EFFECTS OF SPECIES INFORMATION AND FURNITURE PRICE ON CONSUMER PREFERENCES FOR SELECTED WOODS

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ABSTRACT

Changing consumer tastes and species availability are influencing the design and manufacture of hardwood products. In addition, the globalization of wood product markets is exposing U.S. consumers to new species. This research evaluates consumer preferences for six domestic wood species—three from the eastern United States and three from the western United States. The survey was designed to evaluate four treatment effects including two price points and the presence vs. absence of species identification labels. Four different pieces of furniture (dresser, entertainment center, hutch, and desk) were considered. Data were collected at Pacific Northwest home shows in late 2004 and early 2005. There were no significant differences in the species preferences expressed by consumers between price points at either level of species information. This indicates that furniture price did not significantly influence species preferences for the selected pieces. However, there were significant differences in consumer species preferences with and without labels at the higher price points. For the entertainment center, preference was greater for cherry (*Prunus serotina* Ehrh.) when species information was provided, but oak (*Quercus rubra* L.) was preferred when no species label was provided. When viewing the hutch, consumers preferred cherry and maple (*Acer saccharum* Marsh.) when species labels were present, whereas oak, birch (*Betula papyrifera* Marsh.), and spruce (*Picea glauca* (Moench) Voss) were preferred when no species labels were present. Lastly, for the desk, spruce was more preferred with no information, and cherry was more preferred when species information was included. No preference differences were detected for the dresser. Overall, consumers expressed the highest preference for cherry; the second most preferred species was oak. With the exception of oak, consumer knowledge of the species investigated was low. Based on the results of this study, it is recommended that species information be provided for furniture pieces made from cherry and maple at higher price points, as preferences for these species can be enhanced in such cases.

Keywords: Furniture, price, species, label, oak, cherry, alder.

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INTRODUCTION

Changes in the composition and value of hardwood resources, as well as changing market demands and consumer tastes, are having far-reaching effects on the hardwood industry. Nationally, a substantial difference between net growth and removal of growing stock has added to the domestic hardwood resource over the past 50 years (Bowyer 2004). However, for efficient use of this resource, the species and grade compositions of harvested timber must match demand (Bush et al. 1992), and be physically compatible with end product requirements and markets. In addition, globalization is resulting in an increasing array of imported wood species that are competing with domestic species in many markets.

Among eastern species, hardwood markets for furniture and cabinets are favoring fine-grained species such as black cherry (*Prunus serotina* Ehrh.) and maple (*Acer* spp.) at the expense of coarse-grained species like oak (*Quercus* spp.). This has been reflected in declining oak lumber prices and relatively fewer showings of oak furniture at the High Point, NC, Furniture Market (Hardwood Review Weekly 2005; Luppold and Bumgardner 2005). As approximately 40 percent of U.S. hardwood lumber production is of oak species (U.S. Census Bureau 2004), manufacturers and industry analysts are concerned about the impacts of these changes on hardwood operations (Barford 2005). Lumber manufacturers can benefit from a better understanding of consumer preferences for oak when used in secondary wood products such as household furniture pieces.

Changes also are occurring among western species and markets, as previously underutilized species such as red alder (*Alnus rubra* Bong.) are making substantial inroads for a variety of products, including lumber, flooring, blockboard, and pallets (Green et al. 1995). Opportunities exist in several secondary sectors to increase use of other alternative species as well (Smith et al. 2005). Paper birch (*Betula papyrifera* Marsh.), for example, is a western species with significant opportunities for increased utilization, in particular for products favoring lower grade material containing bark pockets, natural stain, and other character features (Donovan and Nicholls 2003). Related research provided a framework for defining low-grade or low-value hardwoods (Luppold and Bumgardner 2003) and used conjoint analysis to evaluate the potential of low-grade hardwoods to produce fine furniture (Wang et al. 2004).

A better understanding of consumer recognition of, and preferences for, underutilized species compared to established commercial species will assist wood products manufacturers as they make species decisions. In a competitive industry, where western and eastern species might both serve niches within broad markets, it is important to characterize the comparative strengths and weaknesses, including consumer preferences, for secondary products made from these species.

On a broader scale, globalization of wood product markets has led to reduced market share for domestic U.S. furniture producers, as China, Canada, and Mexico have become the fastest growing exporters of wood furniture to the U.S. (Schuler et al. 2001). A recent survey of furniture on display at the 2005 International Home Furnishings Market in High Point, NC, found that only 24 percent of the products shown were made in the United States, and the use of imported species was increasing, although the majority of furniture on display was still made from U.S. species (Appalachian Hardwood Manufacturers, Inc. 2005). While global trade has opened the door to numerous species from around the world, many U.S. consumers cannot identify even the most common domestic species (Bowe and Bumgardner 2004), suggesting that imported species can be substituted for domestic woods having similar appearance and gross product attributes. Detailed species information also can assist development specialists and researchers attempting to assess the competitiveness of domestic companies in the global marketplace, by determining if there is a clear preference for certain U.S. species in specific product types. For example, it has been suggested that U.S. furniture manufacturers have a

competitive advantage over manufacturers of lower cost imports at higher price points (Knell 2004).

RESEARCH QUESTION AND FOCUS

Consumer preferences for the various species used to manufacture secondary wood products are influenced by a number of factors including the look and perceptual images of species (Blomgren 1965; Bumgardner and Bowe 2002, Bowe and Bumgardner 2004), consumer income and willingness to pay for secondary products (Nicholls et al. 2004; Roos et al. 2005), and preferences for regional species (Swearingen et al. 1998). Most of these prior studies evaluated perceptions in singular or broad contexts (e.g., for specific products such as cabinet doors and for broad product categories such as "household furniture"), making it difficult to ascertain whether consumer perceptions can be generalized across different types of products.

One notable exception was a study by Cooper and Kalafatis (1984), who found that attitudes toward species were influenced by the product type in which they were used, although this study was limited in the broad product categories (doors, tables, and kitchens) investigated. Additional information regarding the interactions between species preference and furniture type would be useful for wood products manufacturers and marketing managers as they make decisions regarding product development and promotion.

Our current study extends previous work that evaluated the impact of species information on consumer preferences by including consideration of furniture price point and furniture type. In this study we considered the interactions of furniture price point, species information, and type of furniture piece on preferences for six wood species among consumers in two Pacific Northwest cities. The species represented both established and underutilized domestic woods. We investigated whether species preferences are sensitive to context by exploring differences based on sketches of four different furniture pieces: an entertainment center, a dresser, a hutch, and a desk. As noted, variance of context is lacking in many of the previous studies in this area. We also assessed differences in consumer preferences for, and knowledge of, traditional and lesser-utilized species.

Our research objectives were:

1. To determine the impacts of furniture price point and species information on consumers' species preferences across four different furniture pieces.
2. To evaluate the relative popularity of six domestic wood species from different geographic regions and with different levels of utilization.
3. To assess consumers' ability to correctly identify these six species.

METHODS

Data collection

Data were collected at two Pacific Northwest home shows during late 2004 (Seattle, WA) and early 2005 (Portland, OR). A total of 1,125 usable responses were obtained. Respondents were screened for age (a minimum age of 18 years). An incentive (either chocolate or a key chain) was offered to participants who provided responses. Respondents visiting the booth indicated which species sample they most preferred for a line drawing of each of four furniture pieces, with treatment variables varied as described in the next section. The statement used for evaluation was, "If you were to purchase this [furniture piece name] for your home, which wood sample would you prefer?" The physical dimensions of the wood samples were 8 inches (20 cm) long by 5 inches (13 cm) wide. Each sample had a clear finish and was free of visual defects.

Demographic information regarding age, gender, household income, and home ownership also was obtained. Two additional questions were asked regarding recent significant furniture purchases, and whether the respondent had

worked in the wood products industry. These variables helped to show the level of experience with furniture products that the respondents possessed.

Furniture piece and species selection

The four pieces we evaluated in this study were an entertainment center, a dresser, a hutch, and a desk (the order in which they appeared on the questionnaire), and were selected to include a range of furniture styles, sizes, and potential room locations. An artist's rendition of the furniture pieces included only line drawings, so that responses would not be biased by attributes such as color, texture, or grain patterns (Figs. 1–4), and scale was indicated by inclusion of common household items in the drawings.

We selected six wood species-three eastern hardwoods (cherry, red oak, and maple), and three less established western species (red alder, paper birch, and white spruce [*Picea glauca* (Moench) Voss]). This mix of species allowed for regional comparisons, but also included several species generally regarded as underutilized, for which we believe significant market opportunities may exist (Donovan et al. 2004). It also included more established species to assess consumer knowledge of, and preferences for, these woods.

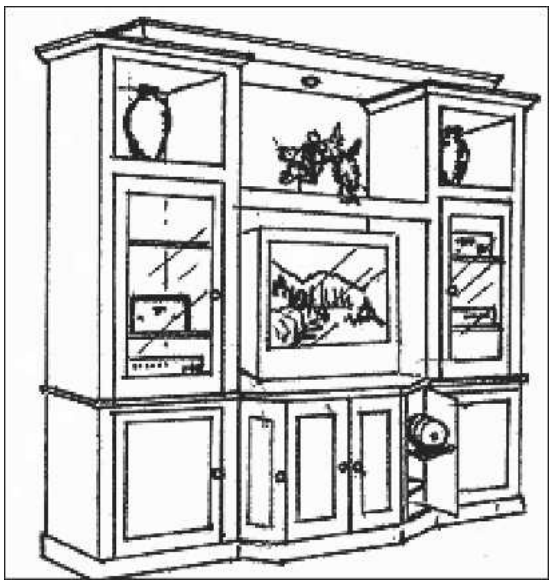

FIG. 1. Artist's rendition of the entertainment center.

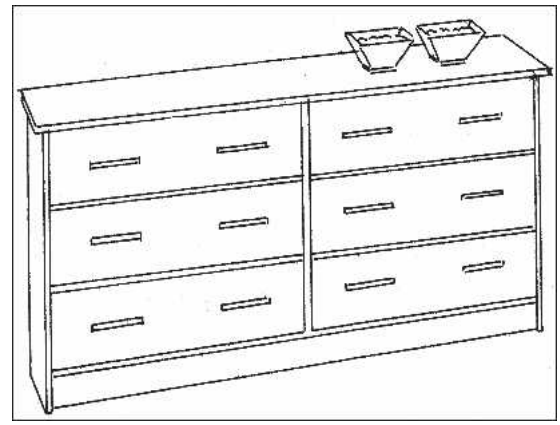

FIG. 2. Artist's rendition of the dresser.

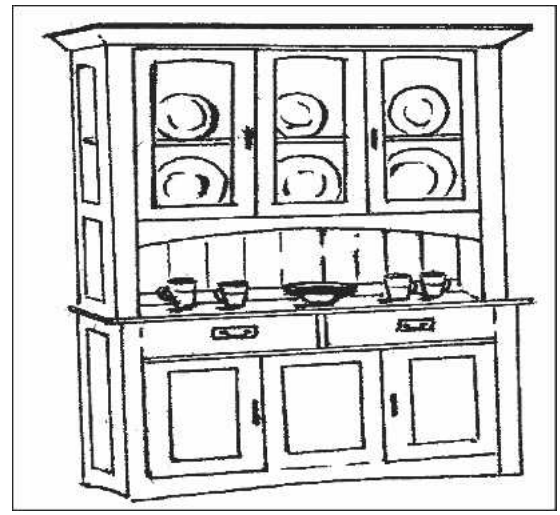

FIG. 3. Artist's rendition of the hutch.

One possible limitation of this research was that line drawings and wood samples were used as proxies for actual furniture pieces. However, there would be obvious challenges associated with building and transporting 24 pieces of furniture for data collection. In addition, in spite of the apparent realism, such a method might introduce its own bias to the extent that the oak wood (for example) used in one furniture piece would not be exactly the same as the oak wood used in another piece, given the inherent vari-

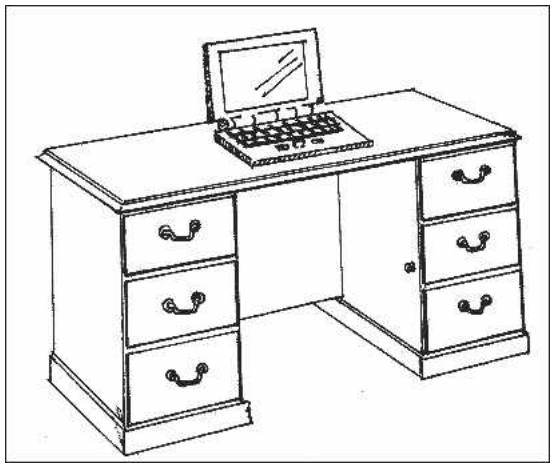

FIG. 4. Artist's rendition of the desk.

ability in wood. Likewise, photographs might show bias in terms of wood color, grain, etc. since the photograph would, by necessity, depict a certain material in construction. By using line drawings and one set of wood samples, these situations were avoided; the oak wood sample (for example) was the same for every piece, and no reference construction material was evident. Still, use of line drawings and wood samples does introduce a potential threat to the external validity of the study in that people do not use drawings for furniture, and not all oak wood (for example) looks exactly like the study sample. But several authors agree that use of any kind of visual cue, such as a drawing, picture, or prototype, is an improvement over a verbal description when considering elements of product design (Bloch 1995). Soderman (2002) found little difference in product understanding resulting from consumer design evaluations based on line sketches and desktop virtual reality representations; however, actual prototypes enhanced understanding of scale and enabled physical contact, which in turn led to more certainty about the products. The information provided in the present research is similar to what might be generated in the early to middle stages of product development, prior to construction of prototypes.

Pricing regime

Price point is an important attribute for furniture products. For example, Bumgardner et al. (2000) found that price point played a role in the acceptance of character-marks in furniture. The proposed price for a new furniture group is an important decision in the furniture product development process (Bennington 1985), and furniture companies are often segmented by the price points they target (Sinclair 1992). The impact of furniture price point on species preferences has received little research attention. The price points for furniture pieces in the present study included one "high" price and one "low" price, selected to match the upper and lower levels of realistic retail prices ($1,500 and $500 for the entertainment center and the hutch; $900 and $300 for the dresser and the desk). Price points for the dresser and desk were lower than those for the hutch and entertainment center to reflect typical market prices. Respondents were presented with either all "high" prices or all "low" prices for the four furniture pieces (i.e., a given respondent did not evaluate both "high" and "low" price points).

Although price points were designed to match current market prices, given the inherent differences in market value between species, it was not possible to use prices representative of all species simultaneously. For example, because cherry furniture is typically more expensive than alder, a low price for a cherry furniture piece might actually be considered a high price for an identical alder furniture piece. Thus, when considering low price points, a $500 cherry hutch might be perceived by consumers as a bargain, whereas a $500 alder hutch might be perceived as less of a bargain.

Labeling regime

Previous research has shown that a consumer's knowledge and familiarity of species can have a bearing on the images associated with these species (Bumgardner and Bowe 2002). In addition, name-based evaluations of wood can often differ from appearance-based evaluations,

indicating the importance of product labeling (Roos et al. 2005). Related work has shown that overall popularity and consumer willingness to pay for secondary wood products can be directly related to the presence (vs. absence) of information such as species name or a descriptive logo (Nicholls et al. 2004). In the current study, we tested the effect of species information through a labeling regime with two levels: the species name (common) was either included or excluded with the sample. In the case of no label, consumer evaluations were based on the appearance of the sample alone.

Assessment of species knowledge

When species information was excluded, respondents were asked to identify, by species name, as many of the six wood samples as they could. These results are presented separately, and provide comparison to previous research conducted in the Great Lakes region on eastern hardwood species (Bumgardner and Bowe 2002). Common name answers that accurately identified genus (i.e. maple, oak, or spruce) were considered correct even when the full species name was not correctly specified. Respondents were instructed not to guess wildly, but rather to leave a response blank when they were completely unsure of a species.

Data analysis

Based on the preceding variable descriptions, four treatment effects were evaluated as outlined below. The treatments were changed for every 50 respondents (approximately) at both locations; thus each level of each factor comprised about one-half of the total responses. Response sheets were color-coded for each treatment to simplify subsequent data entry. Seattle accounted for 68 percent of respondents and Portland accounted for the remaining 32 percent. The treatments and sample sizes were:

Treatment 1: low price, species name provided (n = 305)
Treatment 2: high price, species name provided (n = 293)
Treatment 3: low price, no species information (n = 225)
Treatment 4: high price, no species information (n = 302)

We used chi-square tests for independence to determine if species information and furniture price point affected species preferences for each furniture piece. When the overall chi-square test was significant, we provided cell chi-square values that showed which combination of variable levels contributed most to overall differences. The following comparisons were made across species for each furniture piece:

1. Between the low and high price points with the species label present (treatments 1 and 2) and absent (treatments 3 and 4);
2. Between the label being present and absent at the low price point (treatments 1 and 3) and high price point (treatments 2 and 4).

This scheme resulted in a test for a label effect at both levels of price point, and vice versa. Thus four chi-square tests were employed for each furniture piece.

RESULTS AND DISCUSSION

Sample description

The sample was 55 percent females and 45 percent males. Seventy-one percent of the respondents were over the age of 40 and 14 percent were over the age of 60. Seventy-three percent of respondents earned more than $50,000 per year in household income and nearly 25 percent earned more than $100,000. Nearly 87 percent owned their own home. Thirty percent had personally been involved in a major furniture purchase within 6 months and 21 percent had work experience in or related to the wood products industry. The demographic breakdown for each treatment group is shown in Table 1; overall the groups were quite similar. Chi-square tests indicated that the demographic variables were the same across the treatment groups.

TABLE 1. *Demographic summary of the treatment groups used to measure species information and price effects.*

Treatment group	Female	>40/>60 years of age	>$50K/>$100K household income	Own your home	Purchased furniture in last 6 months	Work experience in wood products	Distribution of the Seattle show (sum = 100)	Distribution of the Portland show (sum = 100)
				percent				
1	57.8	69.4/16.3	73.3/24.8	87.4	29.6	22.4	27.1	27.2
2	51.4	72.4/14.1	73.4/25.1	84.5	28.6	22.4	26.6	24.7
3	57.5	68.8/13.6	75.1/26.8	86.4	32.9	15.4	19.8	20.3
4	54.6	71.5/12.9	70.9/23.5	88.4	30.9	21.9	26.5	27.8
χ^2 *p*-value	0.41	0.78	0.97	0.54	0.75	0.17	—	—
(df)	(3)	(6)	(6)	(3)	(3)	(3)		

Species identification

Red oak was the most easily identified species, being correctly identified about 60 percent of the time (Table 2). Red oak also had the lowest percentage of cases in which no attempt was made at identification (i.e., response left blank). Only 18 percent and 15 percent of consumers recognized cherry and maple, respectively (interestingly, two of the most expensive domestic hardwoods). The three remaining species (red alder, birch, and white spruce) were the most difficult for respondents to identify; all had an identification rate of 10 percent or less. These results are similar to results from consumers in the Midwest, where oak, cherry, and maple were correctly identified 49 percent, 20 percent, and 14 percent of the time, respectively (Bowe and Bumgardner 2004). These results suggest that the "no label" regime used in this study did in fact result in a lack of species knowledge, with the possible exception of oak.

Impacts of furniture price point and species information on species preference

Entertainment center.—Results for the entertainment center are shown in Table 3. Only one of the chi-square tests was significant, that being for the species label categories at the high price point ($\chi^2_5 = 15.63$, $p = 0.01$). Based on Cramer's V, the association was moderate at $V = 0.16$. According to the cell chi-square values, cherry and oak were primarily driving the dependence, with the frequency count for cherry being higher than expected (under H_o) with the label and the frequency count for oak being lower than expected with the label. Thus cherry seemed to benefit from the label in terms of preference whereas preference for oak was greater when no label was provided.

Dresser.—None of the chi-square tests were significant for this furniture piece (Table 4). One test approached significance ($p = 0.07$), that being for the label categories at the high price point. Thus for the dresser, species preferences were independent of furniture price point and species information.

Hutch.—As shown in Table 5, only the chi-square test for species label categories at the high price point was significant ($\chi^2_5 = 24.81$, $p < 0.01$) for the hutch. The association was moderate at $V = 0.20$, which was the strongest association observed among all the significant

TABLE 2. *Rates of correct identification of unlabeled wood species samples by respondents, and most common incorrect responses.*

	White spruce	Red alder	Paper birch	Hard maple	Black cherry	Red oak
				percent		
Correct ID	1.3	4.7	10.6	14.8	17.8	60.1
Most common incorrect ID	Maple	Oak	Pine	Pine	Maple	Maple
	(8.7)	(10.6)	(10.1)	(13.5)	(6.3)	(1.9)
All other incorrect IDs	23.6	19.8	17.4	14.0	14.0	4.2
No attempt to ID	66.4	64.9	61.9	57.7	61.9	33.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3. *Summary statistics for chi-square tests measuring the effects of species label and furniture price on species preferred for the entertainment center.*

Species label	Furniture price	χ^2-stat. (df = 5)	*p*-value	Cramer's *V*	Cell χ^2 values[1,2]
yes	low vs. high	4.29	0.51	—	—
no	low vs. high	7.81	0.17	—	—
yes vs. no	low	1.48	0.92	—	—
yes vs. no	high	15.63	0.01	0.16	cherry, yes label = 4.4 (+) oak, yes label = 2.6 (−)

[1] Only values ≥1.0 are reported; only the highest value for each species is reported.
[2] (+) = higher than expected frequency in the cell; (−) = lower than expected frequency in the cell.

TABLE 4. *Summary statistics for chi-square tests measuring the effects of species label and furniture price on species preferred for the dresser.*

Species label	Furniture price	χ^2-stat. (df = 5)	*p*-value
yes	low vs. high	0.94	0.97
no	low vs. high	4.68	0.46
yes vs. no	low	4.63	0.46
yes vs. no	high	10.17	0.07

tests across furniture pieces. Several species seemed to contribute to the significance of the overall chi-square result. For cherry and maple, the frequency count was higher than expected (under H_o) with the label, whereas for oak, birch, and spruce, the frequency count was lower than expected with the label. Thus cherry and maple seemed to realize a preference benefit with the label whereas oak, birch, and spruce were more preferred in the absence of a label. Alder was the only species with small cell chi-square values, suggesting that those respondents choosing alder did so in relatively similar proportions with and without the label.

Desk.—Again, only the chi-square test for species labels at the high price point was significant ($\chi^2_5 = 17.04$, $p < 0.01$) for the desk (Table 6). The association was moderate at $V = 0.17$. According to the cell chi-square values, spruce and cherry were primarily driving the dependence, with the frequency count for cherry being higher than expected (under H_o) with the label and the frequency count for spruce being lower than expected with the label. Thus cherry seemed to again benefit from the label in terms of preference, and preference for spruce was greater when no label was provided.

Overall species preferences

Cherry and oak were the most popular species across all treatment levels (Table 7). Red alder fared the best among the remaining species, and spruce was slightly more popular than maple or birch. The brighter woods (birch, spruce, and maple) were generally less popular than the darker woods (oak, cherry, and alder). However, in some cases red alder was only marginally more popular than the brighter woods. Within the group of brighter woods, birch was generally the least popular.

CONCLUSIONS AND RECOMMENDATIONS

The study findings suggest that for cherry and maple, provision of the species name in promotion of furniture can increase the preference for use of these species. For oak, spruce, and birch, the look of the wood seems to go farther in stimulating preference than does the species name. Trends were less clear for alder. The benefit of labeling cherry has been shown in other studies as well (Nicholls et al. 2004; Roos et al. 2005). The important point from the present study, however, is that these findings held only at the higher price points. At higher price points, the status nature of the wood used likely becomes a more important consideration to consumers. At lower price points, it seems species promotion via labeling would have limited or no impact on consumer preferences.

In light of these findings, domestic lumber producers should encourage secondary manufacturers to consider the impact of species name promotion at higher furniture price points, as the demand for species seemingly can be influenced

TABLE 5. *Summary statistics for chi-square tests measuring the effects of species label and furniture price on species preferred for the hutch.*

Species label	Furniture price	χ^2-stat. (df = 5)	*p*-value	Cramer's *V*	Cell χ^2 values[1,2]
yes	low vs. high	5.55	0.35	—	—
no	low vs. high	2.16	0.83	—	—
yes vs. no	low	2.14	0.83	—	—
yes vs. no	high	24.81	<0.01	0.20	oak, yes label = 3.4 (–) cherry, yes label = 3.4 (+) maple, yes label = 2.7 (+) birch, yes label = 2.0 (–) spruce, yes label = 1.1 (–)

[1] Only values ≥1.0 are reported; only the highest value for each species is reported.
[2] (+) = higher than expected frequency in the cell; (–) = lower than expected frequency in the cell.

TABLE 6. *Summary statistics for chi-square tests measuring the effects of species label and furniture price on species preferred for the desk.*

Species label	Furniture price	χ^2-stat. (df = 5)	*p*-value	Cramer's *V*	Cell χ^2 values[1,2]
yes	low vs. high	9.26	0.10	—	—
no	low vs. high	5.01	0.42	—	—
yes vs. no	low	3.53	0.62	—	—
yes vs. no	high	17.04	<0.01	0.17	spruce, yes label = 4.4 (–) cherry, yes label = 2.1 (+)

[1] Only values ≥1.0 are reported; only the highest value for each species is reported.
[2] (+) = higher than expected frequency in the cell; (–) = lower than expected frequency in the cell.

TABLE 7. *Comparisons overall of species preferred for each furniture piece across all treatment levels.*

	Cherry	Oak	Alder	Spruce	Maple	Birch
	percent of time chosen as most preferred					
Entertainment center	43.5	31.7	8.6	6.8	6.4	3.0
Dresser	35.9	23.1	12.6	11.6	10.1	6.7
Hutch	38.9	26.8	11.4	9.9	9.1	3.8
Desk	36.5	27.5	11.3	11.0	7.7	6.0

when species information is provided. Perhaps at higher price points, some domestic species would then have an advantage over less familiar, imported woods. This would appear to be especially important given the low levels of identification of cherry and maple (below 20 percent) among consumers in this and other studies, despite the relatively high prices and popularity for these species in the current marketplace. Conversely, it becomes more important to *not* promote species names like oak and spruce at higher price points.

The apparent benefits of species labeling would seem to be an especially important ramification given recent efforts to reverse the sagging popularity of oak. Unfortunately, species name did not seem to stimulate preference for oak. On the contrary, oak was more popular without the species name provided. Although it is encouraging that oak generated much interest among consumers (second only to cherry in overall preference), specific promotion would seem to be counterproductive given the results of this study. However, there are two caveats to this finding. First, 60 percent of the respondents in the treatments that lacked species labels correctly identified oak, so these respondents knew "oak was oak" without the label; this inherent knowledge might have served as a proxy for a label. Still, the presence of a label did seem to have an influence, perhaps separate from the influence associated with oak wood recognition.

Second, other studies have found that the reputation of oak (i.e., in name) was generally more favorable than appearance-based evaluations of oak samples (Bumgardner and Bowe 2002), in essence, the reverse of what was suggested in the present study. That study was based on respondents from the Midwest, so per-

haps a regional bias exists between Midwest consumers and consumers in the Pacific Northwest; each group may be conditioned to different furniture styles and species. A plausible interpretation (although there may be others) is that the familiarity of oak in the Midwest results in both a positive reputation but a less than enthusiastic reaction in terms of appearance, whereas in the Pacific Northwest, oak is not as common and thus its appearance generates more interest, but the name "oak" does not. The same authors (Bowe and Bumgardner 2004) also noted that even in the Midwest, a sample of adult consumers was not as enamored with oak in name as was a sample of college students. It also should be noted that other studies have found a positive labeling effect for oak (Nicholls et al. 2004; Roos et al. 2005); however, there is a temporal aspect to species preferences that might account for some of these differences. Perhaps these findings, taken together, reflect oak's recent decline in the marketplace.

There are several indications from this study that the reference furniture piece(s) used in studies to determine species preferences can influence the subsequent results, although sketches were used rather than physical prototypes. Different species often were driving the significant results for different furniture pieces. For example, oak was significant to preference evaluations of the entertainment center and the hutch, but was not significant for the desk. Furthermore, the dresser was the only piece for which there were no significant chi-square tests. It is interesting that the hutch resulted in the most highly significant chi-square statistic and the strongest measure of association. One can see how different the study's findings would have been if based only on the dresser or the hutch, for example. In addition, while cherry and oak were consistently the two most preferred species across furniture pieces, this result was especially pronounced for the entertainment center. However, the pieces were similar in that the same chi-square test generated the largest χ^2-statistic in each case (species label vs. no species label at the high price point).

Overall, the darker species (cherry, oak, and alder) tended to be the most popular (although there was some evidence of a weak trend toward lighter-colored species being preferred for the dresser). Interestingly, maple was found to be quite unpopular, contrary to other studies (Nicholls et al. 2004; Roos et al. 2005). Among the lesser utilized species investigated in this study, alder seemed to hold the most potential, although it could be argued that alder is advancing from "underutilized" status. Other studies have indicated that, in the case of alder and some maples, one approach to increased popularity is to stain the wood to create more advantageous appearance (Swearingen et al. 1998; Nicholls et al. 2004).

It is interesting that spruce, although not among the most preferred woods in this study, was a driver of chi-square significance in some cases. This was based on the negative effect of the species name label. It could be that one of the hurdles to introduction of "new" species is negative connotation. Perhaps this accounts in part for the prevalence of "trade names" in the marketing of some wood species. Given the dearth of consumer species knowledge identified in this and other studies, as well as the absence of a species labeling effect at lower price points, the potential exists for some erosion of the influence of U.S. species in the marketplace as globalization continues to bring new wood species choices to U.S. consumers.

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