

INSTITUTE FOR MARKET TRANSFORMATION

Results of a Survey of Certified General Appraisers in the New York Energy \$martSM Program Territory: Evaluation of Changes in Energy-Related Practices and Priorities Between 1999 and 2002

February 2003

Introduction

This paper presents results from a survey of certified general appraisers in the **New York Energy \$martSM** program territory, funded by the New York State Energy Research and Development Authority (NYSERDA), and delivered to more than 1400 recipients in November 2002. The primary purpose of this study was to assist in the assessment of changes in energy-related practices and priorities since the administration of a similar survey used to establish baseline conditions in October 1999.¹ During the intervening period, the Institute for Market Transformation (IMT) has, under contract to NYSERDA, conducted various activities to encourage more rigorous energy reporting by certified general appraisers in New York. The latest survey therefore specifically sought to evaluate the effects of these efforts on appraisers' treatment of energy issues. In this light, the 2002 survey contained many questions identical to those in the original, plus some additional questions seeking to shed light on recent changes in appraisers' treatment of energy, as well as their use of energy-related tools and resources.

The numbers, geographic distribution, and business profiles of the two survey samples closely resembled each other, allowing for informative comparisons among results. The data indicate a number of notable trends and findings:

- Appraisers include energy costs in cash flow statements with significantly greater frequency in 2002 than in 1999;
- On average, appraisers are significantly more confident about the accuracy of their energy cost estimates in 2002 than in 1999;
- On average, appraisers ascribe greater importance to energy costs in 2002 than in 1999;
- Appraisers are significantly more willing to recognize the ENERGY STAR[®] building label and rating in 2002 than in 1999;
- Methods of energy cost assessment and identification of energy-related features remain essentially unchanged.

¹ Results of this earlier survey are summarized in a report, *Results of a Survey on the Energy-Related Practices and Priorities of Certified General Appraisers in the New York Energy \$martSM Program Territory*, submitted to NYSERDA in January 2000.

Methodology

We received a complete list of 1482 certified general appraisers (CGAs) from the license rolls the New York Department of State (NYDS). We removed one address because it was not in the United States; the vast majority of the remaining addresses were in the state of New York, with the remainder from neighboring states. In addition, we removed sixteen names of individuals who attended NYSERDA-initiated continuing-education seminars, with the intention of reaching these people with a separate, more detailed survey instrument.

For the remaining 1465 CGAs, we prepared a written questionnaire in close collaboration with NYSERDA staff, based on the one we distributed on October 1999. (See Appendix.) Many of the energy-related questions on the new survey were literally identical to the ones in the original, to allow for valid comparisons and discernment of changes. Both surveys also gathered information on the location, size, and types of professional activity among respondents, to allow us to assess similarities and differences between the general profiles of the two survey samples. As with the original, this latest survey bore the **New York Energy \$martSM** program logo, and was accompanied by a cover letter from NYSERDA Project Manager Laurie Kokkinides. Respondents were invited to remain anonymous, but surveys were marked with unique identifying numbers to allow for tracking and efficient repeat mailings, as necessary. Respondents were asked to send completed surveys to a toll-free fax number.

Surveys were mailed on November 20, 21 and 22, 2002. Eleven were returned as undeliverable; therefore we estimate the total survey population at 1454 CGAs. We received our first response on November 25, and received 100 responses through Monday, December 2. On that day, we mailed reminder postcards to about 750 names on the NYDoS list. (We sent these reminders to only a subset of the overall population, in order to allow for assessment of the postcards' effectiveness by comparison of response rates of recipients and non-recipients.) Postcard recipients were selected at random and purged of any names of appraisers who had already returned surveys. Postcards reminded recipients of the value of their input, and provided an email address and toll-free fax number by which they could obtain a new blank questionnaire if needed.

The postcards appear to have had a minimal effect in eliciting new responses. Twelve responses were faxed to us after the reminder postcards went out. Nine of these 12 respondents had received postcards and the other three had not.

In addition to the large majority of survey returns, which were received via fax, NYSERDA also received 5 surveys via postal mail. Four of the responses were postmarked or stamped as received on or before the day the postcards went out. NYSERDA received the fifth response via postal mail between December 5 and December 17 from a CGA who had been mailed one of the postcards on December 2. Because of lag associated with mail delivery, it is not certain whether the postcard helped prompt the fifth mailed response.

We received a total of 111 complete survey responses, a response rate of 7.6 percent. (The response rate to the 1999 survey was 112 responses from 991 surveys distributed, a rate of 11 percent.) One person sent a fax informing us that he was no longer active as an appraiser and so

was not filling out the survey. Another CGA licensed in New York but residing in New Jersey called NYSERDA to say that he received the survey but because he does very little work in New York state, he felt he couldn't respond.

Composition of the sample of respondents

As in the October 1999 survey, we asked respondents to list the three counties in which they had performed the most appraisal activity in the previous calendar year (in this case, 2001), showing each county's percent share of total activity. From these responses, we assigned respondents to regional categories as shown in Table 1. The table also includes a category for respondents whose work could not be attributed to a single predominant region, either because of work in multiple regions or because of failure to respond to this question.

The **New York Energy \$martSM** program territory includes most of New York state, but not the service territory of the Long Island Power Authority (LIPA).² The survey samples from both 1999 and 2002 exclude responses indicating predominant activity in Nassau and Suffolk Counties, LIPA's service territory (3 responses excluded in 2002). The 1999 sample also left out responses listing Monroe, Ontario, or Wayne Counties (or Rochester itself) as the site of more than 50 percent of appraisal activity, since at the time the service territory of Rochester Gas & Electric (RG&E) also fell outside the **New York Energy \$martSM** program territory. Now that RG&E's territory is within the **New York Energy \$martSM** program territory, the three counties are included in the 2002 sample as a separate region (4 responses).

The geographic distribution of respondents to this survey closely resembles the distribution for 1999. The distribution of respondents also matches rather closely with the distribution of the total target population, as determined from mailing addresses on the 1999 NYDS list of CGAs. See the rightmost two columns of Table 1. (Because of the labor-intensive nature of the task, and because we considered it unlikely that the distribution would have changed appreciably in the intervening time, we did not sort entries on the 2002 NYDS list into regions as we did in 1999.)

² Ratepayers served by the New York Power Authority (NYPA) statewide also do not contribute funds to the **New York Energy \$martSM** program.

Table 1. Regional Distribution of Respondents and Overall Target Population

| Region | Counties | Number of respondents, October 1999 (n=112) | Number of respondents, November 2002 (n=108) | Percent from region in respondent sample, November 2002 | Estimated percent from region in total population³ |
|---------------------------|--|--|---|--|--|
| New York City | New York, Kings, Queens, Bronx, Richmond | 31 | 35 | 31.5 | 37.5 |
| Hudson Valley | Westchester, Rockland, Orange, Dutchess, Putnam, Columbia | 15 | 14 | 12.6 | 13.6 |
| Catskills | Delaware, Greene, Ulster, Sullivan | 3 | 2 | 1.8 | 2.1 |
| Capital — Saratoga | Albany, Rensselaer, Schenectady, Saratoga, Washington | 10 | 6 | 5.4 | 9.8 |
| Adirondacks | Warren, Hamilton, Franklin, Clinton, Essex, Herkimer, Lewis | 8 | 1 | 0.9 | 3.5 |
| Thousand Islands — Seaway | Jefferson, Saint Lawrence, Oswego | 4 | 3 | 2.7 | 1.9 |
| Central — Leatherstocking | Broome, Otsego, Schoharie, Montgomery, Chenango, Madison, Oneida, Fulton | 9 | 9 | 8.1 | 6.7 |
| Finger Lakes | Tioga, Chemung, Steuben, Schuyler, Yates, Seneca, Cayuga, Tompkins, Cortland, Onondaga | 8 | 10 | 9.0 | 9.6 |
| Rochester and Vicinity | Monroe, Ontario, Wayne | N/A | 4 | 3.6 | 4.2 |
| Niagara Frontier | Genesee, Orleans, Niagara, Erie, Wyoming | 8 | 5 | 4.5 | 10.2 |
| Chautauqua-Allegheny | Chautauqua, Cattaraugus, Allegany | 3 | 3 | 2.7 | 0.5 |
| No region assigned | Multiregion (or no response to this question) | 13 | 16 | 14.4 | N/A |

³ Determined from mailing addresses on entire October 1999 NY Department of State list.

Types of Appraisal Practice

The preponderance of respondents reported working in independent appraisal companies or sole proprietorships, 78 from the main offices of such agencies and 4 from branch offices. Three others work part-time in independent appraisal practice, and part-time in other institution types (one in a bank, one as an assessor, and one in an unspecified government agency). Fourteen respondents work for appraisal departments of banks (including one who works for a cooperative farm credit lender). Two work for firms that own or manage real estate. Five work for government agencies; three of these appraisers work primarily in rural areas, dealing mostly with forests, vacant land, and farms, not buildings. The remaining respondents come from various other agency types, including a brokerage and an accounting firm.

The breakdown of business types in the 2002 survey sample match well with the composition of responses to the identical question from the 1999 survey. Table 2 shows the numbers of responses for each category in the two surveys.

Table 2. Types of Appraisal Practice Reported in 1999 and 2002 Surveys

| Type of appraisal practice | Number of Respondents, October 1999 (n=112) | Number of Respondents, November 2002 (n=107)* |
|---|--|--|
| Independent appraisal firm (incl. sole proprietorships) | 80 | 85 |
| Bank or lending agency | 12 | 15 |
| Firm that owns or manages real estate | 4 | 2 |
| Government agency (incl. municipal assessment offices) | 12 | 7 |
| Other | 4 | 3 |

*Five respondents listed two institution types; these respondents are included in both of the types they noted.

As in the 1999 survey, most respondents reported that their appraisal practices involved a mix of single- and multi-family residential, commercial, industrial, and other real estate (especially vacant land and farms). The two samples do show some differences in respondents' average percent share of appraisal revenues by sector, with the 2002 sample showing more activity in commercial and industrial sectors, and less in the residential sector, as shown in Table 3.

Table 3. Average Percent Share of Appraisal Revenues, by Sector (mean ± standard error)

| Sector | October 1999 (n=110) | November 2002 (n=105) |
|---------------------------|-----------------------------|------------------------------|
| Commercial | 30 ± 2 | 35 ± 2 |
| Single-family residential | 26 ± 3 | 21 ± 3 |
| Industrial | 15 ± 1 | 18 ± 2 |
| Multi-family residential | 19 ± 2 | 13 ± 2 |

Within the commercial sector, respondents reported specializing in numerous areas; most often cited were warehouses (82 respondents), low-rise retail (76), low-rise office buildings (73), and undeveloped land (72). The next most common commercial-sector specializations were restaurants (53 respondents), hotels and motels (51), and food stores and supermarkets (49). (Thirty-eight cited included high-rise office buildings.) In addition, seventy-one respondents noted multi-family residential property as an area of specialization; fifty-six cited single-family residential property.

Table 4. Types of Properties Cited as Specialties by Respondents

| Type of Property | Number of Respondents, October 1999 (n=110) | Number of Respondents, November 2002 (n=110) |
|------------------------------|--|---|
| Warehouses | 80 | 82 |
| Low-rise retail | 72 | 76 |
| Low-rise office | 65 | 73 |
| Restaurants | 49 | 53 |
| Hotels and motels | 42 | 51 |
| Shopping malls | 41 | 49 |
| Service stations | 40 | 46 |
| Food stores and supermarkets | 39 | 43 |
| High-rise office towers | 27 | 38 |
| Refrigerated warehouses | 27 | 36 |
| Parking structures/lots | 24 | 36 |
| Truck or train terminals | 20 | 22 |
| Hospitals/medical clinics | 17 | 18 |
| Government offices | 11 | 15 |
| Other government buildings | 9 | 11 |
| Colleges and universities | 8 | 11 |
| Primary/secondary schools | 12 | 10 |
| Airports, transport hubs | 5 | 7 |
| Prisons/detention facilities | 1 | 4 |
| Single-family residential | 66 | 56 |
| Multi-family residential | 71 | 71 |
| Manufacturing | 61 | 66 |
| Power generation | 9 | 16 |
| Sewage treatment | 4 | 5 |
| Land | N/A | 72 |

Note: Respondents were offered a list of property types and asked to check all that applied. Indicated sample sizes represent numbers of respondents submitting checking one or more type. All types shown in the table were specifically listed in both surveys, except vacant land, which was listed only in 2002.

Inspection of these tallies suggests a close match with the results of the 1999 survey, which also showed warehouses, low-rise retail, low-rise office buildings, restaurants, and hotels and motels (in the very same order as with the 2002 survey) as the most often-cited areas of specialization.

Sizes of appraisal practices

We asked our survey participants about the volumes of their business, in terms of both number of commercial appraisals performed by that appraiser's office, and aggregate value of all commercial properties appraised, for 2001. Responses varied very widely, from zero to 3000, with an average of about 170 for the calendar year. This figure is probably significantly higher than the average figure from the 1999 survey (covering calendar-year 1998), which we calculate at about 130. Note, however, that given imprecise numbers provided by some respondents to both surveys (for example, "100-200," or "100+" or "thousands"), it is impossible to provide rigorous statistical indices of the magnitude and significance of the difference.

In seeking information on aggregate value, we provided six broad dollar ranges for total value of properties appraised by the respondent's office in the most recent completed calendar year, and asked respondents to check one of the ranges. The distribution of responses to this question is shown by dollar range and region in Table 5 below, for both the 1999 and the 2002 samples. For each aggregate value category, Table 5 also shows a breakdown by institution type for the 2002 sample, as indicated in response to a separate question. Responses indicate strong representation by appraisers working for large, active institutions — predominantly private appraisal firms, but some government agencies, banks, and real-estate firms as well. The 2002 sample shows notably higher representation of institutions with large volumes of business, relative to the 1999 sample.

Table 5. Ranges of Aggregate Value of Property Appraised by Respondent's Office in the Previous Full Calendar Year

| Category | Number of Respondents, October 1999 (values for 1998; n=101) | Number of Respondents, November 2002 (values for 2001; n=101) | Institution Types, November 2002 |
|-------------------------------|---|--|---|
| Less than \$500,000 | 5 | 4 | 3 appraisal firms 1 farm credit agency |
| \$500,000 to \$3 million | 12 | 9 | 8 appraisal firms 1 bank |
| \$3 million to \$10 million | 17 | 20 | 17 appraisal firms 2 government agencies 1 real-estate brokerage |
| \$10 million to \$50 million | 31 | 17 | 14 appraisal firms 1 bank 1 representing both bank and private appraisal firm 1 representing both government agency (full-time) and private appraisal firm (part-time) |
| \$50 million to \$200 million | 17 | 23 | 17 appraisal firms 4 banks 2 firms that manage or invest in real estate |
| More than \$200 million | 19 | 28 | 21 appraisal firms 4 banks 2 government agencies 1 accounting firm |

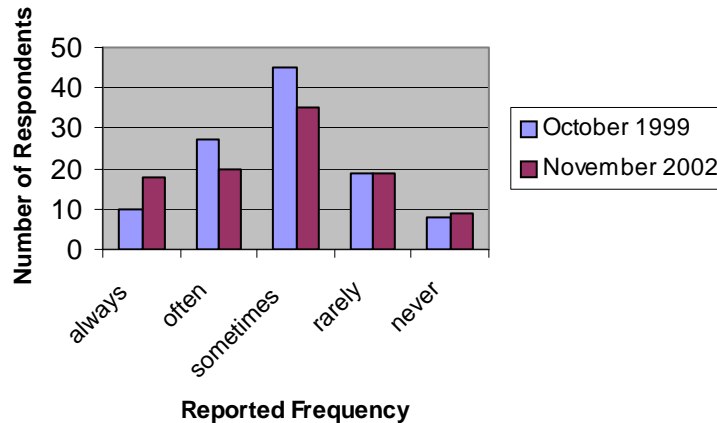
Not surprisingly, perhaps, inspection of the 2002 data indicates that responses showing relatively small aggregate property values tend to be located in the smaller, more rural counties of the state, while those offices that deal with greater aggregate property values tend to be located in New York City, and to a lesser extent, the Buffalo, Rochester, and Syracuse metro areas and Westchester County. (Of the 28 respondents indicating annual aggregate values greater than \$200 million, 15 work predominantly in New York City, with four others listing New York City as one of several regions of activity.)

Energy-Related Technologies and Materials

As in the October 1999 survey, we asked appraisers a number of questions intended to characterize their recognition of energy-related technologies, materials, and equipment in buildings. Figure 1 below shows the distribution of responses to a multiple-choice question on

the frequency with which appraisers report the presence or absence of energy-saving technology or materials in an appraisal, for both the 1999 and 2002 surveys.

Figure 1. Frequency with which Appraisers Report Presence or Absence of Energy-Saving Technology or Materials



For both surveys, appraisers report various frequencies for reporting the presence or absence of energy-saving technology or materials in buildings, with responses peaking around the center of the qualitative scale provided. The responses from 2002 also appear to be skewed toward more frequent reporting of energy, with proportionally more appraisers claiming that they “always” report on energy-saving technology and materials, though the difference between the two samples is not statistically significant (X^2 probability = 0.36).

We also asked respondents *how* they learn that energy-efficient features are present or absent from properties. By far, the most commonly cited approach was physical inspection of the property by the appraiser. Disclosure by the seller was the next most common response; other listed options — including inspection reports, review of building plans or other documents, and review of energy bills — were farther behind. These responses closely mirrored those given to the identical question from the 1999 survey, with the five listed approaches falling in the very same order, in terms of positive responses counted. Table 6 shows complete tallies from both surveys.

Table 6. Methods by which Appraisers Learn of the Presence or Absence of Energy-Efficient Features in Properties

| Method | Number of Respondents, October 1999 (n=103) | Number of Respondents, November 2002 (n=103) |
|---|--|---|
| Physical inspection of the property | 88 | 73 |
| Disclosure by the seller | 55 | 34 |
| Inspection reports | 30 | 16 |
| Review of building plans or other documents | 25 | 11 |
| Review of energy bills | 17 | 10 |

Note: Respondents were offered a list of methods and asked to check all that applied. Indicated sample sizes represent numbers of respondents submitting checking one or more method. For these two surveys, sample sizes for this question happen to be identical — but note that tallies are higher in every category for the 1999 survey, because respondents to that survey checked multiple boxes with much greater frequency than in 2002. The reason for this difference in multiple responses is not discernible from our data.

Finally, we asked *what* energy-related building features respondents have specifically cited in past appraisals. By far the most commonly reported features are windows, insulation, and HVAC equipment, in that order. Lighting fixtures and HVAC controls are also relatively widely cited. These five categories were also the top five cited in the 1999 survey, though in that earlier study, insulation was the most commonly reported feature, followed by HVAC equipment, then windows. Complete tallies for both surveys are shown in Table 7.

Table 7. Energy-Related Features Specifically Cited by Respondents in Past Appraisals

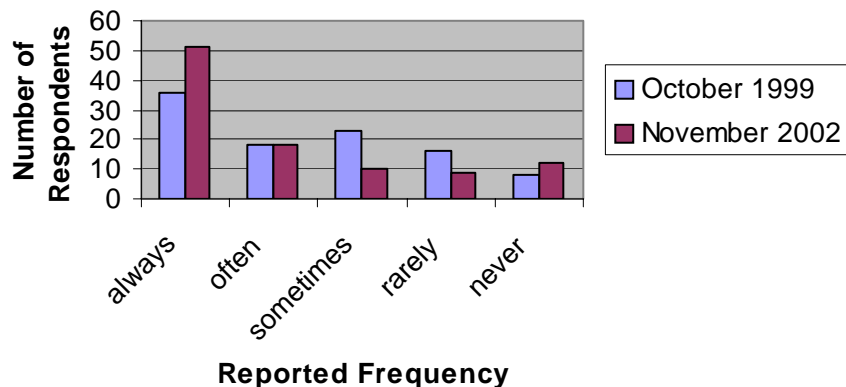
| Feature | Number of Respondents, October 1999 (n=108) | Number of Respondents, November 2002 (n=102) |
|--|--|---|
| Lighting fixtures | 29 | 36 |
| Lighting controls | 9 | 22 |
| Lighting levels | 10 | 4 |
| Levels of daylighting | 7 | 5 |
| Windows | 57 | 72 |
| Insulation levels | 68 | 65 |
| Photovoltaics (PV) | N/A | 3 |
| Air infiltration levels | 8 | 11 |
| HVAC equipment | 58 | 65 |
| HVAC controls | 26 | 31 |
| Refrigeration equipment | 15 | 19 |
| Motors | 7 | 6 |
| Energy Management Systems (EMS) | 14 | 24 |
| Distributed Generation/Combined Heat and Power Systems | N/A | 14 |
| Don't cite the presence or lack of specific energy-related technologies or materials | 15 | 8 |

Note: Respondents were offered a list of features and asked to check all that applied. Indicated sample sizes represent numbers of respondents submitting checking one or more type, or checking that they do not cite energy-related features. All types shown in the table were specifically listed in both surveys, except the last two categories, which were listed only in 2002. Note that higher tallies for this question in the 2002 survey are to be expected given the wording of the question, since a technology cited by an appraiser in 1999 would necessarily be cited again by the same appraiser in 2002.

Energy Costs

The surveys from both 1999 and 2002 contained several questions about how appraisers assess energy costs. Figure 2 shows distribution of responses from both surveys to the question of how frequently responding appraisers specifically cite energy costs as a line item on cash flow statements. The data show a significant difference between the two samples, with a greater proportion of appraisers reporting that they “always” include energy costs, and relatively fewer reporting that they “sometimes” do so (X^2 probability = 0.03).

Figure 2. Frequency of Inclusion of Energy Costs in Cash-Flow Statements



In addition to our question on the *frequency* of reporting energy costs, we also asked about the *methods* by which appraisers get these data, listing several approaches and allowing respondents to check one or more as appropriate. The most commonly cited method was seller’s disclosure, followed by the appraiser’s review of energy bills. Some respondents also employ standard assumptions and standard references such as the BOMA Experience Exchange Report. Response tallies for these four approaches fell in the very same order as tallies to the same question posed in the 1999 survey, with no significant difference in proportions. In both surveys, very few reported obtaining energy-cost information from independent audits by utilities or energy consultants. A complete summary of responses for both surveys is shown in Table 8.

Table 8. Methods by which Appraisers Determine Energy Costs of Properties

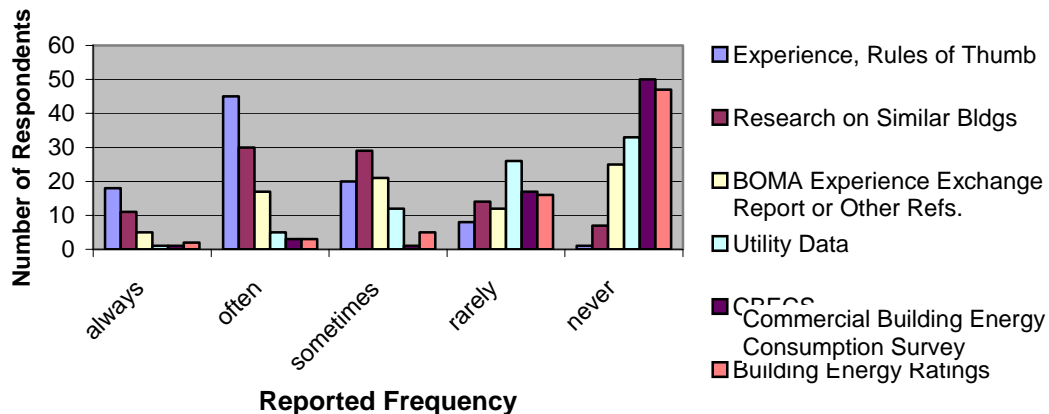
| Method | Number of Respondents, October 1999 (n=98) | Number of Respondents, November 2002 (n=96) |
|--|--|---|
| Seller’s disclosure | 69 | 73 |
| Appraiser’s review of energy bills | 50 | 63 |
| Standard assumptions | 29 | 39 |
| Independent audit by energy utility | 5 | 3 |
| Standard references | 19 | 30 |
| Independent audit by energy consultant | 2 | 0 |

Note: Respondents were offered a list of methods and asked to check all that applied. Indicated sample sizes represent numbers of respondents submitting checking one or more method. Tallies are higher in every category for the 2002 survey, because respondents to that survey checked multiple boxes with much greater frequency than in 1999. The reason for this difference in multiple responses is not discernible from our data.

Another set of questions sought appraisers' characterization of the *accuracy* of the energy-cost estimates they use, and their assessment of the *importance* of energy costs. In the 2002 survey, on a scale of 1 to 7 (with 1 marked as "not very accurate" and 7 "very accurate") appraisers rated their accuracy, on average, at 4.69. This stands in contrast to the responses to the identical question posed in 1999, when the mean response was 4.09; the difference is statistically significant ($\alpha = 0.005$). On a similar scale of 1 to 7 (with 1 representing "not very important" and 7 "very important"), the mean rating of the importance of energy costs in the 2002 survey was 5.2, a notably higher figure than the 1999 mean of 4.82 ($\alpha = 0.06$).

Respondents to the 2002 survey were asked to assess the frequency with which they use various approaches for determining energy-related features and energy costs of comparable properties. (Appraisers commonly use data from comparable properties to verify their estimates for cash-flow line items or overall value.) The data suggest that appraisers most commonly use their own experience and rules of thumb, and to a lesser extent, research on similar buildings and standard references such as the BOMA Experience Exchange Report. The full distribution of responses is shown in Figure 3.

Figure 3. Frequency of Use of Various Approaches for Assessing Energy-Related Features or Energy Costs of Comparable Properties



Our final question on energy costs asked simply if respondents' treatment of energy costs or energy-related features in appraisal of commercial or multifamily residential buildings changed since 2000. Of 103 who responded, 92 checked "no" (89 percent) and 11 checked "yes." Those who responded yes generally cited greater attention to energy costs, with two specific notes on increasing energy prices and two citations of the importance of energy efficiency.

Tools, Training, and Resources for Appraisers

We asked respondents whether they had encountered any printed or online tools and resources on energy issues. The large majority (93 of 107) reported that they had not; of the 14 who replied yes, several cited specific sources, most unrelated to energy performance in buildings (for

example, *Oil & Law* and *Petroleum Express*) and none from IMT, NYSERDA itself, or other NYSERDA-supported initiatives.

Twelve of 108 respondents (11 percent) wrote that they had encountered an ENERGY STARTM Building Label or rating score. This proportion was not significantly different from results from the same question on the 1999 survey (10 of 108). Notably, however, 28 of 107 respondents reported that they *would* “recognize the label/rating as a factor affecting value in [their] appraisal” (25 replied that they would not, and the rest did not know). This distribution shows significantly greater willingness to recognize the label and rating than indicated in our 1999 survey, when 10 replied yes, 30 no, and 68 did not know (X^2 probability = 0.001).

Discussion

Our sample of respondents to the 2002 survey is similar to our 1999 sample in terms of overall numbers, geographic distribution, and proportional representation of various business types. This similarity makes it possible to draw meaningful apples-to-apples comparisons of data from the 1999 and 2002 surveys, and to arrive at some key conclusions about changes in appraisers’ treatment of energy issues in their work.

On the whole, the data show that energy costs and energy-related features are attracting a modest but discernibly growing level of attention from appraisers. In a number of areas, appraisers’ energy-related priorities and practices have shifted significantly — toward more frequent inclusion of energy costs in cash-flow calculations, greater importance on energy, greater confidence in the accuracy of their methods, and greater willingness to take the ENERGY STARTM Building Label and rating tool into account.

From our survey data, we cannot draw conclusive inferences about what prompted these shifts. One possibility is that higher energy prices, specifically mentioned by two respondents, have prompted increased attention to energy. In the specific case of the ENERGY STAR[®] Building Label, it may be that the surveyed population acquired heightened awareness of energy matters not because of any particular NYSERDA-supported program interventions, but through the independent growth of ENERGY STAR and its increasing presence in the public eye.

Note that when asked directly if their treatment of energy had changed since 2000, a very low proportion of respondents (11 percent) responded positively. This result cannot be readily reconciled with the shifts enumerated above, which indicated change among a much larger proportion of the surveyed population. The seeming contradiction may indicate that the 1999 and 2002 sample represent different populations, and that the 2002 sample contains heavier representation from especially energy-conscious appraisers. This possibility, however, cannot be confirmed from the geographic and business profiles of the two samples, which are essentially indistinguishable from each other. It is also possible that the apparent contradiction reflects the dynamics of how respondents interpret the questions: a simple, general question with a yes/no answer may not capture the subtleties of specific questions with multiple response options. Finally, it may also be that the timing of energy price changes, with a steep rise in the last quarter

of 1999 (after the first survey but before 2000), may help explain the seemingly conflicting results.

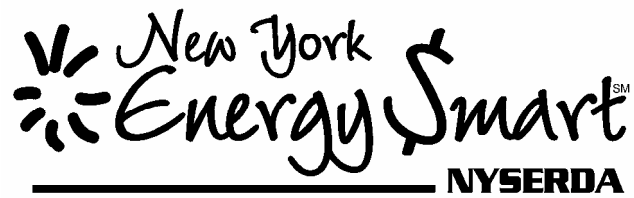
Since no respondents specifically cited them as the cause of changing practices or as the source of energy-related tools, it is not appropriate to attribute shifting responses to IMT's NYSERDA-supported program interventions. It remains possible that IMT's work and NYSERDA's other programs have had some effect among respondents in our sample, but if so, this effect is not strong or identifiable enough to prompt recipients to mention it by name, even when given the opportunity to do so. If more insight is desired, further research, perhaps through follow-up discussions with specific individual respondents, might shed more light on the exact causes of shifts in energy-related attitudes.

Our survey shows that while attitudes and awareness have shifted, appraisers' *methods* — their choice of information sources for energy-related technology and energy costs — remain effectively unchanged. Appraisers continue primarily to use physical inspections and sellers' disclosures for information on building features; they rely on sellers' disclosures and review of energy bills for data on energy costs. Though unchanged methods may seem at odds with increasing attention to energy issues and greater confidence in accuracy, the seeming contradiction may be reconciled in that appraisers may have continued using their customary methods for obtaining energy-related information, but more frequently and effectively. Such a pattern would also be consistent with key working assumptions of IMT's project: that appraisers can take energy more accurately into account by recognizing energy's importance, learning more about energy technology, and getting more credible information from building owners, without necessarily changing the process by which they gather information.

APPENDIX

Survey Questionnaire, November 2002

Survey of the Energy-Related Practices of New York State Real Estate Appraisers



November 2002

NYSERDA is interested in developing programs and services to better serve the appraisal industry. You are part of a small sample of New York State certified general appraisers receiving this survey. Your responses are very important to us! Please take five minutes to complete the survey. Fax your completed survey to:

1-800-526-0003 (Fax)

General

1. Which of the following best describes your office? (check only one)

- Independent appraisal firm, main office
- Appraisal department of a firm that owns or manages real estate
- Independent appraisal firm, branch office
- Appraisal office within a governmental organization
- Internal appraisal review department of a bank
- Other: _____

2. What geographic areas does your office serve? (check all that apply)

- National
- Metropolitan area or region: _____
- Statewide
- Multistate

3. Please list the top three counties in New York State in which you conducted property appraisals in 2001:

| | |
|---------------|--------------------------------------|
| County: _____ | Percent of total appraisals: _____ % |
| County: _____ | Percent of total appraisals: _____ % |
| County: _____ | Percent of total appraisals: _____ % |

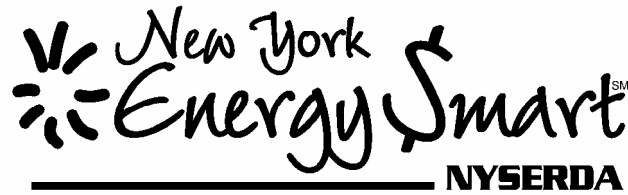
4. What level of appraisal licensure do you currently hold in New York?

- Certified General Real Estate Appraiser
- Certified Residential Real Estate Appraiser
- Licensed Real Estate Appraiser

5. What share of your revenues from real estate appraisals involve the following types of buildings? (total should equal 100%)

| | |
|---------|--|
| _____ % | Single-family residential |
| _____ % | Multifamily residential |
| _____ % | Commercial real estate (i.e., retail, office) |
| _____ % | Industrial real estate (i.e., warehouse, manufacturing, agricultural, food processing) |
| _____ % | Other: _____ |

Survey of the Energy-Related Practices of New York State Real Estate Appraisers



November 2002

6. Which of the following building types are your primary area(s) of specialization? (check all that apply)

Residential

- Single-family residential
- Multifamily residential
- Mobile homes and parks
- Condominiums
- Time-share units
- Second homes (cabins, etc.)

Agricultural

- Agricultural operations
- Hobby farms
- Primary food processing

Commercial

- High-rise office towers
- Low-rise office space
- Hotels/motels
- Shopping malls
- Low-rise retail space
- Restaurants and fast food
- Food stores and supermarkets
- Service stations
- Primary/secondary schools
- Colleges and universities
- Hospitals/medical clinics
- Government offices
- Other governmental facilities

Industrial/Other

- Airports, transport hubs
- Truck or train terminals
- Prisons/detention facilities
- Warehouses
- Refrigerated warehouses
- Manufacturing
- Power generation
- Parking structures/lots
- Sewage treatment
- Land

Other(s): _____

7. How many commercial real estate appraisals did your office perform in 2001? _____

8. What was the approximate total aggregate value of all commercial real estate properties your office appraised in 2001? (check one only)

- | | |
|---|---|
| <input type="checkbox"/> Did not appraise any commercial real estate properties in 2001 | <input type="checkbox"/> \$3,000,000 - \$10,000,000 |
| <input type="checkbox"/> Less than \$500,000 | <input type="checkbox"/> \$10,000,000 - \$50,000,000 |
| <input type="checkbox"/> \$500,000 - \$3,000,000 | <input type="checkbox"/> \$50,000,000 - \$200,000,000 |
| | <input type="checkbox"/> over \$200,000,000 |

9. How many multifamily residential appraisals did your office perform in 2001? _____

10. What was the approximate total aggregate value of all multifamily residential properties your office appraised in 2001? (check one only)

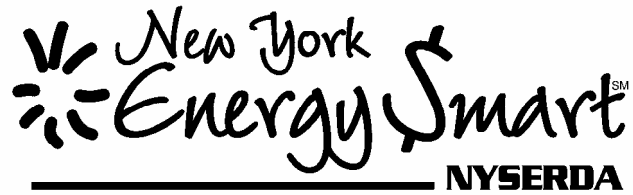
- | | |
|---|---|
| <input type="checkbox"/> Did not appraise any commercial real estate properties in 2001 | <input type="checkbox"/> \$3,000,000 - \$10,000,000 |
| <input type="checkbox"/> Less than \$500,000 | <input type="checkbox"/> \$10,000,000 - \$50,000,000 |
| <input type="checkbox"/> \$500,000 - \$3,000,000 | <input type="checkbox"/> \$50,000,000 - \$200,000,000 |
| | <input type="checkbox"/> over \$200,000,000 |

IF YOU DID NOT APPRAISE ANY COMMERCIAL OR MULTIFAMILY RESIDENTIAL PROPERTIES IN 2001, PLEASE SKIP QUESTIONS 11 THROUGH 18.

11. How often do you report the presence or lack of a specific energy-saving technology (e.g., high-efficiency lighting) or building material (e.g., insulation) as part of your appraisal of a commercial or multifamily residential property? (check one only)

- Always Often Sometimes Rarely Never

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12. How do you most often learn that an energy-saving feature is present or missing at a given property? (check one only)

- Seller's disclosure
- Review of energy bills
- Review of documents/plans/maps
- Inspection report
- Physical inspection by appraiser
- Other: _____
- Not applicable

13. In past appraisals, which of the following energy-related technologies or building materials have you specifically cited? (check all that apply)

- Lighting fixtures
- Lighting controls
- Lighting levels
- Levels of daylighting
- Windows
- Insulation levels
- Photovoltaic (PV)
- Don't cite presence or lack of specific energy-related technologies or materials
- Air infiltration levels
- HVAC equipment
- HVAC controls
- Refrigeration equipment
- Motors
- Energy Management Systems (EMS)
- Distributed Generation/Combined Heat and Power systems

14. When preparing a cash-flow analysis for a commercial or multifamily residential appraisal, how often do you specifically include energy costs as a line item? (check one only)

- Always
- Often
- Sometimes
- Rarely
- Never

15. How do you determine the energy-related operating costs associated with a given property? (check all that apply)

- Seller's disclosure
- Appraiser's review of energy bills
- Standard assumptions
- Independent audit by energy utility
- Standard references: _____
- Independent audit by energy consultant
- Other: _____

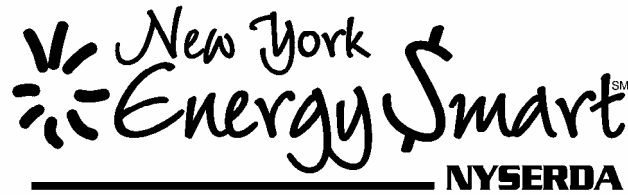
16. On a scale of 1 to 7, how accurate do you consider your current methods for determining energy operating costs for commercial or multifamily residential buildings? (circle one only)

Not very accurate 1 2 3 4 5 6 7 Very accurate

17. On a scale of 1 to 7, how important do you consider the accuracy of appraisal estimates of energy-related operating costs for commercial or multifamily residential buildings? (circle one only)

Not very important 1 2 3 4 5 6 7 Very important

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18. In commercial or multifamily residential appraisals, how often do you use the following approaches to determine the energy-related features or energy costs of comparable properties?

| | Always | Often | Sometimes | Rarely | Never |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Rely on experience and basic rules of thumb on what is typical | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Research specific similar buildings in the area | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Consult BOMA Experience Exchange Report or similar references | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Consult databases/guidelines from the local utility | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Consult the Commercial Bldg. Energy Consumption Survey database | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Rely on building energy ratings | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Use other methods (describe _____) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Never take account of energy-related features or energy costs of comparable properties (check here <input type="checkbox"/>) | | | | | |

19. Has your treatment of energy costs or energy-related features in appraisal of commercial or multifamily residential buildings changed since 2000? Yes No

If you checked yes, please describe the change(s): _____

Tools, Training, and Resources for Appraisers

20. Since 2000, have you encountered any printed or online tools and resources on energy issues? Yes No

21. If you checked yes in response to Question 20, please list the tools and resources you have encountered, and rate their usefulness to you.

| | | | | | | | | | |
|-------|-----------------|---|---|---|---|---|---|---|-------------|
| _____ | Not very useful | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very useful |
| _____ | Not very useful | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very useful |
| _____ | Not very useful | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very useful |

22. In your appraisals of commercial buildings, have you encountered an ENERGY STAR® Building Label or rating score? Yes No Don't know N/A

23. Would you recognize the label/rating as a factor affecting value in your appraisal? Yes No Don't know N/A

24. What energy-related programs or materials, if any, would you like to be offered in the future? (Please enumerate in detail.)

25. Optional

Yes, I'd be willing to provide support or expertise to assist future efforts in this area.

| | |
|---------|-------|
| Name | Title |
| Tel. # | Fax # |
| E-mail: | |

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