

# Consumer Perceptions toward the Use of Reclaimed Wood in Secondary Wood Products

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## Abstract

Reclaimed wood is a repurposed building material salvaged from old or abandoned buildings that offers a sustainable approach to using wood in communities. Although there have been some studies on reclaimed wood, there has been a limited amount linking reclaimed wood to consumerism. In August 2021, an online survey was conducted to gauge adult consumers' knowledge of the wood products industry and their attitudes on reclaimed wood practices. Adult consumers are defined as individuals residing in the United States who are 18 years of age or older. Study results indicate that many respondents have little to no knowledge of reclaimed wood. Of the 1,516 respondents, only 44% have any knowledge of reclaimed wood. Most respondents are not aware that reclaimed wood is a separate sector in the industry. Caucasian men were the most knowledgeable of all respondents. Respondents believe that reclaimed wood is environmentally friendly, durable, and aesthetically pleasing and that there should be better marketing practices for reclaimed wood. Respondents' top three reasons for purchasing reclaimed wood was to promote sustainability, for the aesthetics, and because there was a need. Respondents also acknowledge the importance of knowing where their wood products come from and believe that the reclaimed wood sector is very important.

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Wood has played an important role throughout history. Its many uses, such as fuel, tools, weapons, and building materials, has made it a staple of our society (D'Costa 2015). However, there are other benefits and uses to wood as well. Wood has various economic, physiological, and environmental benefits to society.

The wood products industry accounts for approximately 4 percent of the nation's manufacturing gross domestic product (Forth 2018). US wood products companies also are among the top 10 manufacturing employers in 47 states and produce over \$200 billion in products each year. The industry also is vital in providing jobs to rural areas and is one of the top US exporters (McCoy 2018).

In addition to its essential contribution to the US economy, wood also has physiological benefits. Previous studies have suggested that wood can have a positive impact on a person's physiological and psychological health. This cumulative evidence is based upon studies where occupants were asked to self-report the outcomes of inhabiting green buildings (Lowe 2020). Green buildings are described as any building that has been designed to reduce or eliminate negative impacts and can create positive impacts on [the] climate and natural environment (World Green Building

Council 2022). In a study conducted at the University of British Columbia on wood and human health, results suggested that the presence of wood surfaces in a room can calm the body's sympathetic nervous system (FPInnovations 2014). The result of this is a decrease in blood pressure and heart rate, which in turn reduces stress (Lowe 2020). Another study explores the type of emotions wood and plastic evoke. In this study, wood was found to elicit more positive emotions than plastic (Demattè et al. 2018). Even studies on healthcare settings decorated with wood interiors and furnishings have shown evidence that patients

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are more likely to experience reduced stress and better well-being compared with similar facilities devoid of natural furnishings (Ohta et al. 2008).

Another benefit of wood is that it is an environmentally friendly alternative compared with plastics and metals. Wood is the more sustainably viable option among steel, concrete, and aluminum because it requires substantially less fossil fuel energy in the manufacturing process (Hyne Timber 2022). The use of wood helps mitigate the number of pollutants emitted during manufacturing (Hyne Timber 2022). Wood is also known for its carbon storage properties. Trees naturally absorb atmospheric carbon dioxide and store it throughout the tree until the end of its life cycle. Carbon also remains when timber is removed and used to make forest products, which aids in the long-term reduction of greenhouse gas (GHG) emissions. Thus, as a sustainable material, timber is considered one of low environmental impact (Bergman et al. 2013).

Functionally, wood also makes a good thermal insulator. Wood's natural insulating abilities allow for it to be 10 times more effective than concrete and masonry, and 400 times more effective than solid steel (Forestry Innovation Investment 2022). Because of its thermal capabilities, buildings made with timber require less energy for heating and cooling than their counterparts (Planet Ark 2022). This includes engineered wood products such as cross-laminated timber, glulam, and laminated veneer lumber (Planet Ark 2022). This results in reduced energy bills as relatively less energy is needed. Wood is also a recyclable material, which is the main topic observed in this research study.

There is still a need for wood even after its initial use, whether as scraps in wood waste or salvaging lumber. Repurposing wood has many positive impacts on the economy and the environment. This includes the increase in job exposure, the reduction of landfill waste, and the capability to provide aesthetically pleasing products for consumers. However, the use of this material is not greatly publicized. Previous studies have discussed reclaimed wood properties and how using it fits into the sustainability agenda (Cavalli et al. 2016, Pitti et al. 2020). However, there has been no research study, to the authors' knowledge, on consumer attitudes toward the use of this resource.

This article is the second of a two-part series. The first part discussed consumer perceptions of the reclaimed lumber industry (Montague et al 2023). This part focuses on consumer perceptions of reclaimed lumber and its strength and durability. Therefore, the objectives of this study were to (1) determine consumers' current knowledge regarding the reclaimed lumber sector, (2) determine consumers' perceptions on the use of reclaimed wood in the wood products industry, and (3) determine the trends related to reclaimed lumber purchasing and use.

## Methods

### Questionnaire development

The data used in this study were collected through an online survey. The questionnaire was designed on the basis of relevant topics found in research articles and from informal conversation with Forest Service and industry professionals. The questionnaire consisted of 44 questions organized in multiple formats that included five-point scale, open-ended response, dichotomous (yes or no), categorical (ranking), and multiple choice.

The first section included nine questions related to demographics. These questions included age, gender, race/ethnicity, state of residence, educational background, etc. Questions in the second section focused on the wood products industry in general; the third section asked questions specifically about the reclaimed wood sector. Other sections included open-ended responses in which consumers were asked what thoughts came to mind when hearing the term "reclaimed wood." Other open-ended responses asked that respondents list any wood products companies that they were familiar with. Respondents were also given a chance to provide any additional comments near the end of the survey. Before the finalized version was distributed, colleagues were asked to review the questionnaire to ensure that it was concise and not missing any relevant information.

### Data collection

The online survey was distributed by Dynata, formerly known as Research Now Survey Sampling International, a company that provides data collection services for marketing research studies. Dynata serves both large and small businesses, colleges/universities, and "nearly 6,000 market research, media and advertising agencies, publishers, consulting and investment firms and corporate customers around the world" (Dynata 2020).

Dynata offers a variety of recruitment methodologies to help meet unique project requirements. One such method is panel-based sampling, which helps identify and recruit respondents to participate in the survey-taking process. Each recruitment channel delivers a different population with slightly different results (Dynata 2020). Each survey is distributed to a specific panel on the basis of the clients' study requirements. Some study requirements might include specific demographics and a set quota for the number of responses. Within this process, respondents are allowed a one-time single response. The survey is then closed once the target quota is met with the complete number of responses. For this study, panel-based sampling was chosen.

Recently, online participant panels have grown in popularity. Internet surveys are cost-effective tools that enable quick access to large and diverse samples (Hays et al. 2015). These surveys are also less time consuming than traditional methods used to obtain data for analysis (Hays et al. 2015). The standardization of the data collection process also offers an easier replication process of other studies (Hays et al. 2015) and allows for a smoother survey-taking process, without question fatigue (Farrell and Petersen 2010, Dillman et al. 2014).

*Bias potential.*—There is always some degree of bias in published studies (Pannucci and Wilkins 2010). Bias can occur in various phases of research including planning, data collection, analysis, and publication (Pannucci and Wilkins 2010). This is especially true in online surveys. Therefore, it was important to consider the possibility of bias potential in this study. One way this study sought to reduce bias potential was by setting parameters on the demographics. For example, the quotas for specific categories such as gender and race were set on the basis of actual estimates from the 2020 US Census. This ensured that the sample was as representative of the population as possible. Since this study had two "waves" of responses, another way this research sought to reduce bias potential was to test early respondents against late respondents. This is a standard procedure for

testing nonbias response. Other studies have adopted this approach to calculate the nonresponse bias from online surveys in which the number of nonrespondents is unknown (Cai and Aguilar 2014, Montague et al. 2019, Stout et al. 2020). The basic assumption of this procedure is that late respondents are representative of nonrespondents (Lin and Schaeffer 1995, Montague et al. 2019). Responses to a question asking whether respondents were knowledgeable of the wood products industry was used to test bias. The Kolmogorov–Smirnov test (K-S test) resulted in a K-S statistic of 0.12, which confirms that the two samples came from the same distribution, thus indicating that there was no statistical difference among respondents who completed the survey early and those who completed it later.

*Pretesting the survey.*—This survey underwent one round of pretesting before distribution of the final version. There are multiple methods to pretest a survey. The pretest method of choice for this survey was to conduct a pilot study of a small number of people from the desired sample population before mass distribution (Dillman et al. 2014).

The pretest was administered by Dynata. The survey was issued to approximately 125 respondents for a “soft launch” before the full field launch. At the end of the survey, respondents were asked (if desired) to provide feedback in the open-ended box. Feedback from respondents in the soft launch allowed for corrections to be made to the final questionnaire. From the pretest, 86 responses were deemed usable. Approximately 29 responses were discarded because those respondents did not fully participate or complete the questionnaire.

After the pretest, a few changes were made. Definitions were reduced for lighter reading and some questions rearranged. One question underwent a complete format change; the wording was revised in others. These changes resulted in the final version of the questionnaire.

*Sample collection.*—The only requirement for participation in this study was that respondents were a minimum of 18 years of age or older. A quota was set for the demographics on the basis of US Census data. Dynata distributed the survey to a random sample of US citizens from an online panel. The original goal was to reach a target number of 1,500 responses. Responses were collected until the target number was reached. The full field launch of the first wave occurred from August 26 to September 1, 2021.

From the first wave of responses, only 1,444 were considered usable. This included the initial 86 usable responses from the pretest. A second wave was launched to fulfill the 1,500-response quota from September 1 to September 2, 2021. This garnered 72 usable responses. The overall total number of complete responses from both waves was 1,660. However, approximately 144 responses were removed because it was determined that those respondents selected random responses. On the basis of the time of survey completion, it was determined that those respondents did not offer viable responses and rushed through the survey. This filtration resulted in a total of 1,516 usable responses.

## Data analysis measures

The statistical program SAS Analytics Software© was used to analyze survey data. Descriptive statistics including frequencies, means, and modes were calculated for each individual question. The chi-square test of independence and *t* tests were calculated to identify associations between respondent

demographics and select questions. Analysis of variance (ANOVA) was used to identify significant associations between select demographics and Likert-like statements. An important statement was selected from each questionnaire section and paired with three demographic variables: gender, race, and education. The significance level for this study was  $\alpha = 0.05$ . In statistical analysis, *t* tests are used when comparing two group means, a one-way ANOVA is used to compare means of more than two groups, and a chi-square test is used to explore the relationship between two categorical variables (Whatley 2022). A descriptive analysis of open-ended questions was completed to determine responses that were similar in nature.

## Results and Discussion

### Demographics

Each respondent was asked to provide standard demographic information. This included gender, age, race, region, community type, and level of education. Of the responses received, 1,516 were deemed usable. The demographic breakdown showed that 51 percent of respondents were women and 49 percent were men. This corresponds with the 2020 US Census data where females make up 51 percent of the population and males make up 49 percent (US Census Bureau 2020). Four respondents preferred not to answer regarding their gender. Before survey distribution, respondents were categorized by six different age groups. The largest age groups were individuals 65 or above (22%), followed by individuals 35–44 years of age (19%) and individuals 45–54 years of age (19%; Table 1).

In terms of racial background, 76 percent of respondents identified as Caucasian (white), 10 percent as African American (black), 8 percent as Asian, and 6 percent as other. The racial makeup of this study also corresponds with the 2020 US Census, which reported 76 percent as Caucasian, 13 percent as African American, and 6 percent as Asian (US Census Bureau 2020). The current educational background revealed that 29 percent of respondents held a bachelor’s degree, 24 percent held advanced degrees, 19 percent held a high school degree or less, 15 percent had some college (no degree), and 13 percent held an associate’s or technical degree. This differs slightly from the 2020 US Census, in which individuals identified as having a high school degree or less made up the largest percentage (38%), followed by those holding a bachelor’s degree (22%), individuals with some college (17%), those with professional degrees (13%), and individuals who received an associate’s or technical degree (10%).

When asked about marital status, over half of respondents identified as married (55%), approximately 24 percent as

Table 1.—Age group percentage of survey respondents.<sup>a</sup>

Age group (yr)	Percent (%)
18–24	7
25–34	16
35–44	19
45–54	19
55–64	17
≥65	22

<sup>a</sup> Percent values are rounded to the nearest whole number.

single, 10 percent as divorced, 7 percent as living with a partner, and 4 percent as widowed. When asked to indicate their region of residence, 40 percent stated that they lived in the South, 21 percent in the Northeast, 20 percent in the West, and 19 percent in the Midwest. Most respondents also stated that they lived in suburban communities (47%); 33 percent resided in urban communities and 20 percent resided in rural communities.

### Uses of wood

Previous studies have shown that consumers may not fully understand the many uses and importance of wood (Montague et al. 2019, Stout et al. 2020). To gain insight on the respondents' level of knowledge pertaining to wood, questions on wood usage were presented. Respondents were provided a predetermined list of numbers and asked to select the one that represented the number of uses for wood. Forty percent stated that they believe there to be over 5,000 uses. The second largest group of respondents (26%) stated that there are approximately 250 uses. Sixteen percent of respondents indicated that there are approximately 1,750 uses for wood and 11 percent suggested that there are approximately 3,000 uses. Additionally, 6 percent believed there to be fewer than 10 uses. Although most respondents seem to be aware that wood has various uses, there is an opportunity to increase their knowledge. Respondents were more inclined to associate the uses of wood with categories such as construction, flooring, furniture, or paper and unaware that wood (as waste or biomass) can be used as fuel for energy and many other things.

A chi-square test revealed that there was significant association between education level and use selections. Respondents with some college education or higher were more likely to state that wood has about 1,750 to 5,000 uses. This suggests that formal education could have an impact on how respondents chose to answer this question. Similarly, individuals 45 years of age or older seemed to be aware that there are over 5,000 uses of wood. This could be due to knowledge acquired from maturity and experience.

Thirty-two percent of individuals who reside in urban communities were slightly more inclined to believe that wood has significantly fewer uses. However, another 30 percent of respondents living in urban areas acknowledged that there are over 5,000 uses. The resemblance in numbers could indicate that people in urban communities are still learning about the value and uses of wood. In the past few decades, various collaborative efforts have been made in northern urban communities to form strategies with local partnerships to sustainably salvage and up-cycle urban trees (Urban Timber 2022). From places like Baltimore, Maryland to Columbus, Ohio, many cities have built an urban wood network dedicated to saving trees from waste streams and giving them a second life (Urban Wood Network 2017). Projects such as these promote and demonstrate the use of urban wood throughout communities.

### Knowledge of reclaimed wood

Before gathering information on the respondents' perceptions toward reclaimed wood products, respondents were asked to indicate their level of knowledge regarding reclaimed wood in general. When asked if they had ever heard of the term "reclaimed wood," 55 percent of respondents stated that they had heard of it before. Thirty-three percent, however, acknowledged that they had never heard of it. The remaining

12 percent indicated that they were uncertain if they had ever heard of the term or not. Respondents between the ages of 35 and 54 and ages 65 or older were more likely to have heard of reclaimed wood than any other age group. Individuals residing in the South were also more likely to have heard of reclaimed wood than their counterparts in other regions across the United States. This may be because a large portion of survey respondents were from the South. Likewise, individuals residing in urban and suburban neighborhoods were more likely to have heard of reclaimed wood than respondents in rural areas. Respondents in urban communities might be more informed because of various salvaging efforts going on in these areas across the country, as mentioned previously.

In contrast, only 44 percent of respondents actually knew what reclaimed wood was, whereas 37 percent did not, and nineteen percent were unsure. Respondents with a bachelor's or master's degree were more likely to know what reclaimed wood was compared with other educational groups.

In a separate question, respondents were asked to state the first thing that came to their mind when hearing the term "reclaimed wood." Most respondents used reclaimed wood synonyms. These terms included words such as refurbished, recycled, refinished, repurposed, and reused wood. Other respondents stated that nothing came to mind when thinking of reclaimed wood. Other words that respondents used in association with reclaimed wood were "sustainability" and "environmentally friendly." On the basis of the type of responses, context clues might have played a role in how respondents interpreted the use and meaning of reclaimed wood. Overall, most people seem to have a general idea on the concept of reclaimed wood.

Respondents were then asked whether they were aware that reclaimed wood was a separate sector of its own. Most respondents were not aware of this, with 60 percent choosing "no" and 40 percent stating "yes." Of that 40 percent that selected yes, men were more likely to have been aware than women. This could be because of the traditional nature of the industry, which is recognized as a male-dominated field. The lack of gender diversity in forest products has become a recognized issue within the last couple of decades (Hansen et al. 2016, Stout et al. 2020). Likewise, respondents identifying as Caucasian were more likely to be more aware of this statement than other races. Previous studies have also indicated the lack of diverse racial presence within the industry and in university class settings and discussed how this may affect consumer knowledge of wood products (Sample et al. 2015, Stout et al. 2020).

Additional questions focused on where respondents thought reclaimed wood came from and what they thought it could be used for. Respondents were given a list of nine options to choose from regarding where reclaimed wood could be found and asked to select all that applied. Of the various options given, respondents seemed more inclined to favor specific options over others. The top five picks were abandoned barns (70%), lumber yards (65%), abandoned factories/warehouses (63%), abandoned buildings (62%), and used fences (61%). Wine barrels (59%) were also a popular response. However, most respondents did not seem to think abandoned boxcars (35%) or abandoned coal mines (12%) were feasible selections. "Other" was also a choice (3%), and responses included anything made of wood, all of the above, and unsure/don't know.

Historically, coal mining sites have been known to have potentially negative impacts on local environments. This includes disruption of ecosystems and contamination from leaching of acid and trace elements from discarded materials (Sloss 2013). Perhaps this might be a reason why respondents do not see wood from abandoned mines as a feasible option for reclaimed wood. The negative connotations and contamination issues associated with coal mines might imply the possibility of lumber toxin exposure even though various environmental policies have been put in place to mitigate these issues.

When asked what reclaimed wood can be used for, the number of responses was relatively close. Furniture (85%) was the most popular response and shelving (75%), doors (74%), and hardwood flooring (73%) were next, with relatively equal responses. Other options listed included décor (68%), kitchen cabinets (67%), and structural elements (53%). Two respondents stated that reclaimed wood could be used to make fuel and jewelry, and another stated that reclaimed wood has unlimited uses.

### Perceptions of product use

General questions about products made from salvaged lumber were asked to obtain further information on consumer perceptions. Respondents were asked to evaluate a series of statements. The statements in this section were asked two times, first “before” and the second time “after.” The first round of statements acts as respondents’ initial attitude toward the concept of using reclaimed wood in wood products before learning further information. Respondents were asked to indicate their level of agreement with the statement “I think recycling wood for new products is a sustainable approach,” using a five-point rating scale (5 = strongly agree, 1 = strongly disagree). The majority (85%) of respondents agreed with the statement (Table 2).

After the respondents answered the first set of statements, they were given information about the impact reclaimed lumber had on communities. This information included the reduction of GHG emissions, the reduction of forestland pressure, and the generation of income from salvaged lumber sales and potential for job creation. The respondents were then asked to answer the same statements to determine if additional information affected their initial attitudes. After learning about the positive economic impact that reclaimed wood has on communities, the percentage of respondents that agreed increased (86%; Table 3). Similarly, when prompted to answer how they initially felt about the statement “I do not care about wood products in general,” the majority (64%) of respondents seemed to disagree (mean = 2.21). However, after given more information respondents seemed to feel more strongly for this statement. With a mean of 1.85, 65 percent of respondents were more

inclined to strongly disagree with that statement. Likewise, with the statement “I do not see how using reclaimed wood is beneficial” most respondents’ initial perceptions changed during the second round of questioning. Originally, most respondents (77%) were more likely to disagree with that statement (mean = 1.93). After further questioning, respondents were more likely to strongly disagree (78%) with that statement (mean = 1.75). Results suggest that additional information influenced how respondents answered the second round of questions. Additionally, respondents seemed to already have a positive view of reclaimed wood products. Most of the respondents (70%) indicated that they would like to learn more about reclaimed lumber. Additional comments provided by the respondents referred to the survey topic as being “unique” and expressed interest in learning more. These results indicate that there is more potential for reclaimed wood products in the market and a public desire for wood/reclaimed wood information.

When asked about purchasing reclaimed wood, approximately 80 percent of respondents expressed that they would be willing to buy furniture made from old buildings or barns (Table 4). Seventy-four percent of respondents also agree that reclaimed wood offers an aesthetic touch. Some people also seem to express interest in the material because of nostalgia or the history behind a piece of wood. One respondent even stated that most of the furniture he/she owns is made of reclaimed wood salvaged from an old barn on his/her parents’ property. This individual showed high regard for the material and stated that “[they] made furniture out of beautiful memories.”

In terms of willingness to pay for reclaimed wood with a sustainability certification, most respondents were split between agreement (36%) or being neutral (35%; Table 4). Most respondents agreed with the statement “I would be more willing to purchase wood from a company using reclaimed wood than one that cuts down trees” (76%). An ANOVA revealed that neither gender, race, nor education influenced how respondents chose to answer this statement.

Respondents were then prompted to answer questions related to the durability of reclaimed wood (Table 5). Forty-four percent of respondents declared that they would not be concerned with the durability of reclaimed wood. Thirty percent, however, disagreed. One respondent personally described they doubts stating, “main concerns would be with durability, and would be hesitant or at least question it if the wood was made for a long-term product.” This person then went on to explain that they would be more wary of reclaimed wood used for structural purposes as opposed to a door or furniture. It is important to note that in another statement, 61 percent determined that products made from reclaimed wood are durable. The most respondents (48%)

Table 2.—Respondents’ initial attitudes toward using reclaimed wood in wood products.<sup>a</sup>

Statement	Mean (mode)	Proportion (%) assigning a rating of				
		5 (strongly agree)	4	3	2	1 (strongly disagree)
I think recycling wood for new products is a sustainable approach	4.23 (4)	43	42	12	2	1
I do not care about wood products in general	2.21 (2)	4	9	23	31	33
I do not see how using reclaimed wood is beneficial	1.93 (2)	5	7	11	32	45

<sup>a</sup> Values are based on a five-point scale, where 5 = strongly agree and 1 = strongly disagree. Proportions are rounded to the nearest whole number.

Table 3.—Respondents' attitudes toward using reclaimed wood in wood products after learning more information.<sup>a</sup>

Statement	Mean (mode)	Proportion (%) assigning a rating of				
		5 (strongly agree)	4	3	2	1 (strongly disagree)
I think recycling wood for new products is a sustainable approach	4.26 (4)	45	41	10	3	1
I do not care about wood products in general	1.85 (2)	5	9	21	31	34
I do not see how using reclaimed wood is beneficial	1.75 (2)	4	7	10	30	48

<sup>a</sup> Values are based on a five-point scale, where 5 = strongly agree and 1 = strongly disagree. Proportions are rounded to the nearest whole number.

Table 4.—Respondents' attitudes toward reclaimed wood products.<sup>a</sup>

Statement	Mean (mode)	Proportion (%) assigning a rating of				
		5 (strongly agree)	4	3	2	1 (strongly disagree)
I would like to learn more about reclaimed wood	3.43 (4)	27	43	22	5	3
I would be willing to buy furniture from old barns, buildings, etc.	4.09 (4)	35	45	15	3	2
Reclaimed wood offers an aesthetic touch to my surroundings	3.54 (4)	32	42	22	3	1
I would not be willing to pay more for reclaimed wood with a sustainability certification	3.04 (3)	11	25	35	17	12
I would be more willing to purchase wood from a company using reclaimed wood than one that cuts down trees	3.83 (4)	26	41	27	4	2

<sup>a</sup> Values are based on a five-point scale, where 5 = strongly agree and 1 = strongly disagree. Proportions are rounded to the nearest whole number.

took a neutral stance with the statement “recycled wood has a higher deterioration rate.” Similarly, with the statement “wood from old barns, buildings, etc. is not as durable as fresh cut wood,” a plurality of respondents (37%) was neutral. Respondents (41%) also neither agreed nor disagreed with the statement “reclaimed wood is full of defects.” Overall, some people are still skeptical about the durability of reclaimed lumber, whereas others are not. On the basis of the responses, respondents may be less skeptical when reclaimed lumber is made into a secondary product than they are with it being used as a building material. On the basis of the number of neutral responses to many of the durability statements, consumers do not feel like they are well informed on the durability and longevity of reclaimed lumber and products made from reclaimed lumber. Research shows that respondents are more likely to select neutral in response to a statement when they have little or no former knowledge of the subject (Krosnick et al. 2002). This once again highlights the importance of the industry having strong promoting and marketing practices.

### Reclaimed wood purchases and willingness to buy

In addition to respondents' level of knowledge regarding reclaimed wood, there was interest in knowing their previous

purchases and willingness to buy reclaimed wood products in the future. Questions were asked regarding ownership of products made from reclaimed wood and personal satisfaction with those items.

Approximately 43 percent of respondents stated that they did not own a product made from reclaimed wood. Thirty-two percent were unsure; 25 percent did own products made from reclaimed wood. Of the individuals that indicated “yes” ( $n = 374$ ), the top three most purchased reclaimed wood products were furniture (16%), shelving (9%), and décor (9%), as shown in Figure 1. “Other” responses included decking, a fireplace mantle, a cutting board, and wood bricks.

When asked to rate their satisfaction with the durability of the products owned, 91 percent stated that they were satisfied with their purchase, 5 percent were unsatisfied, and 4 percent were neutral. Responses indicate that reclaimed wood products are highly favorable among experienced consumers within the market. After being given detailed information regarding reclaimed wood, respondents were then asked to select which wood products made from salvaged lumber they would be willing to purchase (Fig. 2). Of the presented options, the most popular choices were furniture (71%), shelving (62%), doors (57%), and hardwood flooring (54%).

Table 5.—Respondents' perceptions toward the durability of reclaimed wood.<sup>a</sup>

Statement	Mean (mode)	Proportion (%) assigning a rating of				
		5 (strongly agree)	4	3	2	1 (strongly disagree)
I would not be concerned with the durability of reclaimed wood	3.15 (4)	13	31	26	20	10
Products made from reclaimed wood are durable	3.90 (4)	25	46	27	1	1
Recycled wood has a higher deterioration rate	2.50 (3)	9	15	48	19	9
Wood from old barns, buildings, etc. is not as durable as fresh cut wood	2.60 (3)	7	16	37	26	14
Reclaimed wood is full of defects	2.34 (3)	7	12	41	27	13

<sup>a</sup> Values are based on a five-point scale, where 5 = strongly agree and 1 = strongly disagree. Proportions are rounded to the nearest whole number.

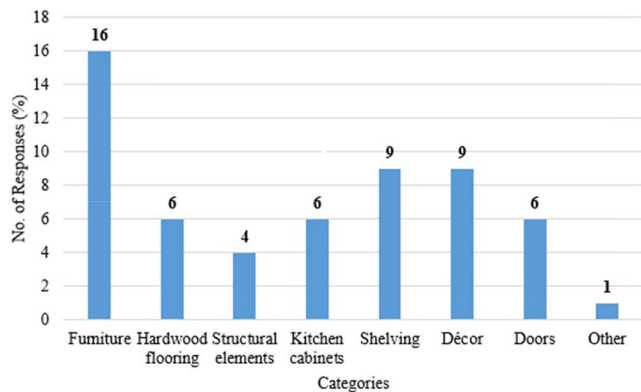


Figure 1.—Reclaimed wood products that respondents own (N = 374). Percent values are rounded to the nearest whole number.

Respondents were then asked to select why they would purchase a wood product made from recycled wood. Respondents indicated that promotion of sustainability and aesthetics would be their main reasons (Fig. 3). Other responses suggested that if reclaimed wood products were cheaper, that would also be a good reason to purchase.

When asked to indicate how apprehensive they would be to purchase a wood product made entirely of recycled lumber, most respondents indicated they would be “unapprehensive” (40%). However, 34 percent identified as being neither apprehensive nor unapprehensive. The remaining 26 percent indicated that they would be apprehensive. This could be related to durability concerns expressed by a few respondents.

Near the end of the survey, respondents were also asked to state whether they think it is important to know where their wood products come from. Most respondents (70%) believe this is important to know. Cumulative responses from the “additional comments” section show that most respondents thought this survey was extremely informative and enlightening. One respondent stated that “reclaimed wood could have a big impact on [the] environment.” Another stated that they had never talked about this topic before and that it was “thought provoking.” Others were thankful that this survey addressed topics that helped them become more aware of wood products. Overall, respondents seem to understand the importance of the industry and the benefit of wood products. These comments are important because it highlights that there is a desire from consumers

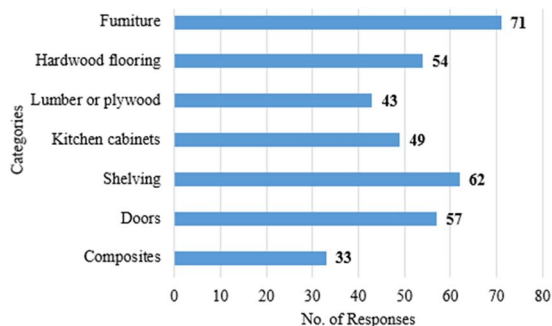


Figure 2.—Products that respondents would be willing to buy if made from salvaged lumber (N = 1,516). Percent values are rounded to the nearest whole number.

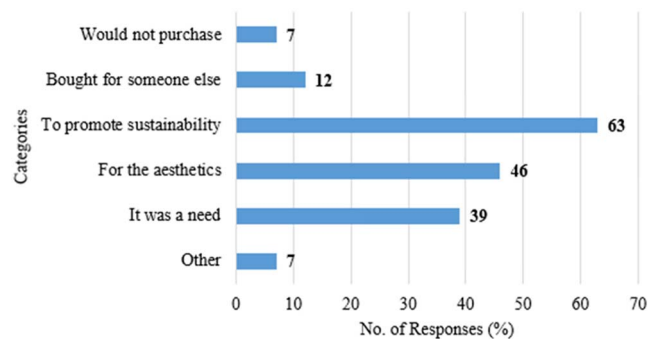


Figure 3.—Why respondents would purchase a reclaimed wood product (N = 1,516). Percent values are rounded to the nearest whole number.

to learn more about the industry and there are opportunities for the industry to capitalize on those desires.

## Conclusion

Results from this study provide insight on respondents’ initial views before and after learning about the benefits of reclaimed wood in the industry. Since there is not much information available to understand the depth of consumerism in reclaimed wood products, these results might help reclaimed wood companies form a blueprint to spread awareness to their customers. Taking the perceptions and opinions of consumers into consideration could help the market to grow and improve the industry’s overall impact.

Results indicate that US consumers do not seem to have strong knowledge of reclaimed wood practices and the benefits offered. Of the 1,516 responses, only 44 percent of respondents seem to know anything about reclaimed wood. People in rural communities appeared to be less informed than any other group. As salvaging efforts are becoming prominent in cities across the country, urban communities might have more opportunities to learn about reclaimed wood. Although these partnerships could happen in rural and suburban neighborhoods, it might not be as necessary as in urban areas. These reclaimed and urban wood networks thrive off wood waste generated from construction efforts and vacant facilities in heavily populated areas. Rural areas are not as populated and more spread out. Perhaps it is best to find other creative ways to promote that awareness on social media platforms or the internet. Even if most respondents do not know much about reclaimed wood, they still have good comprehension skills. Responses suggest that context helped respondents understand the term “reclaimed wood.” However, context clues can only get them so far. That is why it is important to properly publicize this resource material and the numerous ways it can be utilized.

Consumers may not be well versed on salvaging efforts, but they do seem to have substantial knowledge of wood in general. Most respondents understand that wood has broad uses; individuals with higher education seem especially knowledgeable of this. This is an indication that more formal education could have an impact on what people know. Perhaps reclaimed wood firms would benefit from taking advantage of sharing information in the early stages of education. It might be even more beneficial considering that the current generation is keen on social and environmental change (Cone Communications 2017).

Evidence suggests that the modern-day consumer is looking for sturdy, aesthetically pleasing, sustainable products for everyday use. After learning more about this material, respondents seem to view reclaimed wood products in a positive light. Because of advancements within the sustainability movement, consumers are eager to learn more about reclaimed wood material and find more ways to support the sustainability agenda. More important, respondents have expressed interest in salvaging efforts within their communities. Understanding this could potentially lead to more local economic impacts across the country and within the industry. There are already efforts happening in places across the country and utilizing these results could potentially expand the network in the future. Most respondents also seem eager to purchase reclaimed products, whether to promote sustainability or for the aesthetics. To increase consumer satisfaction, the industry should also take an interest in advertising the durability of their products, as many respondents seemed indifferent or apprehensive about the durability of salvaged wood.

Overall, results of this study show that most consumers view reclaimed wood products in a positive light. However, there is still room for improvement. One cannot do better unless they know to do better, and that is what this research provides. Having access to respondents' perceptions regarding the use of reclaimed wood, the durability of these products, and environmental impacts, reclaimed wood companies can now understand their target audience better. Utilizing this information can help the industry to strategize effective ways for consumers to learn more about this material and boost sales in the market.

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