don't know/unsure	79.6	---
<b>Average (without "don't know" responses)</b>	<b>\$49.01</b>	<b>\$49.01</b>

**THE MARKET**

Researchers read a list of improvements or enhancements being considered by the Connecticut Department of Transportation and asked respondents to state whether each improvement would make them very likely, somewhat likely, somewhat unlikely or not at all likely to begin using Metro-North for their commute.

The table below presents the results as collected.

<b><i>Improvements - Danbury</i></b>	<b><i>Very likely</i></b>	<b><i>Somewhat likely</i></b>	<b><i>Somewhat unlikely</i></b>	<b><i>Not at all likely</i></b>
Lower cost of train fares	28.2%	9.2	1.0	52.9
Lower cost of parking fees	27.2	8.2	0.7	55.9
A more convenient train schedule	24.4	11.0	1.5	55.4
Extending the line to have stations in Milford, Brookfield and northern Danbury	23.4	13.2	0.2	57.1
More frequent trains	22.7	8.2	2.0	58.1
Decreasing travel time by 20%	21.2	13.7	1.0	56.6
More parking at existing stations	20.7	12.2	1.5	57.4
Better shuttle bus service to and from existing stations	19.5	12.0	1.5	58.9
Trains are better equipped for physical disabilities	14.0	4.2	1.5	63.1
A new intermediate station in Georgetown	10.2	6.0	2.0	69.1

In an open-ended format question, all respondents were asked to report the primary reason why they don't use Metro-North train services for their regular commute.

The table below presents the results as collected.

<b><i>Primary reason you don't use Metro-North train service for your regular commute</i></b>	<b><i>Danbury</i></b>
Too far from home	26.9%
I use my car more often	20.7
It's not convenient	14.2
Train does not go to my destination	12.5
No need/value to commute by train	9.5
I am too close to work to use it	6.0
Too expensive	2.5
Parking never available at station	2.0

Don't know/unsure	1.5
Sometimes rides with others	1.0
Don't like riding the train	0.7
Bus is earlier/easier	0.7
No shuttle available	0.5
Sometimes they're late	0.5
There's no direct line from Danbury to Stamford	0.2
Overcrowded	0.2
No specific reason	0.2

All respondents were asked by researchers to indicate at what price, per gallon of gas, they would make a concerted effort to use Metro-North train service for their regular commute. Readers should note the cost for a gallon of gas at the time of the survey was approximately \$3.75.

Detailed findings are presented in the table below for comparison.

<i>At what price, per gallon of gas, would you make a concerted effort to use Metro-North train for your regular commute?</i>	<i>Danbury</i>	<i>Danbury (w/o DKs)</i>
\$0-2 per gallon	6.5%	22.0
\$3 per gallon	0.2	0.9
\$4 per gallon	4.2	14.4
\$5 per gallon	9.5	32.2
\$6 per gallon	1.7	5.9
\$7 per gallon	1.7	5.9
\$8 per gallon	2.0	6.8
\$9 per gallon	0.2	0.8
\$10 or more per gallon	3.2	11.0
Refused	3.5	---
Don't know/unsure	67.1	---
<b>Average (without "don't know" responses)</b>	<b>\$4.82</b>	<b>\$4.82</b>

**DEMOGRAPHICS**

<i># of Children at home</i>	<i>Danbury</i>
None	62.8%
One	13.5
Two	13.7
Three	6.0
Four	0.5
Five or more	0.2
Don't know/unsure	1.0
Refused	2.2

<b><i>Access to a car?</i></b>	<b><i>Danbury</i></b>
Yes	99.5%
No	0.2
Don't know/unsure	0.2

<b><i>Driver's license?</i></b>	<b><i>Danbury</i></b>
Yes	98.3%
No	1.0
Don't know/unsure	0.2
Refused	0.5

<b><i>Age</i></b>	<b><i>Danbury</i></b>
18 to 24	3.5%
25 to 34	2.7
35 to 44	11.0
45 to 54	30.9
55 to 64	21.7
65 or older	25.7
Refused	4.5

<b><i>Income</i></b>	<b><i>Danbury</i></b>
Under \$9,999	1.0%
\$10,000 to less than \$40,000	6.7
\$40,000 to less than \$70,000	14.5
\$70,000 to less than \$100,000	9.0
\$100,000 to less than \$130,000	8.7
\$130,000 to less than \$160,000	3.7
\$160,000 or more	8.2
DK/unsure	2.5
Refused	45.6

<b><i>Gender</i></b>	<b><i>Danbury</i></b>
Male	39.7%
Female	60.3

## APPENDIX

### INTERPRETATION OF AGGREGATE RESULTS

The computer processed data for this survey is presented in the following frequency distributions. It is important to note that the wordings of the variable labels and value labels in the computer-processed data are largely abbreviated descriptions of the Questionnaire items and available response categories.

The frequency distributions include the category or response for the question items. Responses deemed not appropriate for classification have been grouped together under the “Other” code.

The “NA” category label refers to “No Answer” or “Not Applicable.” This code is also used to classify ambiguous responses. In addition, the “DK/RF” category includes those respondents who did not know their answer to a question or declined to answer it. In many of the tables, a group of responses may be tagged as “Missing” – occasionally, certain individuals’ responses may not be required for specific questions and thus are excluded. Although when this category of response is used, the computations of percentages are presented in two (2) ways in the frequency distributions: 1) with their inclusion (as a proportion of the total sample), and 2) their exclusion (as a proportion of a sample sub-group).

Each frequency distribution includes the absolute observed occurrence of each response (i.e. the total number of cases in each category). Immediately adjacent to the right of the column of absolute frequencies is the column of relative frequencies. These are the percentages of cases falling in each category response, including those cases designated as missing data. To the right of the relative frequency column is the adjusted frequency distribution column that contains the relative frequencies based on the legitimate (i.e. non-missing) cases. That is, the total base for the adjusted frequency distribution excludes the missing data. For most questions, the relative and adjusted frequencies will be nearly the same; however, some items that elicit a sizable number of missing data will produce quite substantial percentage differences between the two columns of frequencies. The careful analyst will cautiously consider both distributions.

The last column of data within the frequency distribution is the cumulative frequency distribution (Cum Freq). This column is simply an adjusted frequency distribution of the sum of all previous categories of response and the current category of response.