PLASTIC LUMBER TRADE ASSOCIATION

UNITING DIVERSE PLASTIC LUMBER PRODUCERS AND OTHER INDUSTRY-RELATED PLASTIC LUMBER PRODUCERS

STRATEGIC SURVEY ANALYSIS

JANUARY 28, 2020

Presented by Whorton Marketing and Research

PLTA Survey Findings

Contents

Profile: Position, Functional Area, Membership Status, Company Type, Location, History 1
PLTA Service/Activity Participation & Satisfaction 8
Qualities of PLTA & Future Changes 9
Communications & Updates.. 11
Industry Issues & Business Impacts 13
Other Memberships & Likely Rejoining 15
Survey Comments.. 17
Survey Questionnaire... 24

Introduction

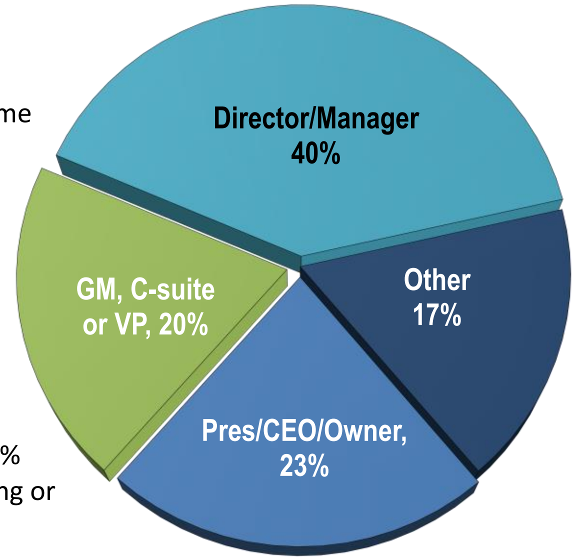
A survey was designed by Whorton Marketing & Research following their conduct of a series of 25 qualitative interviews among a subset of association leaders invited to participate.

- A survey invitation was sent to 1,807 individuals via email on December 17, with reminder emails sent to non-respondents on December 22, December 28, and January 5.
- A total of 425 email addresses were undeliverable or the individual receiving the message clicked a link to opt out of participation, leaving a group of 1,371 potential deliverable respondents.
- After the first email reminder, a separate mailing was conducted among 2,409 members and 800 non-members, primarily sawmill operators.
- Final responses were cut off on January 13 with a total of 336 responses (323 at the point of cutoff). As a percentage of total emailed names, the response rate was 21.0% to the emailed survey and 1.9% among those who were mailed.
- Interestingly, the apparent response rate (based on self-reported membership status) was much higher among mailed non-members, 3.5% among 764 deliverable names, compared to 1.3% among 2,277 deliverable member names.
- There was a high variance in digital participation rates by audience segment: for example, 67% of railroad, 36% of preservative supplier, and 30% of recycling management members responded. Response was much lower among digital subscribers (8%).

Some of what we share here will seem very obvious but of course part of the exercise entails creating a baseline for attitudes, satisfaction, and perceptions.

Profile: Position

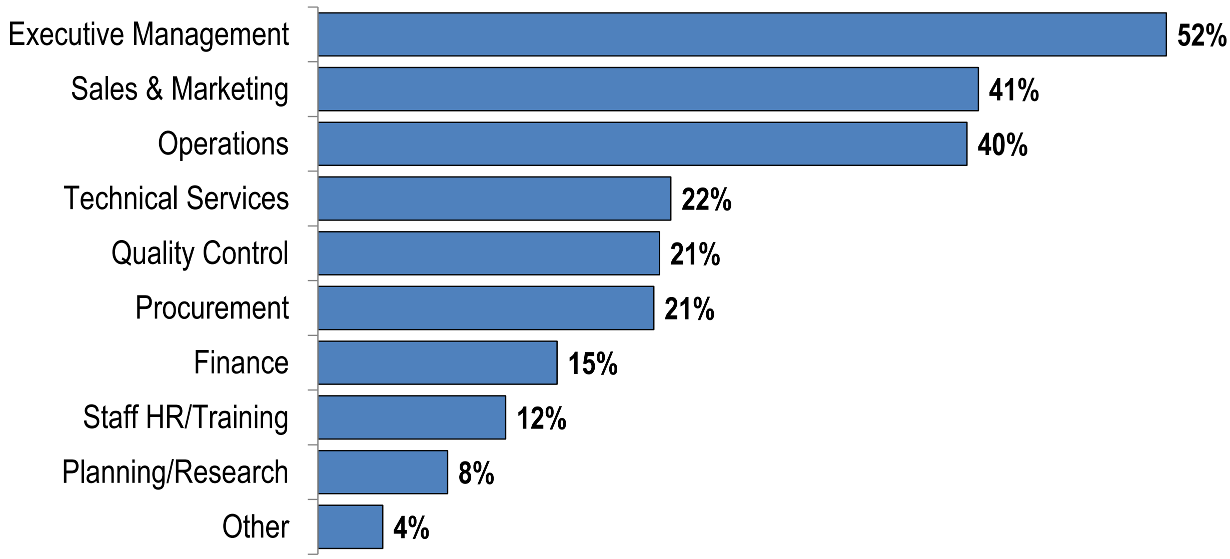
According to the database, respondents are split between Middle Management positions such as Director/Manager (40%) and Executive Management positions such as President, CEO or owner (23%), with some in Senior Management such as GM, C-suite or VP level positions (20%). Another 17% hold some other position, generally non-supervisory specialist positions.



Currently Responsible for Functional Area(s)

In the survey, people are most likely to indicate one of three current responsibilities: 52% are in executive management, 41% are in sales and marketing, and 40% are in operations.

- Fewer are either specialists in or also primarily responsible for six other specific areas: 22% technical services, 21% quality control, 21% procurement, 15% finance, 12% staff HR/training, and 8% in planning or research. Another 4% reported some other function.

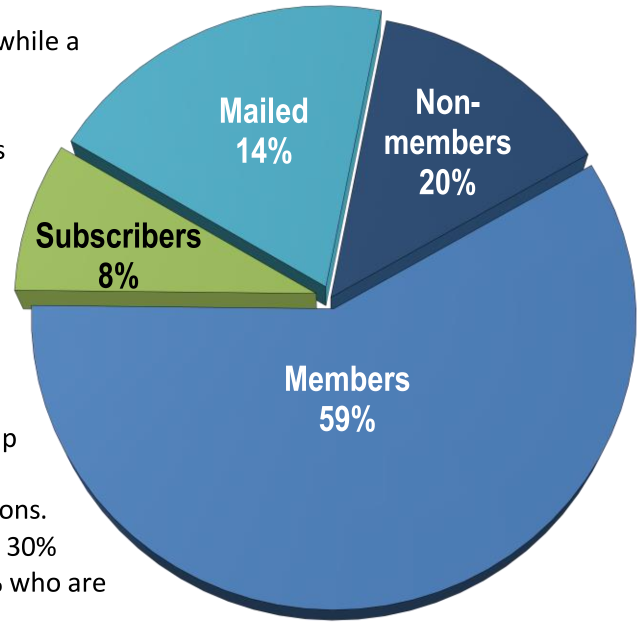


Responsibilities vary considerably by the individual's position.

- President/CEO/Owners almost always indicate current responsibility for Executive Management with about 30% also indicating responsibility for Operations and Sales & Marketing.
- Senior Management are less likely to indicate current responsibility for Executive Management and more (at least 40%) are responsible for Operations and Sales and Marketing, and 25% are responsible for QC.
- Middle Management have 25%-36% each responsible for Sales & Marketing, Operations, Technical Services, and Procurement.

Trade associations often develop content for individuals with varied responsibilities to help them progress through their career, and/or people find peers to networking with, through association events and activities to fulfill their need for external perspectives or business development.

Membership Status: Actual & Self-Reported



The vast majority of responses came from the print survey (86%) while a total of 14% came from the mailing.

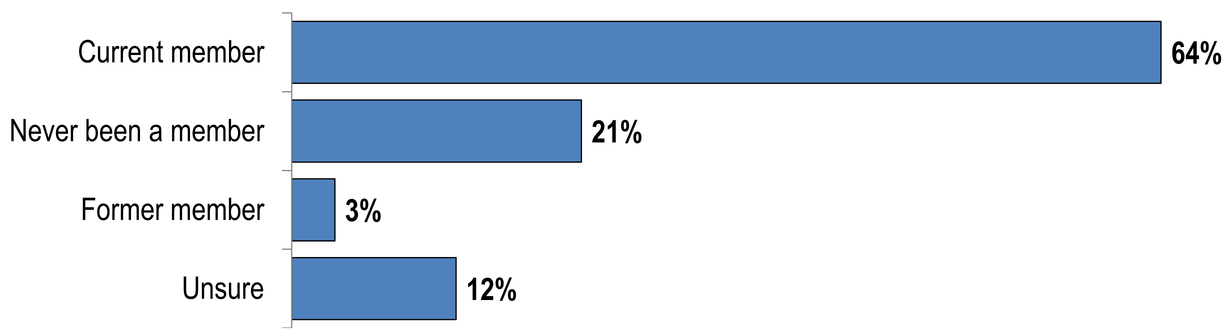
- Actual member status of electronic respondents was mostly current members (68%), with some digital or print subscribers (10%) and other non-members (23%).

The proportion who self-report is slightly different.

- Most (64%) say they are current, while only 3% are former members; 21% have never been a member, and 12% are unsure of their status.

We often look at the overlap between perceived and actual to help determine if there are features of the membership and/or association communications that might lead to mistaken impressions.

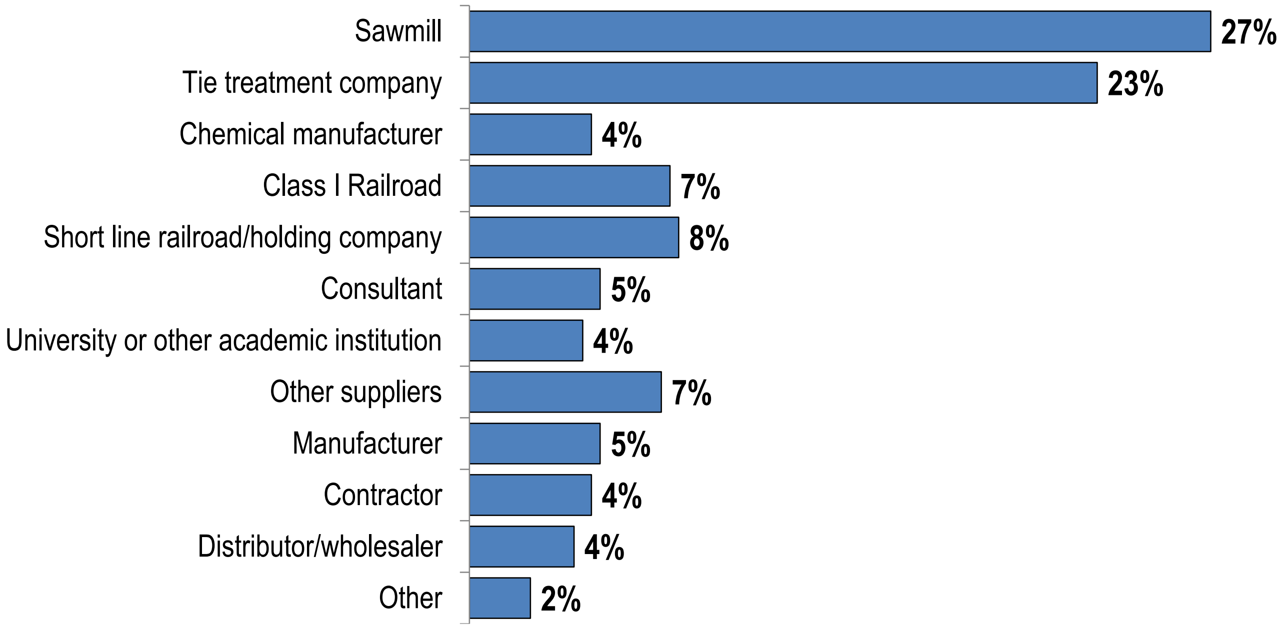
- Those who are unsure about their membership status include 30% who are current members, 25% who are subscribers, and 45% who are other non-members.
- Those who say they have never been members are actually 33% members and those who say they are former members are 40% members.



Type of Company/Employer

Half of survey participants are either sawmills (27%) or tie treatment companies (23%). Another 15% are lumber.

- Others company types reported include chemical or other manufacturers (9%), thought leaders such as consultants or university/academics (9% combined), contractors and distributor/wholesalers (4% each).
- Those in other company types (9%) generally described themselves as suppliers.



By actual membership status, far more current members are tie treatment companies (38%) than sawmills (21%). Almost all mail respondents were sawmills.

- By position, among Executive Management, 33% are in sawmills, while 17% are in tie treatment companies, 12% in short line lumber, and 38% are in other companies.
- Senior Management: 38% are in tie treatment companies, compared to 19% in sawmills, 8% each are consultants or in wholesale/distribution, and 27% are in other companies.
- Middle Management: 41% are in tie treatment companies, 17% in Class I lumber, 12% in chemical manufacturers, and 30% in other companies.
- Other Positions: 19% each are in universities/academics or tie treatment companies, 16% in Class I.

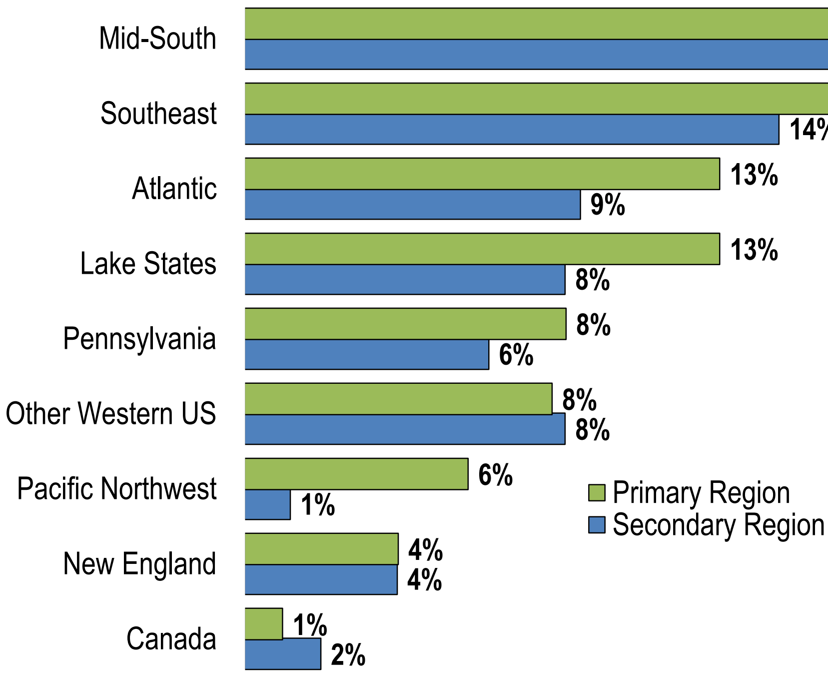
Locations of Primary Activity

The primary regions of operation for companies that logically might work in certain areas of North America shows that 40% report the Mid-South and 36% report the Southeast as their primary or secondary regions of operation.

- Less often, 22% report Atlantic, 21% Lake states, 14% Pennsylvania, and 16% other western US states.
- Very few report primary or secondary operations in New England (8%), Pacific Northwest (7%), and Canada (3%).

We see geographic mattering primarily in that location drives convenience (potential and actual) of annual meeting and other event locations, and whether PLTA could periodically have enough density in various locations to facilitate regional networking, business development, and/or educational opportunities at other times during the year to broaden its appeal in an inexpensive manner.

This would help increase perceived relevance among sawmills and other small companies within the industry and help them feel a continued sense of affiliation, even if work schedules and business demands prevent them from regular participation.



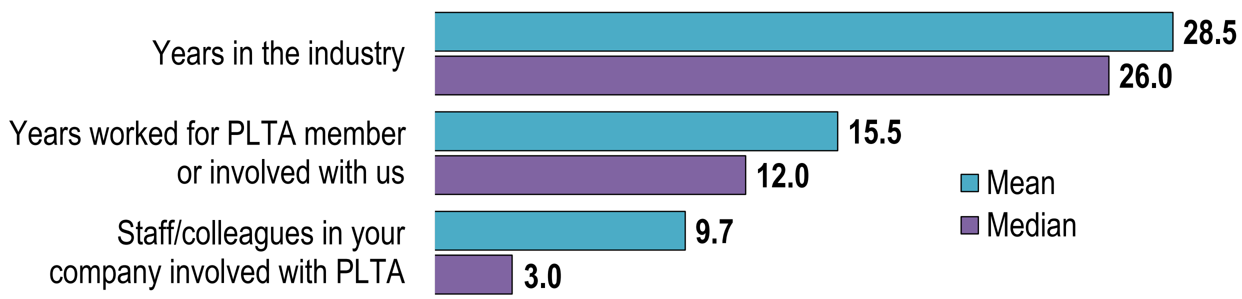
Regional definitions:
Mid-South: AR, LA, MS, MO, TN, TX.
Southeast: AL, FL, GA, KY, TN, MS.
Lake: IN, IA, OH, MI, MN, WI, IL
Atlantic: NC, SC, VA, WV

History

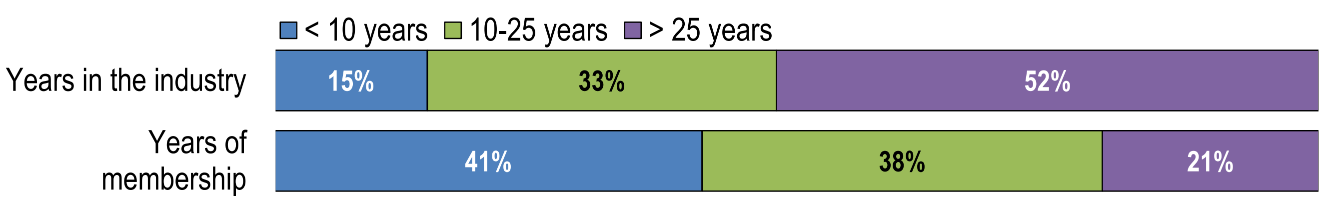
Individuals in the industry indicate very long tenure in the field: a mean of 28.5 years and median (midpoint) of 26 years in the industry.

High level of association exposure—mean 17 years with a member. Company/individual level memberships—mean of 11/median 3 staff/colleagues involved.

- There is an interesting dynamic in that Executive Management have fewer average years (25.2) in the industry than Senior Management (31.4), and about the same as Middle Management (25.9).
- Respondents in sawmills (36.6 years) and universities (35.2) have more experience than those in tie treatment companies (25.4), chemical manufacturers (22.8), or Class I lumber (18.9 years).
- These patterns may reflect in some cases a lack of viable succession planning or options for an eventual exit strategy, and the conscious rotation of executives within large carriers.



By range, relatively few individuals have fewer than 10 years in the industry, while a slight majority of them have more than 25 years. In contrast, more than 40% have fewer than 10 years of engagement in PLTA, and another 38% have between 10 and 25 years with the association.



Some of the strategic implications of this demographic and engagement data include:

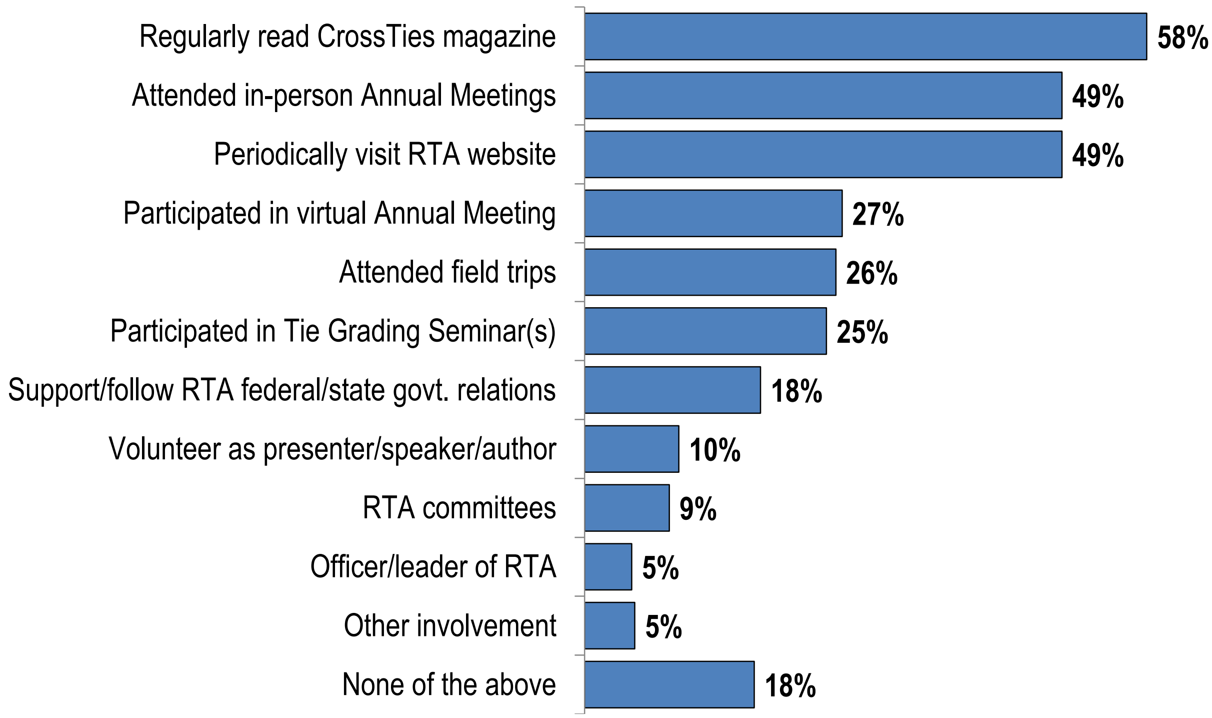
- The need to engage emerging staff who are being promoted to replace well-established figures in the field, and recognizing that many of these individuals may also be in their 30s or 40s with relatively little industry experience, some as rotated-in executives or inheriting family businesses.
- The desirability of capturing specialized knowledge from highly-experienced executives, owners, and academics prior to their exiting the industry. Often a generational focus will over-emphasize inclusion of and needs of the few young and ignore the potential loss due to the departure of many older, talented, and highly experienced leaders and other members.
- The Importance of providing a robust mix of opportunities to meet, network, and form relationships with new incumbents in critical roles and positions. This may include a mix of in-person and digital, even though the latter is relatively unappealing to the current core constituency of PLTA.

PLTA Services/Activities Attended/Participated in During Career

Remarkably, regular reading of *CrossTies* magazine (58%), attending in-person Annual Meetings (49%), and periodic visits to the PLTA website (49%) are reported by many individuals.

- Somewhat fewer participated in this past year's virtual Annual Meeting (27%), attended field trips (26%) or participated in at least one Tie Grading Seminar (25%).
- Volunteer activities most commonly consist of actively supporting or following PLTA federal and state government relations (18%), serving as a speaker/presenter or author (10%), committee service (9%), and being an officer or leader (5%).

These results seem quite reasonable and those who answered the survey later and/or by mail were less active, suggesting to us that the results might overstate engagement a bit by drawing responses more often from engaged than unengaged members.



Using the number of specific activities reported as an index for engagement, we find that actual members responding online (mean of 3.6 activities reported) are much more likely than non-members (1.7).

- Those who are in short lines (1.2) or sawmills (1.6), regardless of membership status, show much less career engagement than those who work for tie treatment companies (4.2), Class I lumber (4.0), chemical or other manufacturers (3.5). Universities (2.1), consultants (2.4), manufacturers (2.6) and contractors (2.6) fall somewhere between the extremes of engagement.
- Naturally, current members are more likely to read *CrossTies* (70%), attend in-person (67%) and virtual (36%) Annual Meetings, visit the website (58%), attend field trips (38%) and Tie Grading Seminars (34%), and only 7% report no involvement.
- Although subscribers and other non-members each have about 30% reporting no involvement, a surprising number of subscribers actively support/follow PLTA government relations (21%) and say they have served in other volunteer roles (13%).
- If this is a truthful summary of recent activity rather than ancient history, maintaining this group for circulation and information sharing should continue to broaden the footprint of PLTA within the industry to extend to individuals who will choose not to join.

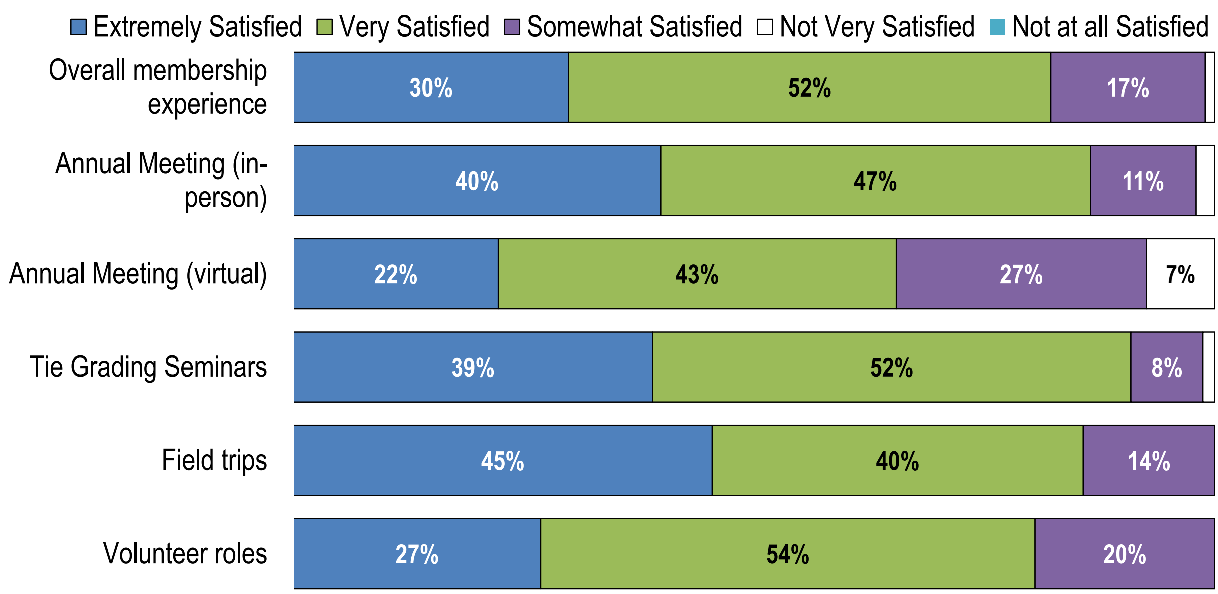
Satisfaction with Experiences with PLTA

PLTA scores very well for all aspects of membership.

- The **overall member experience** shows all individuals are 30% extremely, 52% very, and 17% somewhat satisfied for an average score of 4.11 on a 5-point, unbalanced scale. The median member is very satisfied, with more extremely than somewhat satisfied, and almost no one is dissatisfied.
- In descending order, field trips (4.31), Tie Grading Seminars (4.29), in-person (4.24) and virtual Annual Meetings (3.80) are rated lower, along with volunteer roles (4.07).
- Each service was rated only by those who indicated earlier in the survey that they used them, to avoid bias from ratings based on word of mouth rather than actual participation.
- It is interesting that volunteer roles are rated near the bottom of this short list of experiences, when it is typically the highest-rated as it is limited to the most active members; however, the average score still translates roughly into "very satisfied."

Interestingly, actual non-members tend to rate their overall membership experience about the same as current members, and they rate Tie Grading Seminars and field trips much higher.

- Overall membership experience is rated somewhat higher by middle management (4.3) than senior (4.1) and executive management (4.0).
- Individuals working in sawmills (3.9) and contractors (3.7) rate membership lower than chemical manufacturers, consultants and university staff (4.5 or higher).
- Individuals working in tie treatment companies (4.1) and Class I lumber (4.0) fall between them.



Our general impression from the preceding interviews was that performance relative to expectations, and thus overall satisfaction, were quite high. This survey provides a good baseline for future assessment of satisfaction.

- Because in-person Annual Meetings are rated about 12% higher than the recent virtual one suggests that the next time PLTA engages in this exercise they should find overall satisfaction slightly higher, all things being equal since an unfamiliar virtual format is not dragging down overall satisfaction.
- From a continuing quality improvement perspective, we recommend focusing on the proportion who are extremely rather than very satisfied. Similar to the Net Promoter Score question popular among corporations, the highest and next-highest ratings are very different in the that the former is probably likely to be a "promoter" spreading strong word of mouth while the latter is passive, satisfied but not actively promoting the growth of membership or use of PLTA resources.

Satisfaction with Qualities of PLTA

In another question with the same scale, meant to get at how PLTA delivers services and accomplishes its mission, PLTA is rated highest for responsiveness of staff to their questions and contacts (4.35).

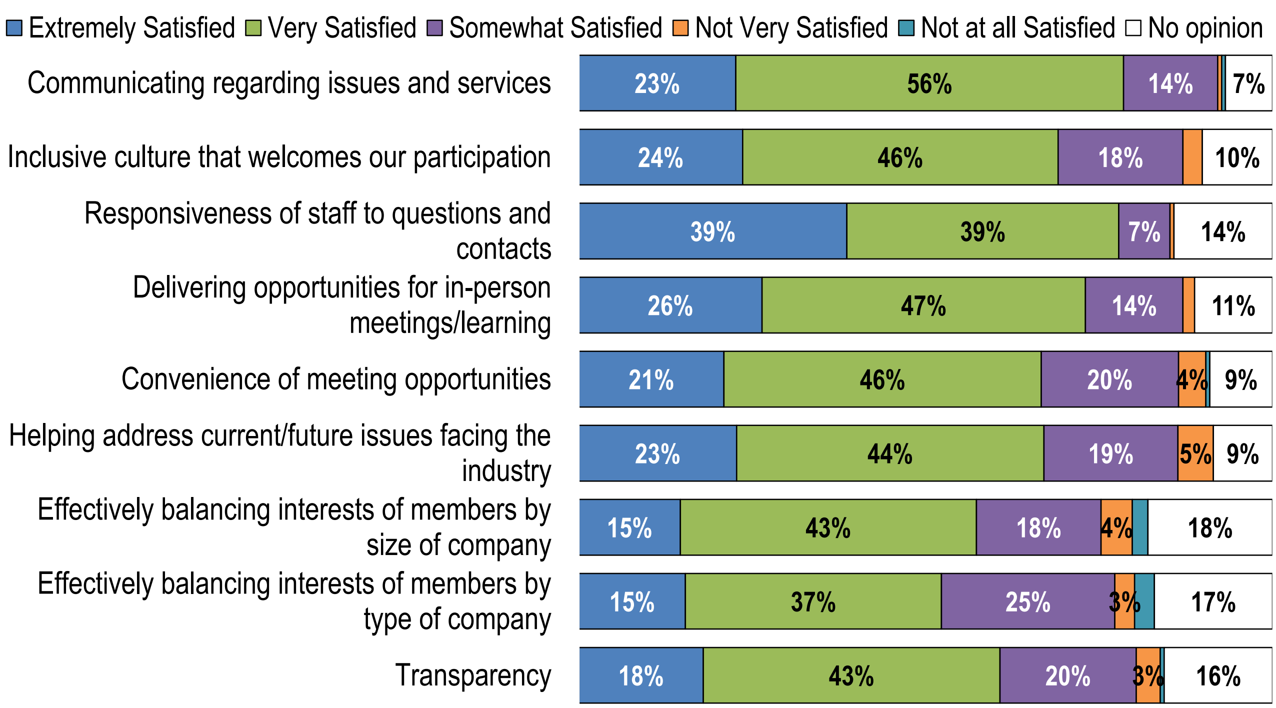
- Delivering sufficient opportunities for in-person meetings/learning (4.10), communicating effectively regarding issues and services (4.07), and inclusive culture (4.00) were rated slightly lower.
- The lowest marks were assigned for effectively balancing interests of members by type of company (3.71) and size of company (3.77).
- Three qualities clustered just below "very satisfied:" transparency (3.88), convenient meeting opportunities (3.91), and helping us address current/future issues facing the industry (3.93).

The aggregate average score for qualities is -0.2 lower than satisfaction with overall membership.

- This suggests that there is some history to overcome and potential for improvement, but it is just relative rather than absolute dissatisfaction. Few are dissatisfied with any quality of PLTA.
- While fewer than 20% are extremely satisfied with effectively balancing interests and transparency, a similar number have no opinion and slightly more are somewhat satisfied.

By segment, satisfaction with inclusion is highest among newer members and middle managers. Manufacturers and individuals with the most industry experience are most pleased with in-person opportunities. Self-reported never-members and actual subscribers rate many qualities higher than either current or other non-members do.

- The critical metric of convenience of meetings is rated far lower by Class I lumber (3.47) and sawmills (3.65), and much higher by chemical manufacturers (4.42) and tie treatment companies (3.90) who are likely to regard participation as an expense and an investment, respectively.



This implies that PLTA needs only tweak its approach and communicate regularly and effectively to help migrate attitude from somewhat to very, and from very to extremely satisfied. Although interviews (and some survey comments) were vocal in pointing out that the previous ED did a good job but closely held most plans and actions with limited input, this perception seems to exist primarily among leaders.

Over time, PLTA could test new approaches to communications and operating procedures and monitor for changes in actual performance and perceived performance. A survey will measure the latter, and often perceptions lag actual by a considerable amount of time.

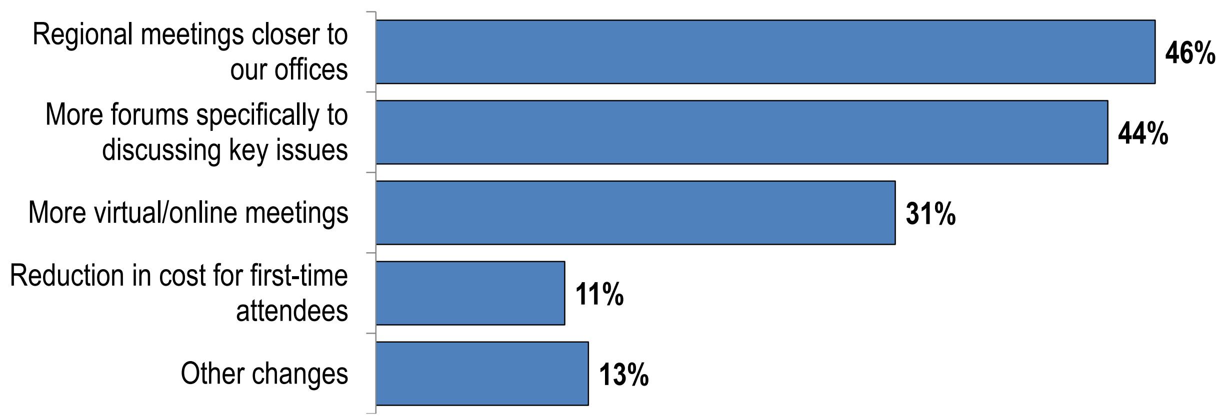
Potential Future Changes by PLTA Would Make it Easier to Participate in the Future

The greatest overall support is expressed for regional meetings and more forums discussing key issues, with at least 40% of survey participants supporting each.

- More online/virtual meetings (31%), and particularly reduced cost for first-time attendees (11%) suggest that format preferences and a sense of equity among long-time active members will inhibit these steps to encourage more frequent and/or lower-cost participation.

Self-described never-members also answered this question and most prefer more forums and online meetings rather than regional meetings. The few actual subscribers who answered this question were more likely to favor more forums, while those who answered via mail were more likely to value regional meetings, more forums, and reduced cost.

- Sawmills (82%) and regional lumber (60%) are strong proponents of regional meetings, as are those with more years of membership (62%) and the least years in the industry (63%), and those who primarily operate in Pennsylvania (67%) and the Southeast (66%).
- Contractors (33%), manufacturers (20%), consultants (14%), and those in New England (25%), Pacific NW (33%) and other Western US (22%) are generally not in favor of regional meetings.
- Key Issue Forums are of interest to at least half of senior managers and those who indicate technical services, QC, finance and operations as a primary role/function.
- Virtual/online meetings are found appealing by at least half of actual non-members and self-reported never-members, those in the West and New England, and almost as many non-supervisory staff—exactly who we would expect have less opportunity to travel and who have a negative correlation with participating in the 2020 virtual conference.
- No more than 20% of any segment defined by role/function or company/employer type favor reduced cost for first-time attendees.



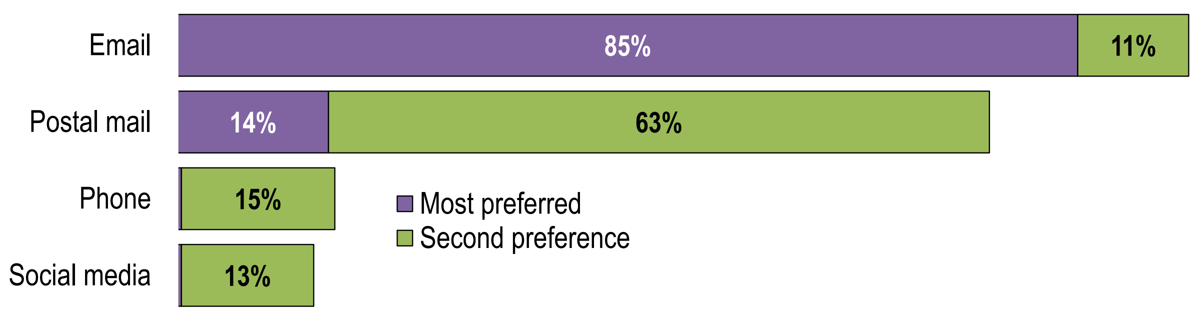
Short virtual meetings appeal to many segments who don't or can't attend full in-person meetings.

- Since their impediments are more likely to be driven by employer support, cost, and time constraints, briefer, cheaper, and more focused content could make these effective supplements to the portfolio of services and increase overall perceived value of membership.
- Coupled with the higher interest in regional meetings, it is possible that synchronous broadcasting of some discussions and presentations virtually within the region could increase the degree to which PLTA can accomplish some key goals, such as greater dissemination of industry-related information.
- Key Issue Forums seem to hold similar appeal by "slicing and dicing" the membership not by region, but by functional areas of responsibility. Given how interest in business issues vary by area of responsibility, small-ground roundtable or similar discussions would add considerable value particularly to long-time staff who have wrestled with the same issues for years.
- Discounts are generally rejected as a desirable technique, although perhaps attendance "scholarships" could be used to help newer members or other underrepresented core members on a (very) select basis.

Prefer to Receive Updates from PLTA

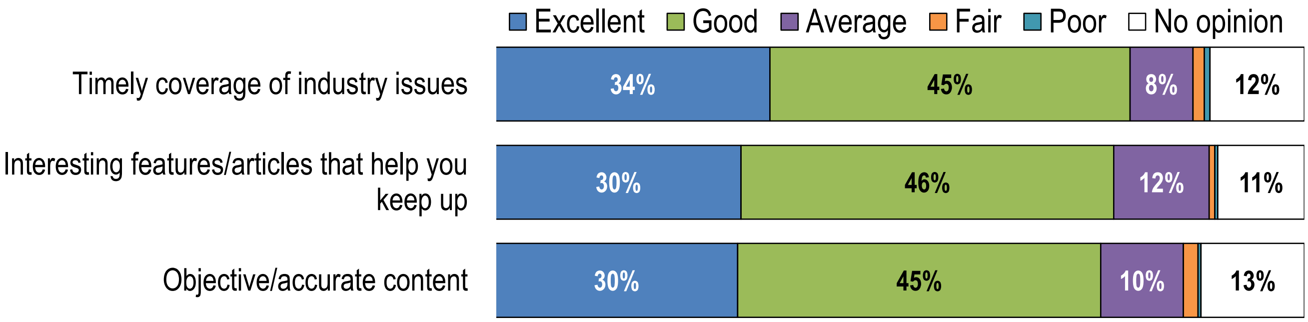
The basic readership profile of individuals in the field shows that email is #1, postal mail #2 with some who prefer phone or social media today.

- Even among those who answered the survey by mail (i.e., did not have an email address with PLTA), 25% most prefer email and another 45% regard it as second most preferred, while 75% and 41% regard postal mail as #1 and #2.
- Members are often "trained" by their associations to expect content in specific formats, but not in this case. Actual subscribers are more likely to have postal mail as a second preference and more non-members (almost 30%) regard social media as their second preference, but the top preference among members and non-members are identical.
- Primary preferences by position are also identical, but second preferences show middle management are less likely to regard postal mail (55%) as their second preference while phone and social media (40% combined) holds almost as much appeal.
- There is a little of the expected bias among older individuals for mail. Some who have 10+ years in the industry prefer mail (17%) while none with fewer than 10 years do.



Rate PLTA Communications: Magazine and Web Content

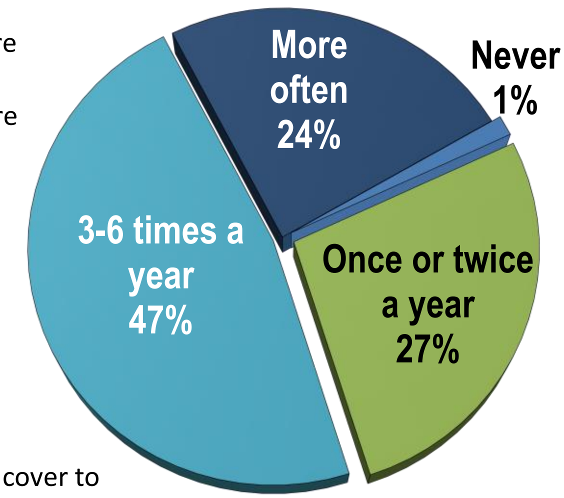
PLTA communications are rated about the same for timely coverage (4.24), interesting features/articles (4.18), and objective and accurate content (4.17). Some have no opinion, but at least 30% rate each quality excellent and at least 45% rate them good.



How Often You Visit PLTA Website in a Typical Year

Overall, about half visit the PLTA website 3-6 times a year, while 24% do so more often and 28% do so less often.

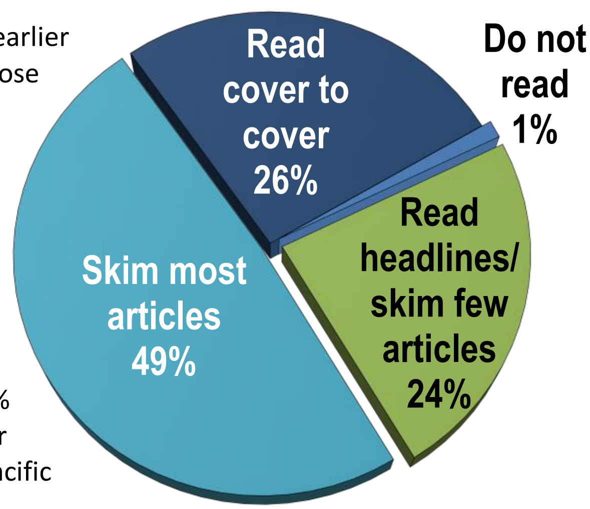
- Use varies considerably with actual membership status, as non-members are more likely to visit 3-6 times a year (59%) and more current members visit more often (31%).
- A rough average number of visits per year is higher among members (5.4) than non-members (4.2), subscribers (3.7) and those who answered by mail (2.6).
- or 3-6 times (46%). Those who said they were unsure if they were a member actually visit more often than current members.



How Closely *Crossties* Issues are Read

Overall, about half skim most articles while one-fourth each read the magazine cover to cover or read headlines while skimming a few articles.

- This question displayed only for those who indicated regularly reading it earlier in the survey, so this profile applies only to readership patterns among those who receive and read the publication.
- Degree of readership doesn't vary substantially by position, employer, etc.
- Senior management (35%), actual members (32%), tie treatment companies (39%) and manufacturers (38%), those with at least 10 years of membership engagement (36%), are in QC or technical services (35% each) and/or work primarily in the Southeast (43%) are most likely to read it cover to cover.
- Fewer than 10% of subscribers, and Class I and short line lumber, and 20% or fewer among non-members, mail respondents, identifying as unsure or former members, relatively new members, and those in Atlantic or the Pacific Northwest read it cover to cover.



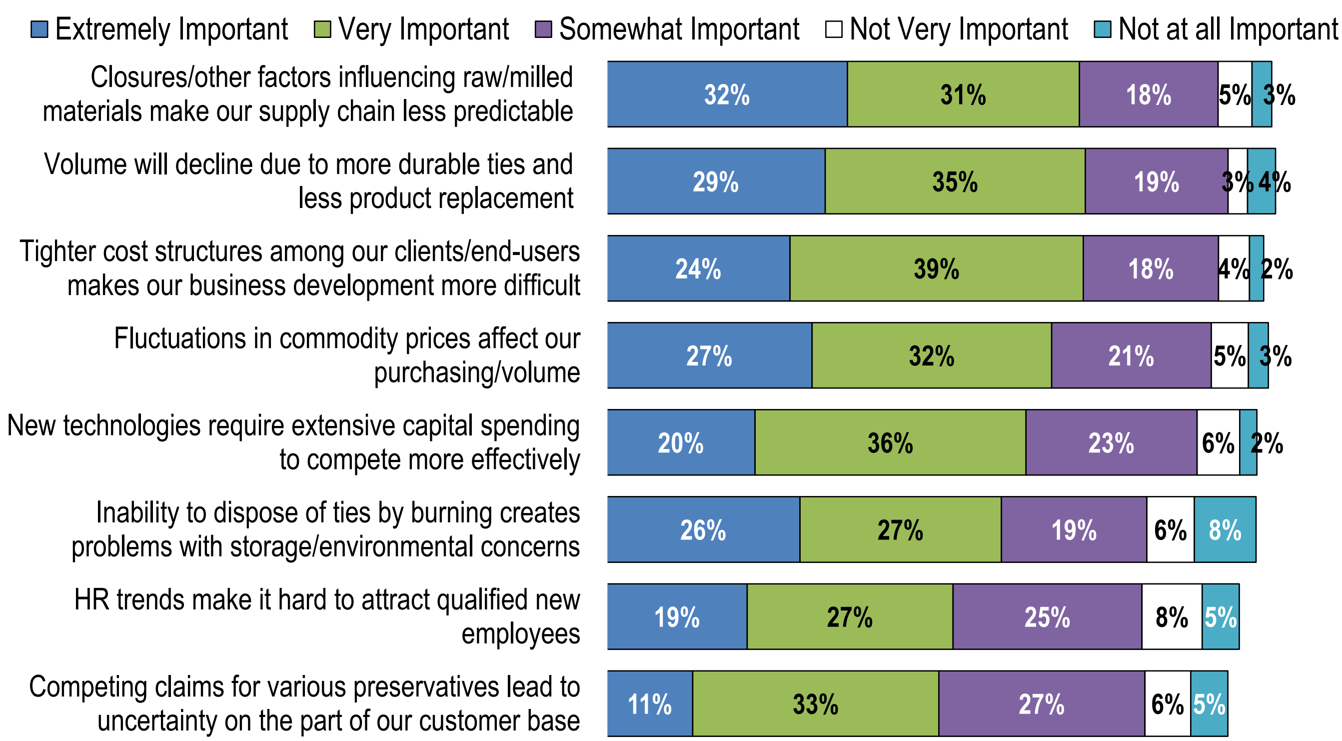
Importance of Industry Issues to Business, Next Several Years

The most Important potential industry issue is rated only a 3.96 for closures/factors influencing raw/milled materials making the supply chain less predictable.

- Although the survey used a 5-point scale with the top two options being extremely and somewhat Important, it is interesting to see there is no clear consensus on the most Important business issues.
- Other issues that are very close in Importance include declining volume due to more durable ties and less product replacement (3.93), tighter cost structures among clients/end-users making business development more difficult (3.91), and fluctuations in commodity prices affect purchasing and volume (3.87).
- New technologies require extensive capital spending to compete more effectively (3.76) lies at the midpoint of Importance scores for all issues.
- Relatively few are concerned with competing claims for various preservatives leading to Uncertainty on the part of their customer base (3.48), HR trends making it hard to attract qualified new employees (3.56), and inability to dispose of ties by burning creates problems with storage and environmental concerns (3.64).

Overall, actual members and mailed respondents are more concerned with these issues in aggregate, with average scores about 14% lower among subscribers and non-members.

- We suggest both correlation and causation, in that members who read and attend PLTA content and presentations are better informed, and those who are more concerned are also more likely to join and retain membership.
- Sawmills care about everything equally (4.0) except tie disposal (3.0) and competing claims for preservatives (3.10).
- Tie treatment companies are very concerned with supply chain/material supply (4.3), somewhat concerned with tighter cost structured and declining volume due to durable ties (4.1 each), and least concerned with HR trends (3.5).
- Other very Important concerns include tie disposal among Class I (4.50) and short line lumber (4.12), declining volume among chemical manufacturers (4.18) and other suppliers (4.42),



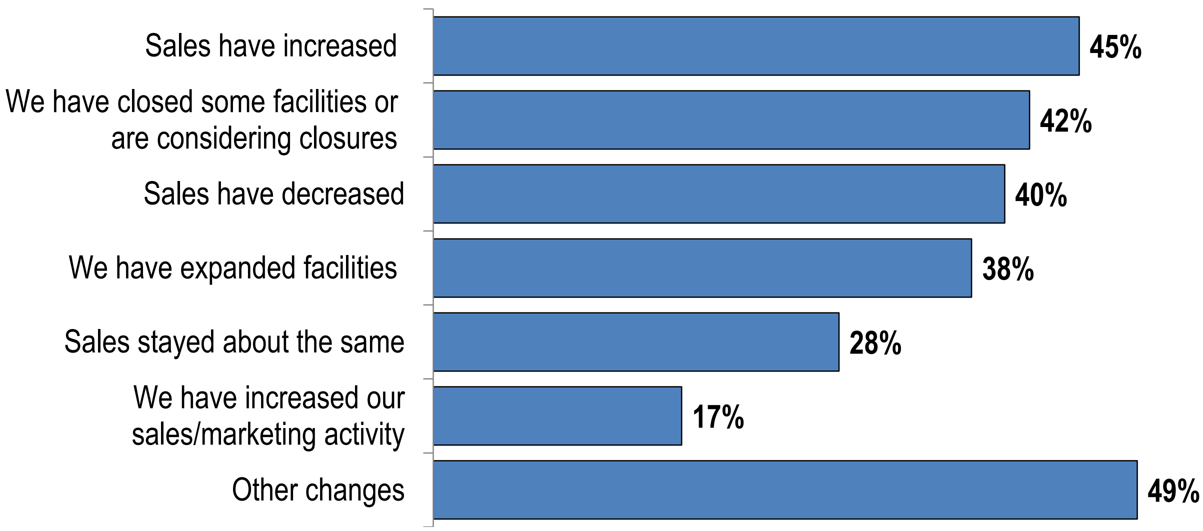
Which Applied to Business over Past Year

One part of this question could have been standalone, with sales increasing, decreasing, or staying about the same. Unfortunately, some checked multiple options among these three when they were mutually exclusive.

- Calculating a net figure (total reporting increase less total reporting a decrease), we find that 31% more sawmills, 25% more chemical manufacturers, 44% more other suppliers, and 67% more consultants report increased rather than decreased sales. In contrast, -46% fewer Class I and -50% fewer short lines, and -29% fewer contractors report increased rather than decreased sales.
- Those with more than 25 years in PLTA report a higher net and those with 10-25 years in the industry report a lower net.
- Those who are specialists in procurement, HR, sales and marketing, and particularly finance have many more reporting increased rather than decreased sales.
- Regionally, companies in the Mid-South and New England report considerably more net companies with increased sales while the lake states, Pennsylvania, and other Western US regions have more reporting decreases than increases.

The paired items of considering/closing rather than expanding facilities shows very similar levels—42% vs. 38% overall. Executive management (-19%), subscribers (-17%), short lines (-25%), other suppliers (-44%), manufacturers (-40%), and specialists in finance (-26%) and procurement (-23%) are more likely to report closures than expansion.

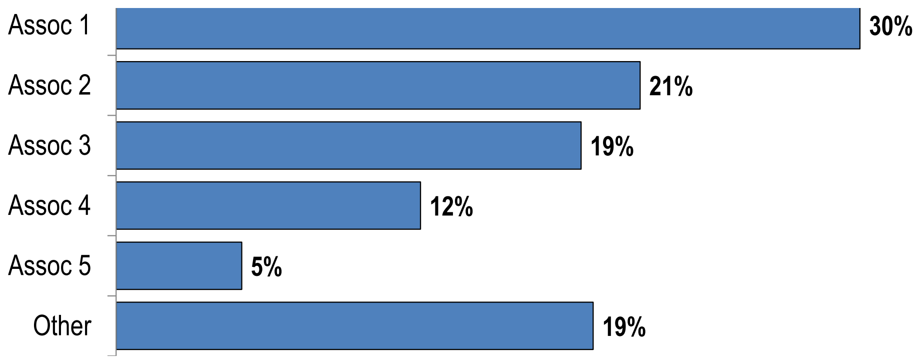
- Those who have never been members and are tie treatment companies (+17% each), contractors (+14%), and those with more than 25% years of membership (+15%) are most likely to report more individuals expanding facilities rather than considering/closing them.



Other National Organizations Memberships Held

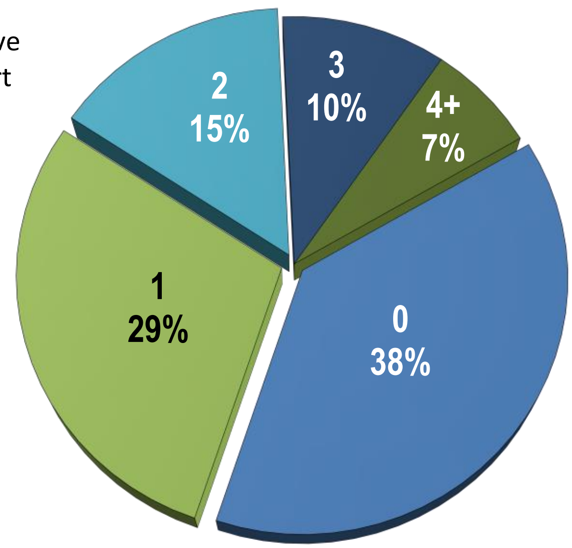
Overall, the greatest overlaps in membership across the industry are for American Railway Engineering & Maintenance-of-Way Association (30% overlap with survey respondents), American Wood Protection Association (21%), American Short Line and Regional Railroad Association (19%), and American Association of Lumber (12%).

- Relatively few report other memberships with the highest indicating National Hardwood and Lumber Association and another 19% reporting other memberships. A large proportion (38%) indicate no other memberships.



The number of other memberships held is generally one (29%), with fewer reporting two (15%), three (10%), or four or more (7%).

- As we have seen before with engagement and satisfaction, executive management (1.3) and other non-supervisory personnel (1.0) report slightly fewer memberships than senior (1.5) and middle management (1.6).
- Actual members (2.4 memberships including PLTA) are far more likely to be "joiners" than actual subscribers (1.6) or non-members (1.1).
- By company type, sawmills (0.5 other) and Class Is (1.1) report far fewer other memberships compared to chemical manufacturers (2.3), tie treaters (1.6)
  and other suppliers (1.6); 70% of sawmills report no other memberships.
- Members with more than 25 years of affiliation with PLTA (1.6) are much more likely to hold another membership, while those with fewer than 10 years in the industry (1.0).



By role/function, those who are in technical services (36%) or are chemical manufacturers (83%) or tie treatment companies (43%) are most likely to be AWPA members.

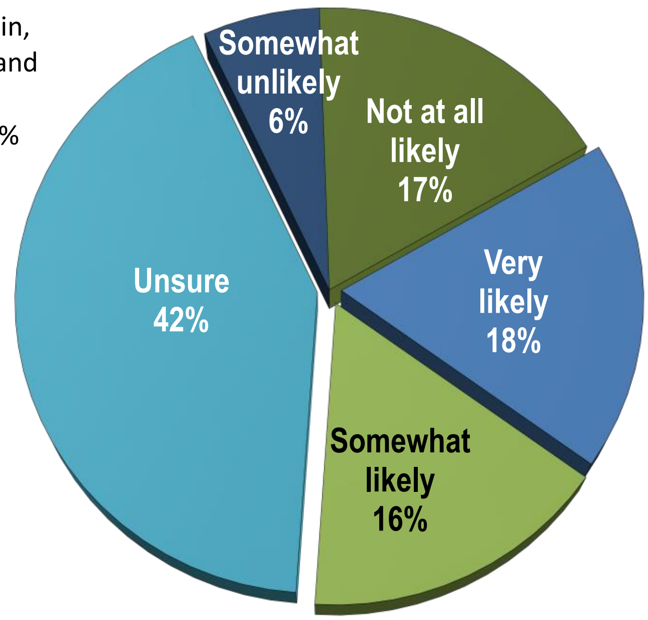
- Far more middle managers (46%) or non-managerial staff (40%), subscribers (45%), Class Is (67%), and other suppliers (60%) belong to AREMA.

The biggest implication here is probably that, to recruit more new members and grow total membership, PLTA has to sell many prospects on "primary demand." That is, their choice to join requires a greater understanding of how any association works and what it can do for them, and why PLTA represents a good investment. This is often an unusual approach for associations who often use fairly common self-descriptions without much context.

How Likely to Join/Rejoin PLTA, Next 2-3 Years

Among non-members, only 34% are very or somewhat likely to join, compared to 24% who are somewhat unlikely or not at all likely, and another 42% are unsure.

- Those who say they are never-members are split between 17% very likely and 83% unsure.
- Former members include 45% unsure, 9% very and 14% somewhat likely, compared to 27% who are not at all and 5% are somewhat unlikely.
- There is much greater certainty among those who have some previous experiences with PLTA, but their average likelihood of joining is a little lower than among those who have not been members.
- Those who are unsure about their membership status (and were also asked this question) have a much higher likelihood, 35% very and 23% somewhat likely to join, and 29% unsure.

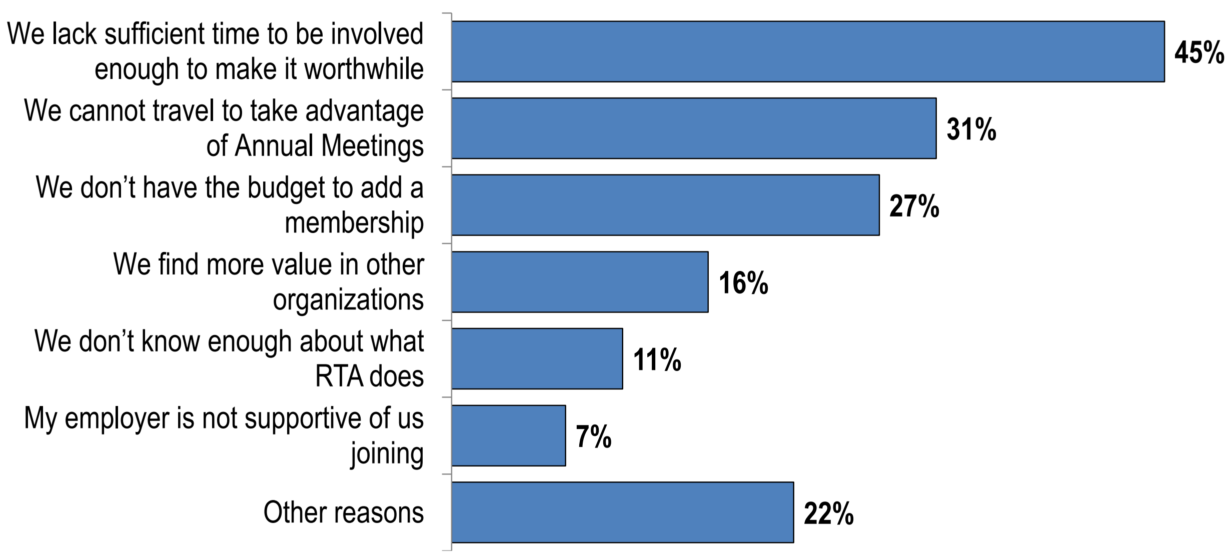


It seems trite and simplistic, but it would be helpful to do systematic outreach to primary contacts within non-member entities to remind them that they are not members and reminding them of the Importance of supporting their industry associations. In the interviews, members have a strong sense of loyalty in that, even if they are less than satisfied, they pay dues. Many non-members who have not been asked recently with similar long histories in the industry probably share a similar level of awareness and latent loyalty.

Factors Make it Unlikely to (Re)join PLTA?

Those who are unlikely or unsure about joining or reinstating membership are most likely to cite time rather than money, awareness, or cost-value relationship.

- Almost half say they lack sufficient time to be involved to make it worthwhile, and more than 30% cannot travel to take advantage of the Annual Meeting.
- In contrast, 27% cite lack of budget to add PLTA, 16% see more value in a competitive organization, and 7% do not have employer support. Only 11% say they don't know enough about PLTA.



Survey Comments

What functional area(s) are you currently responsible for?

- Environmental (3) management and hazmat compliance, environmental compliance & sustainability
- Engineering (3) Track
- Administration (3) secretary
- Others: Government Relations, Instruction and Research, Logistics, manage tradeshows/ conferences/advertising, Managing client assets, Planning, Product Manager, Production, Quality Assessment, Railroad Operations supervisor, Railroad Research and Consulting, Railway consultant, Regulatory and Risk, Roadmaster, Sales & Special Projects, Scrap tie pickup, Strategic planning of capital improvements, Waste and Recycling Services national scale.

What PLTA services/activities have you attended or participated in during your career?

- Applied for the Executive Director's position
- attended RR engineering seminar
- Coordinate and help schedule others in my organization to attend your meetings
- Follow industry info and friends of PLTA.
- Hardwood Federation board member
- Have done RR Day on the Hill on behalf of the RR industry
- Hosted PLTA field trip
- New Waste Management National Accounts Manager
- Degree in forestry, 16 years with railway as conductor, and currently operations management
- Interacting with other Forestry professionals in crosstie industry
- Perform research associated with tie and timber durability
- Provided Shotgun Instruction for 2 annual meetings.
- Research PLTA resources
- Support and promote borate (DOT) systems where possible
- Survey re satisfaction with Executive Director and Executive Assistant, Town Hall Conflict resolution meeting, various executive sessions for learning/development

If you are dissatisfied, please tell us more about why and what we might do to improve:

- **Inclusive culture:** Jim asked for opinions and input then did what he wanted to without regard to input, progressively more biased, group as a whole is not very diverse and very male dominated
- **Sufficient meeting opportunities:** Would like to see PLTA role expand for training and informative experiences, would help to have better contact information to other members.
- **Convenient meetings:** Annual Meeting need be more convenient for smaller members (sawmills), vast majority of smaller and mid-sized mills have little to nothing to do with PLTA. Conference is hard to attend in exotic locals instead of heartland where most Class I's can participate. Focus on economics rather than vacation spot. Impression of meetings is too extravagant and members will not participate. Locations should not be based on what "extra" activities can be done outside of the actual meeting. Move Tie Grading seminar to earlier or later in the year; too hot in the South during August. Locations are always at high end locations that are extremely expensive.
- **Helping address industry issues:** Any potential issues should be brought to the lumber ASAP and thoroughly investigated. Jim did not effectively focus on finding solution to decreasing sawmill production due to age and people getting out, or disposal of existing wooden ties. More effort to help all industries represented. More forward looking data and trend analysis. Promote railroad tie recycling. Issues must be addressed at much higher level. Would benefit from more discussion from Class 1s and short line lumber regarding industry-wide reductions in purchase figures.
- **Transparency:** Information of potential issues on quality should not be withheld from membership. Jim needed control and seemed to run the organization like the Mob, especially the last 5 years. Most decisions were made by the Executive Chairman in the past.
- **Balancing interests of members:** Focus mainly on larger treating plants. I think there are too many non-wood tie companies at the annual meeting. Independents are overlooked due to the two companies that control over 90% of the total annual production. Not sure how to improve: bigger companies have bigger pockets, more members and more involvement and get more attention. Progressing to interests in the makeup of Executive Committee. No

reason for independent suppliers to be members or PLTA, no real value. Large producers/suppliers are given more active roles in decision process; as a small producer, we have no say in any decisions made by PLTA.

What potential future changes by PLTA would make it easier for you to participate in the future?

- Real open session for Q&A, reduce amount of topics discussed to allow space for Q&A.
- More Technical Presentations at Annual Meeting
- Bring back in person meetings
- COVID has changed the dynamics - all good if we can meet in person
- No complaints about pre COVID meetings
- Hard for 1st time attendees to understand and meet other members
- Have annual meeting in the east. Ridiculous to have meeting in California, Arizona, etc.
- Get my boss to allow me to attend!
- Just keep up the good work
- Meetings should be based on content and not extracurricular activities.
- Regional tie grading seminars
- Comments are not intended to be negative, only improve PLTA any way possible for all members.
- No major changes are necessary

What other trends do you see affecting your business?

- COVID-19 (6) Pandemic & pandemic politics

Labor Market/Generational

- As a sawmill our supply chain closures deal with loggers in the woods. Aging master logger suppliers are not being replaced with a new generation of younger people to procure timber from the woods.
- For 2020 stimulus checks for a delivered product comes much harder than a stimulus check for not working. People who can manipulate the system don't go looking for jobs, especially in the woods.
- Good employees are hard to find
- Age
- Loss of knowledge base within the industry
- Less loggers entering the work force = less ties
- Always sawmill/logging employment
- Ability to hire and retain employees.
- Ability to get employees
- Same amount of workload but less manpower and more expectations.
- Upcoming generation lacks skills and knowledge to continue.

Industry Dynamics

- Change of size and makeup of the sawmill industry.
- Consolidation of treating plants makes it more difficult to compete in price as an independent treater. The large conglomerates have much better pricing power than us.
- As we sell to short-lines, the consolidation of lines into larger, regional players, makes it more difficult to gain business and access to potential clients.
- Hardwood lumber market
- For low grade boards, overall timbers are better market than the boards
- Log procurement and sawmill base decreasing and exports of lumber and logs increasing.
- Log exports driving log cost
- Export
- Varying lumber markets
- Industry-wide decline in rail tie purchases and understanding the key drivers.
- Slow-down in crane mat business has flooded tie and pallet markets. Long-time producers being forced to decrease production to make room for new, short-term producers who will leave.
- Subsidized highways depressing railroad demand.
- Supply issues affect us greatly, logs, lumber, etc.

- Too much treating capacity for amount of ties being used.
- Total overall reduced production capacity of hardwood sawmills

Cost Structure/Variances

- We deal primarily in relay materials, which are becoming harder to find at a reasonable cost.
- Cost of shipping
- New younger purchasing group at Class 1's have no sawmill experience. They come from other industries and have never seen a sawmill or participated in the hardwood market. They have a difficult time understanding price fluctuations based on raw material cost.
- inflation
- Lack of long-term purchasing commitments seems to whipsaw tie pricing
- Log export prices
- Currency exchange
- All types of insurance required to operate (work comp, liability and semi-truck).
- Polymers and concrete prices
- Price and demand are the two Important factors for us.
- Raw materials procurement.
- Cost savings
- Stability in pricing due to our current situations

Environmental

- EPA (3) guidelines for tie disposal and clean energy. Potential new EPA impacts.
- Environmental concerns in the general public concerning the preservatives we use today. We need to do a better job of educating the public about this. We are viewed very negatively both from preservative we use and using wood as a source of our product. The opposing side has done a much better job educating young children that cutting trees are a bad thing.
- Some Class 1's (and short lines) don't see environmental liability under the existing EPA NHSM regulations in the way they handle their scrap tie disposal. Class 1 annual budgets seem to leave scrap tie disposal as the last item that matters.
- Wood supply and environmental regulations.

Competition

- Amish sawmills not playing by the same rules as required by English sawmills to operate.
- Competition from foreign countries
- Competition from Plastic, metal and concrete products that could replace wood ties.
- Competition of other markets and more inflation in raw materials purchasing.
- Concrete ties are the first option for Mexican railways companies, as there is a lack of knowledge about wood properties and performance.

Quality

- Lack of QC and standardization of preserved wood. Stella, Koppers, Nisus and Wood Care Systems have very different systems. There are AWPA standards but nobody seems to enforce or even abide by those standards except us and we are too small to get noticed.

Technology

- Automation to improve production and safety, as well as reducing labor requirements.
- Commodity pricing on steel.
- Lack of technology/digital integration.
- Technology and robotics are starting to make inroads into the tie treating industry

Quality

- Consistent product quality

Railroad Specific

- PSR
- Rail car availability
- Lumber is always quick to say they are interested in new technology and processes and then are never willing to help pay for the research. Really gets old after a while.

Regulatory/Legislative

- Government
- Health of the sawmill and logging base; health of lumber and pallet markets; weather
- Lack of market for high grade lumber
- Lack of new talent and the Class One lumber continued lack of support for used tie recovery.
- Regulation and Trade wars
- Potential tightening of governmental regulations
- States pressuring of stock piling ties
- Possible demise of fracking in PA and over-regulation in general under Biden Administration.
- More and different compliance issues to deal with and less budget to work with
- Regulatory climate against use of wood preservatives

Other: Be considered a good tie not a cult Customer needs. Everything is Important as long as you use the word crossties. Intermodal traffic. Petroleum industry. Vehicle sales. Expected decline in college-age students, changing demographics of incoming students.

Which of the following have applied to your business over the past year?

- Consulting activity has stayed about the same.
- Covid related downturn
- Development market
- Expanded production capabilities
- Had to relocate due to zoning
- Lumber tariffs increased the amount of domestic wood output causing a flood in the markets
- Margins tightened
- More zones see benefit of DOT dual treatment ties
- New service offered
- One facility closed, another facility currently questionable long-term viability
- PSR and COVID
- Redirection of services
- Ridership has decreased
- Sales decreased or stopped earlier in year, beginning to increase towards the end of the year.
- Sever decrease in ridership due to covid 19
- Somewhat lower due to the pandemic.
- We have reduced offerings and delayed optional maintenance

Comments:

- Considering cost reductions and more 1-on-1 time
- Having trouble networking access to other members is difficult.
- Attended first PLTA first tie grading seminar in 1986.
- Independent treaters should get more attention/exposure
- Would attend Regional Meetings if offered.
- Like to have an in-person conversation...
- Meeting locations in cities with sufficient options to entertain customers. Destinations like Bonita Springs makes it very challenging to plan dinners and entertain. Conferences need to take place in cities where you don't have to drive 30 minutes one way for high end dining options/Entertainment.
- Meetings are well organized, great staff. I like round tables, place to take notes without crawling over a row of people.
- Offer copies of presentations to download.
- Address trends and/ or regulatory issues early in the program.
- Explain about the awards and the path to involvement on the various Boards.
- PLTA needs to maintain attendance by Class 1 members. Our business unit focuses on scrap tie collection, disposal and recycling, so Annual Meeting is a great way to interact with customers.
- Traditional annual meeting fee of $595 for this year's virtual meeting was a little steep. I paid it to support the organization. I know PLTA relies on that income for part of its operating budget, but I recommend lowering it for future virtual events (if there are any; I hope not).
- We like people-to-people meetings
- Would like to have the committee meetings as virtual so more people could attend other than just committee members.

What factors make it unlikely for you to (re)join PLTA?

- As a consultant, I do not have a relationship with the current Executive Director or other PLTA member companies.
- Conflict of interest
- I very much appreciate the PLTA's scholarship that you call to our attention, but other than that I don't anticipate being very involved with the PLTA. it seems a little too specialized for our School of Forestry, which does not have very much capability in the area of wood technology or forest products.
- I was only employed to teach shotgun skills.
- I'm an information-only non-industry observer
- Just not a tie producer.
- Not a big part of our business
- not eligible because we are composite materials
- Not in the business
- not pertinent to university research
- We do not manufacture ties. We only manufacture grade lumber.
- We don't know if there is enough market potential for our products to warrant joining.

What changes could PLTA make to increase its value to you and the industry?

- Connecting sawmills with buyers.
- Help with access into the tie market.
- I am primarily interested in the management of waste creosote ties and timbers. More information about this subject is welcome.
- I find value in PLTA.
- Definitely enjoying being part of PLTA and think its mission and future goals mirror my expectations.
- include the composite industry. You are limiting the organization abilities.
- More advertisement for the meetings and seminars.
- More virtual or online technical events or seminars due to travel restrictions.
- Possibly by increasing a presence in the short line industry.
- put a lock on the comments from the tie industry personal
- There needs to be a national industry answer for tie disposal
- we are in the sawmill (production end) of the railroad industry. the PLTA seems to be mainly focused on the railroad end of the industry. very little mention of the sawmill part of the industry in the magazine except for production numbers.
- We buy high end green ties. Facilitate purchasing and grading.
- your correspondence is very enlightening for me in the timber business

What do you get from being a member of other associations that you cannot get from PLTA?

- **ASCE:** Other aspects of railway transportation, not necessarily related to ties.
- **APA:** Meeting and training content specific to psychologists. I have served as consultant to PLTA for learning/development for former ED and his assistant, conflict resolution within membership, and survey administration for performance evaluation.
- **ASHRAE:** More in-depth engineering and opportunity to present research papers.
- **Canadian Railway Association**: More coverage on Canadian issues.
- **Canadian Standards (CSA):** Developing and approving wood preservation standards for Canada
- **CWPA**: Actively participate in setting standards. Learning about new treating, testing and composites of wood with plastic. Would like to see a short 5 min talk from head of other associations to learn more about them.
- **FLA:** Understanding of current tie market and participants in that market.
- Information directly related to the vast percentage of our business.
- **Hardwood Federation:** Wood Flooring Issues
- a bit of a different market, and more sawmill emphasis
- **Hardwood Review:** Different perspectives and different updates
- **IRG:** Broader look at preservatives
- **KFIA:** Connections with more producers (sawmills)
- **NAWLA:** Not associated with rail in any way.
- **New England Lumberman's Association:** More frequent meetings, but other associations are smaller than the PLTA, so this isn't really feasible or necessarily needed.
- **NHLA:** Cross ties information. Concentrates on the lumber side of our business. More about lumber business and updates on laws/regulations.
- **ACIA:** Concentrates on the stave and heading (Cooperage) side of our business.
- **NRC:** Met with customers and railroad officials. Personally, more direct contact with customers and vendors. PLTA convention does not cover Contracting part of our customer for most part but not always.
- **NRCMA:** Contact with contractors. Construction and news. It's a such a solid industry that we all overlap, all in the good for the rail industry.
- **State associations:** State and local politics. Local news or state changes. Local help.
- **PRSA:** Relations to my actual business platform
- **REMSA:** Broader scope of track maintenance and work processes.
- **RILA:** More relevant content related to our customers

- **Society of American Foresters:** Expectations would be very different since I'm a forester/academic. We are a university training future Foresters who may work in the Forest Industry fields, SAF is our accrediting agency, sends us job postings, hold conventions every year and students attend. Research and outreach to groups with different needs.
- **FPS:** More focused on the general wood products industry rather than PLTA
- **TRB:** Global perspective; other than timber ties.
- **Treated Wood Council:** Amazingly effective organization re. lobbying for all of us in the business.
- **Woodworking associations:** Other client platforms and wingspan

What other national organizations do you hold membership in?

- **Most Common**: NHLA (15), NRC (6), Forest Product Society (5), Indiana Hardwood and Lumber Association IHLA (5), Hardwood Manufacturers Association (4), Treated Wood Council (4), Society of American Foresters (4), AHMI (4), NRCMA (3), SWST (3), CWPA (3), KFIA (3), REMSA (2), WVFA (2), WWPI (2).
- **Others**: ACIA , AHEC, AICPA, ALC, American Society of Civil Engineers, American Psychological Association, APTA, ASCE, ASCO5, ASHRAE, ASQ, ASTM, ATMAE, Canadian Railway Association, Canadian Standards (CSA), Decorative Hardwoods Association , FLA, GLTPA, Hardwood Federation, Hardwood Review, HF, HMR, INANA, Industrial Minerals Assoc NA, IRF, IRG, Lake States Lumber Assoc., MFPA (2), MWIT, NAHB, NAMA, National Wood Flooring Association, NAWLA, New England Lumberman's Association, NRA, Numerous state Railroad Associations, NWPCA, OFA, PFPA, PPAI, PRSA, RILA, RMI, RSN, SAME, SBCA, Society for I/O Psychology, Tennessee Forestry Association , TPI, TRB, Wood Preservation Technical Committee, Woodworking Associations.

PLTA Survey

INTRODUCTION: About You

1. **Which best describes your company/employer?** (check one)
- ❑ Sawmill
- ❑ Tie treatment company
- ❑ Chemical manufacturer
- ❑ Class I Railroad
- ❑ Short line railroad/holding company
- ❑ Independent consultant
- ❑ University or other academic institution
- ❑ Other *(please describe)* ____

2. **To the best of your knowledge, what is your employer's status within PLTA?**
- ❑ Current member
- ❑ Former member
- ❑ Never been a member
- ❑ Unsure

3. **What functional area(s) are you currently responsible for?** *(check all that apply)*
- ❑ Executive Management
- ❑ Operations
- ❑ Sales & Marketing
- ❑ Technical Services
- ❑ Quality Control
- ❑ Staff HR/Training
- ❑ Finance
- ❑ Other *(please describe)*____

3b. **Please indicate the regions in which you most active. *Please use drop-down menus*** *[skip if A1.4]*
Menu to begin with North America / Eastern US / Southern US / Midwest / Western US / then all states and provinces

Most active: ____________________
Second-most active: ____________________

3c. **Please tell us the following:**
Roughly how many years have you been in the industry?...................................... _________ *[skip to B if A1.2-4]*
How many years have you worked for an PLTA member or
otherwise been involved with us? .... _________
How many of your staff/colleagues in your company are also involved with PLTA? _________

MEMBERSHIP: About Us

1. **What PLTA services/activities have you attended or participated in during your career?**
   - ❑ Attended in-person Annual Meetings
   - ❑ Participated in the virtual Annual Meeting this year
   - ❑ Participated in Tie Grading Seminar(s)
   - ❑ Attended field trips
   - ❑ Served as an officer/leader of PLTA (Board/Executive Committee)
   - ❑ Served on PLTA committees (such as Education, Clear, etc.)
   - ❑ Served in other volunteer roles as presenter/speaker/author
   - ❑ Regularly read *CrossTies* magazine
   - ❑ Periodically visit PLTA website
   - ❑ Actively support or follow PLTA federal/state government relations.
   - ❑ None of the above
   - ❑ Other involvement (please describe) ____

1b. **How would you rate your satisfaction with these experiences with PLTA?** *[display #1 for all others checked B1]*

	Extremely Satisfied	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Not at All Satisfied
My overall membership experience *[if A1.1 or 2 and not B11]*	❑	❑	❑	❑	❑	❑
Annual Meeting (in-person) *[if B1.1]*	❑	❑	❑	❑	❑	❑
Annual Meeting (virtual) *[if B1.2]*	❑	❑	❑	❑	❑	❑
Tie Grading Seminars *[if B1.3]*	❑	❑	❑	❑	❑	❑
Field trips *[if B1.4]*..	❑	❑	❑	❑	❑	❑
Volunteer roles (officer/committee/thought leader) *[if B1.5-7]*.....	❑	❑	❑	❑	❑	❑

[Skip to B4 if A1.3 or 4]

2. **How would you rate PLTA for each of these qualities?** *Please rate us for pre-COVID performance when appropriate.*

	Extremely Satisfied	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Not at All Satisfied	No opinion
Communicating effectively regarding issues and services................	❑	❑	❑	❑	❑	❑
Inclusive culture that welcomes our participation	❑	❑	❑	❑	❑	❑
Responsiveness of staff to our questions and contacts....................	❑	❑	❑	❑	❑	❑
Delivering sufficient opportunities for in-person meetings/learning.	❑	❑	❑	❑	❑	❑
Convenience of meeting opportunities	❑	❑	❑	❑	❑	❑
Helping us address current/future issues facing the industry...........	❑	❑	❑	❑	❑	❑
Effectively balancing interests of members by size of company........	❑	❑	❑	❑	❑	❑
Effectively balancing interests of members by type of company*.....	❑	❑	❑	❑	❑	❑
Transparency	❑	❑	❑	❑	❑	❑

e.g., lumber, treaters, sawmills, etc.

2b. **If you are dissatisfied, please tell us more about why and what we might do to improve:** *[display only items above]*

- Communications:.........................________________________________ *[if B1.1]*
- Inclusive culture:..........................________________________________ *[if B1.2]*
- Responsiveness of staff:................________________________________ *[if B1.3]*
- Sufficient meeting opportunities:...________________________________ *[if B2.4]*
- Convenient meetings: ....________________________________ *[if B1.5]*
- Helping address industry issues:.....________________________________ *[if B1.6]*
- Balancing interests of members: ...________________________________ *[if B1.7/8]*
- Transparency: ....________________________________ *[if B1.9]*

3. **What potential future changes by PLTA would make it easier for you to participate in the future?** *(check all that apply)*
   - ❑ Regional meetings closer to our offices
   - ❑ Reduction in cost for first-time attendees
   - ❑ More virtual/online meetings
   - ❑ More forums specifically to discussing key issues
   - ❑ Other changes *(please describe)* ____

Comments: ____

4. **How would you prefer to receive updates from PLTA?** *Please choose your most and second-most preferred. If you check more than one in a column by mistake, you can de-select a response by clicking it again.*

	Most prefer	Second preference
Email	❑	❑
Postal mail	❑	❑
Phone	❑	❑
Social media	❑	❑

4b. **How often do you visit the PLTA website in a typical year?** *[if B1.9]*
❑ Never ❑ Once or twice a year ❑ 3-6 times a year ❑ More often

4c. **How closely do you read issues of *CrossTies* magazine?** *[if B1.8]*
❑ Do not read ❑ Read headlines/skimming a few articles ❑ Skim most articles ❑ Read cover to cover

5. **How would you rate PLTA's communications (magazine and web content) for the following:**
Excellent / Good / Average / Fair / Poor

Timely coverage of industry issues ....❑ ❑ ❑ ❑ ❑ ❑
Interesting features/articles that help you keep up ....❑ ❑ ❑ ❑ ❑ ❑
Objective/accurate content ....❑ ❑ ❑ ❑ ❑ ❑

6. **What other national organizations do you hold membership in?** *(check all that apply)*
- ❑ AWPA: American Wood Protection Association
- ❑ AREMA: American Railway Engineering & Maintenance-of-Way Association
- ❑ AAR: American Association of Lumber
- ❑ ASLRRA: American Short Line and Regional Railroad Association
- ❑ None
- ❑ Other (please describe) ____

What do you get from being a member of other associations that you cannot get from PLTA? *[if x]*

____

BUSINESS ISSUES/TRENDS

1. **To what degree are each of these industry issues Important to your business over the next several years?**
Extremely Important / Very Important / Somewhat Important / Somewhat Unmolten / Not at all Important / No opinion

Volume will decline due to more durable ties
 and less product replacement ....❑ ❑ ❑ ❑ ❑ ❑
Inability to dispose of ties by burning creates problems
 with storage/environmental concerns..❑ ❑ ❑ ❑ ❑ ❑
HR trends make it hard to attract qualified new employees ....❑ ❑ ❑ ❑ ❑ ❑
Tighter cost structures among our clients/end-users
 makes our business development more difficult ....❑ ❑ ❑ ❑ ❑ ❑
Competing claims for various preservatives lead to
 Uncertainty.

on the part of our customer base..❑ ❑ ❑ ❑ ❑ ❑
Fluctuations in commodity prices affect our purchasing/volume......❑ ❑ ❑ ❑ ❑ ❑
Closures/other factors influencing raw/milled materials
 make our supply chain less predictable ....❑ ❑ ❑ ❑ ❑ ❑
New technologies require extensive capital spending
 to compete more effectively ....❑ ❑ ❑ ❑ ❑ ❑

What other trends do you see affecting your business?

2. **Which of the following have applied to your business over the past year?** *(check all that apply)*
- ❑ Sales have increased
- ❑ Sales have decreased
- ❑ Sales stayed about the same
- ❑ We have expanded facilities
- ❑ We have increased our sales/marketing activity
- ❑ We have closed some facilities or are considering closures
- ❑ Other changes: ____________________

[if A2.1 go to end]

NON-MEMBER QUESTIONS *[if A2.2-4]*

1. **How likely are you to (re)join PLTA over the next 2-3 years?**
- ❑ Very likely
- ❑ Somewhat likely
- ❑ Unsure
- ❑ Somewhat unlikely
- ❑ Not at all likely

2. **What factors make it unlikely for you to (re)join PLTA?** *[if D1.3-5]*
- ❑ We don't have the budget to add a membership
- ❑ My employer is not supportive of us joining
- ❑ We lack sufficient time to be involved enough to make it worthwhile
- ❑ We cannot travel to take advantage of Annual Meetings
- ❑ We find more value in other organizations
- ❑ We don't know enough about what PLTA does.
- ❑ We believe the value of PLTA is less than the cost.
- ❑ We had negative experiences in the past as a member *[if A2.2]*
- ❑ Other reasons *(please describe)* ____________________

2b. **What changes could PLTA make to increase its value to you and the industry?**

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Thank you for participating in the PLTA Survey.