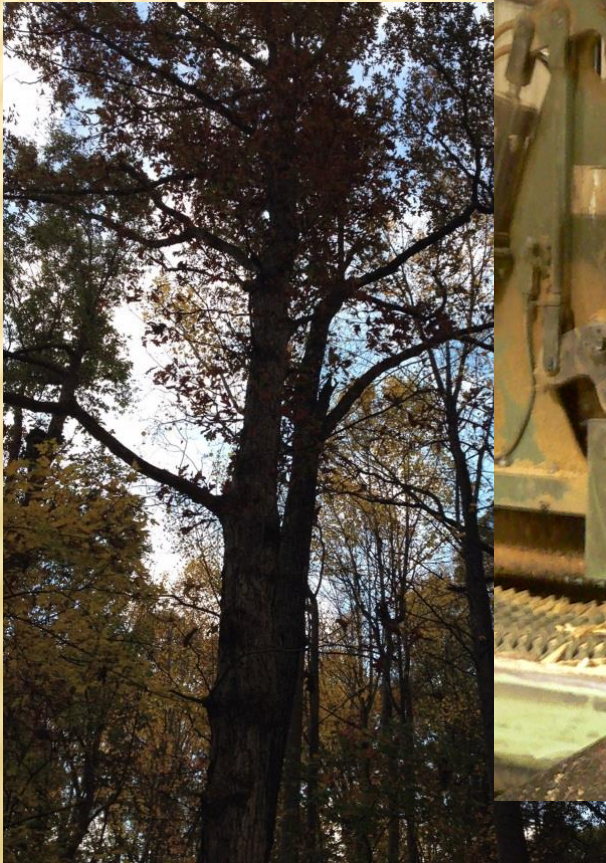


FUTURE OF THE HARDWOOD INDUSTRY



Tom Inman, AHMI President

November 2, 2016



MISSION: To promote the distinct advantages of hardwoods produced in the Appalachian region of the United States, and to develop programs and services to help insure an adequate supply of wood resource for the purpose of helping members meet the needs of the public in general.



Appalachian Hardwood Forest
has 2.45 to 1 growth/removal ratio



AHMI MEMBERS

Producers – Sawmills

**Distributors – Yards &
Wholesalers**

**Consumers – Secondary
Manufacturers**

**Forestry – Industry &
Consulting**

Suppliers

FUTURE



June 24, 2016
Vol. 31, Issue 41



Hardwood Review *Your Source For Accurate Hardwood Pricing Information* **weekly**

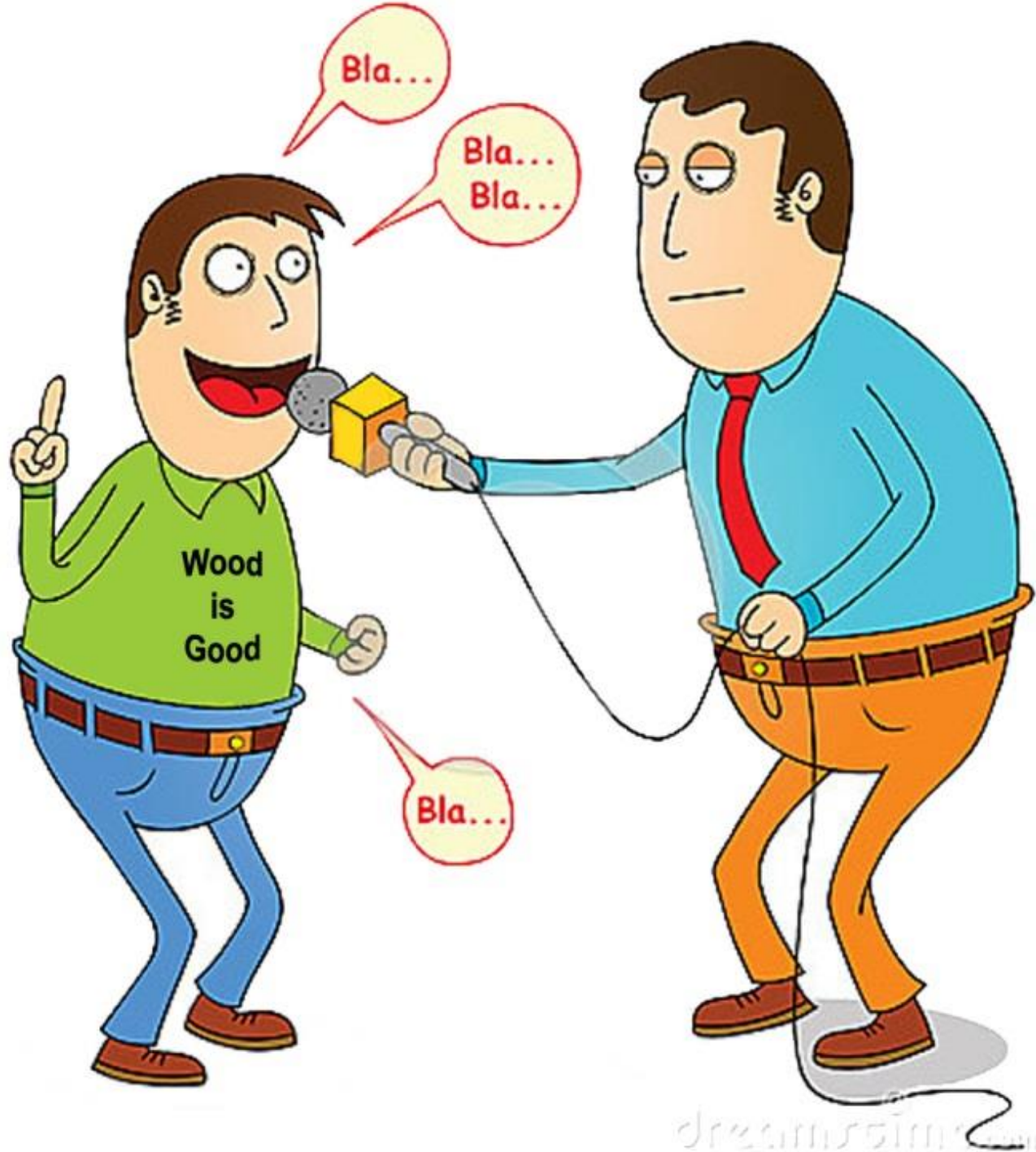
Forecasts are Always Wrong

So Why Bother?



WHO
IS
BEST
TO
FORECAST?

INDUSTRY
LEADERS





Sawmills
Distributors
Manufacturers
Wholesalers

A crystal ball with a white interior and a grey rim sits on a polished, reddish-brown wooden base. The base has a fluted, tiered design. The crystal ball is centered on a light grey background, with yellow vertical bars on either side. The text inside the crystal ball is in a bold, dark green font, arranged in four lines.

A crystal ball with a white interior and a greyish outer rim sits on a polished, reddish-brown wooden base. The base has a fluted, tiered design. The crystal ball is centered on a light grey background, flanked by two vertical yellow bars with diagonal line patterns. Inside the crystal ball, the words "Resource", "Operations", and "Markets" are stacked vertically in a bold, blue, sans-serif font.

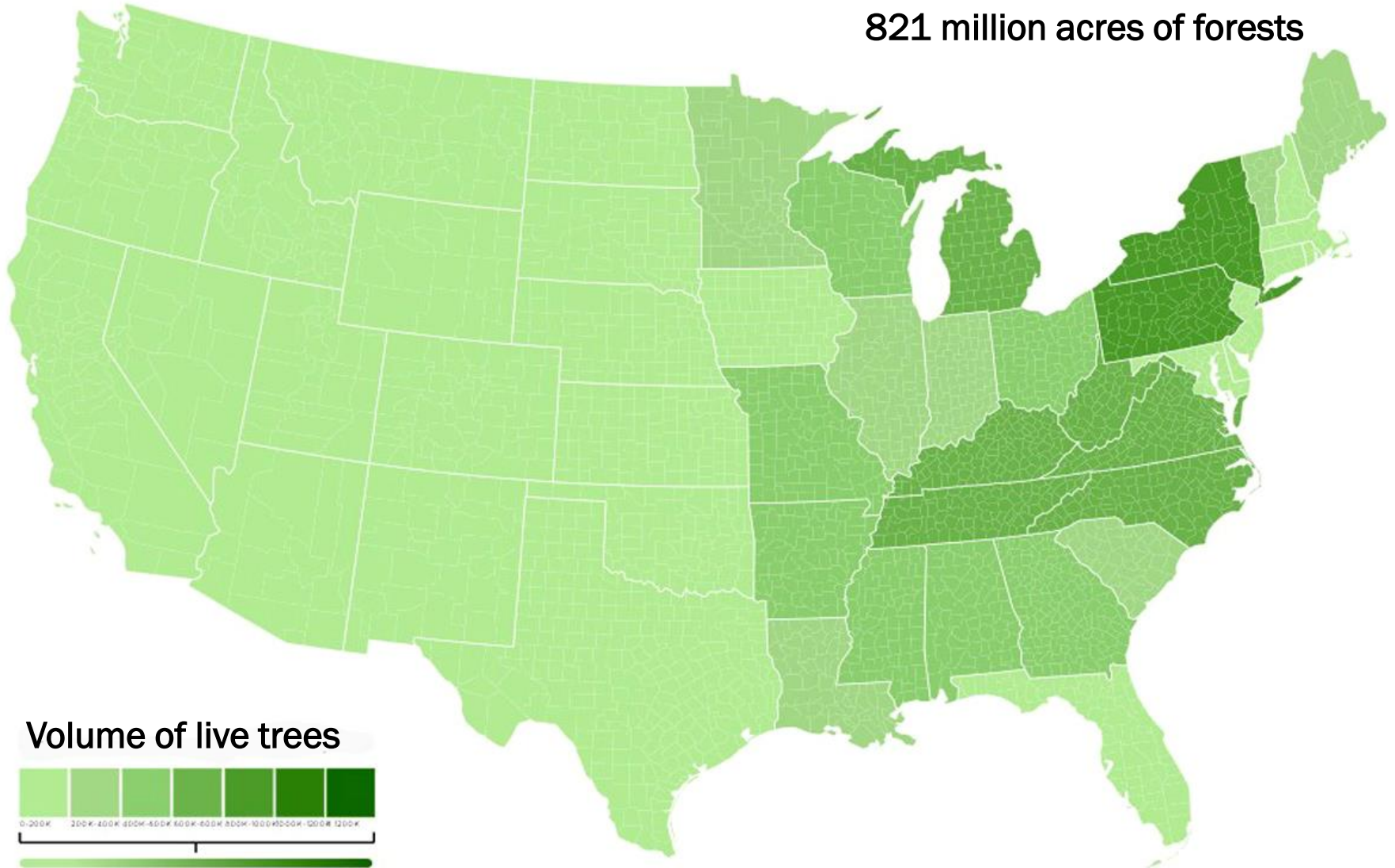
**Resource
Operations
Markets**

RESOURCES



STANDING INVENTORY

821 million acres of forests

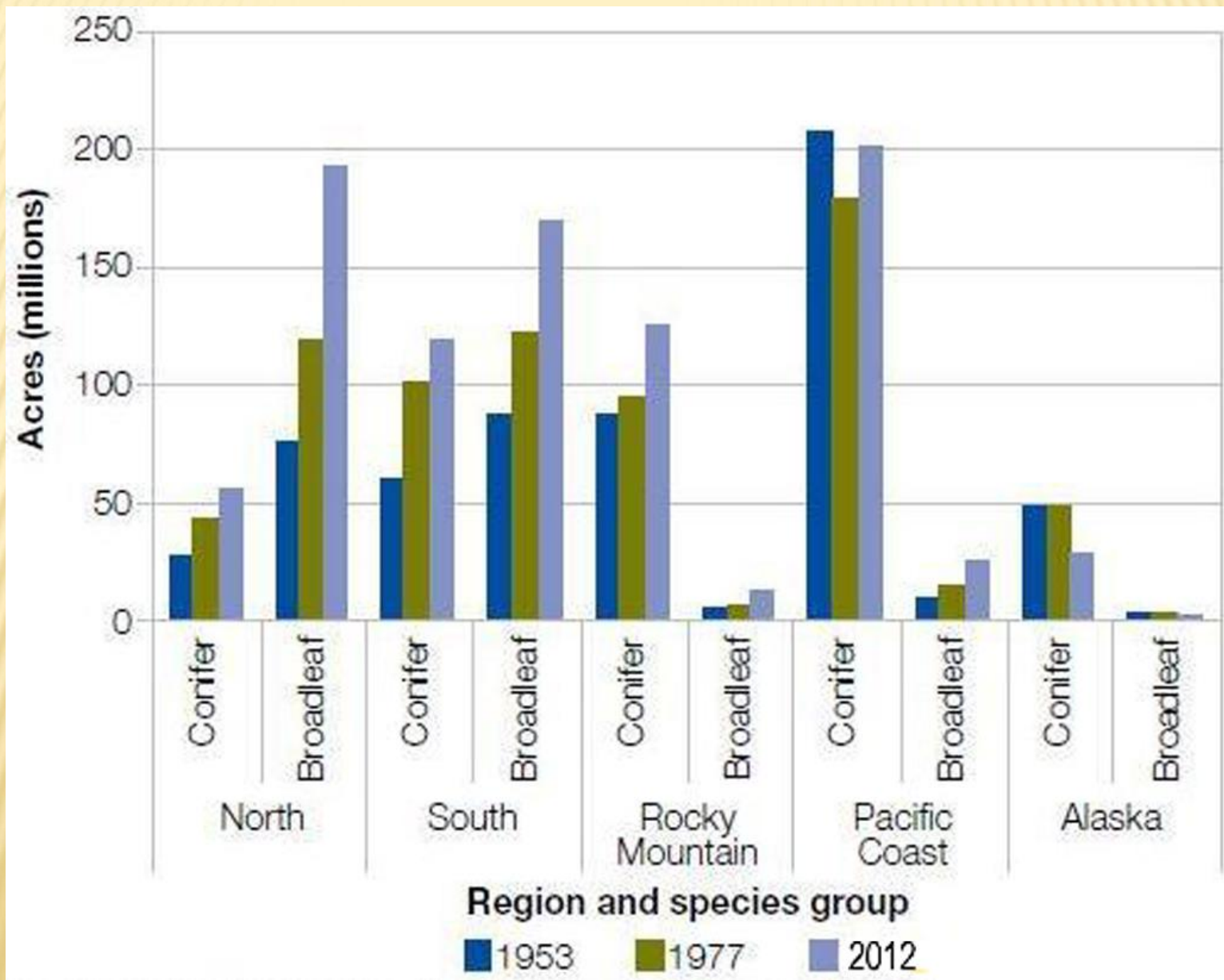


RESOURCE

*“My sawmill is in Pennsylvania where more than 60 percent of the state is **forested** and it is **growing**. That will only continue and the trees will be there to be harvested well into the future. **We’ve got the trees...**”*

- Bob Rorabaugh, Rorabaugh Lumber

SUSTAINABLE U.S. FORESTS



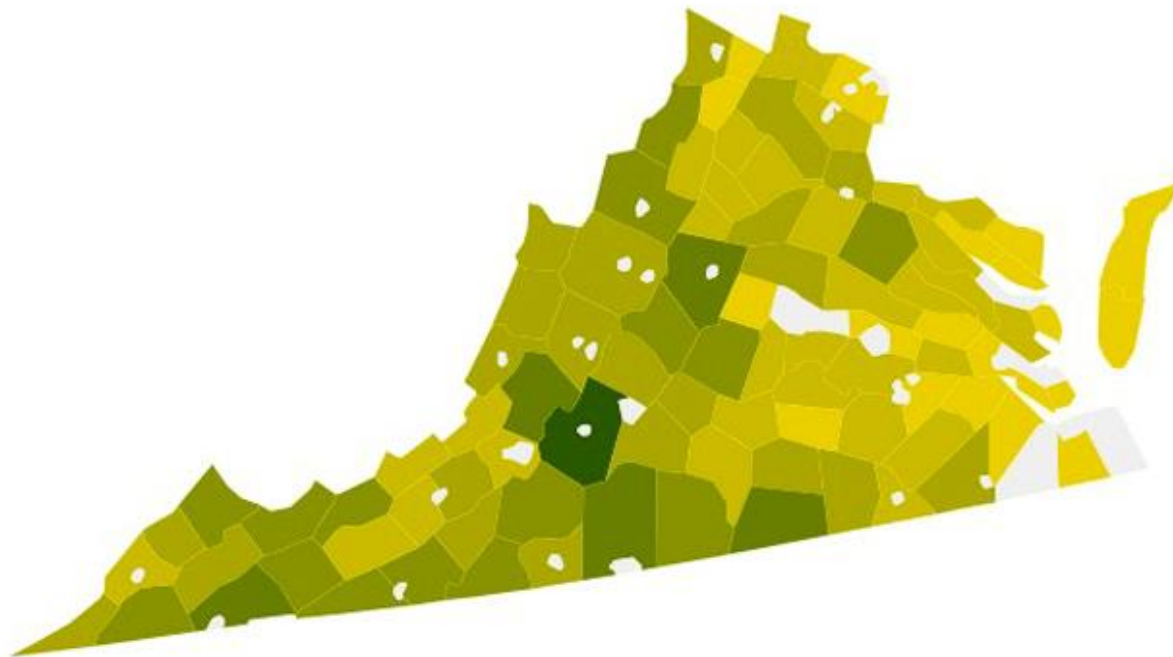
RESOURCE

“We have the timberland and are managing the resource sustainably.

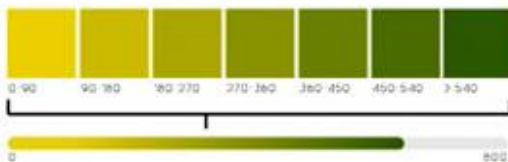
*We have to inform the public that we have a product that **grows**. It **reproduces and regenerates...**”*

- Mike Hoover, Neff Lumber Mills

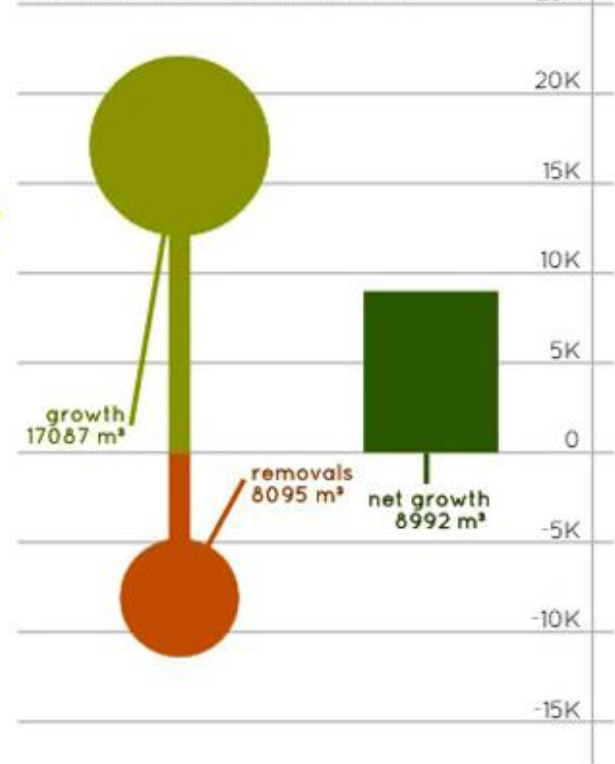
GROWTH TO REMOVAL



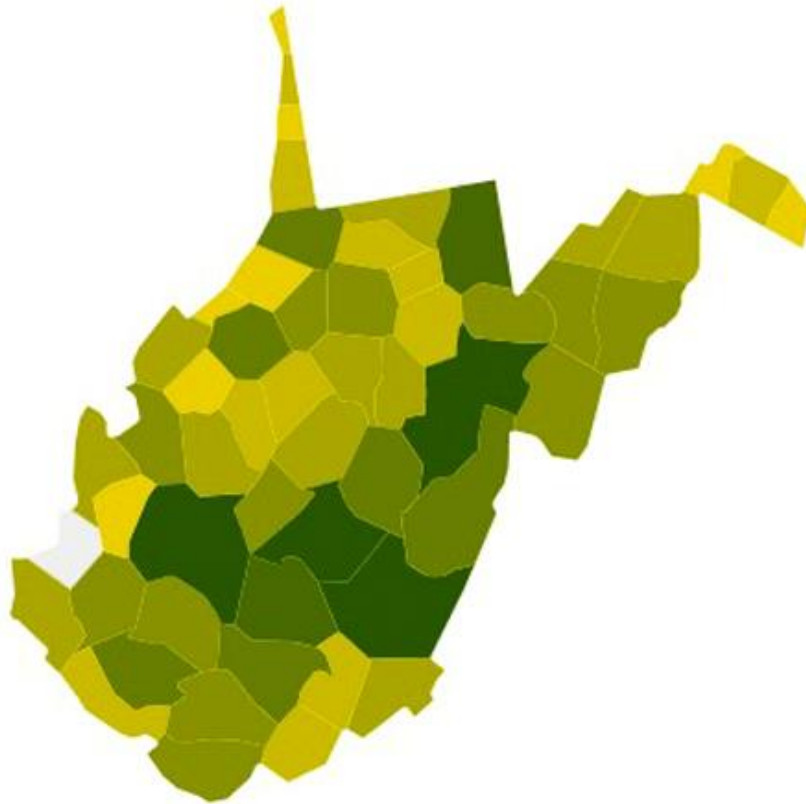
Average annual growth, m³



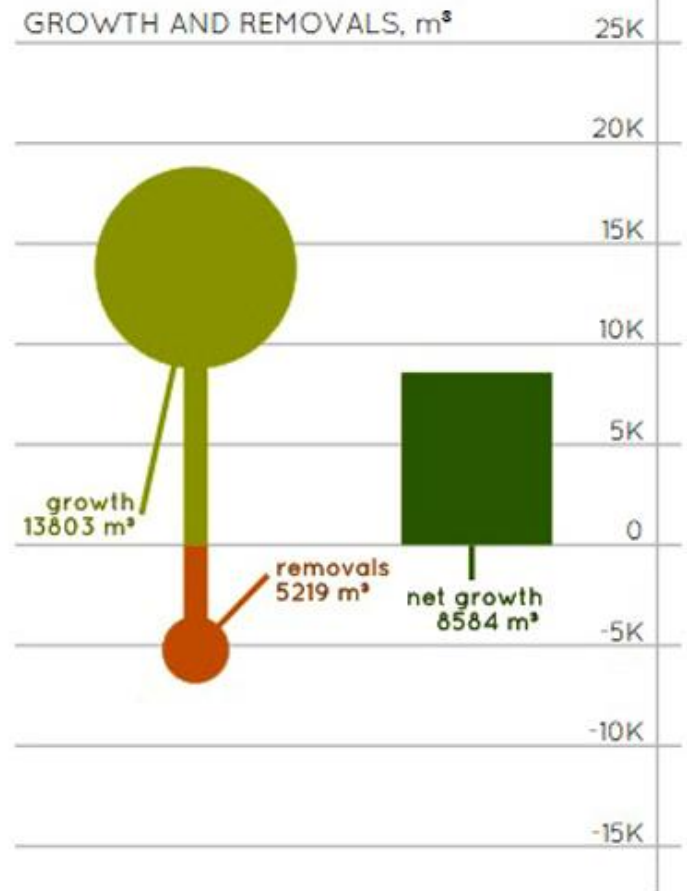
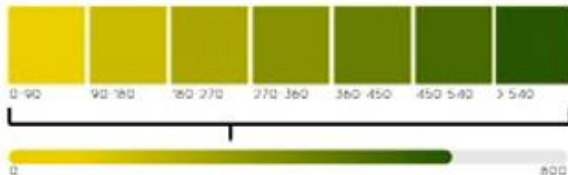
GROWTH AND REMOVALS, m³



GROWTH TO REMOVAL



Average annual growth, m³



EXTRA! EXTRA!

READ ALL ABOUT IT!

**GOOD
NEWS!!**

workers struggled to keep pace
with that faster inflationary

and Labor Department

EDUCATION

*“We have 69 million millennials coming into or already in the workforce. We need as an industry to **educate these millennials** to show them what they need to put in their homes and solid wood makes great products, that are healthy and natural...”*

- Steve Houseknecht, Wagner Lumber Co.



OPERATIONS



INFRASTRUCTURE



INFRASTRUCTURE



INFRASTRUCTURE



INFRASTRUCTURE



INFRASTRUCTURE



OPERATIONS - FUTURE

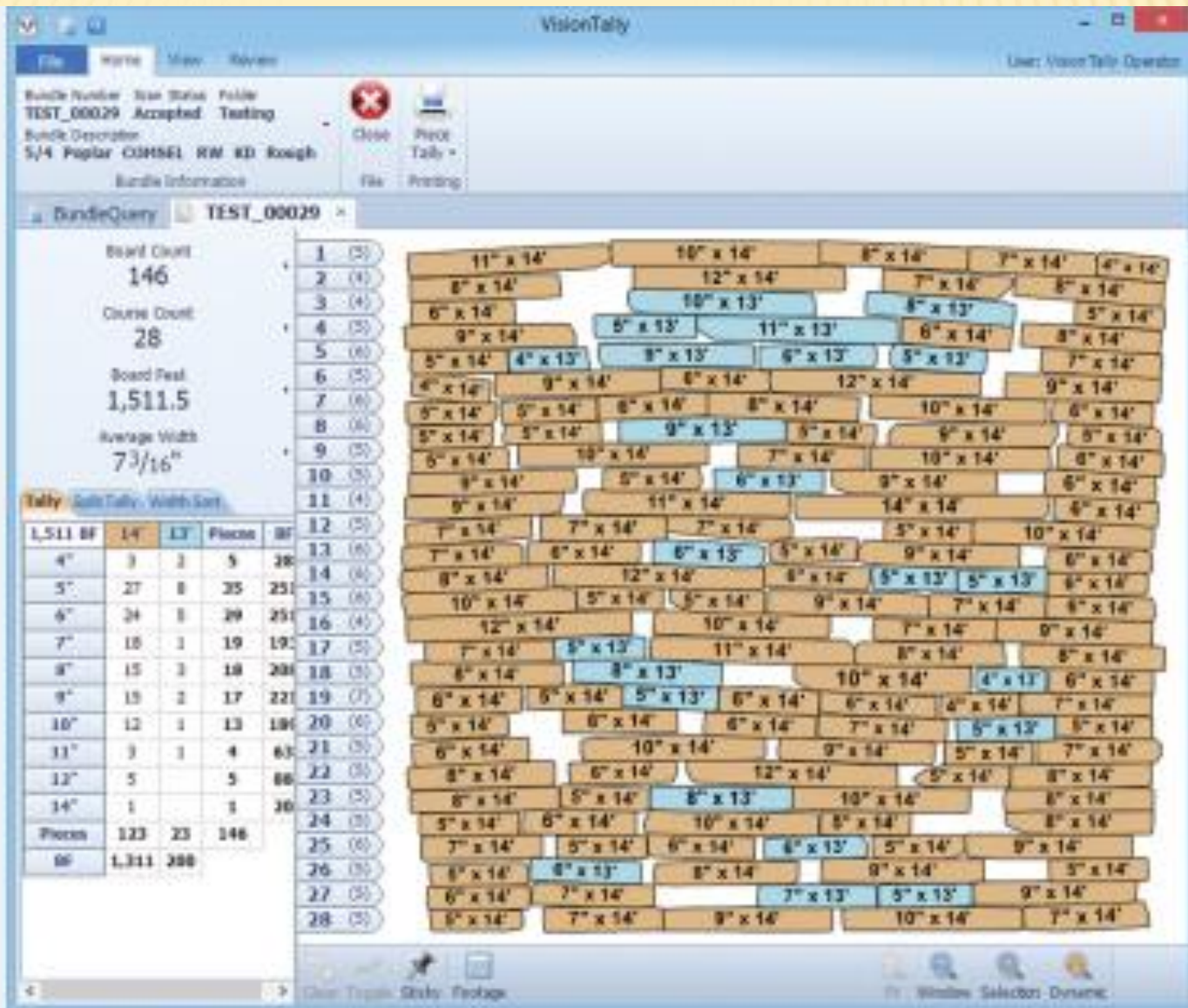
“We will see more electronic or computer guided technological advancements that will require higher skilled technicians at the sawmill level or will require more support help coming from off site...”

- Steve Hamer, Jim C. Hamer Lumber Co.

TECHNOLOGY



TECHNOLOGY



AUTOMATION

*“For three generations, my grandfather, JP Hamer, and father, JC Hamer, have discussed the **future of breaking down a log into boards by laser-guided cutting systems.** I think we will eventually see this happening with fully automated carriage systems, again **controlled by sophisticated computer systems.** ...”*

- Steve Hamer, Jim C. Hamer Lumber

AUTOMATION



AUTOMATION



“You keep telling Johnny to stop playing so many video games, but that appears to be how you make a living.”

LABOR

*“There is a growing need for labor in this industry. We know about the **logger shortages** but other **employees** are harder and harder to find...”*

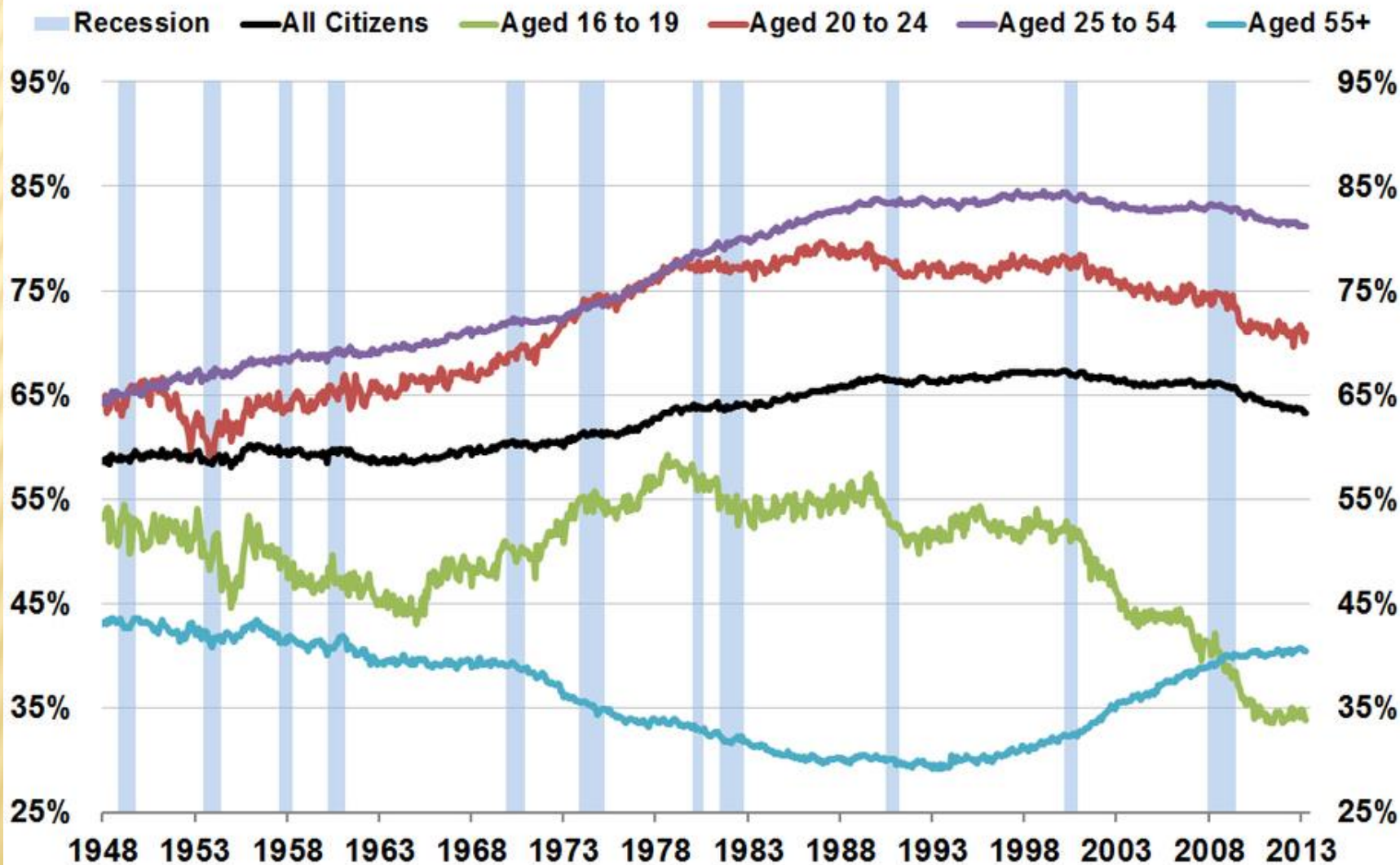
- Mike Hoover, Neff Lumber Mills

LABOR



LABOR

US: Labor Force Participation Rates

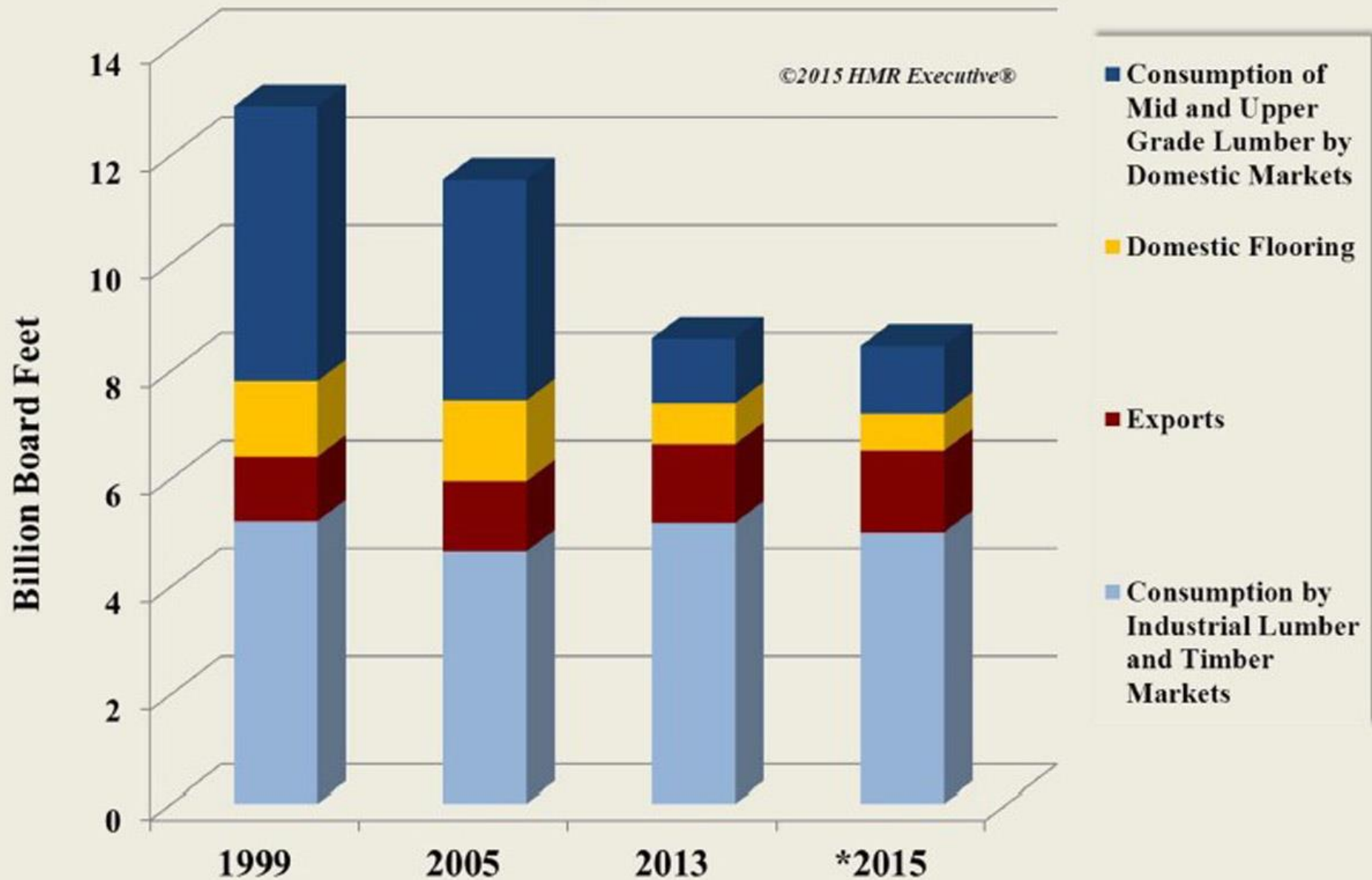


Source: Bureau of Labor Statistics

MARKETS



MARKETS – US GRADE & INDUSTRIAL



MARKETS

“I believe the future of the hardwood industry has the potential to be very bright. My greatest fear, however, is the rise of substitute products which are taking away market share from traditional hardwood products...”

- John Crites, II, Allegheny Wood Products

MARKETS



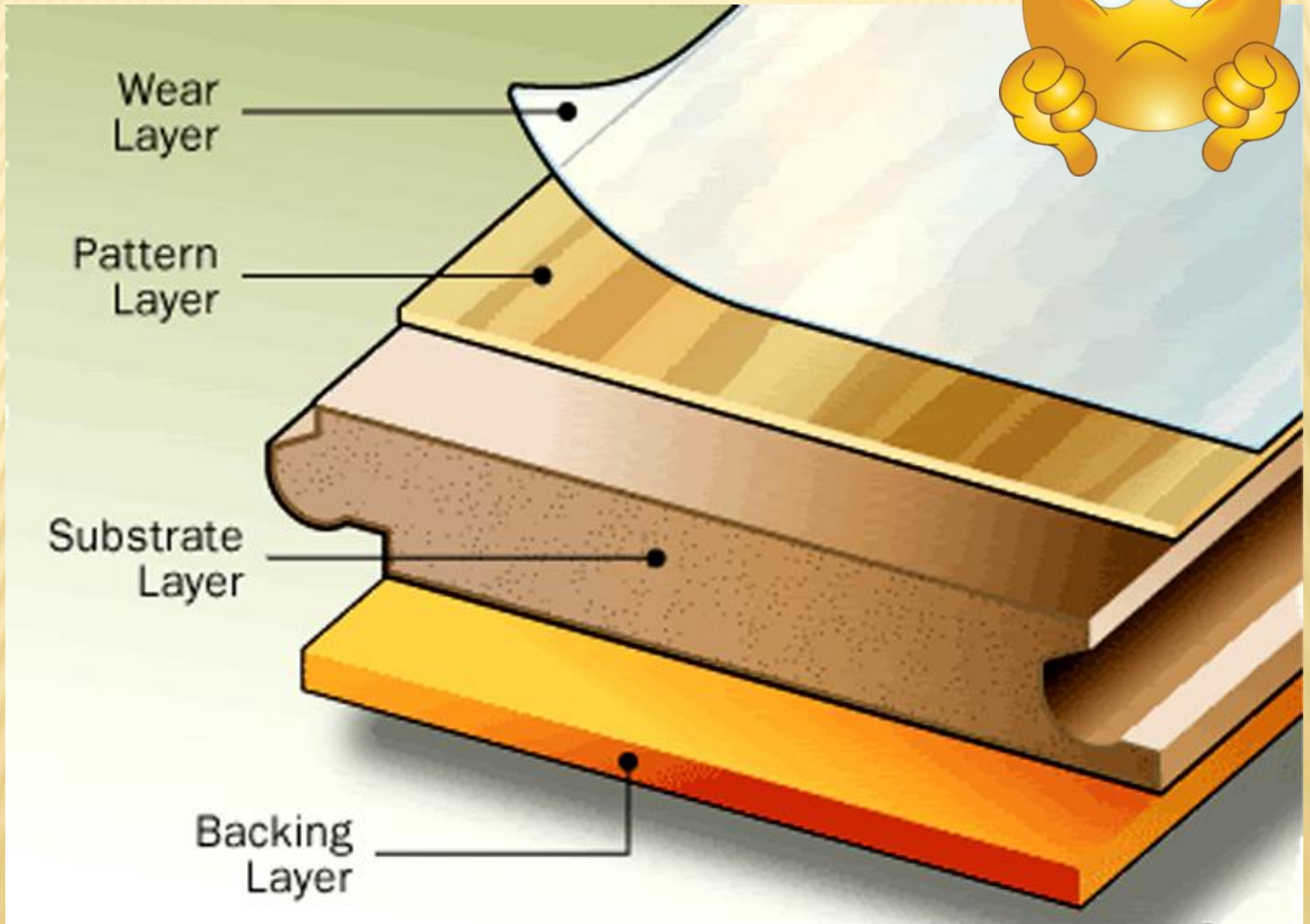
MARKETS



With its dark finish and sleek lines, the Shay queen poster storage bed incorporates a crisp, clean vibe in the bedroom. Though it's classic contemporary, it's also right at home among vintage furnishings. Two smooth-gliding drawers are a bedside dream. Mattress and foundation/box spring sold separately.

- Made of manmade wood
- Includes headboard, footboard, storage drawers, posts and rails
- Nickel-tone knobs
- Base with 2 smooth-operating drawers
- Assembly required

MARKETS



MARKETS



MARKETS

*“The problem the industry faces is commodity pricing. In the internet age, the availability of information regarding producers and **pricing has tightened trading ranges.** Coupled with the growing Chinese influence in pricing, the industry is **suffering from a flat trading range and commodity style markets...**”*

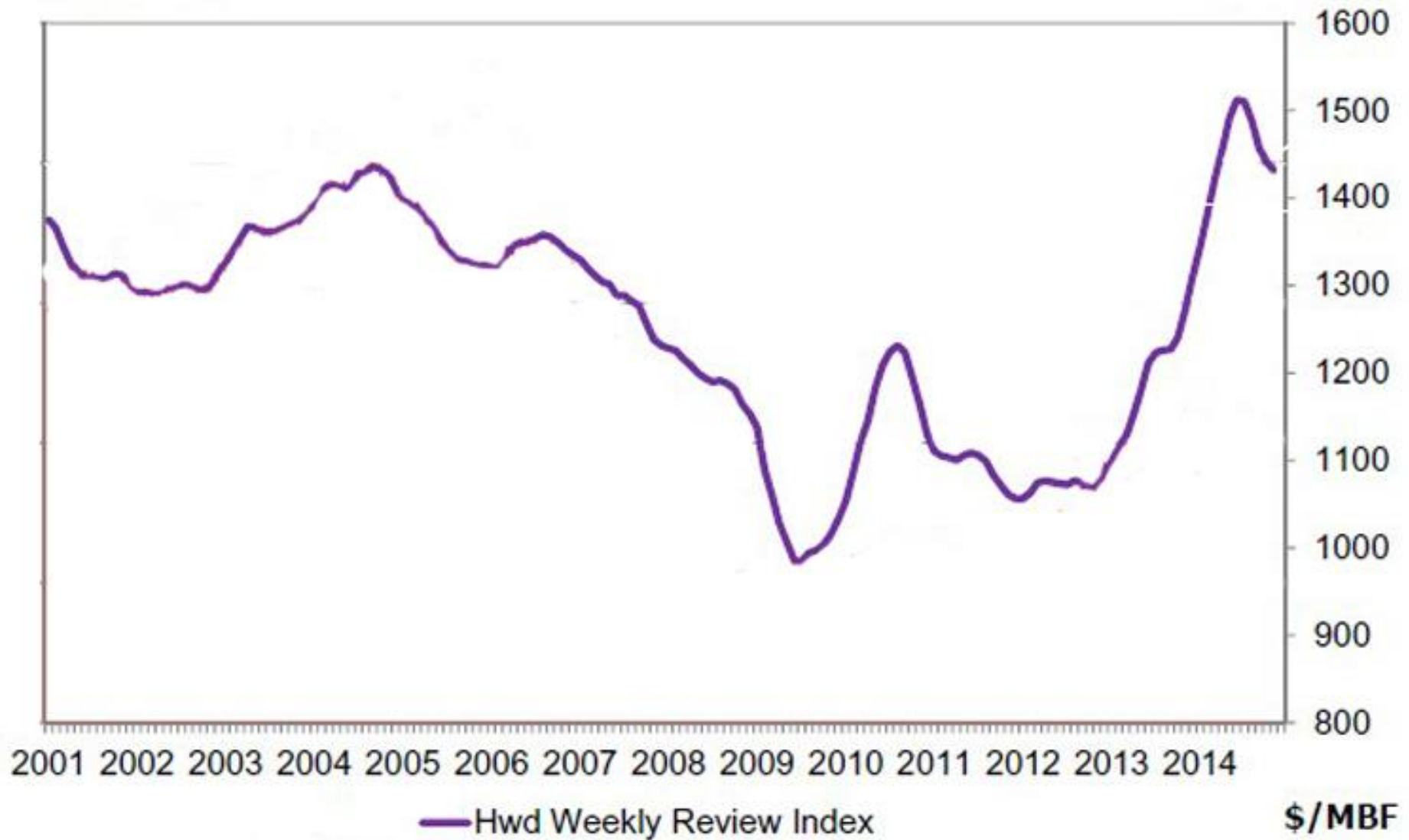
- Joe Pryor, Oaks Unlimited

COMMODITY DEFINED

A basic good used in commerce that is interchangeable with other commodities of the same type. The quality of a given commodity may differ slightly, but it is essentially uniform across producers.

- Investopedia

PRICING INDEX



FUTURE



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So Why Bother?

NEW PRODUCTS



NEW PRODUCTS



NEW PRODUCTS

UMass Design Building

- 87,000 sq. ft.
- \$52 million
- Classrooms & offices
- Atrium & courtyard
- Set to open in November



NEW PRODUCTS



Oregon Tallest Timber Building

- 12-story timber construction
- Offices and residential
- Set to open in 2018

EPA's RULE TO IMPLEMENT THE FORMALDEHYDE STANDARDS FOR COMPOSITE WOOD PRODUCTS ACT

Specifically, this rule will:

- Limit formaldehyde emissions from composite wood products that are sold, manufactured, or imported in the United States. Formaldehyde is found in the adhesives used in a wide range of composite wood products.
- Level the playing field for domestic manufacturers who have a high rate of compliance with the California standard and will ensure that imported products not subject to California's requirements will meet the new standard.
- Set testing requirements to ensure that products comply with those standards.
- Establish a third-party certification program to ensure that composite wood panel producers comply with the new emissions limits

FUTURE



Solid Hardwood Flooring

Crafted from one solid piece of lumber, solid wood flooring is available in a variety of sizes and species.

FUTURE

*“We need to build personal relationships with our customers and suppliers so they can **understand our unique qualities** and we can **personalize our products to meet their needs...**”*

- Joe Pryor, Oaks Unlimited

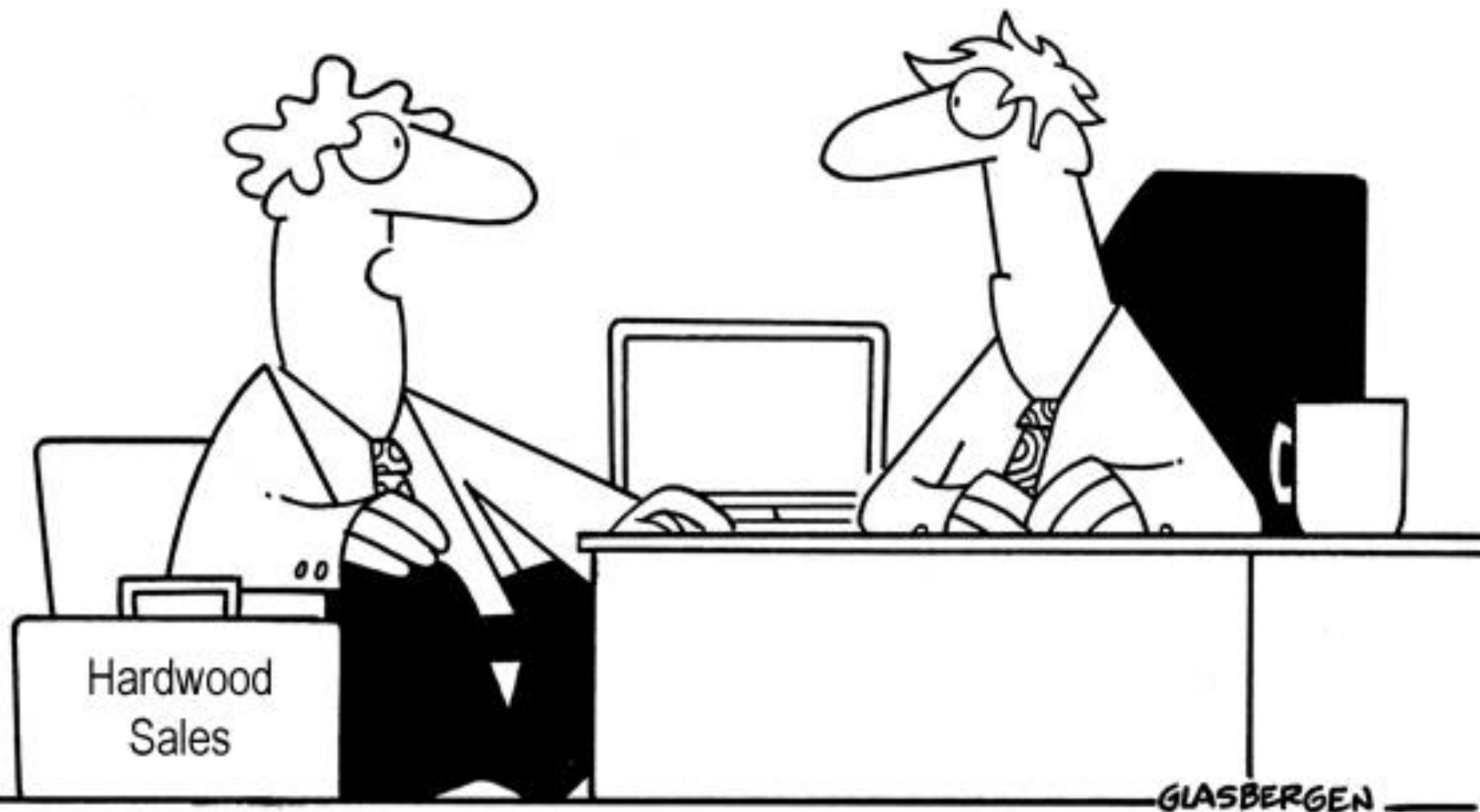
FUTURE



FUTURE

“So....we can personalize our products to meet their needs...”

- Joe Pryor, Oaks Unlimited



“How can I learn about your company’s needs if you keep interrupting me?”

FUTURE

“The future? I see nothing but growth, growth, growth...”

- Steve Houseknecht, Wagner Lumber Co.



ABSOLUT[®]



VODKA RESTED ON OAK



Thank you

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