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# Landscape Plant Material, Size, and Design Sophistication Increase Perceived Home Value<sup>1</sup>

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## Abstract

Little consumer research is available to help landscape design and installation businesses develop service marketing strategies. We investigated the effect of three components of a landscape design on the perceived value of a home. This information would be useful in marketing lawn and landscape services to prospective clients. Our objective was to provide a consumer perspective on the value of the components in a 'good' landscape and determine which attributes of a landscape consumers valued most. Using conjoint design, 1323 volunteer participants in seven states viewed 16 photographs that depicted the front of a landscaped residence. Landscapes were constructed using various levels of three attributes: plant material type, design sophistication, and plant size. Results showed that the relative importance increased from plant material type to plant size to design sophistication. Across all seven markets, study participants perceived that home value increased from 5% to 11% for homes with a good landscape.

**Index words:** conjoint analysis, consumer, marketing.

## Significance to the Nursery Industry

While realtors and realty-related Websites can provide information to homeowners regarding the amount of a home improvement that can be recovered upon the sale of a home, there is insufficient information available as to the value of landscaping as a home improvement across multiple markets. Specifically, how much do plant size, plant material type, and design sophistication in a landscape affect the perceived value of a home? If these questions were answered, landscape professionals would have more information to present to potential clients on the soundness of an investment in landscape services. Our objective was to provide a consumer perspective on the value of the components in a 'good' landscape and determine which landscape attributes consumers valued most, and to see if that was consistent across markets. Overall, participants valued the landscape design sophistication most. Landscape professionals should emphasize to customers that island beds and curved bed lines add to the perceived value of a home. Results showed that in

the seven states, plant material type was relatively least important. Plant size was of intermediate importance in all markets analyzed here, but was most important in results previously published (18). Still, the largest affordable plant size should be used as it consistently provided a higher perceived value in all markets. Landscape professionals should indicate the type of plants used in a landscape, but realize that potential clients will not likely value this as much as design sophistication and plant size. Professional landscape managers can show potential clients that a good landscape adds 5 to 11% to the perceived value of a home.

## Introduction

Gardening leads the nation as the leisure activity in which more Americans participate than any other (6). For gardeners, a general profile emerged from the literature showing individuals who were highly involved with gardening or those who spent large amounts of money on gardening were more likely to be female and older, wealthier, and more educated than average (4, 18). Higher average home value was another important characteristic of an avid gardener (18). In another study, primary purchasers of nursery plants ranged in age from 25 to 44 years, with a higher than average income and level of education (17). Yet, gardening can be an activity in which participants are active or passive. Active participants may choose to 'do-it-yourself' while passive participants may elect to have someone provide services of landscape design, installation, and maintenance.

The profile of the 'typical' landscape service buyer can be gleaned from The National Gardening Survey (9). The average purchasers of landscape installations were 50 years of age or older, college educated, with a household income of \$75,000 or more. The American Nursery and Landscape Association conducted a consumer study, segmenting the market of landscape consumers into three categories: Partners, Pro-Purchasers, and Hardcore Do-it-Yourselfers (2). Partners preferred to work with landscape professionals on an ad-hoc basis. The Hardcore Do-It-Yourselfers wanted to do most of the work themselves and were not likely clients for professional design and installation. Pro-Purchasers were the largest group of customers and preferred no interaction with their

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landscape jobs. This group consisted of single-family households with annual household incomes exceeding \$100,000. Results showed that 22% of the Pro-Purchasers (2.8 million households) were the most likely group to purchase professional landscape services. Yet, there is little understanding of what these consumers want from a home landscape and what features of this highly personalized product are important to them.

The market for landscape design and installation is considerably smaller than the market for plants and garden center products. Butterfield (9) reported that less than 2.5% of American homes used landscape design and 3.3% purchased installation services in 2003, percentages that have changed little in the prior decade. Khatamian (25) reported that 9.5% of those surveyed at garden centers, and flower, lawn and garden shows, preferred to contract with a professional installation firm. With approximately 109 million households in the United States in 2003, approximately two million may be potential targets for services. In the most recently available statistics (1997), there were 37,853 landscape contractors (SIC 0781-02) and 9826 landscape designers (SIC 0781-03) (10). The relatively small size of this market and proliferation of firms willing to do this work suggests that much competition exists.

Motivations for improving a home vary widely. For the resident of a newly constructed home, the exterior landscaping may serve as a 'frame' to the home, enhancing its aesthetics. For the resident desiring to sell a home, landscaping could enhance market value. Realtors have data showing that the value of a home is enhanced with the renovation of a kitchen, bath, or bedroom, or with the addition of a deck or patio. Realtors can also convey the return on investment for renovations and additions. Recent estimates of recovered costs show that 94% of a mid-priced bathroom addition can be recovered, 74% of the cost of window replacement can be recovered, and 79% of the cost of a family room addition can be recovered (12).

A Weyerhaeuser publication (3) estimated that landscaping added approximately 15% from a homeowner perspective, but only 7.3% by real estate appraisers. Neither data nor methodology were reported for arriving at the percentages. Nearly all other studies of landscape value investigated one attribute in a single market. Prior work by Hardy et al (18) added to the body of knowledge by showing that participants at a flower and garden show perceived the well-landscaped residence to increase in value by 12.7%. Plant size was most important in the conjoint analysis, followed by design sophistication, and plant material. The 12.7% increase in home value was also consistent with several other reports (20, 21, 22, 28, 29, 31, 32). Given that most publications reported a 10–15% increase in perceived home value, we hypothesized that a consistent and similar increase would be seen across in several markets. Using identical materials and methodology from the Hardy et al. study (18), we expected that across all venues included, we would observe a 12% increase in perceived home value by the consumer.

## Materials and Methods

*Generation of plans and photographs.* A researcher photographed a two-story, newly-built home in a Delaware suburb, as the test home. Given the researchers' specifications, a commercially employed landscape architect prepared 16 flat plans. The designer was given the factor level parameters

and definitions for each plan, and also received a set of guidelines that included incorporating only plants whose hardiness extended from USDA plant hardiness zones 4–7. Researchers did instruct the landscape designer to select plant material common across all hardiness zones to be included in the study. Research on cross-national preferences for tree canopy form showed that preferences for tree form were associated with the tree shape reported as most common in the geographical area where the respondents grew up (32). The architect was instructed to use only common plants that were readily available in all growing zones in the study. Computer generated color perspective images of the home and landscaping were prepared from each flat plan [Adobe PhotoShop version 5.0] (1). Each photograph depicted the home and landscaping as viewed from the street.

*Generation of orthogonal design, factor level definitions and conjoint analysis.* Using the methodology of Hardy et al. (18), the respondent's overall preference for a particular landscape was defined as the dollar value assigned to the landscaped home by the respondent. Conjoint analysis was previously used in horticultural studies to assess relative importance of attributes and predict consumer demand for blue geraniums (6) and colored bell peppers (15); investigate consumer preference for packaging of edible flowers (24); and analyze consumer preference for retail evergreen shrubs (13). Conjoint analysis defines overall preference for a particular product, in this case a landscape, as the sum of the part-worths (also termed utilities) for each factor level (7, 16, 19). By definition, the sum of the part-worths is analogous to the value added to the home by the landscape as predicted by the conjoint analysis procedure. Researchers chose plant size, diversity of plant material (type), and design sophistication as the factors that most comprehensively describe all landscape attributes. In this model, the preference for plant size plus preference for design sophistication plus preference for the type of plant material used resulted in the overall preference (measured in dollars) for a particular landscape.

For each factor, we determined a measurable, hierarchical set of levels for each variable. The plant size levels were defined as small, medium, or large. Small was the smallest available size for the product, large was the largest available size for the product, and medium was the intermediate size between large and small. Design sophistication levels were: (1) foundation planting only, (2) foundation planting with one large, oblong island planting and one or two single specimen or shade trees in the lawn, or (3) a foundation planting with adjoining beds and two or three large island plantings, all incorporating curved bedlines. The plant material types were: (1) evergreen only, (2) evergreen and deciduous plants, (3) evergreen and deciduous plants with 20% of the visual area of the landscape beds planted in annual or perennial color, or (4) evergreen and deciduous plants, 20% annual or perennial color, and the addition of a colored brick sidewalk entrance.

While all 36 (3 size  $\times$  3 design  $\times$  4 material levels) possible combinations of factor levels could have been used for full profile conjoint analysis, researchers chose to reduce respondent fatigue by minimizing the number of photographs evaluated. By using a partial factorial design, the number of photographs required to maintain orthogonality was reduced from 36 to 16. Conjoint Designer [version 3.0 produced by Bretton-Clark, 1992] (7) was used to generate the list of 16



**Fig. 1.** Base home with no landscape.

stimuli. Conjoint and other statistical analyses were facilitated using SPSS 10.0 (25).

*Survey administration and instrument.* Churchill and Iancobucci (11) classify survey type by method of administration or data collection. While variations are possible, generally surveys are classified as telephone, mail, electronic (email or Internet) and intercept. The latter refers to recruiting participants in a public setting, such as mall or other public venue. Lysaler (27) noted that mall-intercept interviewing has increased substantially in use in the 1990s. While there is no one best method, each has applications and advantages (11). Yet, several studies that use identical questions by vary data collection indicate that respondents' demographic characteristics and responses to questions are similar (8, 11, 14, 33). Several published studies used an intercept technique for data collection to recruit potential respondents from a variety of plant-related venues (5, 6, 10, 13, 23, 26, 30).

Between April and July of 1999, surveys were administered in seven markets throughout the eastern and central United States: Delaware (DE), Kentucky (KY), Louisiana (LA), Mississippi (MS), North Carolina (NC), South Carolina (SC), and Texas (TX). Responses were collected at consumer home and garden shows. Responses from South Carolina were collected both at local garden center and a zoo. For each survey site, the same protocol was used for survey materials and the recruitment of participants. Multiple participants could self-administer the questionnaire simultaneously. Researchers asked every second or third individual who passed the booth and expressed some interest (by making eye contact) if they would be willing to participate. This varied by time of day and pedestrian traffic at each location. Researchers estimate mall intercept surveys achieve approximately a 29% response rate, but this would be higher for surveys in which the potential respondent has a high interest (11). The sample size target was approximately 160 responses from each state, determined by having at least 10 responses

per photograph included in the study. Given the anticipated standard deviation in change in perceived home value, a sample size of 160 was expected to provide sufficient responses to conduct the planned statistical analyses. The sample was a convenience sample, drawn to reflect perspectives of visitors to home and garden shows in seven markets who likely had an elevated interest in enhancing the value of their home.

Visitors were recruited to participate in the survey as they passed the display table on which the 16 photographs were displayed. Participants were asked to examine a photograph of the survey home with only a lawn and a straight poured cement walk and driveway (Fig. 1). They were told the home value, as estimated by local realtors in each market, and also the county in which the home was hypothetically located. Researchers also stipulated in writing that the home was in a subdivision with similar new homes, and that the home was a 4-bedroom, 2-1/2 bathroom two-story structure located on a half-acre lot (approximately 100 ft by 200 ft). Participants were asked to look at the 16 additional photographs. Considering the price of the home assigned by realtors and the landscaping and features around the homes, they were asked to assign a value to each home. The second part of the survey asked respondents to provide demographic information about themselves, their family, home, landscape and landscape service usage. All questionnaires were identical in format.

*Statistical methods.* The overall conjoint analysis results were defined as the mean of the conjoint results generated for each respondent. Since this method of analysis allows for calculation of variance, typical tests of significance were employed using SPSS 10.0 (34).

## Results and Discussion

*Demographic profile of respondents.* Female respondents outnumbered male respondents in all states except North Carolina (Table 1). North Carolina had the youngest respondents with a mean average age of 40.4 years while Missis-

**Table 1. Demographic characteristics showing means  $\pm$  standard deviation of survey participants from seven states evaluating landscaped homes.**

Survey location (state)	n	Percent female	Age (years)	Education (years)	Persons in household	Per capita income (\$)	Hours spent in the garden	Gardening expenditures (\$)
Delaware	174	52.6	42.8 $\pm$ 12.4	14.7 $\pm$ 2.21	3.1 $\pm$ 1.4	28,198 $\pm$ 17,156	3.9 $\pm$ 6.8	771 $\pm$ 1,960
Kentucky	238	50.6	48.4 $\pm$ 11.0	16.0 $\pm$ 2.63	2.6 $\pm$ 1.1	34,361 $\pm$ 19,301	8.8 $\pm$ 10.3	2,327 $\pm$ 5,625
Louisiana	191	63.2	41.7 $\pm$ 7.7	16.0 $\pm$ 2.57	3.3 $\pm$ 1.4	28,231 $\pm$ 19,513	8.0 $\pm$ 12.8	800 $\pm$ 997
Mississippi	199	65.7	48.4 $\pm$ 11.3	15.6 $\pm$ 2.58	2.7 $\pm$ 1.3	32,895 $\pm$ 18,632	9.8 $\pm$ 14.6	445 $\pm$ 984
North Carolina	182	46.2	40.4 $\pm$ 11.4	15.7 $\pm$ 2.18	2.7 $\pm$ 1.1	29,480 $\pm$ 21,314	4.3 $\pm$ 5.7	1,508 $\pm$ 2,760
South Carolina	164	63.4	47.0 $\pm$ 12.8	15.8 $\pm$ 2.41	2.9 $\pm$ 1.3	29,280 $\pm$ 16,328	5.6 $\pm$ 5.5	1,861 $\pm$ 8,683
Texas	175	50.3	45.5 $\pm$ 13.0	15.9 $\pm$ 2.67	2.7 $\pm$ 1.1	28,906 $\pm$ 17,248	5.2 $\pm$ 5.2	902 $\pm$ 1,233
Total	1323	57.3	45.8 $\pm$ 12.1	15.8 $\pm$ 2.51	2.8 $\pm$ 1.2	31,903 $\pm$ 19,586	6.9 $\pm$ 9.2	1,409 $\pm$ 4,640

Mississippi and Kentucky had the oldest at a mean age of 48.4 years (Table 1). Although over 99% of respondents in the Delaware sample stated they had finished at least 12 years of formal education, they were the least educated group, with only 14.8% of the respondents completing formal education beyond high school. Mean household size varied from 3.3 people in Louisiana to 2.6 people in Kentucky. Average per capita income ranged from \$28,198 to \$34,361 with no differences among states.

The 2003 National Gardening Survey reported 84 million households participated in lawn and gardening activities (9). Those more likely to participate in lawn and gardening activities were married, ages 35–54 years, college educated, have children, employed full-time with an annual income of  $>$ \$35,000. This sample averaged 57% female respondents, whereas the National Gardening Survey sample had 52% female respondents. The average age was 45 years in this study which was the midpoint of the age range from the National Gardening Survey. The average level of formal education completed by the respondents in this sample was nearly 16 years, equivalent to a college education. Forty-seven percent of the National Gardening Survey sample had completed some college while 43% had earned a college diploma. There were similar parallels in household size and income. Statistical tests between the two samples were not possible without the standard deviation in the National Gardening sample, but many similarities were evident among them.

*Time and money expenditures on lawn and garden.* The mean number of hours respondents stated they spent on their lawn and yard during a typical summer week in 1998 ranged from 3.9 hours in Delaware to 9.8 hours in Mississippi (Table 1). In several individual cases in each state, respondents stated that they work over 30 hours per week on their lawn and garden. With these extremes, the median hours per week was

a better indicator of the average for each sample. The median hours ranged from 2.0 hours in Delaware to 9.8 hours in Mississippi. For the remaining states (KY, LA, NC, SC, TX) the median time spent on lawn and garden ranged from 5 to 6 hours.

The National Gardening Association (9) reported average lawn and garden expenditures in 2003 were \$457, up slightly from \$452 in 1998. Respondents to the study spent from \$445 (Mississippi) to \$2327 (Kentucky) with a broad range of responses, yet there were no statistically significant differences among them.

*Model fit.* Because the base price assigned to each home reflected the local housing market, a direct comparison of the dollar values predicted for various combinations of landscapes was inappropriate. We limited analysis to relative importance of factors and to the percentage increases in value for various factor levels over the base home value.

Each of the individual conjoint models for each of the seven states explained at least 94% of the variance in respondent answers. In the context presented, plant size, design sophistication and plant material type were good indicators of the perceived change in home value. Thus, across all seven states, the experimental stimuli yielded a similar range of respondent answers.

*Relative importance of attributes.* For each of the seven states, relative importance of factors increased from plant material type to plant size to design sophistication (Table 2). Design sophistication was the most important landscape factor in these seven states, accounting for 40 to 45% of the value added to the home. Paired sample t-tests indicated that for each state, there was one significant difference between the relative importance of the three factors in each location. Louisiana respondents valued sophistication less than North

**Table 2. Relative importance percentages of three landscape attributes for participants from seven states and the average percent increase over base home value for the highest level of each factor in the landscape design.**

State	Plant material	Plant size	Design sophistication	Average percent increase over base home value
Delaware	24.8	30.6	44.6	6.79%
Kentucky	20.8	36.4	42.8	8.74%
Louisiana	23.4	32.9	43.7	5.54%
Mississippi	23.9	34.1	42.0	10.76%
North Carolina	24.4	34.5	41.2	7.06%
South Carolina	23.3	34.1	42.6	11.36%
Texas	21.0	39.0	40.1	10.16%
Average (mean)	22.4	35.9	41.7	9.0%

**Table 3. Utility score and percentage change over base home values for three levels of landscape plant size, design sophistication, and four levels of diversity of landscape material in seven locations.**

	Delaware		Kentucky		Louisiana		Mississippi		North Carolina		South Carolina		Texas	
	Utility	%	Utility	%	Utility	%	Utility	%	Utility	%	Utility	%	Utility	%
Base home value	\$180,000		\$140,000		\$176,000		\$150,000		\$220,000		\$150,000		\$125,000	
Plant size <sup>z</sup>														
Small	-1971.7	-1.1	-2210.2	-1.6	-2094.8	-1.2	-2738.4	-1.8	-2698.6	-1.2	-2785.9	-1.9	-2442.6	-2.0
Medium	68.3	0.0	26.5	0.0	1097.9	0.6	-530.4	-0.4	-433.5	-0.2	-187.0	-0.1	615.2	0.5
Large	1903.4	1.1	2183.8	1.6	996.9	0.6	3268.8	2.2	3132.1	1.4	2973.0	2.0	1827.4	1.5
Design sophistication <sup>y</sup>														
Foundation	-2792.1	-1.6	-2732.3	-2.0	-1561.3	-0.9	-3872.1	-2.6	-3655.5	-1.7	-3901.0	-2.6	-4105.0	-3.3
Island	-57.6	-0.0	295.7	0.2	98.2	0.1	345.4	0.2	348.0	0.2	598.3	0.4	856.5	0.7
Sophisticated	2849.7	1.6	2436.6	1.7	1463.0	0.8	3526.7	2.4	3307.5	1.5	3302.8	2.2	3248.6	2.6
Diversity of landscape material <sup>x</sup>														
Evergreen	-1199.1	-0.7	-1101.6	-0.8	-1340.5	-0.8	-1752.7	-1.2	-1663.4	-0.8	-1371.6	-0.9	-229.8	-0.2
+ Deciduous	-850.3	-0.5	-722.6	-0.5	-1186.8	-0.7	-1449.6	-1.0	-1421.0	-0.7	-1562.3	-1.0	-2171.7	-1.7
+ 20% Color	115.8	0.1	414.5	0.3	1666.1	1.0	728.4	0.5	728.4	0.3	555.1	0.4	1816.3	1.5
+ Hardscape	1933.6	1.1	1409.6	1.0	861.1	0.1	2473.9	1.7	2473.9	1.1	2378.8	1.6	585.3	0.5

<sup>z</sup>Plant size was defined as: (1) small = smallest plant size commercially available for the product, (2) medium = intermediate plant size between small and large which was commercially available and (3) large = largest plant size commercially available.

<sup>y</sup>Design sophistication was defined as (1) Foundation = foundation planting only, (2) Island = foundation planting with one large, oblong island planting and one or two single specimen or shade trees in the lawn and (3) Sophisticated = a foundation planting with adjoining beds and two or three large island plantings, all incorporating curved bedlines.

<sup>x</sup>The plant material types were defined as: (1) Evergreen = evergreen only, (2) + Deciduous = evergreen and deciduous plants, (3) + 20% Color = evergreen and deciduous plants with 20% of the visual area of the landscape beds planted in annual or perennial color, and (4) + Hardscape = evergreen and deciduous plants, 20% annual or perennial color, and the addition of a colored brick sidewalk entrance.

Carolina ( $p = 0.003$ ). There were no significant differences between any other pairs of states for design sophistication.

Relative importance of plant size was of intermediate importance between design sophistication and plant material, and ranged from 39% in Texas to 30.6% in the Delaware sample. In paired t-tests, North Carolina, South Carolina, and Mississippi were similar (NC to SC  $p = 0.191$ ; NC to MS  $p = 0.523$ ; MS to SC  $p = 0.455$ ) with respect to the relative importance of plant size. Additionally, Louisiana was similar to Mississippi ( $p = 0.184$ ) and North Carolina ( $p = 0.567$ ). Texas was similar to Kentucky ( $p = 0.188$ ). Kentucky was similar to South Carolina ( $p = 0.134$ ). Generally, plant size importance appeared to decrease as plant growing zone number increased.

For respondents from all states, the diversity of plant material type installed contributed the least to the value added to the home landscape. In all states, plant material type contributed 16 to 22% less to the added home value than did design sophistication. The relative importance of plant material in Delaware and North Carolina was similar. Louisiana was different than North Carolina ( $p = 0.042$ ). The remaining comparisons of Delaware and Louisiana to any other states showed significant differences ( $p < 0.01$ ). Generally, plant material type was perceived as having half the importance of design sophistication and less important than plant size.

*Changes in perceived home value.* Across all states, smaller plant sizes reduced perceived home values (as indicated by utility scores), while larger plant sizes increased perceived home values (Table 3). The medium-sized plants produced virtually no change to existing home values. The greatest increase in perceived value due to plant size was seen in North Carolina, where the base home value was \$220,000. When

the smallest plants were used, perceived home values decreased by 2.3%. When the largest plant sizes were used, perceived home value increased by 2.8%. Louisiana showed the smallest difference in perceived home value due to plant size. The estimated home value for Louisiana was \$176,000. When small plants were used, perceived home value decreased 1.2%, while the use of the largest plant sizes increased values by 0.6%. In northern climates, plant size will increase at a slower rate than in more southern climates.

For respondents across all states, the simplest design (foundation-only plantings) decreased perceived home value by an average of 2.1%, while the most sophisticated landscape design increased home values by an average of 1.9% (Table 3). Island plantings added to foundation-only beds had virtually no effect on perceived home value. Texas showed the greatest range in perceived home value due to design sophistication. The estimated base home value for Texas was \$125,000. Foundation-only plantings decreased perceived home value by 3.3%, while sophisticated designs increased perceived home values by 2.6%. Louisiana had the smallest variation between foundation and sophisticated plantings. Foundation plantings decreased home values by 0.9%, while sophisticated plantings increased home values by 0.8%.

Generally, the additional diversity of plant material increased perceived home value (Table 3). Data from respondents across all states found that material levels 1 and 2 decreased home values, while material level 3 increased perceived home values somewhat. The use of materials described in level 4 increased perceived home values most. Mississippi, with a base home value of \$150,000, showed the largest fluctuation between material levels 1 and 2 when compared to designs containing all four material levels. Material levels 1 and 2 decreased home values by 1.0%, while levels 3 and 4 increased perceived home values by 1.7%. Louisi-

ana showed the smallest variation in perceived home value; material levels 1 and 2 decreased home value by 0.7%, while the addition of all four levels increased perceived home value by 0.1%. For Louisiana and Texas, the addition of material levels 3 and 4 to existing levels 1 and 2 increased perceived value by 1.0 and 1.5% respectively. In these locations, the addition of material level 4 decreased home values in comparison to the landscape containing only material levels 1, 2 and 3. However, the addition of material level 4 to existing material levels 1–3 in the remaining states (DE, KY, MS, NC and SC) increased base home values by an average of 1.2%.

*Overall preference.* All states shared the same most preferred landscape: a sophisticated design incorporating large deciduous, evergreen, and annual color plants and colored hardscape. The percent increase in home value from the least valued to the most valued varied among states from 5.5% in South Carolina to 11.4% in Mississippi (Table 2). In all states, the ranking from least percentage added to most percentage added followed the same pattern for percent increase from the least favored to most favored, percent increase of the most favored over the predicted base and percent decrease of the least favored over the predicted base. Additionally, the order of the state rankings of the percent increase from the least favored to the most favored bore no resemblance to the rank order of the base price of the house. In other words, large percent increases in home value were not associated with larger base prices.

Why were these results somewhat different than Hardy (13) found, using identical methodology? The first difference was the venue. Michigan participants were the oldest and had the highest income when compared to other respondents. Yet they were not dissimilar in age and income to participants in all states (data not shown). Michigan respondents were similar to respondents from other states in terms of number of persons in the household, and hours and dollars spent in the garden. Michigan respondents did place a higher relative value on plant size than respondents from all other markets. A flower show venue was used to collect data in Michigan, not a home and garden show. Participants to the former venue may have added even more value for having a colorful landscape than the participants from other venues. The second reason for some discrepancy may be USDA hardiness zone. The authors speculate that perhaps in colder hardiness zones, where plants grow more slowly, gardeners value plant size more and perceive that more colorful plants add greater value. Respondents from warmer hardiness zones, where plant material has a longer growing season and grows more quickly, may value landscape design sophistication more than plant size. Design sophistication was the second most important attribute to Michigan participants. Respondents from all venues agreed that plant material used in the landscape was relatively the least important factor.

We found that in all markets, consumers preferred the largest, most sophisticated, and colorful landscape design. The sophisticated planting category consisting of a foundation planting with adjoining beds and two or three large island plantings, all incorporating curved bedlines, increased home values by an average of 1.8%. This indicates that consumers in the states tested could increase home values by \$2,375–\$3,648 depending upon the initial base home value and cost of materials and installation of the plants.

Results of this study indicate that a ‘good’ landscape adds, depending on region of the country, anywhere from 6 to 11% to the base value of the home. The landscape attributes that contributed most to the increase in perceived home value were, in order, design sophistication, plant size, and plant material type. Clearly, the investment in a good landscape can be recovered and increase the perceived value of a home. The minimalist landscapes, with small plant size and little sophistication, even detracted from the perceived value of the home. The landscape company manager now has concrete data to show that a good landscape adds to the value of a home, and is a home improvement that will increase perceived home value and, unlike most home improvements, appreciate over time.

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