

Impact of Construction and Remodeling Markets on the U.S. Secondary Hardwood Products Industry

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ABSTRACT

The housing correction that started in 2007 continues to run its course. Excessive inventory levels, limited credit availability, and record foreclosure rates continue to have an impact on U.S. housing markets. With inventories high and demand for new construction low, the U.S. hardwood industry's largest markets for appearance-grade products remain under pressure, negatively affecting demand and profitability. A survey conducted in early 2011 (for 2010) with subscribers to Wood & Wood Products, a U.S. trade magazine with wide circulation, provides insights into the current state of the secondary wood products industry. Results are compared to a similar study in 2010 (for 2009) to see what has changed. Overall, companies tended to fare better in terms of sales volume in 2010 over 2009, but many still rated most construction markets as modest at best for 2012. Remodeling markets were viewed more positively. Many respondents reported taking actions related to increasing sales revenue, whether through new marketing initiatives or product and service improvements, as a means to adapt to continued slow markets. Fewer companies reported cost reductions as a primary strategy. As each company realigns its efforts and adapts to the current situation, this study offers insights into the ways companies are coping.

1. INTRODUCTION

Over the past several years, the U.S. hardwood industry has become increasingly reliant on housing and other construction-based markets as domestic furniture manufacturing has declined (Luppold and Bumgardner 2009, Buehlmann and Schuler 2009). Thus, conditions in housing markets have major impacts on secondary wood products manufacturers in the United States. Many of the issues confounding housing markets, as discussed by Buehlmann et al. (2010a), remain in place to varying degrees today. One of the biggest problems continues to be excess housing inventories, which leads to downward pressure on prices and low demand for new construction. In March of 2011, the inventory of new homes for sale in the United States was at about a 7 month supply (U.S. Census Bureau n.d.a), while the inventory of existing homes was at about an 8 month supply (National Association of Realtors n.d.). Moreover, foreclosures are expected to remain high in 2011, constituting a “shadow” inventory that further adds to the supply of existing homes over time (Tal and Grauman 2010). With the over-supply of homes, new single family housing starts remain near record lows, even though there was slight improvement in the number of single family starts in 2010 (Figure 1). However, the seasonally adjusted annual rate for the first quarter of 2011 was lower than for 2010, suggesting that a consistent trend of improvement in new home construction remains elusive.

Fortunately, there are other construction-based market opportunities for secondary hardwood producers, but the situation outside of single family housing remains somewhat mixed. As shown in Figure 2, spending in residential remodeling (improvement) markets has remained somewhat stable over the past 3 years. This trend is driven in part by the aging of U.S. housing stock; for example, half of U.S. homes were at least 36 years of age in 2009 (U.S. Census Bureau n.d.d). Conversely, the value of nonresidential construction and multi-family housing declined sharply in 2010. The value of single family housing construction was up slightly in 2010, but still well below the peak year in 2005.

Against this backdrop, we sought to gain insights into the status of the secondary wood products industry. We report on the results of two surveys, conducted in 2010 and 2011, of subscribers of *Wood & Wood Products*

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(W&WP) magazine. The objective was to determine what had changed in respect to the performance and expectations of U.S. secondary hardwood products manufacturers and what actions these manufacturers had taken to remain profitable in this period of low demand for secondary hardwood products.

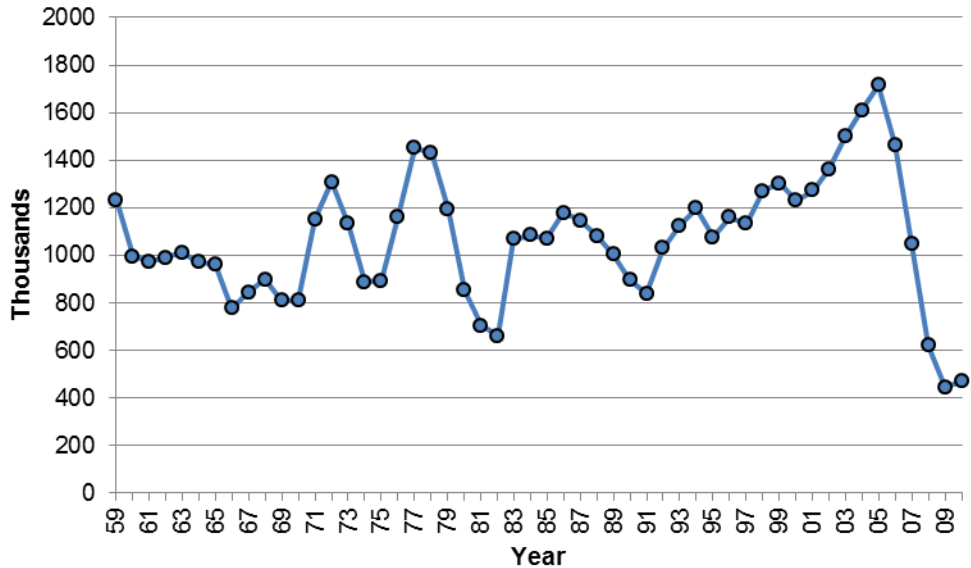


Figure 1. Single family housing starts (U.S. Census Bureau n.d.b).

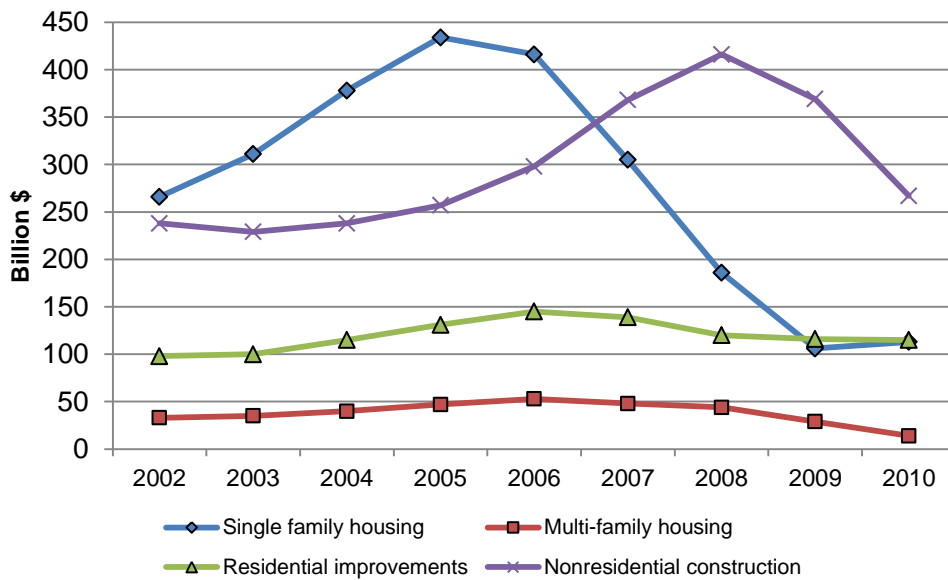


Figure 2. Value of Private U.S. Construction (U.S. Census Bureau n.d.c).

2. METHODS

The most recent survey was conducted in February and March of 2011. An invitation to participate was sent via e-mail to a subset of W&WP subscribers, including members of their VIP panel of professional

woodworkers. The VIP panel is an online community of readers who act as advisors to the magazine regarding topics of interest to the U.S. woodworking industry. Two reminders also were sent to potential respondents. A total of 9,427 invitations were sent and 325 usable responses were received. This response number is similar to that obtained for the 2010 study ($n=359$), although fewer invitations ($n=786$) were sent in that year as only the VIP panel was surveyed. In general, the 2010 study asked questions pertaining to 2009, while the 2011 study asked mostly identical questions pertaining to 2010, thus the basis for assessing changes in this paper is from 2009 to 2010. Readers are referred to Buehlmann et al. (2010a) for details of the 2010 study.

The firm characteristics of respondents were very similar between surveys (Table 1), even though only about 20% of the respondents in 2011 also responded in 2010. The characteristics described below are for the 2011 respondents. Overall, none of the respondent characteristics described below differed statistically from the 2010 survey ($\alpha=0.10$) based on chi-square tests. Thus, direct comparisons between the two surveys seemed reasonable for assessing changes in the secondary wood products industry from 2009 to 2010, even though some caution is warranted given that the samples were drawn from slightly different subgroups of W&WP subscribers. In both surveys, responses were received from 46 different states, with a similar distribution of firms across states.

Table 1. Comparisons of firm characteristics for respondents in the 2010 and 2011 studies.

	2010 Study	2011 Study
<i>Main products produced</i>		
	----- % -----	
Kitchen/bath cabinets	36.2	44.0
Household furniture	8.3	7.1
Architectural fixtures	7.8	7.4
Molding/millwork	13.4	11.4
Dimension or components	4.7	3.4
Office/hospitality/contract furniture	6.7	6.2
Countertops	1.7	1.8
Other	21.2	18.7
<i>Total sales</i>		
Less than \$1 million	44.8	52.1
\$1 to \$10 million	32.6	24.4
\$11 million or more	22.6	23.5
<i>Wood material used</i>		
Mostly solid wood	29.2	25.5
Mostly wood composite or engineered products	12.5	8.9
A combination of solid and composites	56.6	62.5
Other	1.7	3.1
<i>Price-point of primary product</i>		
Low	2.5	3.0
Low-to-medium	6.4	7.9
Medium	27.9	23.6
Medium-to-high	53.5	54.3
High	9.7	11.2

Forty-four percent of the respondents to the 2011 survey were kitchen/bath cabinet manufacturers, 11% were millwork producers, 7% were household furniture manufacturers, 7% were architectural fixtures companies, 6% were contract/office furniture producers, 3% manufactured dimension and component products, and 2% produced countertops. Another 19% indicated their production was in “other” categories, but many of these firms (about half) could reasonably be classified into the aforementioned categories, mostly millwork or contract furniture. Most respondents were small; a majority of firms (52%) had sales of less than \$1 million and another 24% had sales between \$1 and \$10 million. Correspondingly, 61% of respondents had 1 to 19 employees and another 12% employed 20 to 49 people. Nearly 80% reported operating a single facility.

A majority of respondents (54%) represented corporate or operating management, 13% were owners, and 9% each were in production management or marketing and sales, respectively. A majority (62%) also indicated that their firms used a combination of solid wood and composites in their production processes, while 25% indicated using mostly solid wood. Lastly, 78% of firms reported operating at either a medium or medium-to-high price-point for their primary product, and only 3% operated at a low price-point.

3. RESULTS AND DISCUSSION

3.1. CHANGES IN SALES PERFORMANCE AND MARKETS

Half of respondents (50%) reported losing sales volume in 2010, which was a marked improvement over the previous year's results (Figure 3). In 2009, 60% reported year-over-year sales volume declines of 20% or more, compared to 32% in 2010. In 2010, 39% reported sales increases of at least 5% as compared to only 14% in 2009. However, these improvements must be tempered with the fact that 61% still said sales volume was worse or unchanged from what was a very difficult year in 2009. Given that the residential housing market has not improved much overall, companies seemingly are moving into other, more profitable sectors such as remodeling. The results help bear this out, as shown in Figure 4, where the percentage of respondents with 61-100% of their production volume in the single family housing market declined in 2010 compared to 2009.

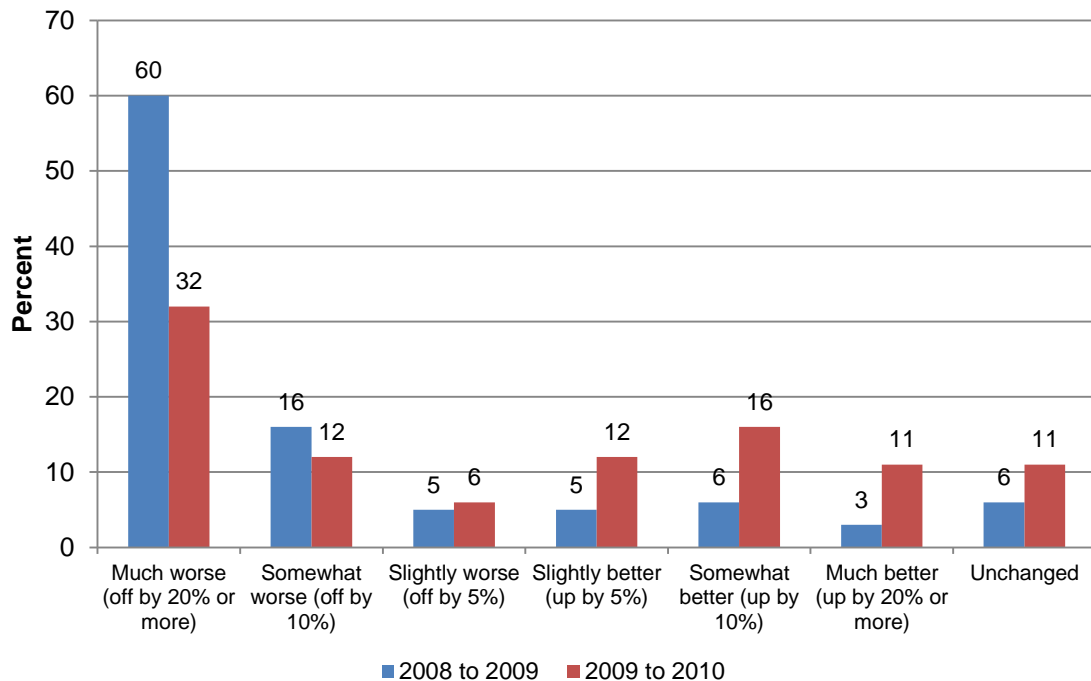


Figure 3. Compared to the previous year, last year's sales volume was . . .
(*p*-value for chi-square test on associated frequency counts <0.01).

In contrast, as shown in Figure 5, the proportion of respondents with 61-100% of their production volume in the residential repair and remodeling market increased. Relatively few companies reported that none of their production volume was associated with residential repair and remodeling, as compared to single family housing where 1 in 4 companies had no production volume, further indicating that secondary manufacturers were finding more opportunities in remodeling markets than in new home construction. Although the question was not asked last year, 75% of respondents also reported that at least some of their production volume was in non-residential/business construction in 2010, with a plurality of respondents (38%) reporting that this segment accounted for 1-20% of their production.

When looking at potential drivers for sales increases (for those who reported sales increases in Figure 3), no prevailing explanations emerged. As shown in Figure 6, none of the specific reasons for sales increases presented in the questionnaire elicited strongly favorable responses. There were a couple of notable changes from 2009, however. For one, the fact that companies were able to grow with the overall economy was rated significantly higher in 2010, suggesting that respondents saw some improvement in economic conditions. Second, productivity improvements were rated significantly lower in 2010 compared to 2009, perhaps

suggesting that respondents felt they had reached the limits of using productivity gains as a means to remain profitable, or that productivity was not a priority while firms were simply trying to get business.

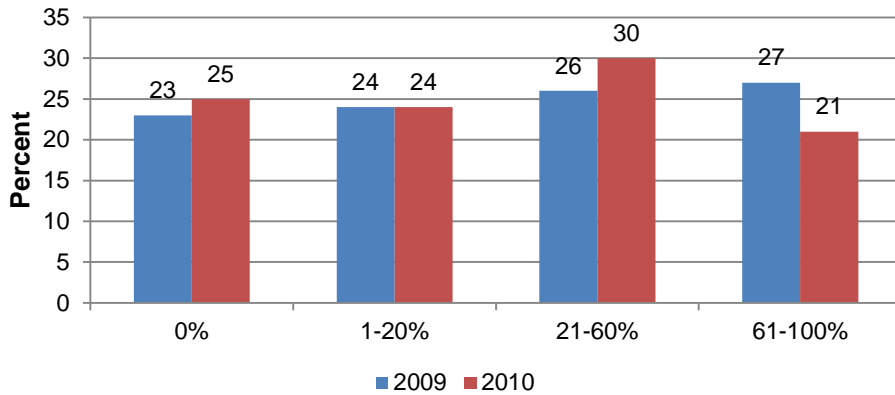


Figure 4. Proportion of 2010 production volume in single family housing compared to the previous year (*p-value for chi-square test on associated frequency counts=0.32*).

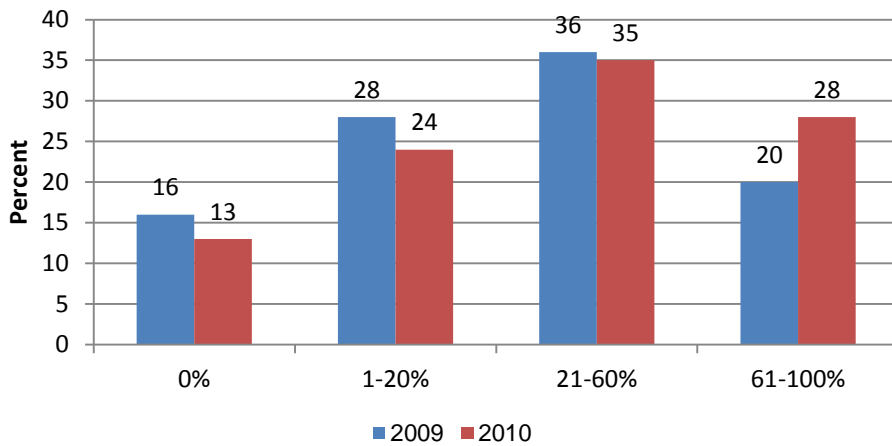


Figure 5. Proportion of 2010 production volume in residential repair and remodeling compared to the previous year (*p-value for chi-square test on associated frequency counts=0.09*).

Not surprisingly, when asked to explain sales declines (for those who reported sales declines in Figure 3), residential construction markets were cited as the major reason by most respondents, especially single family housing (Figure 7). Despite declines overall (Figure 2), respondents viewed nonresidential construction as being very similar in 2009 and 2010. Few changes from last year’s study were detectable, although the overall economy was rated as being slightly more favorable in 2010. Offshore competition and non-wood substitutes continue to be rated as secondary influences on the fortunes of U.S. manufacturers compared to the softness in construction markets.



Figure 6. Causes for sales increases in 2009 and 2010 (*t* test *p*-values significant at $\alpha=0.10$; *We simply grew in proportion with the overall economy* ($p=0.02$); *Productivity improvements* ($p=0.02$)).

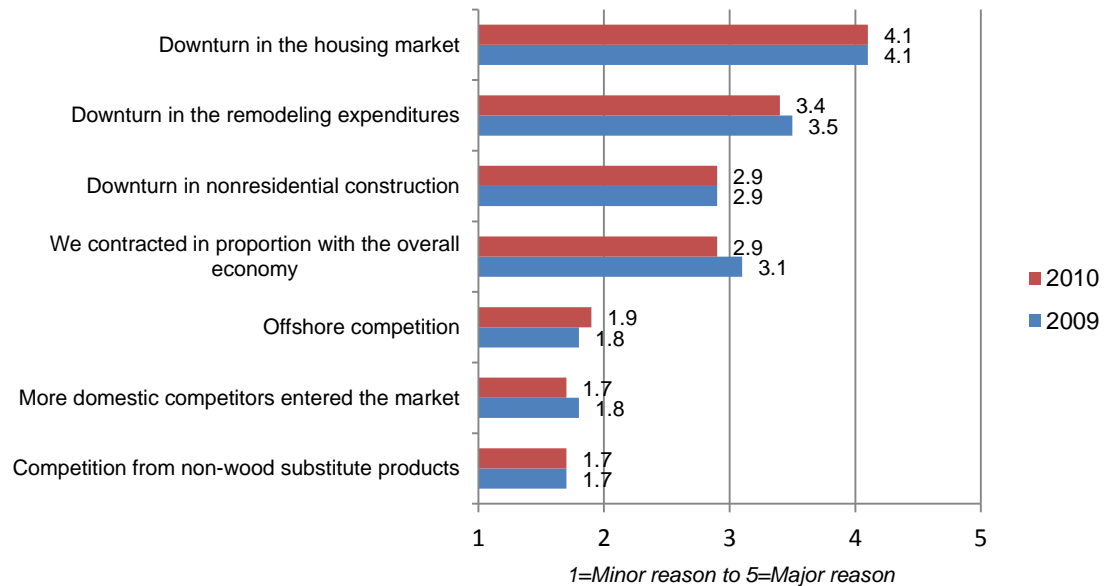


Figure 7. Causes for sales declines in 2009 and 2010 (*t* test *p*-values significant at $\alpha=0.10$; *We contracted in proportion with the overall economy* ($p=0.07$)).

3.2. ACTIONS TO INCREASE SALES VOLUME

Respondents were presented with several (eleven) potential marketing actions to maintain or increase sales volume in declining markets (Boyd et al. 1995) and asked to rate them in terms of implementation at their respective companies. The same actions received relatively high marks in both years' surveys, including advertising and personal selling campaigns - both to remind existing customers of respondents' products and services (mean rating of 3.2 on a 5-point scale with 1=strongly disagree and 5=strongly agree) and to reach potential new customers (mean of 2.8). Also receiving relatively high ratings were: Adding features or services to enhance product value (mean rating of 3.4), developing differentiated product lines to reach small potential customer groups (3.1), and developing new applications for existing products (mean rating of 2.8). Exporting was ranked lowest again (1.8) as respondents continued to be domestically focused, perhaps due to the small size and customized nature of many of the respondents.

When given opportunity to provide open-ended answers to what other specific actions were being undertaken to maintain or grow sales volume, results were more revealing. For analysis, the written answers were coded by the authors into several categories, which are shown in Table 2. Not surprising, a plurality of firms (24%) indicated taking marketing-related actions, such as increased spending on personal selling, promotions, and advertising to find new customers and expand sales bases. Some mentioned hiring sales reps and adding more sales staff. Several respondents also reported taking product-based actions (13%), such as developing new products or adding product lines. Within this category, several firms also reported adding more customization and value-added options for end-users, which, as will be discussed below, continues to be critical to the success of the U.S. industry. Conversely, nearly as many respondents reported they had taken no new actions at all (13%). Several other actions also were mentioned regularly, including: becoming leaner and reducing costs, focusing more on customer service, developing a web presence, and reconnecting with past customers. The latter is especially interesting given the overall increased importance for many firms to find new customers, as this likely means firms' existing or past customers are being contacted more frequently by potential new competitors. As one respondent stated, they sought to "Keep all existing customers happy no matter what!" A relatively high number of respondents also mentioned use of the web and social media, which was a noticeable change from last year's study.

Table 2. What actions did your company take in 2010 or plan for 2011 to maintain or grow your sales volume (categorized from open-ended written responses)?

Action	Percent of respondents
	--- % ---
Marketing-based (e.g., finding new customers, hiring sales reps or staff, expanding sales base, more trade shows, more promotions, more advertising, etc.)	24
Product-based (e.g., developed new products, added product lines, innovation, increased customization options, etc.)	13
No new actions	13
Became leaner (e.g., reduced costs, downsized, changed internal structure, etc.)	7
Focused on customer service (e.g., getting closer to customers, shorter delivery times, customer care, added warranties, more follow-ups, etc.)	6
Developed/improved web presence or social media use	6
Reconnected with recent/past customers (e.g., continued support for recent customers, contacting past customers, seeking referrals, etc.)	6
Bid more projects (e.g., smaller projects than before, projects farther away than before)	5
Focused on improving quality	3
Lowered prices and/or margins	3
Purchased new equipment (e.g., added capabilities, automation, etc.)	2
All else	12

Similar to last year, several respondents also indicated they had worked in the previous year to bid on more projects, including smaller projects and projects farther from home. As one respondent indicated, "We have begun to take on more, smaller jobs." Another stated, "We have had to expand the 'will travel' area for bidding projects." Yet another indicated "Being more versatile in what we will agree to do." These trends seem consistent with other research that has found smaller and more customized orders that are increasing in importance throughout the hardwood supply chain (Buehlmann et al. 2010b).

3.3. GREEN MARKETS AND CUSTOMIZATION

Markets for green building products continue to be a potential source of demand for wood product manufacturers. In both years, a plurality of firms indicated seeing increased interest in green building products, although this year's results were slightly different from last year. Last year, 58% of respondents indicated they had seen increased interest from customers in sourcing products compliant with a green building standards program, with 32% indicating they had not seen increased interest and 10% indicating they were uncertain. This year, 48% answered in the affirmative, with 40% saying they had not seen increased interest and another 12% indicating they were uncertain. The overall results between years were statistically different (chi-square=5.84, $p=0.05$). Perhaps this reflects stabilizing interest in sourcing green products (given that the question asks about *increased* interest), or maybe interest was perceived to decline given the slow overall housing market.

Demand for made-to-order production continues to be important for the domestic industry. Similar to last year, nearly 70% of respondents indicated that at least 81% of their product mix was made-to-order and about 17% indicated this proportion had increased over the past 3 years. Likely related, price-points for the domestic industry tend to be on the higher end, with 66% operating at a high or medium-high price-point. Generally speaking, customized, higher-end products offer a niche protected from lower-cost and commodity-based imported products. The good news for suppliers is that nearly 87% of respondents reported that 61-100% of their sales resulted from domestically produced and/or sourced products, and only 20% reported an increase in imported wood in their product lines over the past 5 years. For those reported increases in imports, only 13% imported finished products, 64% imported components or lumber, and 23% imported both finished products and lumber/components.

3.4. BUILDING SECTOR TRENDS AND OUTLOOK

Statistically, respondents were more optimistic about most building sectors for 2012 than for 2011 (Table 3), but in practical terms, only mildly so. While residential housing (single family and multi-family) were projected to improve the most, they were rated quite low overall. Repair & remodeling markets, whether residential or nonresidential, were rated higher and near the scale mid-point. Only 5% rated new single family housing as at least somewhat good for 2011 (a rating of "4" or higher), and 10% anticipated that market would be at least somewhat good in 2012. However, last year (in 2010) 17% indicated that single family housing would be at least somewhat good in 2011, suggesting the single family market is improving slower than many had anticipated. More positively, 36% projected that residential repair and remodeling markets would be at least somewhat good in 2012.

Table 3. Nationwide, how do you assess the following building sectors for 2011 and 2012 (based on the 2011 survey only; paired *t* tests)?

Sector	2011	2012	<i>t</i>	<i>p</i> -value
Single family housing	2.0 ¹	2.3	7.13	<0.01
Multi-family housing	2.2	2.5	6.02	<0.01
Residential repair & remodeling	3.2	3.2	1.04	0.30
Non-residential/business contraction	2.6	2.7	4.00	<0.01
Non-residential/business repair & remodeling	2.8	2.9	2.86	<0.01

¹Mean based on 5-point scale anchored by 1=very poor to 5=very good.

4. SUMMARY

Overall, there were signs of improvement (or at least stabilization) in the secondary hardwood industry compared to last year's survey. However, conditions in the housing sector continue to be challenging and most respondents did not anticipate that new construction markets would markedly improve in the near term. Confidence was higher for remodeling markets, and the overall economy was not rated as negatively as last year. It is not surprising, given their generally small size, that many respondents were turning to increased marketing efforts or new product offerings to improve profitability, as options for reducing costs and/or increasing productivity likely are limited after several years of contracting housing markets. Other researchers have found that smaller companies are more likely to seek increased revenue sources during economic

downturns while larger firms seek to reduce costs (Latham 2009). The snapshot of the secondary industry in 2011 is one of continued focus on customization and adding value while being more aggressive in searching for new markets, even if that means taking on smaller projects and being more versatile than in the recent past.

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