

New Construction Program – Non-participating Architect Survey

The purpose of the Non-participating A&E Survey was to gather information from architects of newly constructed buildings that did not participate in the NYSERDA New Construction Program (NCP). The survey was designed by Summit Blue to contribute to the Market Characterization and Assessment evaluation of the NCP. Questions were added to the survey to contribute to the Impact Evaluation of the program. The survey was managed by APPRISE Incorporated. Interviews were conducted by Braun Research.

Sample

Target Population

The target population for the survey was architects of buildings that were constructed during the period from 1/1/2006 through 12/31/2007 who did not participate in a NYSERDA program during this time period.

Sample Frame

The sample frame was the Dodge Players Database. This database is developed using information from the F.W. Dodge New Construction Reporting system. The Dodge Players Database is designed to furnish information on the market actors associated with individual new construction projects, including owners, architects, engineers, and other market actors.

The sample frame was restricted to architects of projects that would be eligible for NCP incentives. Projects were excluded for four reasons:

- Project Type – Dodge New Construction Reports include a number of project types that would not be eligible for NCP incentives. These included airports (non-building), bridges, communication systems, dams and reservoirs, gas systems, miscellaneous nonbuilding construction, power/heat/cooling plants, river/harbor/flood control, sewage and waste disposal systems, streets and highways, and water supply systems.
- Geography – Projects that were in Nassau County and Suffolk County were excluded.
- NYC Buildings - Since NYC government buildings do not participate in the SBC, all NYC government building projects were excluded.
- Duplicates – The Dodge frame had some duplicate records.

The original sample frame had 2,158 architects. After excluding ineligible projects types, 2,092 architects remained. After excluding Long Island owners, NYC government agencies, and duplicate records, the frame consisted of 1,929 architects

Sample Selection

The sample frame was stratified into four strata based on the total construction value reported for each owner. The definition of the strata was:

- Large – The top 50 Architects in new construction value (\$117 million or more)
- Moderate – The next 150 Architects in new construction value (\$30 million to less than \$117 million)
- Small – The next 550 Architects in new construction value (\$4 million to less than \$30 million)
- Very Small – Architects with less than \$4 million in new construction value

Table 1 shows the number of architects, the percent of architects, and the percent of construction value for each stratum.

Table 1 – Non-participating Architect Survey Sample Stratification

Stratum	Number of Architects	Percent of Architects	Percent of Value
Large	50	3%	48%
Moderate	150	8%	28%
Small	550	28%	20%
Very Small	1,179	61%	4%
TOTAL	1,929	100%	100%

The survey budget allowed for 60 interviews. We chose to exclude the very small architects; they represent a small share of the total new construction market and are not representative of most architects that participate in the NCP, which tend to be larger construction projects. We allocated the interviews equally among the other three groups to allow for comparison among the population segments. Table 2 shows the sample allocation and estimated confidence intervals.

Table 2 – Non-participating Architect Survey Sample Allocation

Stratum	Number of Architects	Number of Interviews	90% Confidence Interval
Large	50	20	+/- 14%

Stratum	Number of Architects	Number of Interviews	90% Confidence Interval
Moderate	150	20	+/- 17%
Small	550	20	+/- 18%
TOTAL	750	60	+/- 10% ¹

Data Collection

Data Collection Procedures

The Non-participating Architect Survey was administered as a telephone interview with the Dodge project contact. Sampled contacts were sent an advance mailing, including advance letters from NYSERDA and APPRISE regarding the study. Braun Research conducted the surveys using a computer-assisted telephone interview (CATI) survey instrument.

Survey Instrument

The survey instrument was designed to collect information on key performance indicators identified for the NCP in the Program Theory and Logic Model. One objective of the survey instrument was to update the time series measurements of market indicators obtained from previous surveys. So, it was important to ensure that questions were consistent with the prior surveys. However, the survey also was addressing some new issues of interest to NYSERDA program staff. Those questions, in particular, needed to be pretested to ensure that they collected the required information and used clear and concise language. Pretests found that the questionnaire exceeded the target survey length and that the language for certain questions needed to be improved. Survey administration averaged 20 minutes per completed interview.

Survey Administration

Staff from Braun contacted architects between 9 am and 5 pm on weekdays. If they reached the contact's voice mail, they would leave a message on first contact. After the first contact, they would leave a message every other day. The study was in the field for four weeks. Attempts were made with each project contact at least once per day during the field period. Once the target number of interviews for a stratum was reached, interviewing was discontinued for that stratum. Table 3 shows the final disposition of the sample and Table 4 shows the final disposition by sample stratum.

¹ This is the confidence interval for statistics weighted with the Construction Value weight. For statistics weighted with the architect weight, the confidence interval is +/- 14%.

Table 3 – Non-participating Architect Survey Sample Disposition

Disposition		Number	Percent
Complete	Complete	60	40%
	Partial	2	1%
Contacted	Refused	9	6%
	Not Completed	54	36%
Not Contacted	Quota Met	0	0%
Excluded	Duplicate	0	0%
	Business or contact no longer available	1	1%
	Information not available for business/contact	1	1%
	Not Eligible	23	15%
TOTAL		150	100%

Table 4 – Non-participating Architect Survey Sample Disposition by Stratum

Disposition		Stratum #1		Stratum #2		Stratum #3	
		Number	Percent	Number	Percent	Number	Percent
Complete	Complete	20	40%	20	40%	20	40%
	Partial	1	2%	1	2%	0	0%
Contacted	Refused	7	14%	1	2%	1	2%
	Not Completed	14	28%	16	32%	24	48%
Not Contacted	Quota Met	0	0%	0	0%	0	0%
Excluded	Duplicate	0	0%	0	0%	0	0%
	Contact not available	0	0%	0	0%	0	0%
	No contact information	1	2%	0	0%	1	2%
	Not Eligible	7	14%	12	24%	4	8%
TOTAL		50	100%	50	100%	50	100%

Table 5 shows the eligible sample size, the number of completed interviews, and the response rate by sample stratum. The overall response rate for the survey was 56%.

Table 5 – Non-participating Architect Survey Response Rate

Stratum	Eligible Sample Size	Number of Interviews	Response Rate
#1 - Large	35.7	20	56%
#2 - Moderate	31.2	20	64%
#3 - Small	40.0	20	50%
TOTAL	106.9	60	56%

Data Processing

Coding

The survey included a number of “field-coded” questions. In these questions, the respondent was asked an open-ended question. The interviewer had the choice of coding the response as one of a number of pre-coded categories (coded from the open-ended responses for the prior surveys), or coding the response as “Other” and entering a text string to summarize the response. For all “Other” responses, the text was reviewed. The coder either selected one of the pre-coded responses or made the response eligible for development of a new code. After reviewing all questionnaires, text responses were grouped into categories. If a group represented at least 5% of responses (3 or more), a new code was created. If there were less than 3 responses, it was left as “Other.”

Data Processing

The survey data were checked for consistency with the CATI survey instrument, then combined with the sample frame data. A number of data file formats were developed, including SAS, SPSS, Stata, and Excel. All files were labeled with variable labels and value labels.

Weights

Since the survey was stratified and differential sampling rates were applied to each stratum, survey weights were developed and used for analysis of the data. Two weights were developed – a participant weight and a construction value weight.

- Architect Weight – The same architect weight is computed for all completed interviews in the stratum. The formula for the architect weight (AW) is $AW = \# \text{ of Architects} / \# \text{ of Interviews}$. [See Table 6]
- Construction Value Weight – The construction value weight is based on two factors – the stratum factor and the respondent construction value. The formula for the stratum factor (SF) is $SF = \text{Sum of Stratum Construction Value} / \text{Sum of Construction Value for Stratum Respondents}$.

The formula for the Construction Value weight (CVW) for each respondent is $CVW = SF * \text{Construction Value}$. [See Table 7]

For the 2006 sample, a PPS sample based on construction value was implemented. Since a PPS sample is self-weighting with respect to the measure-of-size variable, the analysis for 2006 used unweighted data. The Construction Value weight furnishes statistics that are consistent with statistics from previous survey reports. The Market Assessment results presented in this report are weighted according to construction value.

Table 6 – Non-participating Architect Survey Participant Weights

Stratum	Eligible Population	Number of Interviews	Participant Weight
Large	43	20	2.15
Moderate	114	20	5.70
Small	506	20	25.30
TOTAL	663	60	11.05

Table 7 – Non-participating Architect Survey Construction Value Weights

Stratum	Stratum Value Total	Respondent Value Total	Stratum Factor	Average Weight
Large	10,140,316	4,964,602	2.04	507,016
Moderate	5,615,921	1,208,792	4.65	280,796
Small	5,663,793	299,308	18.92	283,190
TOTAL	21,420,030	6,472,702	3.31	357,000