KENTUCKY FOREST SECTOR ECONOMIC CONTRIBUTION REPORT 2023-2024

$19 BILLION

TOTAL ECONOMIC CONTRIBUTION ANNUALLY

Martin-Gatton College of Agriculture, Food and Environment

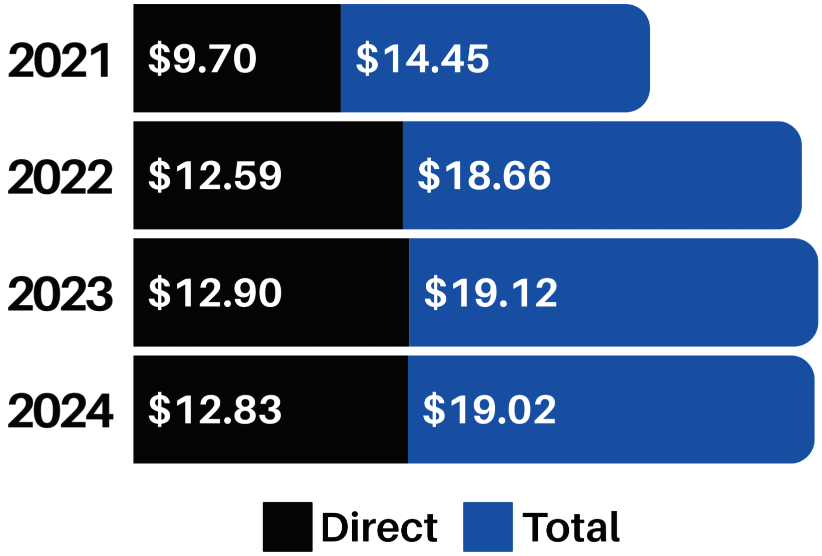
Forestry and Natural Resources - Extension

Annual Forest Sector Economic Contribution Estimates

This page provides data for 2023 contributions, the last year of available data.

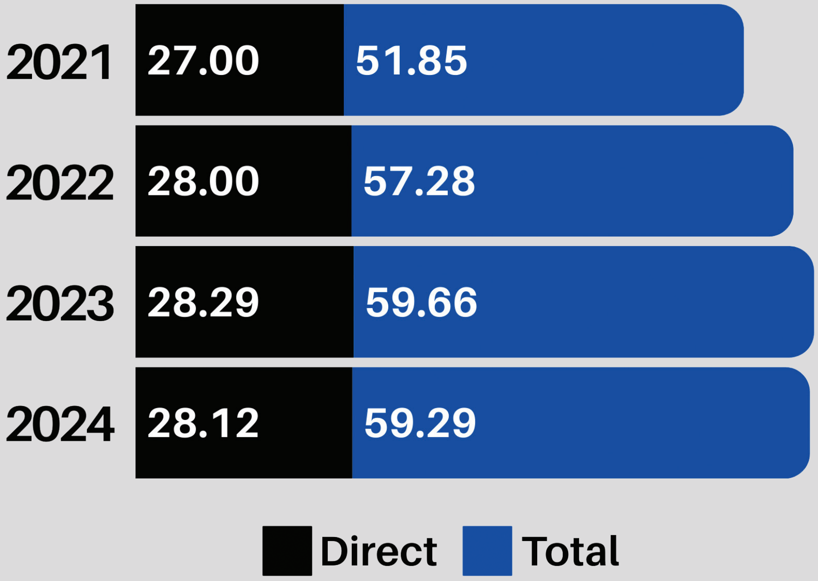
The total Kentucky forest sector contribution was $19.1 billion in 2023, the last year of available data, with an estimated $12.9 billion in direct contributions **(Figure 1)**. Despite several facility closures, the contribution was up from 2022. This is largely due to increasing wages throughout all sub-sectors, continued strength of the stave and cooperage industry, and inflation tied to input costs. A lack of consumer demand for lumber products, inflation, and shortage of skilled labor continues to limit industry expansion. The downtrend in hardwood lumber and wood product markets within the forest sector are significant. In an attempt to increase domestic hardwood demand an industry-supported Real American Hardwood Coalition has been working to educate architects and consumers on the benefits of natural hardwood products (read more on page 14). The economic contributions of the forest sector are important across the state to both rural and urban communities.

Figure 1. Kentucky Forest Sector Direct & Total Output Economic Contribution (2021 - 2024) in Billions



Forest industries employed 28,293 people in 2023 with indirect and induced employment resulting in a total of 59,664 Kentucky jobs **(Figure 2)**. With a population of approximately 4.5 million, 1 in every 160 Kentuckians is directly employed in the forest sector. The direct labor wages for the Kentucky forest sector were $2.2 billion in 2023 with total labor wages reaching $4.2 billion. Multiple facilities have permanently closed in Kentucky and the surrounding region, including the largest sawmill in the state. Closure of this facility has effectively removed markets for landowners and timber extraction throughout most of southeast Kentucky. Kentucky's forest industries continue to grapple with weak demand in hardwood lumber markets for several key species. Increased use of non-renewable materials like plastics in all sectors including housing continue to be the leading cause of decline in the forest sector nationwide. Rising inflation, rising wages for labor and the retirement of key leadership in the Kentucky forest industry further complicate matters. Rising wages is generally viewed as a good thing, however runaway inflation is aggressively impacting all aspects of cost of living which reduces the positive impacts of these adjustments.

Figure 2. Kentucky Forest Sector Direct and Total Jobs (2021 - 2024) in Thousands



Source: IMPLAN Data for Kentucky and the Kentucky Forest Products Industry Directory

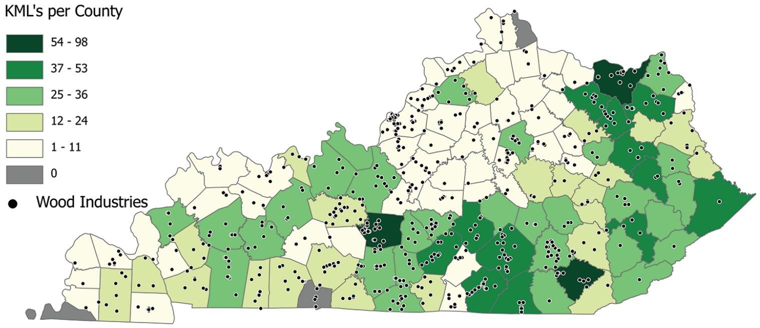
Industry Market Alert

The economic contribution and jobs from the forest sector is significant as it is one of the largest industry sectors in the state. However, as has been the case for the last several years, the sector continues to lose facilities, especially those industries responsible for producing primary products from our significant timber reserves. There are options to help the Commonwealth reinvigorate the sector including new innovative engineered wood products such as cross-laminated timber, glulam beams, and timber mats and wood used for biomass energy could improve the resilience of the forest sector in Kentucky. Working to expand existing markets and develop new ones needs support from state and federal agencies, including those focusing on economic development. Programs such as the United States Forest Service's Wood Innovation Grant and Community Wood Energy grant funding provide expansive return on investment through local/regional "value added" wood products manufacturing while supporting forest management. ForestryWorks of Kentucky, another recent federally funded program, has been developed to address workforce needs in logging, forestry and wood industry careers in the state and close the skills gap (read more on page 14). This support is vital to improving yield efficiency, value recovery, improving wages and cost competitiveness of wood products.

Wood Industry and Master Loggers

There are 2,391 Kentucky Master Loggers, located in 114 counties, who work to harvest timber and deliver it to the 674 wood, paper, and paper-converting industries located in 114 counties throughout Kentucky. **Figure 3** shows the concentration of Kentucky Master Loggers (required on commercial logging operations) by county and the distribution of wood using industries across the state. Family owned woodlands grow the majority of timber harvested in Kentucky, which provides the material accounting for a significant percentage of economic contribution from the forest sector. Loggers are the connection between woodland owners and the many industries that produce forest products. One example of this link is that loggers provide all of the white oak required to make the barrels for the $9 billion bourbon industry. For these reasons the health and future workforce of the logging sector is vital to maintaining a robust forest industry in Kentucky.

Figure 3. Kentucky Wood Industries and Master Loggers



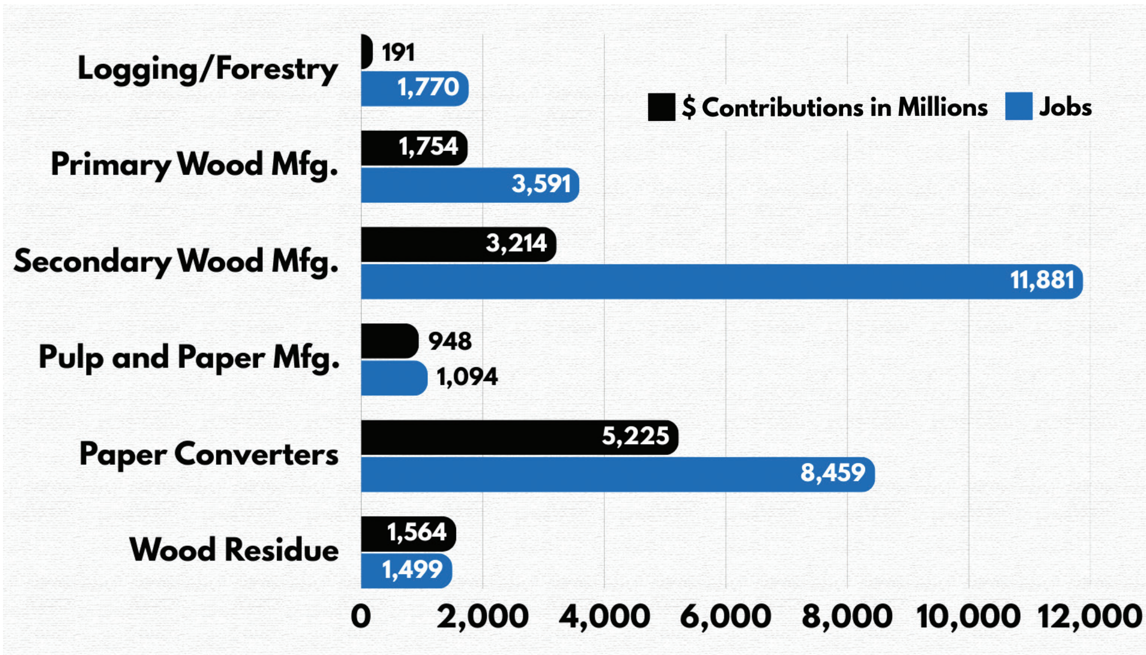
Source: Kentucky Master Logger Database and Kentucky Forest Products Industry Directory

2023 Forest Sub-Sectors Economic Contribution Estimates

This section provides data for 2023 forest sub-sector contributions, the last year of available data, and estimates for 2024 based on industry feedback.

Kentucky's forest sector includes six sub-sectors: logging and forestry, primary wood manufacturing, secondary wood manufacturing, pulp and paper manufacturing, paper converters, and wood residue manufacturing. The secondary wood manufacturing sub-sector remains the largest sub-sector employer followed by paper converters **(Figure 4)**. Every forestry sub-sector is important to the circular bio-economy in Kentucky, using our natural resources we harvest wisely as a part of the supply chain that converts wood into many useful products.

Figure 4. Direct Employment and Output Economic Contributions of Kentucky Forest Sub-Sectors



2024 Forest Sub-Sectors Economic Contribution Estimates

Table 1. 2024 Kentucky Forest Sub-Sectors Direct Economic Contributions & Change from 2023

Forest Sub-Sector	Millions	% Change from 2023
Logging and Forestry	$173	-9.7%
Primary Wood Mfg.	$1,670	-4.8%
Secondary Wood Mfg.	$3,253	1.2%
Pulp and Paper Mfg.	$1,020	7.6%
Paper Converters	$5,251	0.5%
Wood Residue	$1,464	-6.4%

The 2024 Kentucky forest sector output estimates varied among sub-sectors with logging, primary wood manufacturing, and wood residue down by 9.7%, 4.8%, and 6.4% respectively, compared to 2023. However, secondary wood manufacturing, pulp and paper, and paper converters were up 1.2%, 7.6% and 0.5% respectively **(Table 1)**. Volatile markets for logs and lumber continue to negatively impact the logging and forestry and primary wood manufacturing sub-sectors, which are also struggling with rising inflation. Widespread generational retirement will continue to occur in all sectors, this combined with a lack of workforce development is and will in all probability result in labor shortages that will remain a significant issue for the sector; with logging, primary wood manufacturing being impacted the most.

Figure 4 and Table 1 sources: IMPLAN Data for Kentucky and the Kentucky Forest Products Industry Directory

2024 Timber Output and Prices

Hardwood lumber log market pricing has recovered significantly for most quality of logs and species in 2024; however, pricing has still not returned to levels set in 2021. Statewide averages for delivered log prices decreased by 16.6% from the 2nd half of 2022 to the end of 2023, when combining all grades and species. Red oak continues to struggle with marginal price improvement in high-quality logs and losses in medium and low-quality logs **(Table 2)**. Log and lumber pricing and demand are tied to numerous factors including: decreased wood consumption due to increased non-renewable material usage in new home construction and remodel, elevated interest rates, decreased housing starts, business concern over the potential for a global economic recession, and rising inflation. While market pricing for delivered sawlogs and lumber show improvement, concern looms around potential impacts of increased tariffs and the impacts they could have on the struggling forest sector. Along with these broader market concerns, short falls in labor recruitment and retention continue. This issue is particularly troubling given that the profitability of logging and primary wood manufacturing industries is very challenging due to decreased hardwood market demand and value, which is reducing workforce capacity more rapidly. When hardwood demand increases the capacity to produce product will not be there, which will dramatically drive demand pricing upward. We continue to see a movement to more company logging crews and fewer independent loggers to ensure consistent wood supply.

Delivered Log Summary:

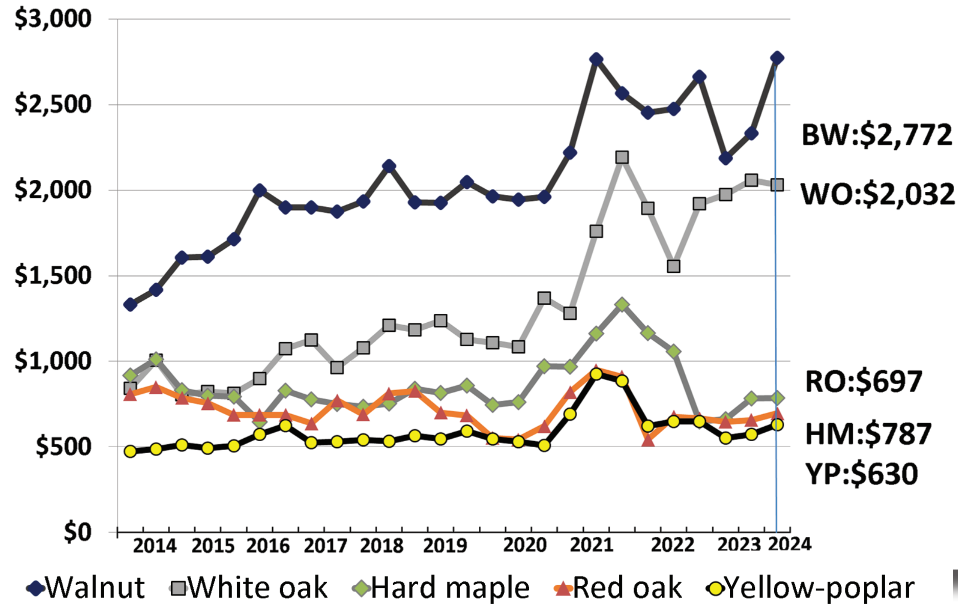
With the exception of yellow-poplar, high-quality hardwood log values increased in 2024. Indications from yellow-poplar consuming industries indicate that additional demand and price support will continue to improve for delivered logs in 2025. The downtrend for medium-quality logs was restricted to red and white oak species in Kentucky, reflective of the decreased pricing of railway tie logs throughout the region. Data from the top six species shows a general trend of improvement for most species and grades **(Table 2)**.

White oak high-quality grade lumber log pricing increased compared to 2023, which shows increased competitiveness of lumber and stave markets. While high-quality lumber log prices are increasing they on average still remain lower than prices paid for white oak stave logs **(Figure 6)**. In contrast, medium-quality logs decreased an average of approximately 11.3%. While high-quality lumber log prices are increasing they remain lower than prices paid for white oak stave logs. High-quality white oak lumber logs have not returned to the record high prices experienced in 2021, but are still elevated considerably compared to pricing in 2020 and prior **(Figure 5)**. Low-quality white oak logs have increased slightly from 2023 by an average of 2.8%. The demand of white oak for many uses in products including veneer, stave, and grade lumber will keep competition and pricing strong for this species.

Table 2. Kentucky Delivered Log Prices from 2nd Half 2023 - 4th Quarter 2024				
Species	Quality	2023 3&4 Quarters	2024 4 Quarter	% Change
Hard Maple	High	$648	$787	21.4%
	Medium	$392	$461	17.6%
	Low	$262	$262	11.6%
Red Oak	High	$667	$697	4.5%
	Medium	$466	$462	-0.9%
	Low	$273	$267	-2.3%
Soft Maple	High	$408	$521	27.6%
	Medium	$257	$334	30.0%
	Low	$217	$219	-1.1%
Black Walnut	High	$2,662	$2,772	4.2%
	Medium	$945	$1,473	55.9%
	Low	$393	$406	-3.4%
White Oak	High	$1,921	$2,032	5.8%
	Medium	$737	$654	-11.3%
	Low	$305	$313	2.8%
Yellow-poplar	High	$648	$630	-2.8%
	Medium	$395	$445	12.6%
	Low	$199	$233	16.9%

Black walnut experienced positive price trends across all quality of logs with high-quality lumber logs increasing slightly in value, and medium-quality logs seeing the most improvement increasing by 56% from 2023 to 2024. Low-quality logs saw marginal increase of 3.4% from 2023. Black walnut is our most valuable species historically and due to its unique appearance and limited availability will remain in demand.

Figure 5: Delivered Log Prices ($ per MBF) High Quality Logs



Hard maple experienced significant improvement in pricing ranging from 12-21% across all log qualities from 2023 through the end of 2024. Hard maple pricing is significantly impacted by hardwood flooring and cabinet demand.

Yellow-poplar values for high-quality logs marginally decreased by 2.8%. However, medium and low-quality logs showed improvement in 2024, increasing 12.6% and 16.9% respectively. This is an important trend for Kentucky's most abundant tree species.

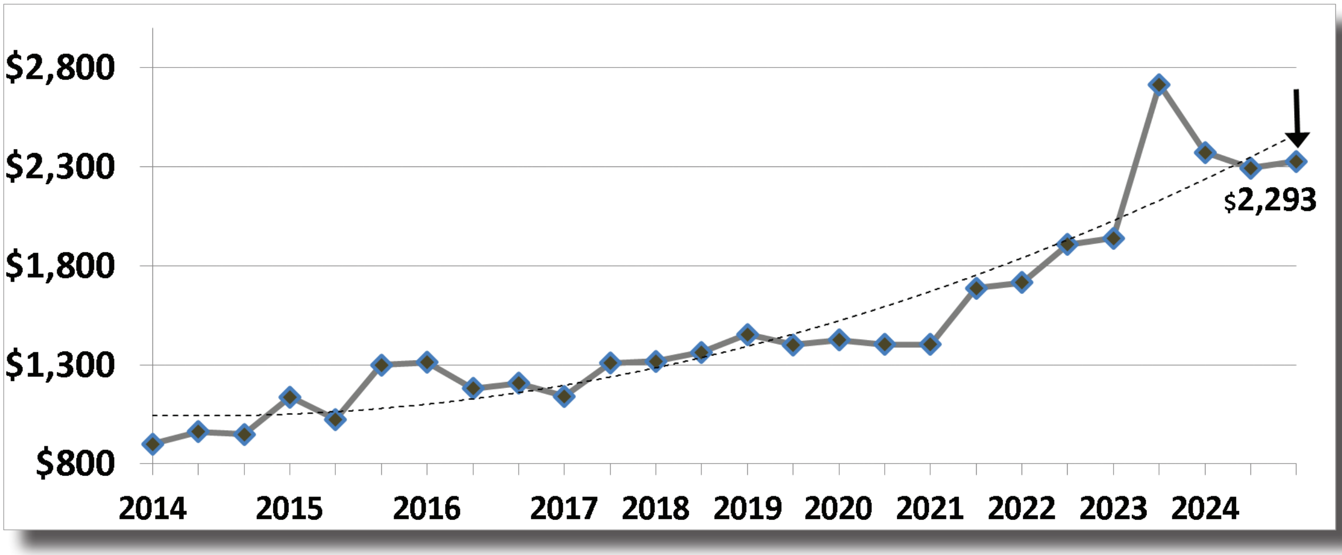
Red oak high-quality log market demand is slowly improving from record lows in 2022. However, medium and low-quality logs continued to see marginal decreases in pricing averaging 1-2.3% decrease from 2023. Lackluster markets for flooring, cabinets, and millwork associated with housing starts and home remodeling due to the slowing housing market are partially to blame. Consumer preferences for species other than red oak and alternative materials also contribute to weakened lumber demand. The railroad tie market is partly cloudy with reduced pricing, but is still providing a consistent market for red oak logs at this time.

Stave Log Prices 2023-2024

Strong pricing and competition between lumber and stave logs continued throughout 2024 despite recent concerns related to stave and cooperage mill closures. New equipment and technology upgrades to increase production of barrels and extending the use of available material have all been important investments to help improve utilization and meet the growing demand for new white oak barrels. Staves are the vertical pieces of wood that make up a barrel. They provide most of the flavor and all of the color imparted to bourbon.

Daily barrel production estimated ranges are now 14-20,000 statewide, amongst all cooperages combined. Delivered stave log prices averaged $2.33 per board foot **(Figure 6)** statewide with logs ranging from .70 cents to $3/BDFT. Unlike most other commodities, stave logs experienced a 14.3% decrease throughout 2024. The market for stave logs is expected to remain strong in 2025 due to competition for high-quality white oak logs for a variety of products and uses. While white oak growing stock concerns remain (see White Oak Initiative for more information), the strong white oak market continues to be an opportunity for both loggers and landowners.

Figure 6: Delivered Stave Log Prices in Kentucky 2014-2024 by Quarter ($MBF) Doyle



Railroad Tie Log Prices

Railroad tie logs remain an important timber product in Kentucky. The market for hardwood railroad tie logs has softened in terms of pricing and purchasing **(Figure 7)**. Regional impacts from Hurricanes Helene and Milton and forestland salvage efforts related to recovery from these storm events has lowered railway tie log prices due to temporary over supply. We have seen statewide a 5.9% price decrease for oak tie logs from 2023 to 2024. However, non-oak tie logs decreased by 13.3% statewide during the last year. The statewide average for non-oak rail road tie logs is $310/MBF while oak tie log average $353/MBF. Current on hand inventories reported by the Railway Tie Association are still showing procurement for all cross-tie products as balanced.

Figure 7: Delivered Tie Log Prices in Kentucky 2014-2024 ($/MBF) Doyle

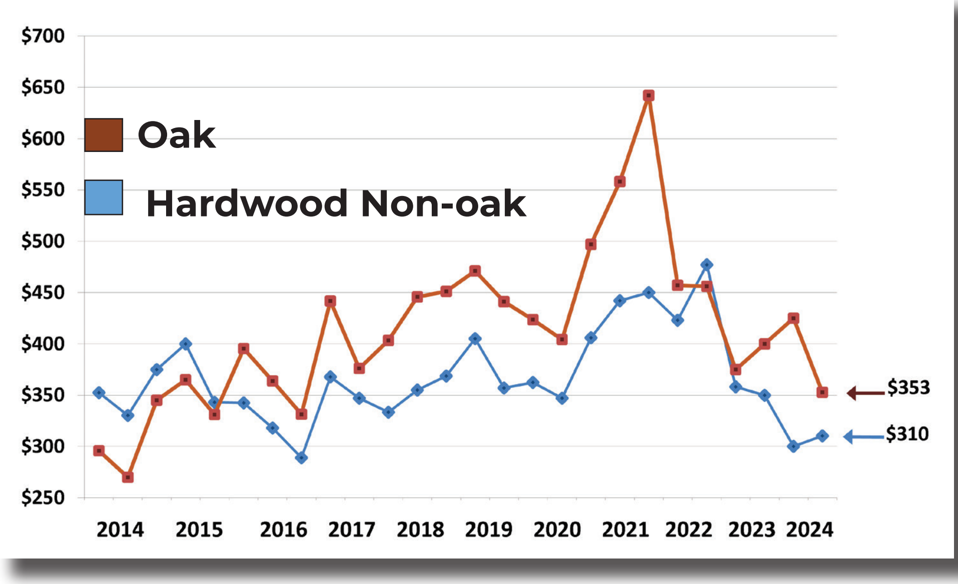


Figure 5, 6, 7 and Table 2 sources: Kentucky Division of Forestry's Delivered Log Price Data (MBF = 1,000 board feet)

Kentucky Forest Sector Economic Contri

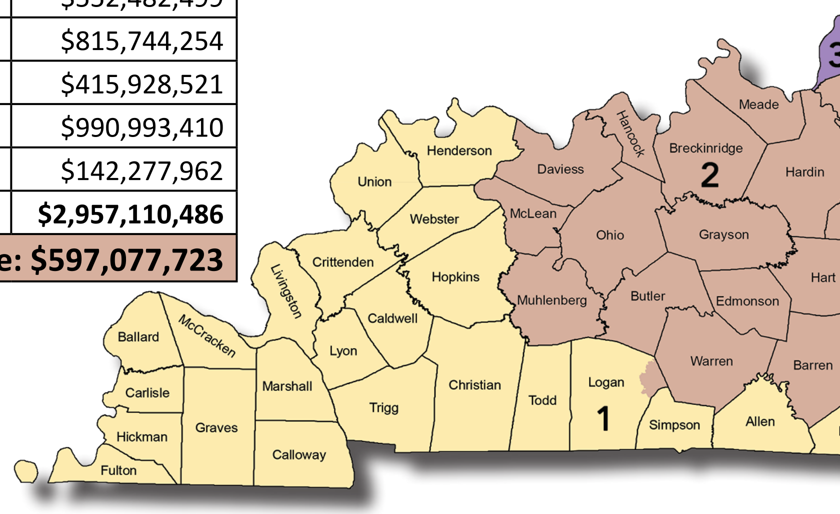
The map shows the new Kentucky Congressional Districts. The accompanying tables for the 2024 year highlight the direct and total contributions that the Kentucky forest sector contributes to each of those districts. Note that the sum of districts does not equal the state aggregate because the Congressional Districts (CDs) are not true economic units that levy taxes and trade with other regions.

Congressional District #3. 2024 Kentucky Forest		
	Jobs	
Forest Sub-sector	**Direct**	**Total**
Logging and Forestry	39	42
Primary Wood Mfg.	230	455
Secondary Wood Mfg.	1,611	2,485
Pulp and Paper Mfg.	0	0
Paper Converters	1,321	2,911
Wood Residue Mfg.	219	479
Totals	**3,420**	**6,373**

Total La

Congressional District #2. 2024 Kentucky Forest Sector Economic Contributions				
	Jobs		Contributions	
Forest Sub-sector	**Direct**	**Total**	**Direct**	**Total**
Logging and Forestry	289	346	$30,963,653	$39,683,839
Primary Wood Mfg.	865	1,376	$449,721,575	$552,482,499
Secondary Wood Mfg.	2,635	3,387	$672,136,266	$815,744,254
Pulp and Paper Mfg.	379	726	$342,954,654	$415,928,521
Paper Converters	1,353	2,260	$815,062,914	$990,993,410
Wood Residue Mfg.	180	356	$115,145,123	$142,277,962
Totals	**5,701**	**8,450**	**$2,425,984,186**	**$2,957,110,486**

Total Labor Income: $597,077,723



Congressional District #1. 2024 Kentucky Forest Sector Economic Contributions				
	Jobs		Contributions	
Forest Sub-sector	**Direct**	**Total**	**Direct**	**Total**
Logging and Forestry	421	528	$52,287,386	$68,515,083
Primary Wood Mfg.	639	1,042	$317,232,992	$399,274,527
Secondary Wood Mfg.	2,708	3,633	$741,343,912	$915,156,738
Pulp and Paper Mfg.	524	979	$446,697,829	$545,665,235
Paper Converters	1,287	2,199	$830,517,165	$1,015,669,862
Wood Residue Mfg.	397	1,179	$558,048,133	$702,768,621
Totals	**5,975**	**9,561**	**$2,946,127,418**	**$3,647,050,065**

Total Labor Income: $700,372,204

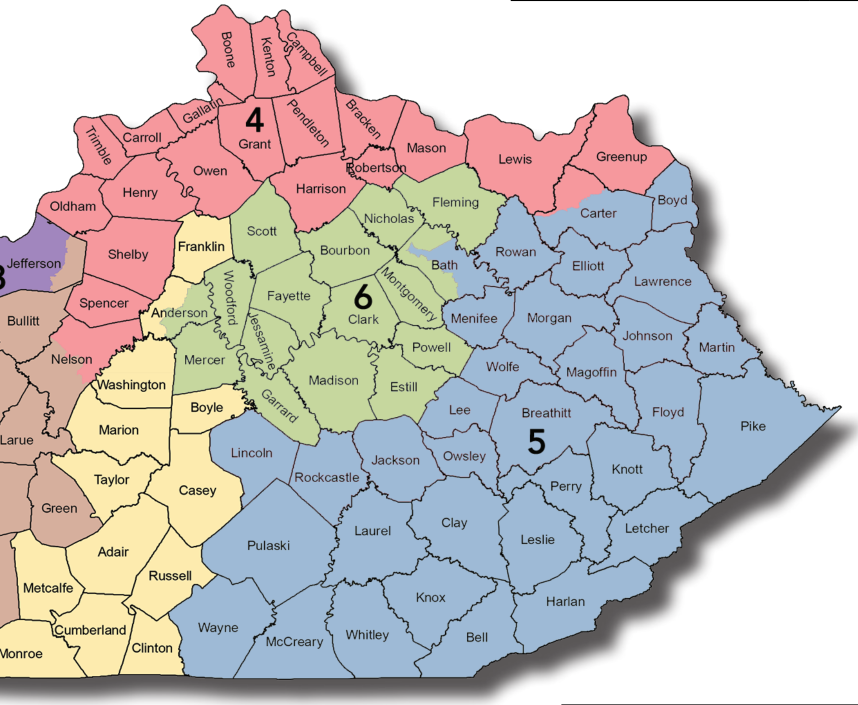
Congressional District #6. 2023 Kentucky Fore		
	Jobs	
Forest Sub-sector	**Direct**	**Total**
Logging and Forestry	210	289
Primary Wood Mfg.	375	731
Secondary Wood Mfg.	1,310	2,141
Pulp and Paper Mfg.	78	205
Paper Converters	1,541	3,409
Wood Residue Mfg.	139	198
Totals	**3,652**	**6,973**

Total

butions by Congressional Districts

Sector Economic Contributions	
Contributions	
Direct	Total
$3,805,138	$4,427,111
$119,514,051	$171,064,626
$415,372,273	$601,855,657
$0	$0
$839,026,144	$1,193,350,964
$207,614,768	$272,728,815
,585,332,374	**$2,243,427,172**
abor Income: $505,514,684	

Congressional District #4. 2024 Kentucky Forest Sector Economic Contributions				
	Jobs		Contributions	
Forest Sub-sector	**Direct**	**Total**	**Direct**	**Total**
Logging and Forestry	226	250	$14,280,205	$14,280,205
Primary Wood Mfg.	384	694	$182,490,324	$182,490,324
Secondary Wood Mfg.	754	1,071	$195,301,851	$195,301,851
Pulp and Paper Mfg.	133	293	$112,202,460	$112,202,460
Paper Converters	2,967	5,528	$1,773,646,764	$1,773,646,764
Wood Residue Mfg.	355	1,139	$510,850,249	$510,850,249
Totals	**4,818**	**8,975**	**$2,788,771,852**	**$2,788,771,852**
Total Labor Income: $682,571,657				



Did you know...

Value added represents sales (receipts, operating income, plus inventory change) minus inputs (consumption of goods and services purchased or imported) and is a measure of an industry's contribution to the GDP. The total value added by the Kentucky Forest Sector in 2024 was...

$7,004,636,328

est Sector Economic Contributions	
Contributions	
Direct	Total
$25,813,261	$38,483,287
$172,760,827	$244,242,429
$357,446,247	$512,998,705
$66,453,259	$91,902,201
$975,932,130	$1,331,203,934
$27,613,541	$37,379,984
$1,626,019,265	**$2,256,210,539**
Labor Income: $489,974,301	

Congressional District #5. 2024 Kentucky Forest Sector Economic Contributions				
	Jobs		Contributions	
Forest Sub-sector	**Direct**	**Total**	**Direct**	**Total**
Logging and Forestry	413	509	$45,469,883	$59,779,387
Primary Wood Mfg.	926	1,587	$427,985,619	$554,963,128
Secondary Wood Mfg.	3,006	4,272	$871,194,877	$1,099,024,500
Pulp and Paper Mfg.	64	131	$51,475,768	$65,631,783
Paper Converters	32	55	$17,159,241	$21,266,209
Wood Residue Mfg.	114	202	$44,692,264	$56,228,742
Totals	**4,554**	**6,756**	**$1,457,977,653**	**$1,856,893,750**
Total Labor Income: $393,941,256				

Forest Sector Taxes Paid in 2023

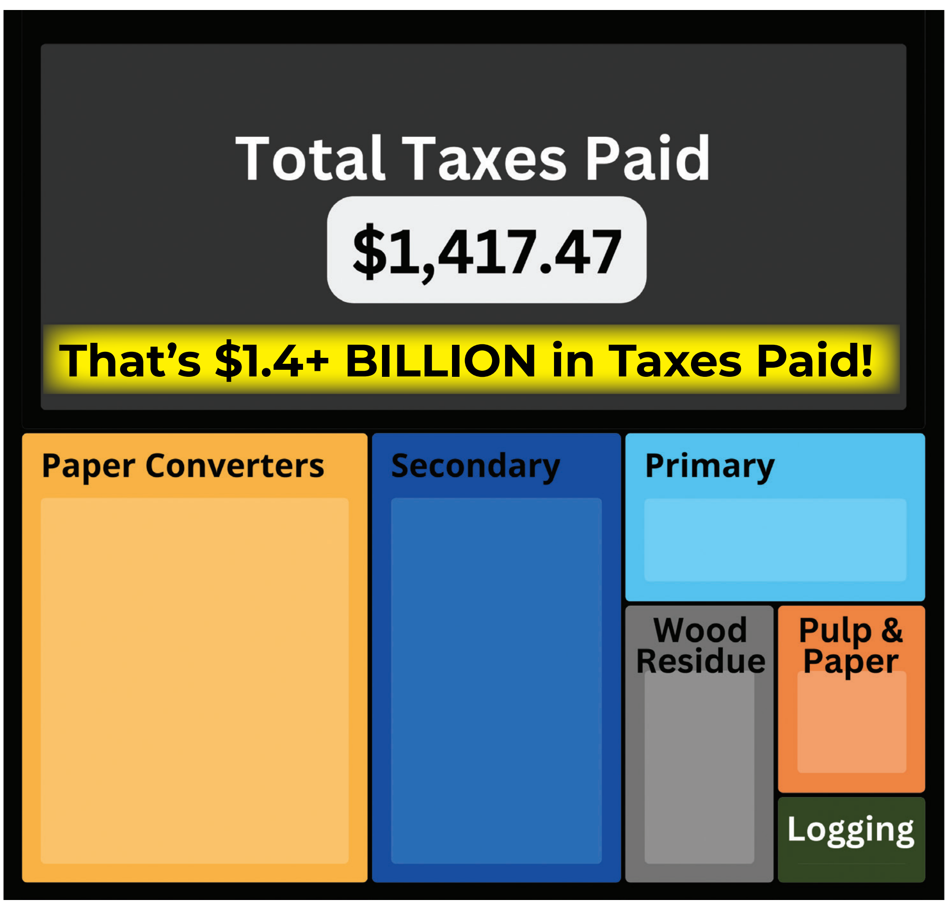
The Kentucky forest sector pays taxes at the county, state, and federal levels. County level taxes include: Sub-County General, Sub-County Special Districts, and County. **Table 3** highlights the amount of total taxes (direct, indirect, and induced) paid by each of Kentucky's forest sub-sectors. Examples of the taxes paid include: sales tax, property tax, motor vehicle license, social insurance taxes (such as Social Security) and custom duty taxes. Estimates for the 2024 tax year are not yet available.

Table 3: Forest Sector Taxes Paid in 2023 (**Millions**)

	Logging	Primary Wood Mfg.	Secondary Wood Mfg.	Pulp and Paper	Paper Converters	Wood Residue Mfg.
Total Taxes Paid:	$45.38	$181.09	$397.61	$99.32	$545.97	$148.10
County Taxes Paid:	$4.47	$21.74	$40.65	$11.49	$60.72	$20.97
State Taxes Paid:	$10.88	$49.15	$94.62	$26.66	$170.71	$45.85
Federal Taxes Paid:	$30.03	$110.20	$262.34	$61.17	$344.54	$80.28

Source: IMPLAN Data for Kentucky

Forest Sector Breakdown of Taxes Paid in 2023 (**Millions**)



Total Taxes Paid

Combined Sectors:

$1,417.47

County Taxes Paid:
$160.05

State Taxes Paid:
$368.86

Federal Taxes Paid:
$888.56

Housing Starts and Kentucky's Forests

Wood is a major component of most U.S. homes, which makes housing starts a major economic indicator for wood products. Many wood products such as flooring, cabinets, moldings, and furniture are found throughout our homes. Housing starts are down from 2023; they peaked in February, then slowed toward the end of 2024 before picking back up in December. **(Figure 8)**. Over the last 10 years, housing starts were highest in 2021, peaking at over 19 million units. Since 2021, housing starts have gradually declined to 16.4 million units in 2024, which is higher than the 13.28 million in 2015 **(Figure 9)**.

Figure 8: US Housing Starts In Thousands (2024)

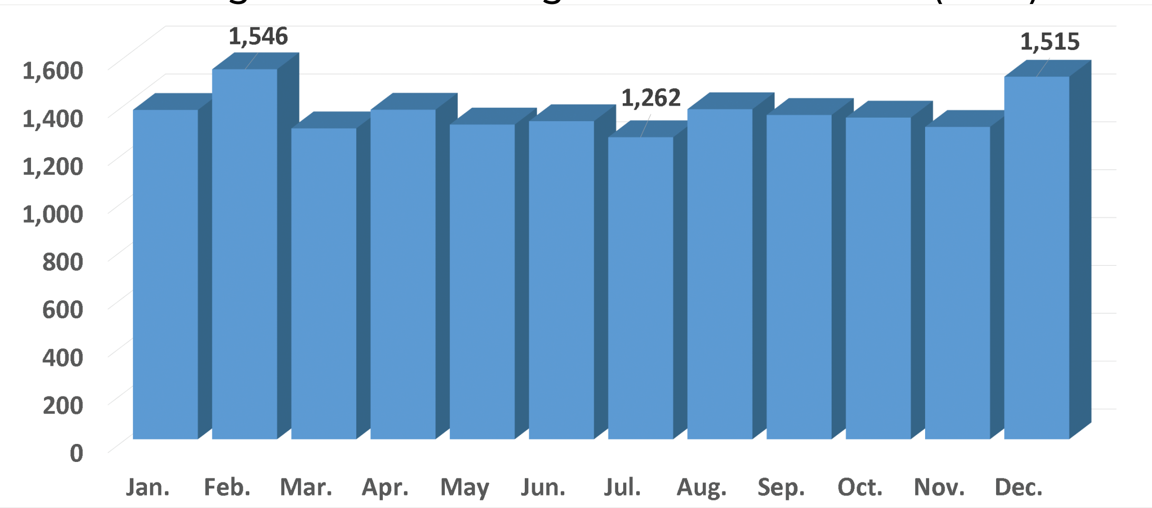
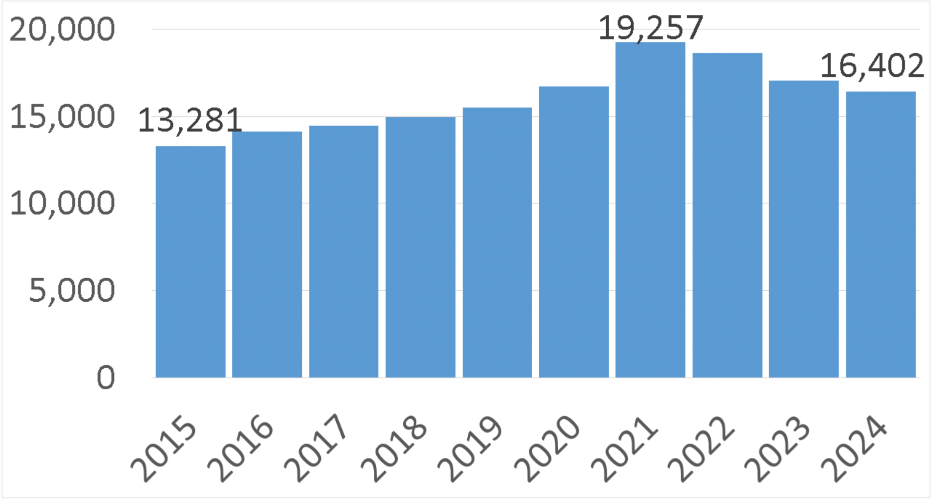


Figure 9: US Housing Starts In Thousands (2015-2024)

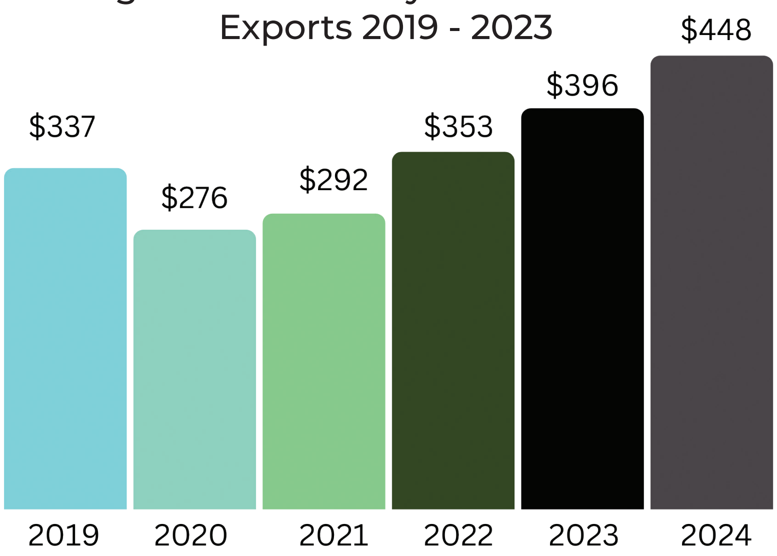


Source: U.S. Census Bureau and U.S. Department of Housing and Urban Development

Kentucky Forest Sector Exports

The demand for Kentucky's wood-related exports remained strong internationally in 2024. Kentucky wood-related exports have steadily increased since 2020 to more than $448 million in 2024, an increase of $52 million from 2023 export levels **(Figure 10)**. Wood barrel exports remain the largest wood-related export in Kentucky at more than $266 million in 2024—an increase of $55 million from 2023. Oaks remain very important for the wood export market as the top two wood-related exports from Kentucky come from oak trees: oak barrels and oak lumber ($43 million). Exports of railroad ties cooled slightly to $31 million in 2024. Non-oak hardwood lumber exports were $19.4 million in 2024. Adhesive paper remained steady

Figure 10: Kentucky Wood-Related Exports 2019 - 2023



Kentucky Forest Sector Exports

at $11.7 million, rough oak was down slightly to $9.97 million, while non-oak rough lumber rounded out the top seven wood-related exports at $9.1 million **(Figure 11)**.

The United Kingdom led all countries in Kentucky wood-related imports at $140 million, followed by Canada at $74 million, and China at $52.6 million **(Figure 12)**. China recently announced it was suspending processing imports of U.S. logs. The European Union's EUDR Regulation was delayed until the end of 2025 but remains a serious concern to wood manufacturing companies exporting to EU nations. Wood-related exports to our neighbors Canada and Mexico declined slightly to $93 million combined. Time will tell what impacts tariffs, trade wars, and the EUDR will have on Kentucky's wood-related exports.

Figure 11: Top 7 Kentucky Wood-Related Exports in Millions (2024)

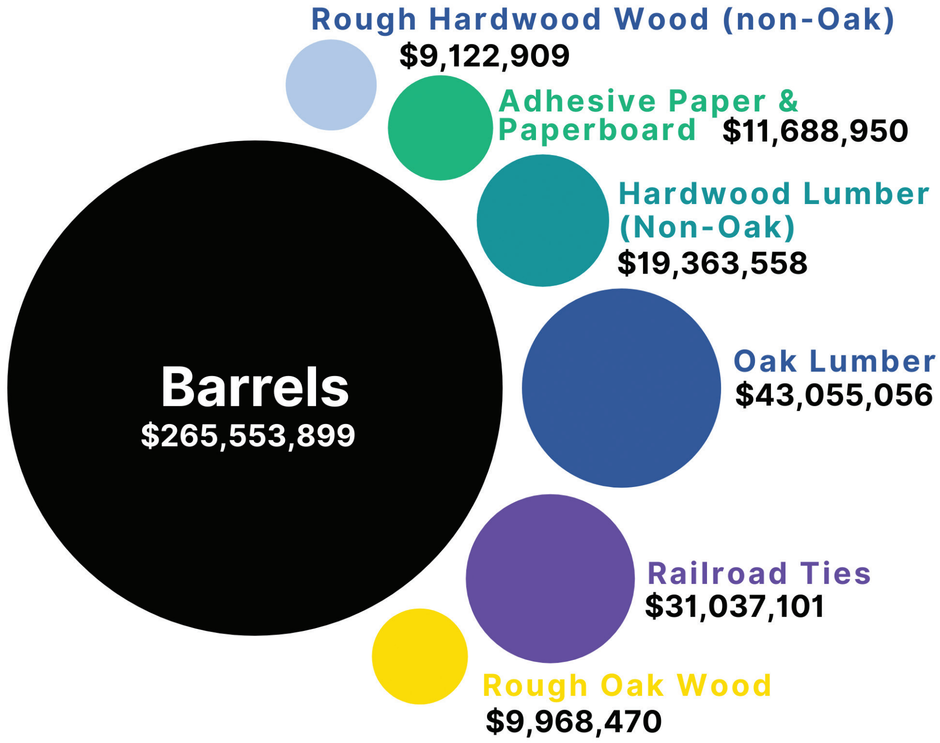
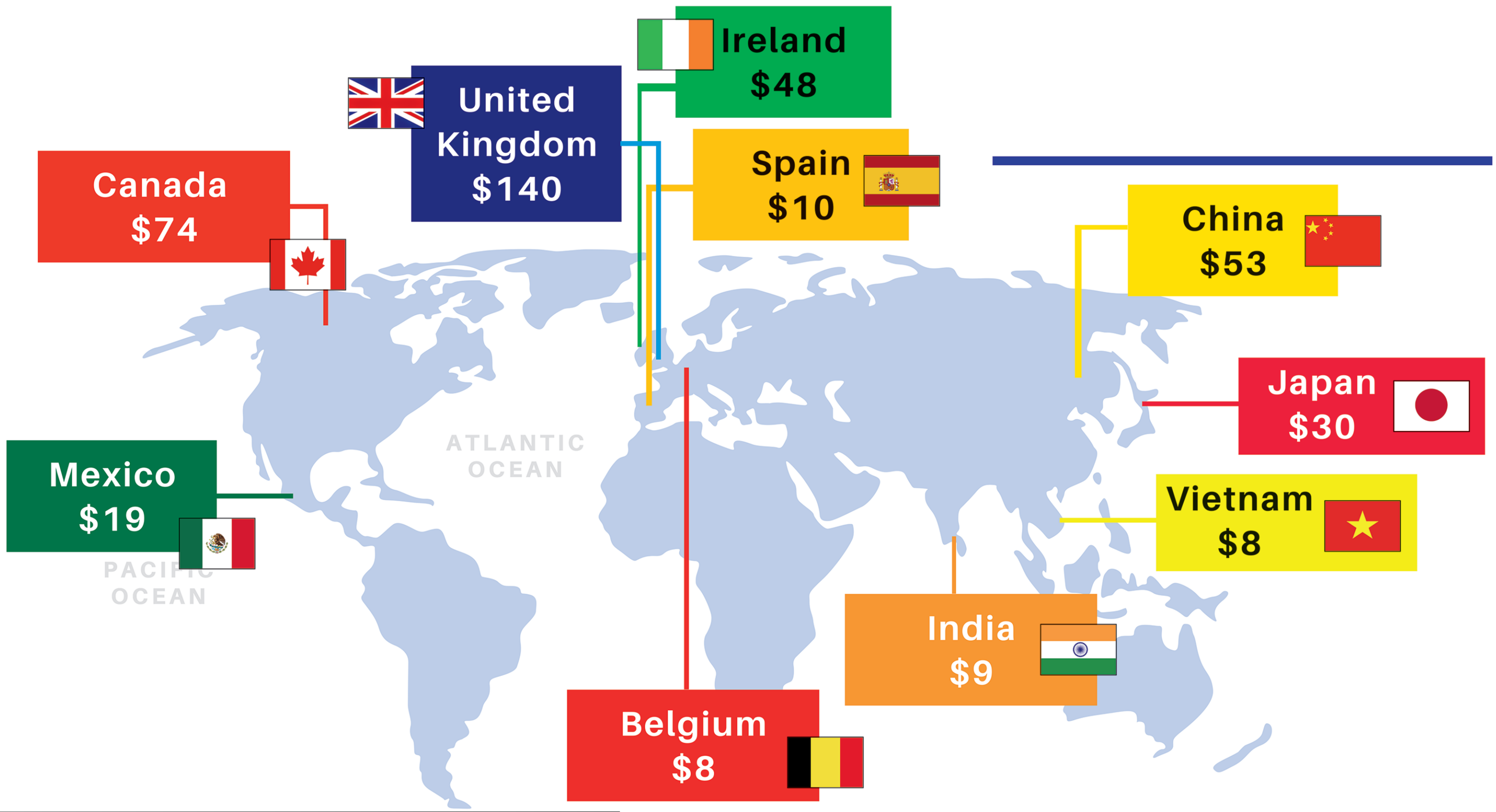


Figure 12: Top Countries Importing Kentucky Wood-Related Products in 2024 in Millions



Impact of One Harvested Acre in Kentucky: $20,175

2023 - 2024

The wood harvested in Kentucky is transformed into many useful products and energy while less than half the volume of wood grown each year is harvested. The diagram shows how wood flows from a landowner's woodlands through the forest industry supply chain and each economic contribution along the way. Each step, from the woodlands to the final wood-using industry adds value and contributes to the economy.

Source: IMPLAN Data for Kentucky and the Kentucky Forest Products Industry Directory

On average, each harvested woodland acre in Kentucky generates $1,354 for the owner. The majority of Kentucky's woodlands are privately owned by families. The U.S. Forest Service estimates there are 136,000 woodland ownerships in Kentucky with over 80,000 owned jointly by spouses; there are an estimated 31,000 individual owners and more than 21,000 other joint ownerships.

One Harvested Acre
$1,354

Logging
$469

Logging firms are typically family operated small businesses and are the critical link in harvesting and transporting wood to sawmills. Without loggers, most family woodland owners would have no means of getting their timber to market.

Kentucky's sawmills, also mostly family operated, process harvested wood into useful products such as lumber and crossties. In addition to lumber, wood chips are also manufactured to be used in the paper industry.

Sawmilling & Chipping
$4,303

Secondary Wood
$7,886

Kentucky's secondary wood industries add significant value to processed wood by creating cabinets, flooring, staves, and much more that are utilized in homes and offices across the state and nation.

Wood Residue
$3,837

Wood not used in sawmills is utilized in the wood residue industry to create useful products such as mulch and charcoal, ensuring no harvested wood is wasted.

Pulp and Paper
$2,325

Kentucky's paper industry uses wood chips from trees lacking lumber potential to create high quality paper products.

ForestryWorks of Kentucky Workforce Initiative

To address the generational skills gap and provide a pipeline of workforce ready high school graduates a Kentucky specific high school curriculum has been developed and approved through the Kentucky Department of Education and Kentucky Workforce Innovation Board. High school teachers are eligible to sign up for training and upon successfully passing final examination become certified. Once certified, Kentucky high school teachers in all 120 counties are able to use the curriculum to train their students. Students then are eligible to take the exam to receive their nationwide industry recognized Forest Worker Certificate. More information can be found at https://forestryworks.com/kentucky. From high school diploma to PhD there are career opportunities at all education levels within all areas of the forest sector. Several opportunities for further training are available through the University of Kentucky, Department of Forestry and Natural Resources degree programs. More information on forestry degree programs can be found at https://forestry.ca.uky.edu/forestry-degree.

ForestryWorks of Kentucky

Real American Hardwood Promotion

Nationwide hardwood lumber consumption has been decreasing each year since 1999, which has had an impact on forest management at a landscape level. This is driven by a variety of reasons, the largest being replacement of hardwood consumer products with non-renewable materials. Despite the many positive benefits of durable, natural, renewable and beautiful hardwood products there has not been a nationwide marketing program to share this message. Following failed attempts at a federal checkoff marketing program the hardwood industry opted to start a voluntary marketing program, “Real American Hardwood Promotion”. Working to reach architects and consumers the hardwood industry has worked with Chip and Joanna Gaines, HGTV, the Magnolia Network and other influencers to showcase the benefits and difference between Real American Hardwood and alternative materials commonly found in the marketplace and big box stores. When it comes to sustainability, carbon storage, reduced landfilling and overall environmental impact there really is no comparison with real hardwood products. More information about the Real American Hardwood program can be found at: https://www.realamericanhardwood.com/build-your-world.

REAL AMERICAN HARDWOOD

Data and Methodology

The estimates of the annual economic contribution of Kentucky's forest sector in this report come from a variety of data sources. Economic contribution estimates were assessed using IMPLAN database (2023) and software (IMPLAN Cloud). All contributions estimates are in 2023 dollar-year values. IMPLAN is an input-output economic modeling database and software widely used to assess economic contributions and impacts. The direct contributions are economic activities (e.g., output, employment, labor income, and value-added) associated with an industry or sector in the study area; the indirect contributions are those of local industries purchasing goods and services from other industries, leading to others' outputs, employment, and labor income; while the induced contributions are those of labor income (employee compensation and proprietor income) via goods and services purchased due to the direct and indirect spending by industries. Total economic contribution sums up industry's direct, indirect, and induced effects. The 2023 economic contributions were assessed using the latest IMPLAN Cloud. While the economic contribution for the forest sector was conducted for all the forest-related industries, forest sub-sectors' contributions were estimated by aggregation of related forest sub-sector industries following IMPLAN Industry aggregation procedure. For example, the logging sub-sector is comprised of forestry, forest products, and timber tract production (IMPLAN industry code 15), commercial logging (IMPLAN industry code 16), and a partial claim of the support activities for agriculture and forestry (IMPLAN industry code 19).

This report differs from previous reports as it incorporates a new industry (19), dropped an industry, and adjusted (updated) the partial claim percentage in others based on more recently available information. Congressional districts are composed of combined zip codes (and partial zip codes), and they are not distinct economic units that levy taxes and trade with other regions like counties or states do. IMPLAN Cloud uses very different methods for calculating trade flows for zip codes and those at county or state-level analyses. Therefore, the sum of all congressional districts' contributions may not be equal to the state-level (aggregate). The 2023 IMPLAN data was adjusted to provide 2024 estimates based on annual employment from the Kentucky Forest Products Industry Directory maintained by the University of Kentucky Department of Forestry and Natural Resources Extension and the Kentucky Division of Forestry (KDF). The availability of current employment data in the directory also allowed adjustments of other sources of information. Data from KDF through its Delivered Log and Product Prices is also essential for this report, as are the Timber Product Output and Forest Inventory Analysis provided jointly by KDF and the USDA Forest Service. USDA Foreign Agricultural Service, Kentucky Master Logger Program, and Kentucky Forest Industries Association members also provided data used in this report.

Authors*

Jeff Stringer[(1)], Billy Thomas[(2)], Chad Niman[(3)], Vaine Onyango[(4)], Benard Oriama [(5)] and Thomas Ochuodho[(6)] *[(1)]Department Development and Alumni Engagement, Professor Emeritus; [(2)]Extension Associate for Family Forest Education; [(3)] Primary Forest Products Specialist, University of Kentucky, Cooperative Extension Service, Department of Forestry and Natural Resources; [(4 & 5)] Master Student, University of Kentucky, Department of Forestry and Natural Resources; [6)]Associate Professor of Forest Economics and Policy, University of Kentucky, Department of Forestry and Natural Resources respectively.

Acknowledgments:

The authors thank Kentucky Division of Forestry (KDF) personnel, particularly Stephen Rogers, for providing necessary and invaluable information to this report; Chris Oswalt with USDA Forest Service's FIA unit in Knoxville; Beth Williams, KDF Coordinator and, Michael Ammerman, Assistant Program Director of the Kentucky Master Logger Program; and members of the Kentucky Forest Industries Association. Special thanks go to Reneé Williams, University of Kentucky Department of Forestry and Natural Resources - Extension, for publication graphics and layout. Finally, the authors express their deepest gratitude to Bobby Ammerman for his dedication and contributions to all previous issues of this economic contribution report.

Department of Forestry and Natural Resources
Forestry Extension
University of Kentucky
216 Thomas Poe Cooper Bldg.
Lexington, KY 40546-0073
859.257.7597
Forestry.Extension@uky.edu
www.UKForestry.org

To view this report on-line scan the code above.

FORFS 25-01

Photo courtesy: Dunaway Timber

Cooperative Extension Service

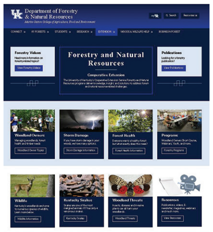
FORESTRY AND NATURAL RESOURCES - EXTENSION

Stay Connected....

Follow us on Facebook at
https://www.facebook.com/ForestryExtension

Visit our YouTube channel at
https://www.youtube.com/c/UKForestryandNaturalResourcesExtension

Follow us on Instagram
https://www.instagram.com/uk_forestryextension/



Visit our website at
www.UKForestry.org