NE LANDSCAPE COMMITTEE
FEBRUARY 15, 2012

Tim J. O'Hara — MINNESOTA FOREST INDUSTRIES

Steve Betzler — minnesota power, AN ALLETE COMPANY

Dave Chura — MINNESOTA LOGGER EDUCATION PROGRAM (MLEP)

- Forest Products Industry of MN
- The Past
- The Next 10 years
- Logging Infrastructure
- Cost Pressures
- NE Landscape Timberlands and Outputs

Minnesota Forest Industries

MFI
MINNESOTA FOREST INDUSTRIES

BOISE
UPM
Potlatch
Norbord
sappi
VERSO
VERSO PAPER
minnesota power
AN ALLETE COMPANY
HEDSTROM LUMBER COMPANY Since 1914
FOREST CAPITAL PARTNERS LLC
LP BUILDING PRODUCTS
Bell LUMBER & POLE CO. SINCE 1909

Boise – International Falls

Specialty papers

Label release papers

Imaging Papers

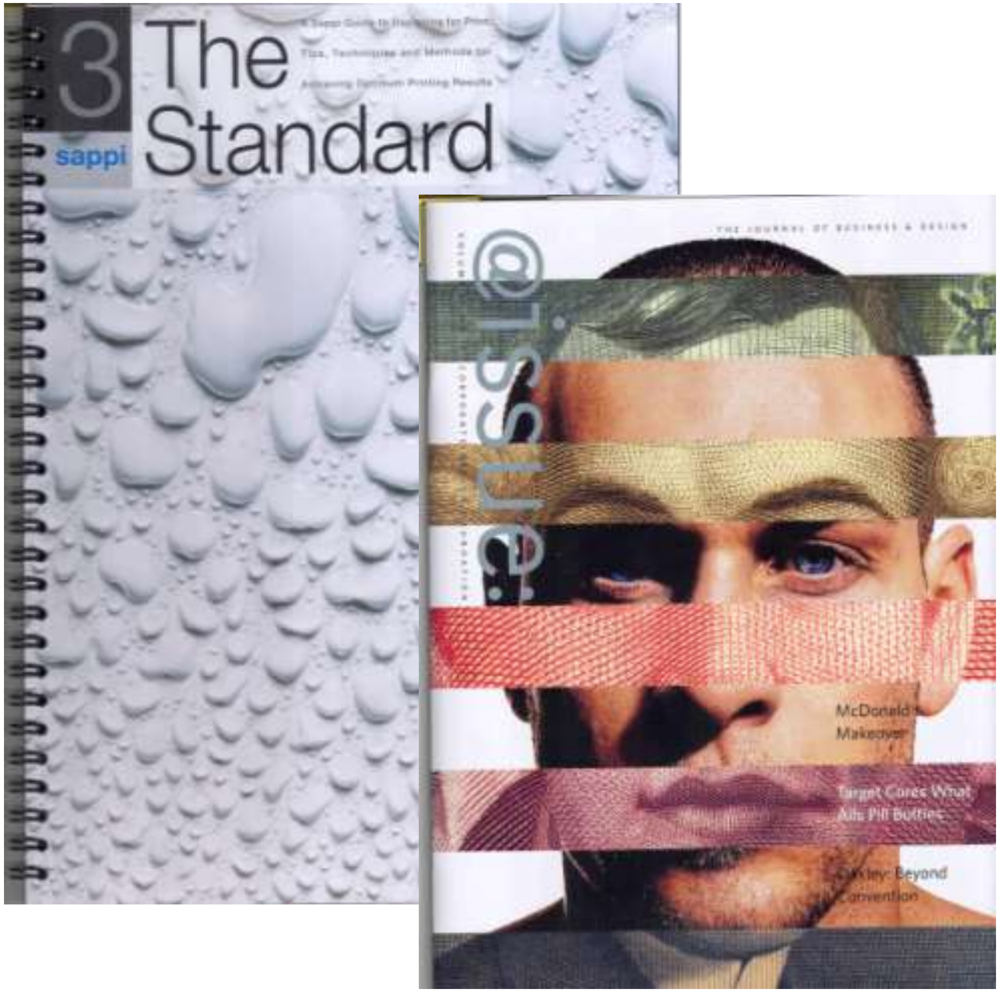
Splox Delivery system

Verso – (Sartell) — UPM-Blandin (Grand Rapids)

Coated and uncoated publication papers

- Financial printing
- Commercial printing
- Catalogs/Magazines
- Book publishing
- Inserts
- Educational materials
- Manuals
- Direct mail

Sappi – Cloquet



Cloquet Mill At-a-Glance

Annual Production Capacity: 330,000 metric tons of paper and 455,000 metric tons of pulp

Products: McCoy, Opus, Flo sheets

End Uses: annual reports, advertising brochures, fine art books

NorBord – Solway

Potlatch – Bemidji

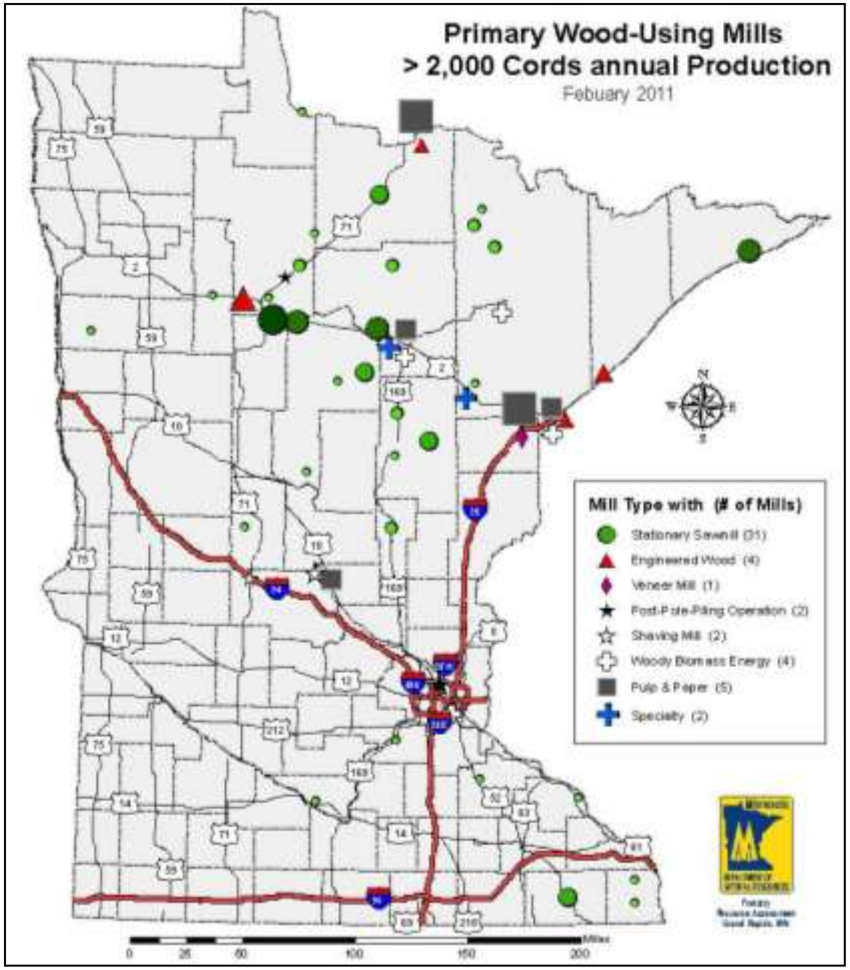
2 x 4's

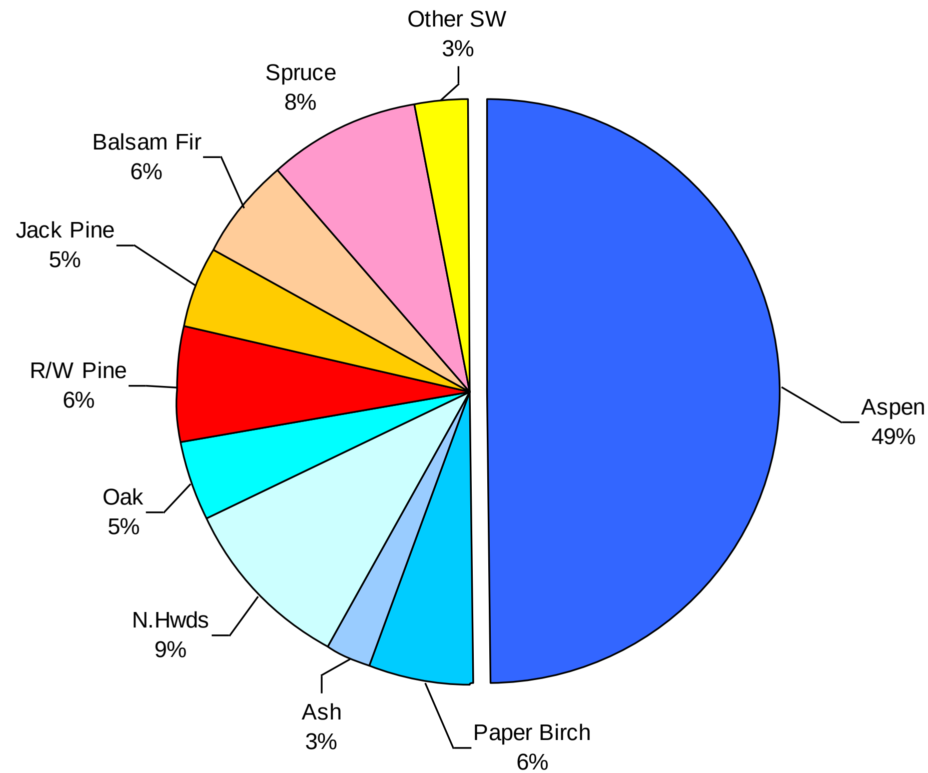
Finger-Joint Studs

Hedstrom Lumber – Grand Marais

Paneling—Siding—Dimension Lumber—Chips/Bark

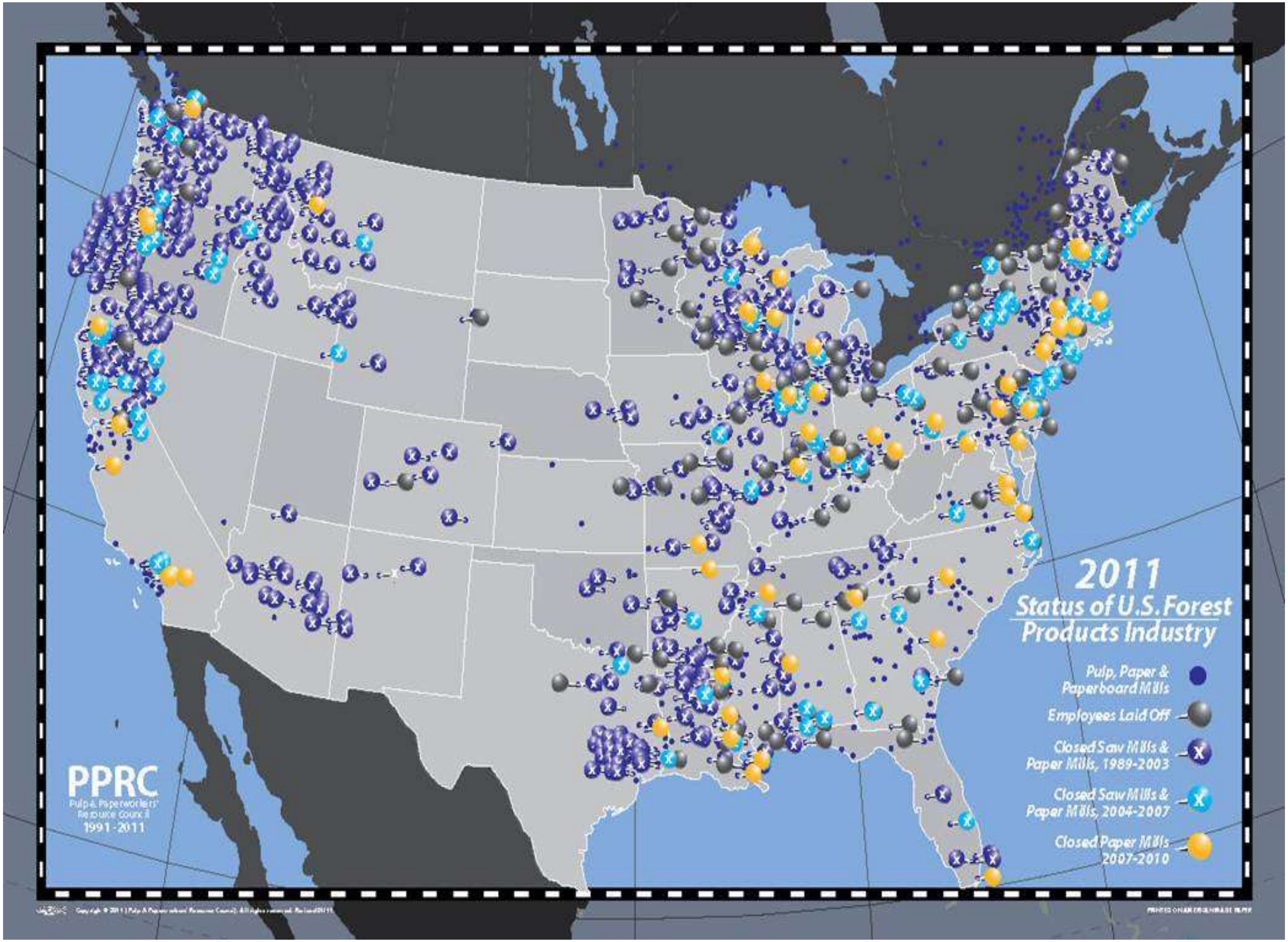
Primary Wood Using Facilities and Utilization (2010)





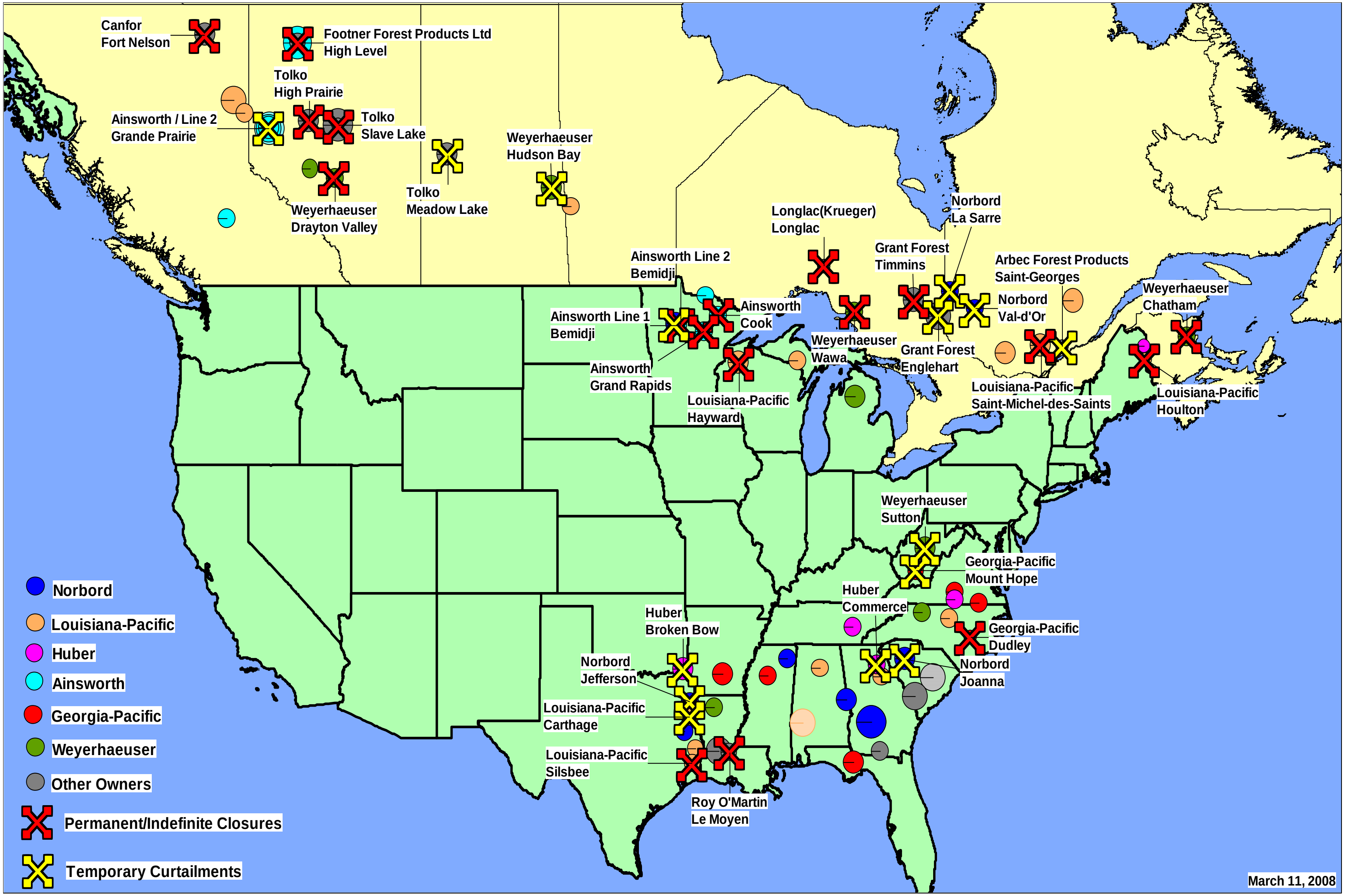
Aspen 49%
Softwoods 27%
Other Hardwoods 24%

US Mill Closures and Curtailments

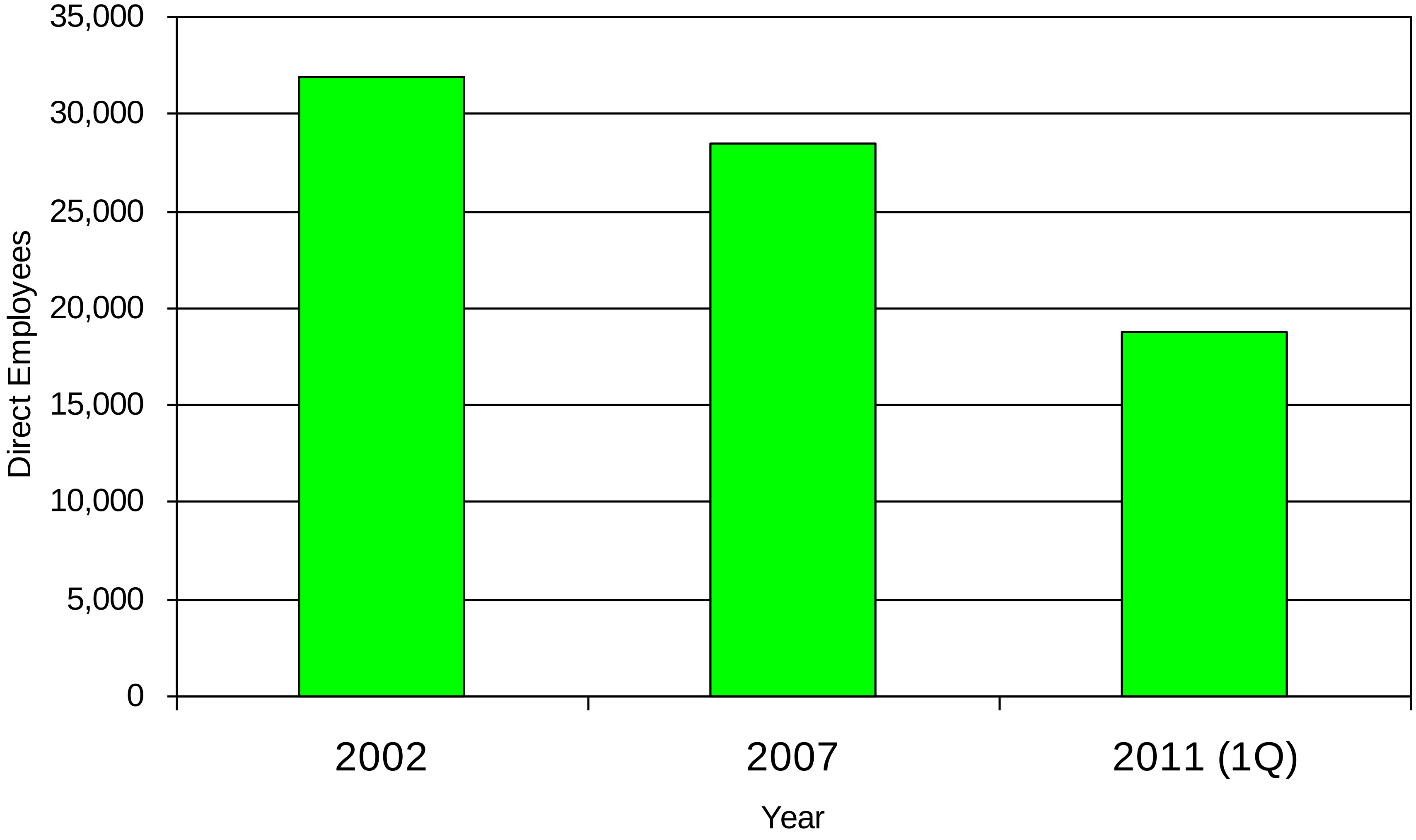


Source: PPRC

Panel Board Mill Closures and Curtailments



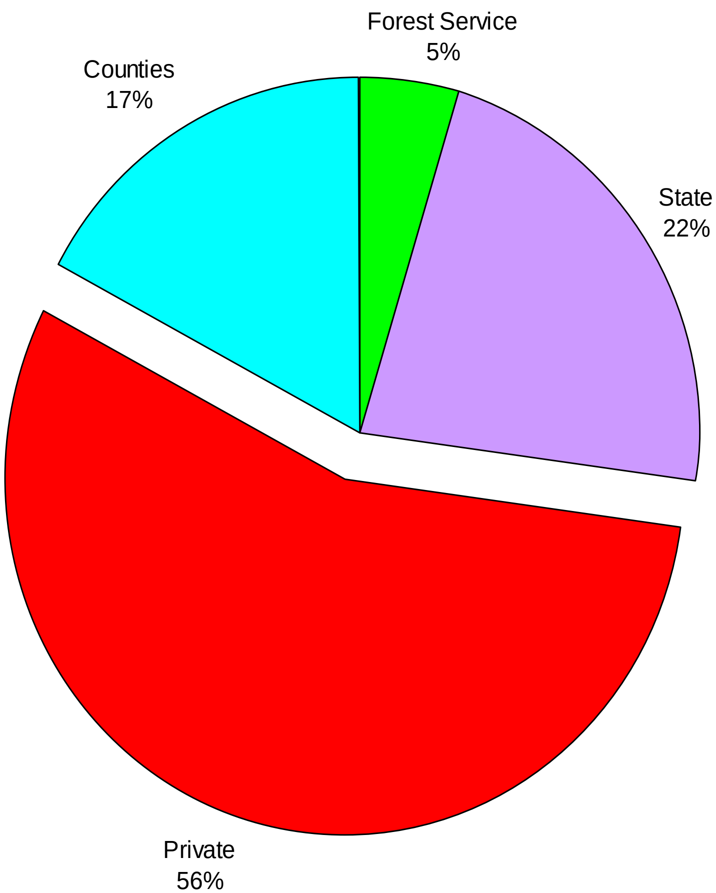
Paper and Wood Product Manufacturing Jobs (NAICS 321, 322)



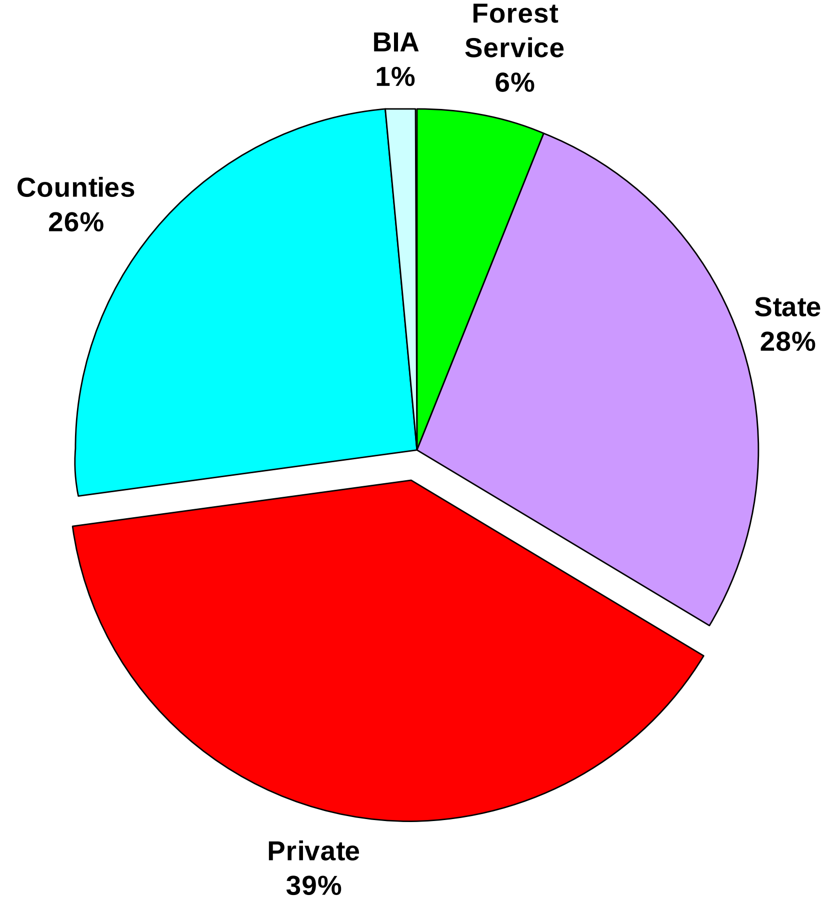
Source: US Census of Manufacturers

Who Supplies the Timber—2005 and 2010

2005



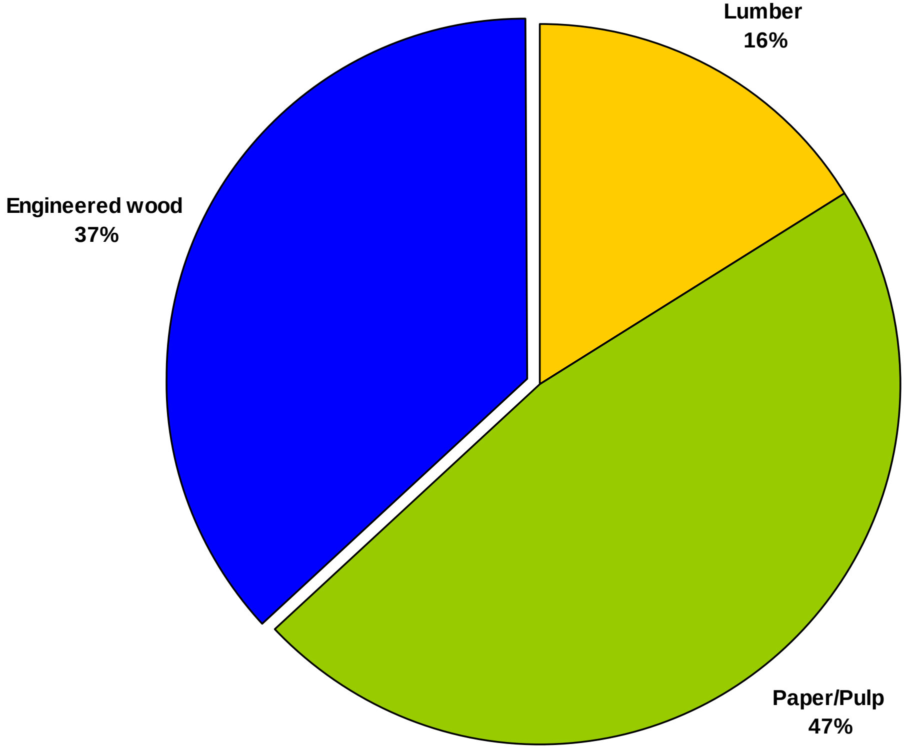
2010



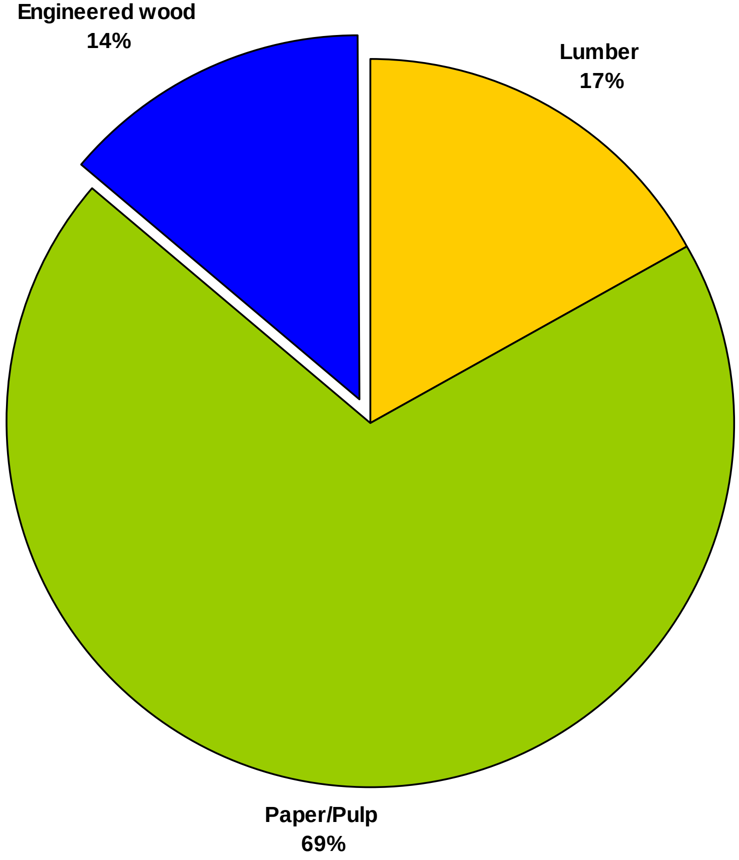
Source: MFI, MN-DNR

Wood Utilization by Sector 2006 and 2011

2006

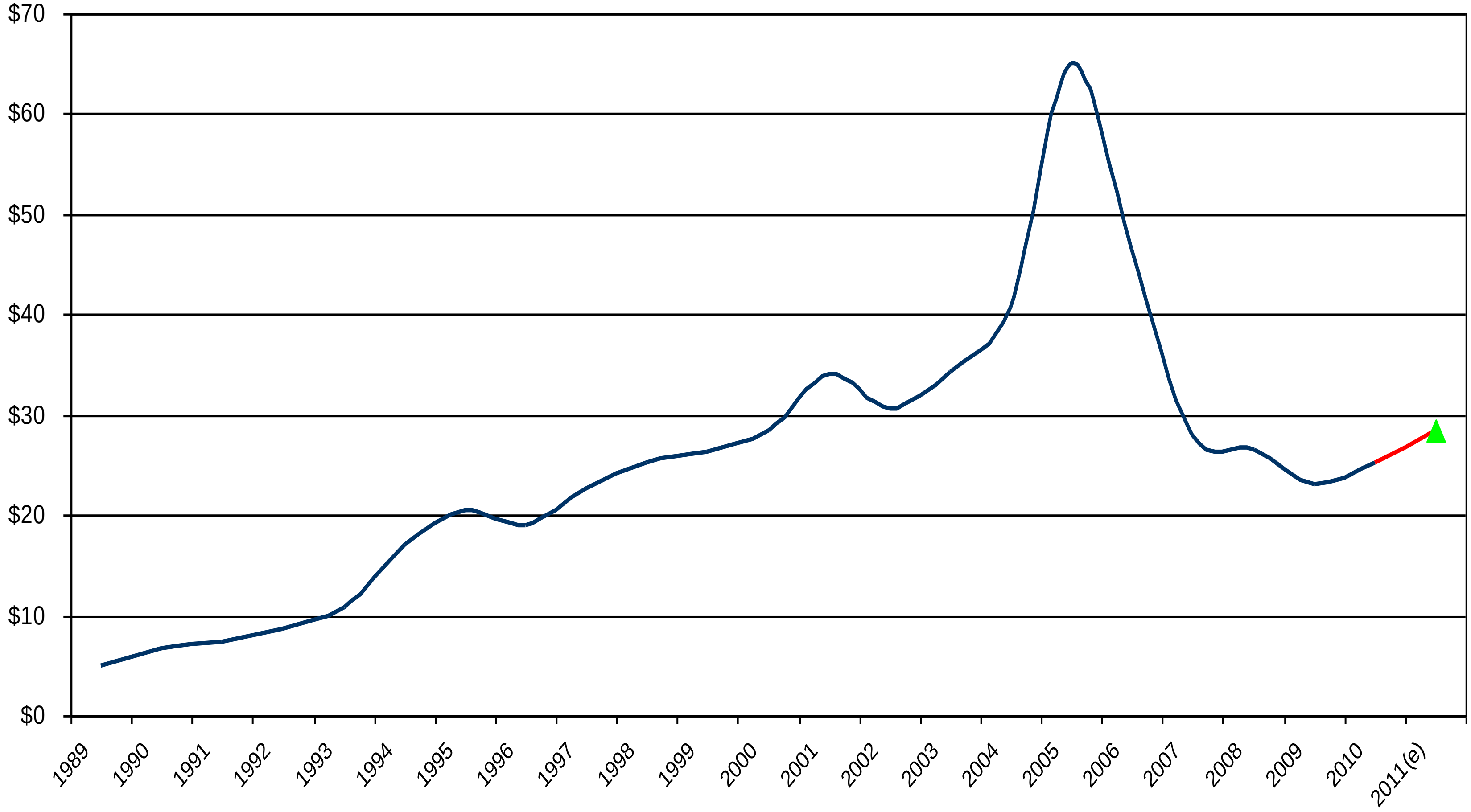


2011



Source: MFI, MN-DNR

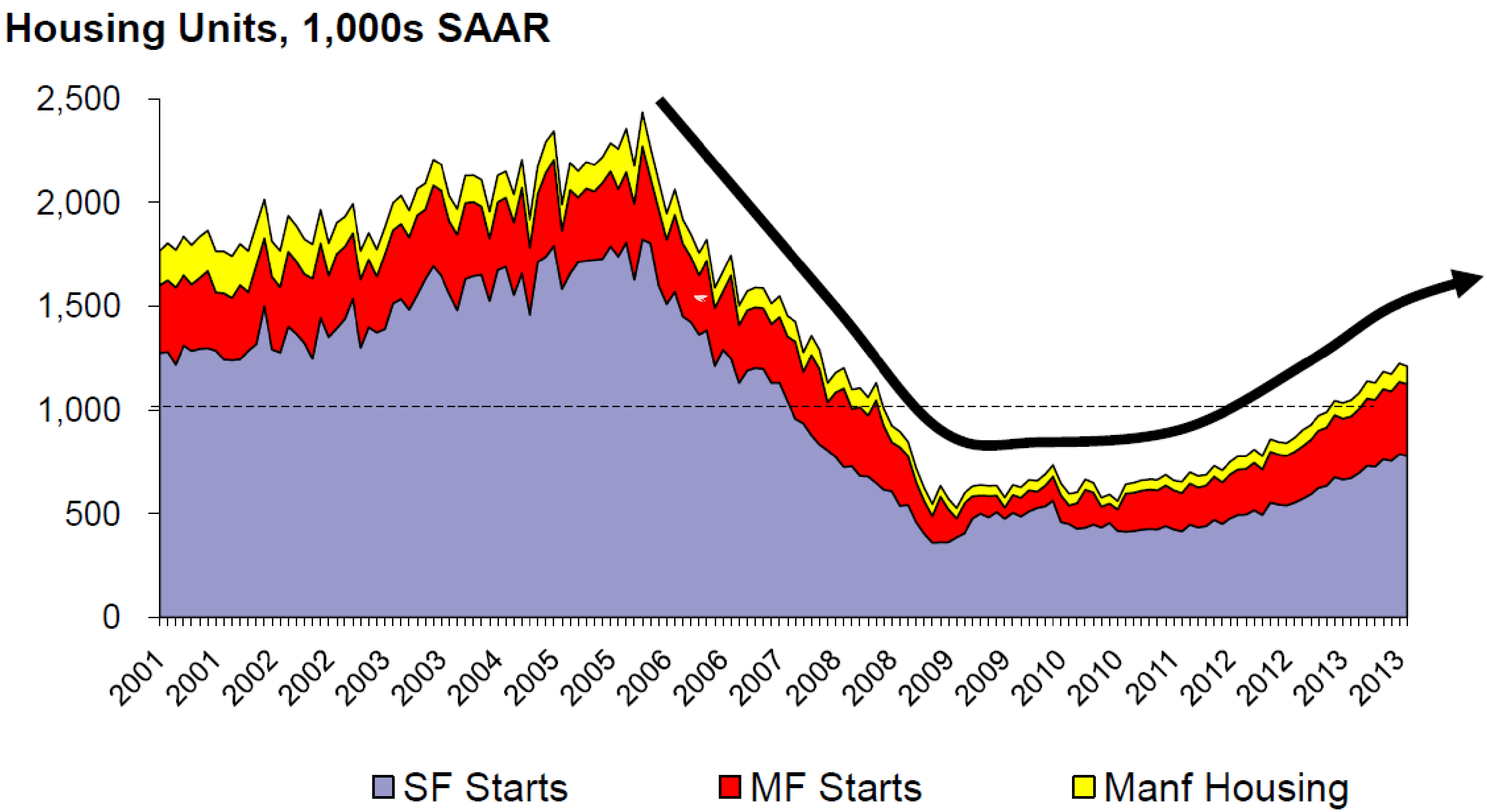
Cost Pressures—Timber Supply / Forest Management



NE Landscape Wood Product Facilities

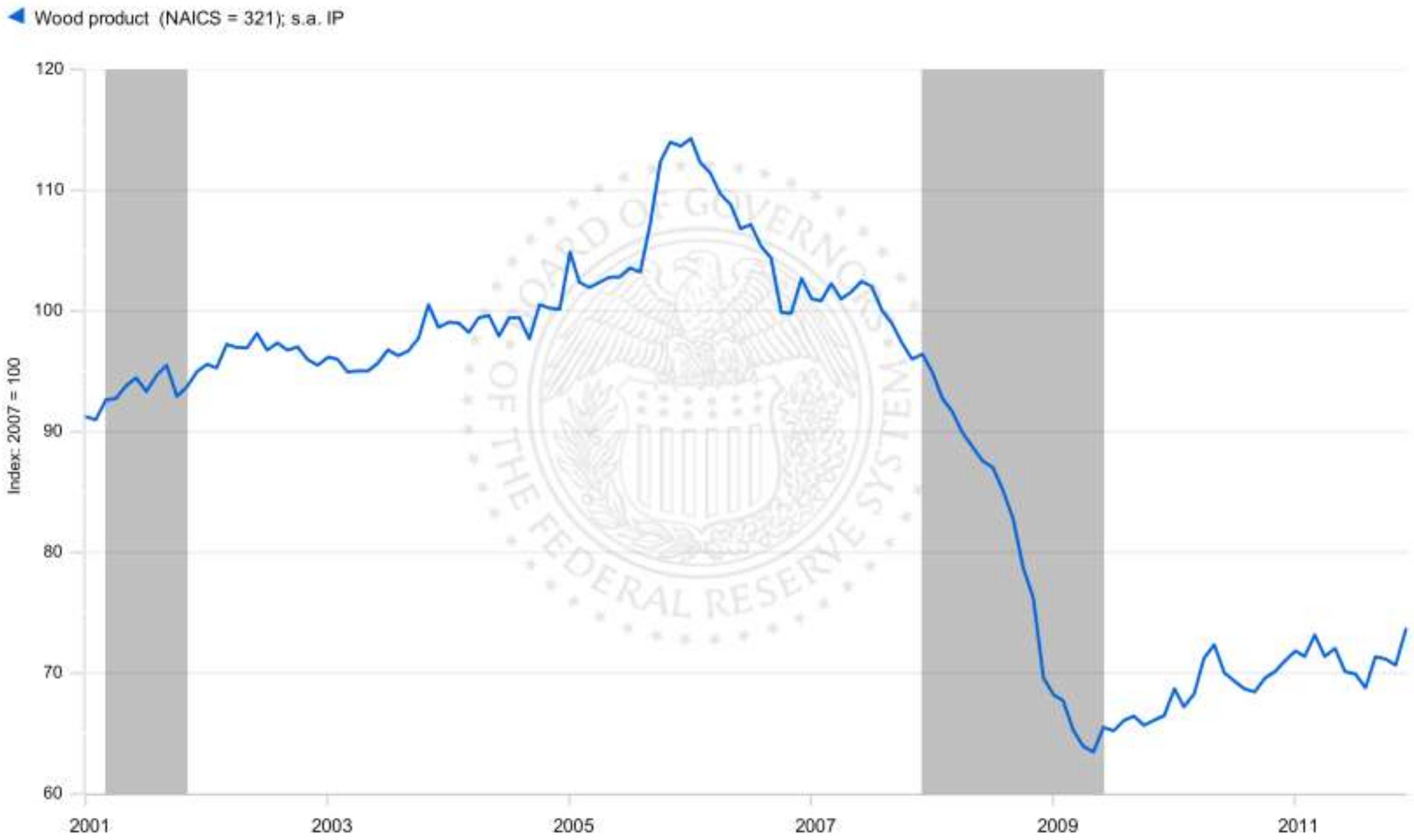
- Lumber Mills
  - Structural timber (SFP)
- Engineered Wood Products
  - Siding
  - Fiber board
- Paper Mills
  - Publication and writing papers

Home construction forecast



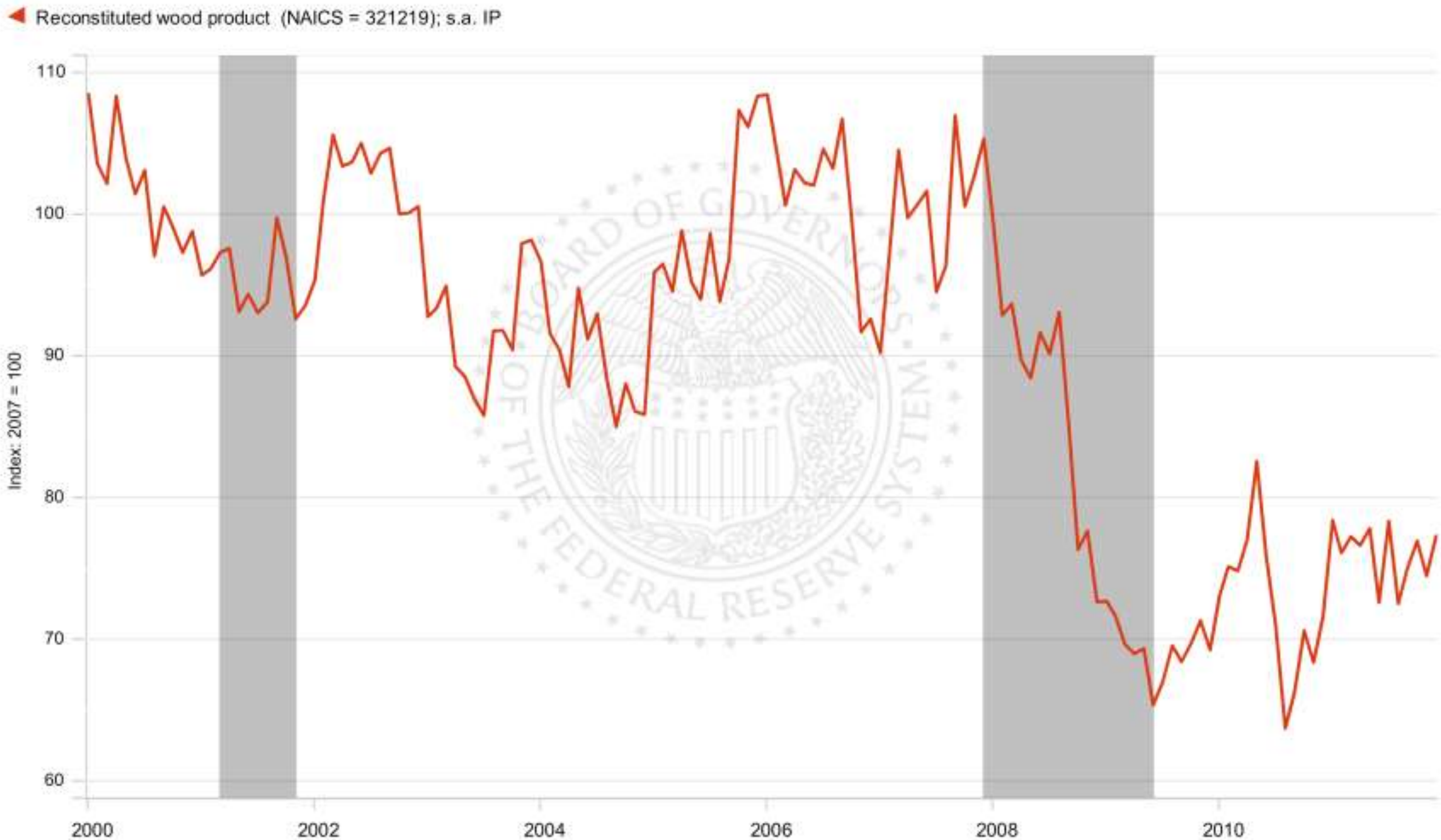
Sources: U.S. Census, WWPA

Wood Products Production Index (2007=100)



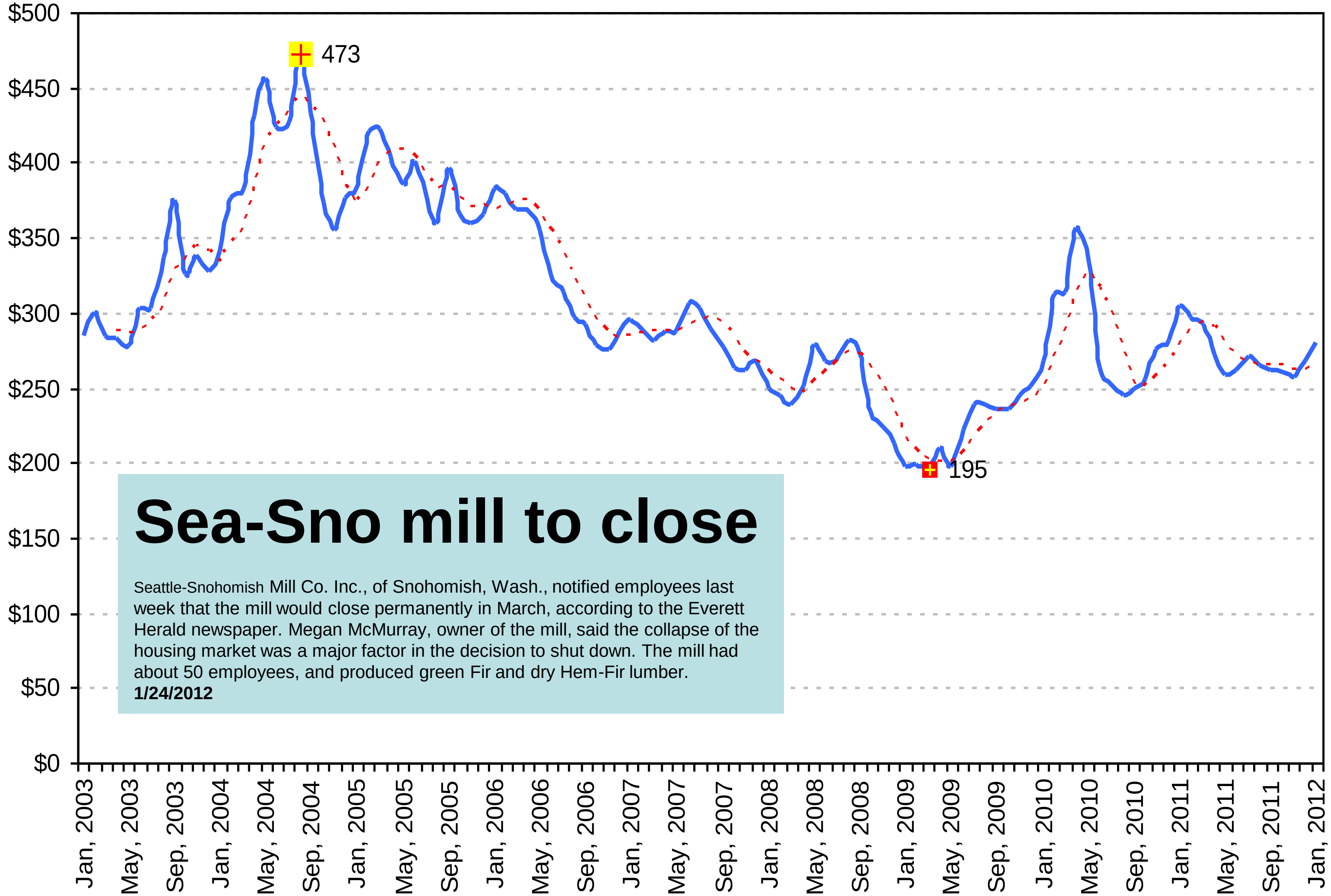
Source: Federal Reserve Board 2012
Note: The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

OSB Production Index (2007=100)



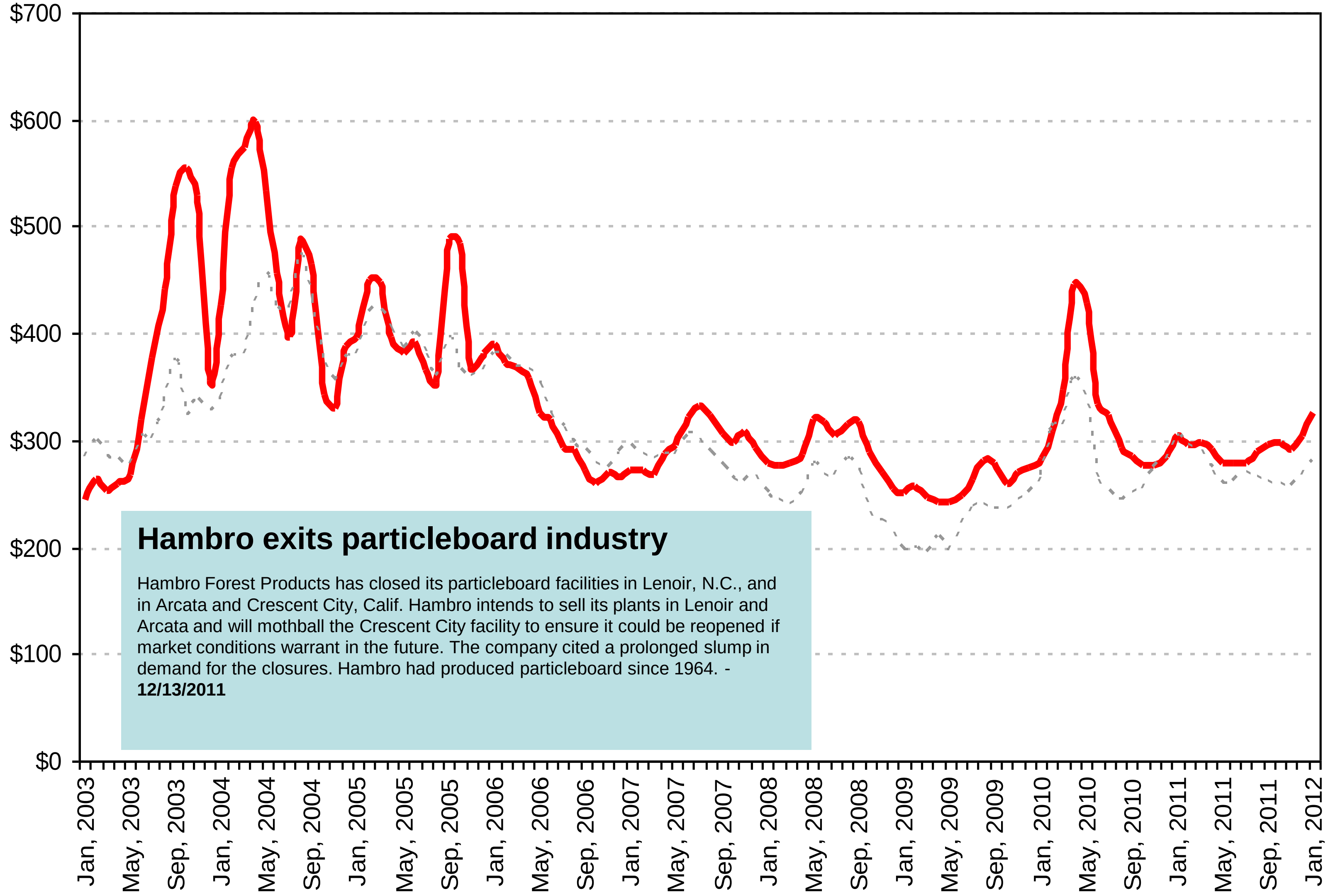
Source: Federal Reserve Board 2012
Note: The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

Composite Framing Lumber Index ($/1,000 thousand board feet)



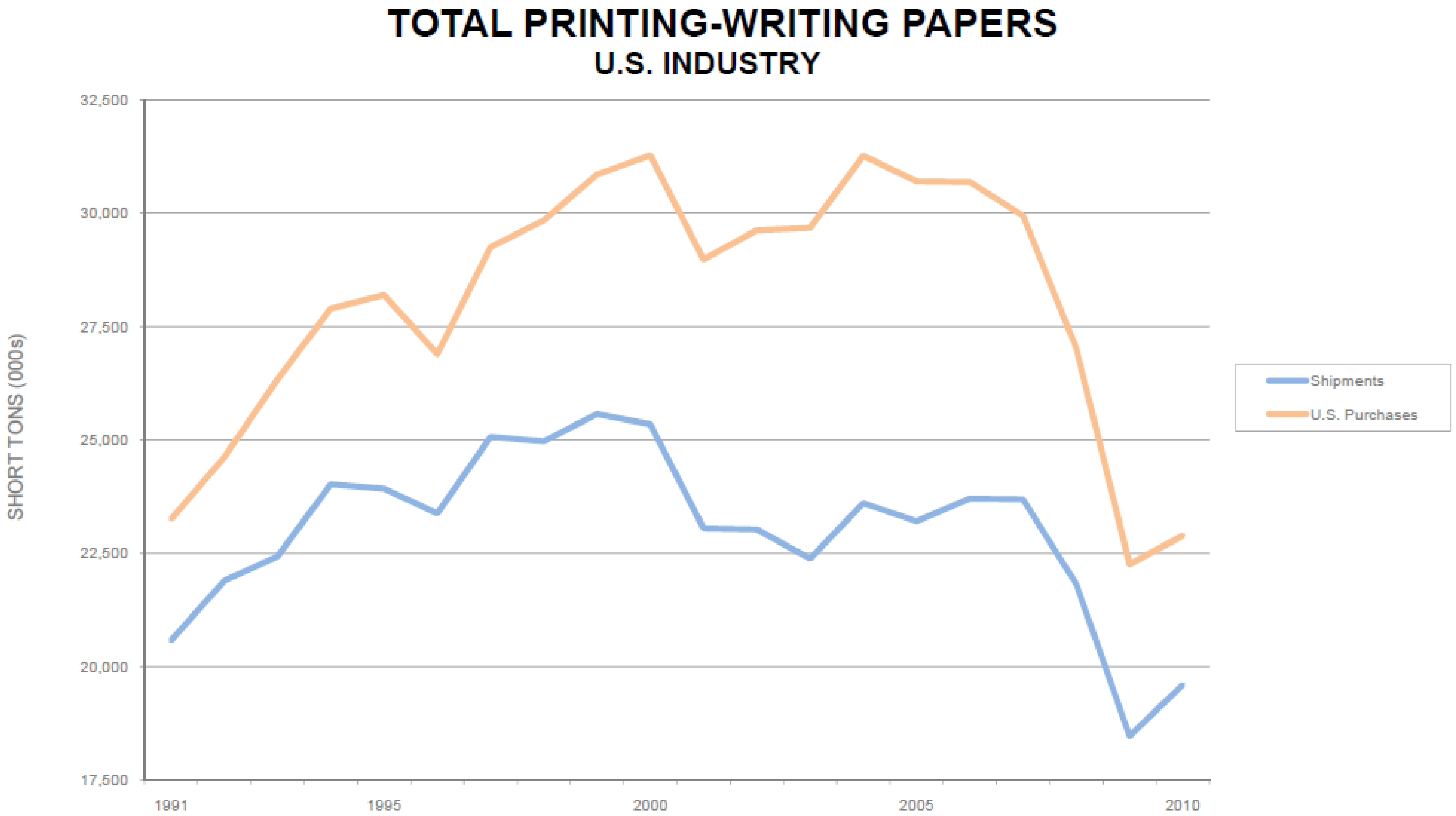
Source: Random Lengths

Composite OSB Composite Index ($/1,000 sq’ feet)

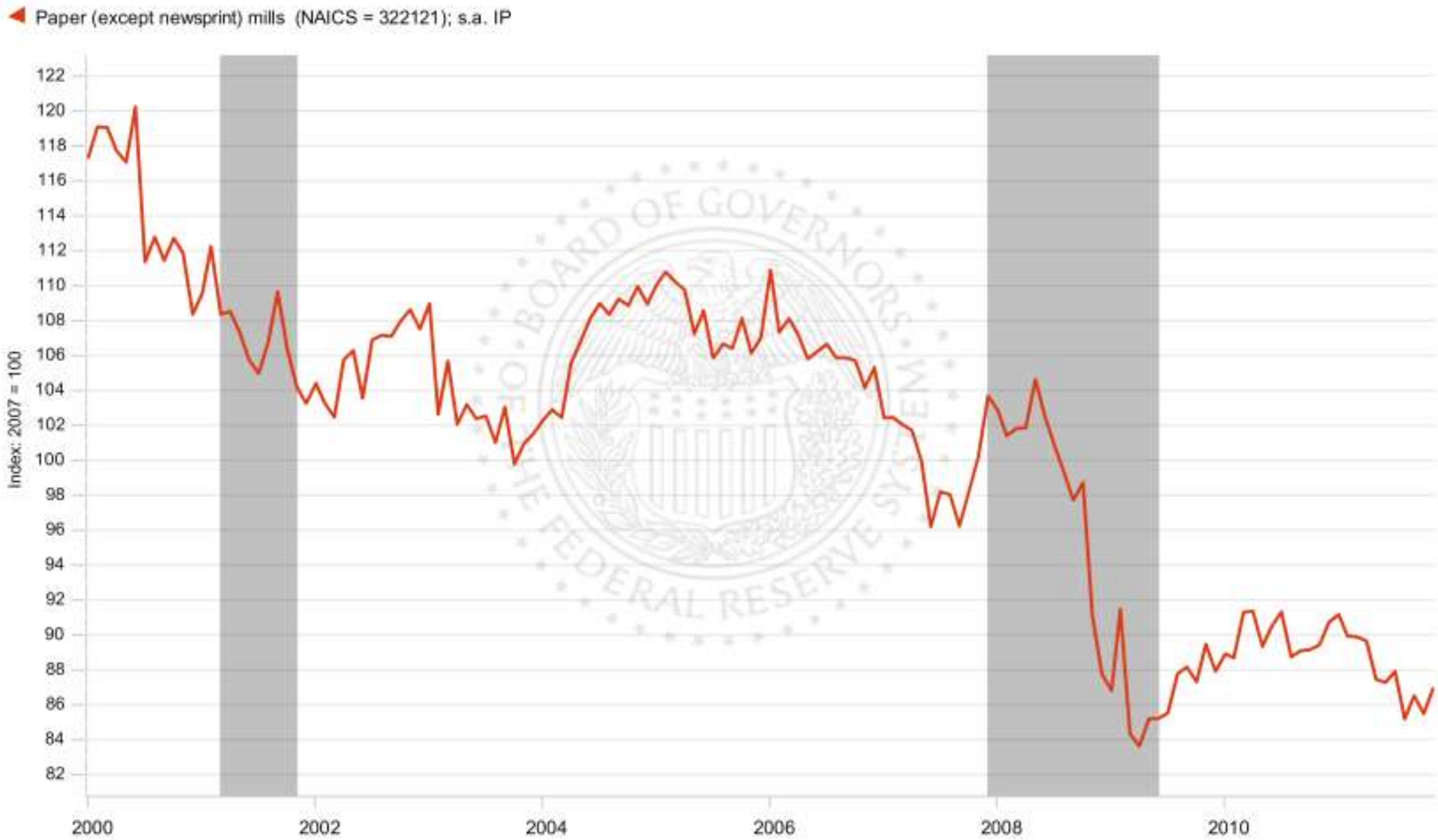


Source: Random Lengths

Paper Consumption

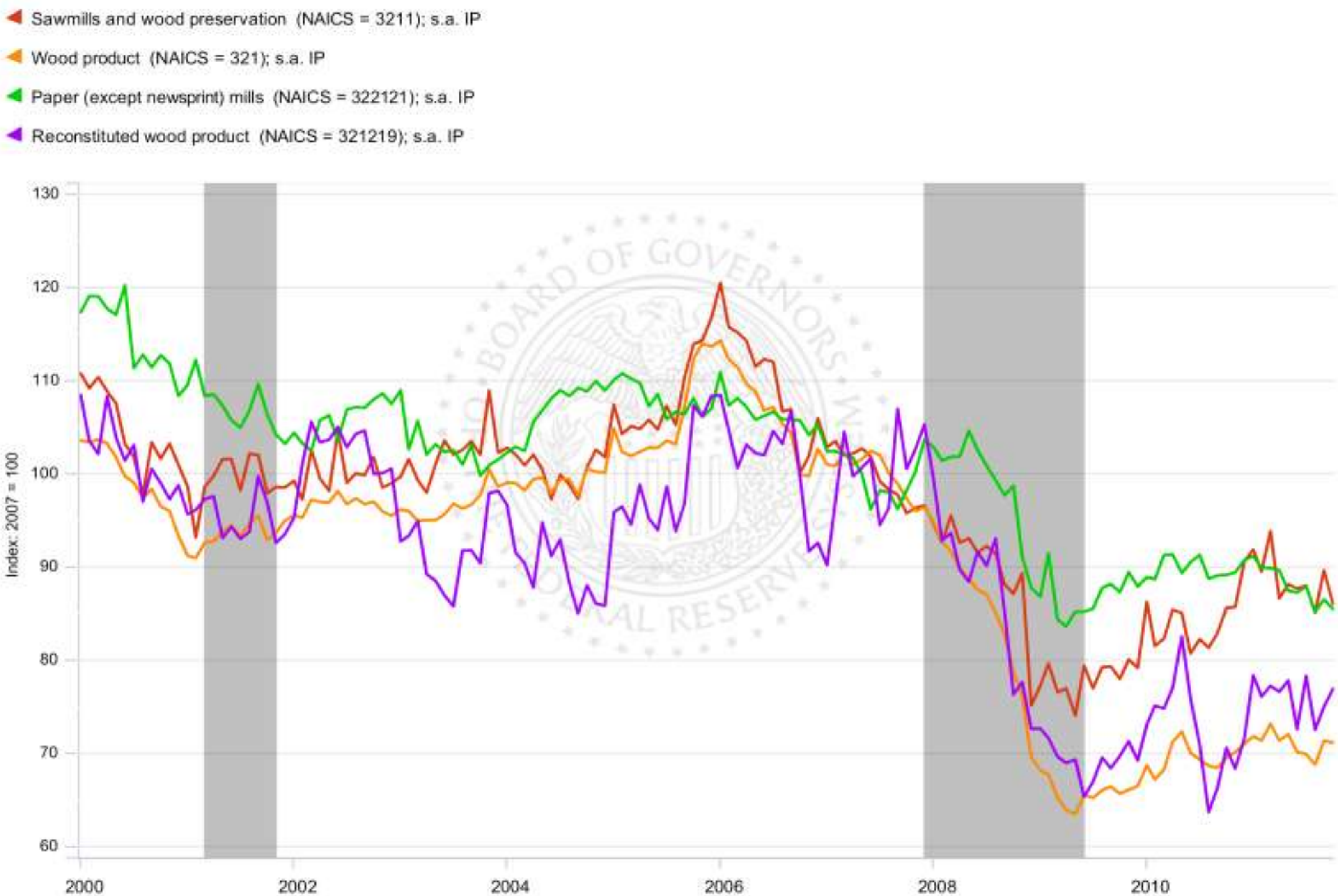


US Paper Production (index 2007=100)



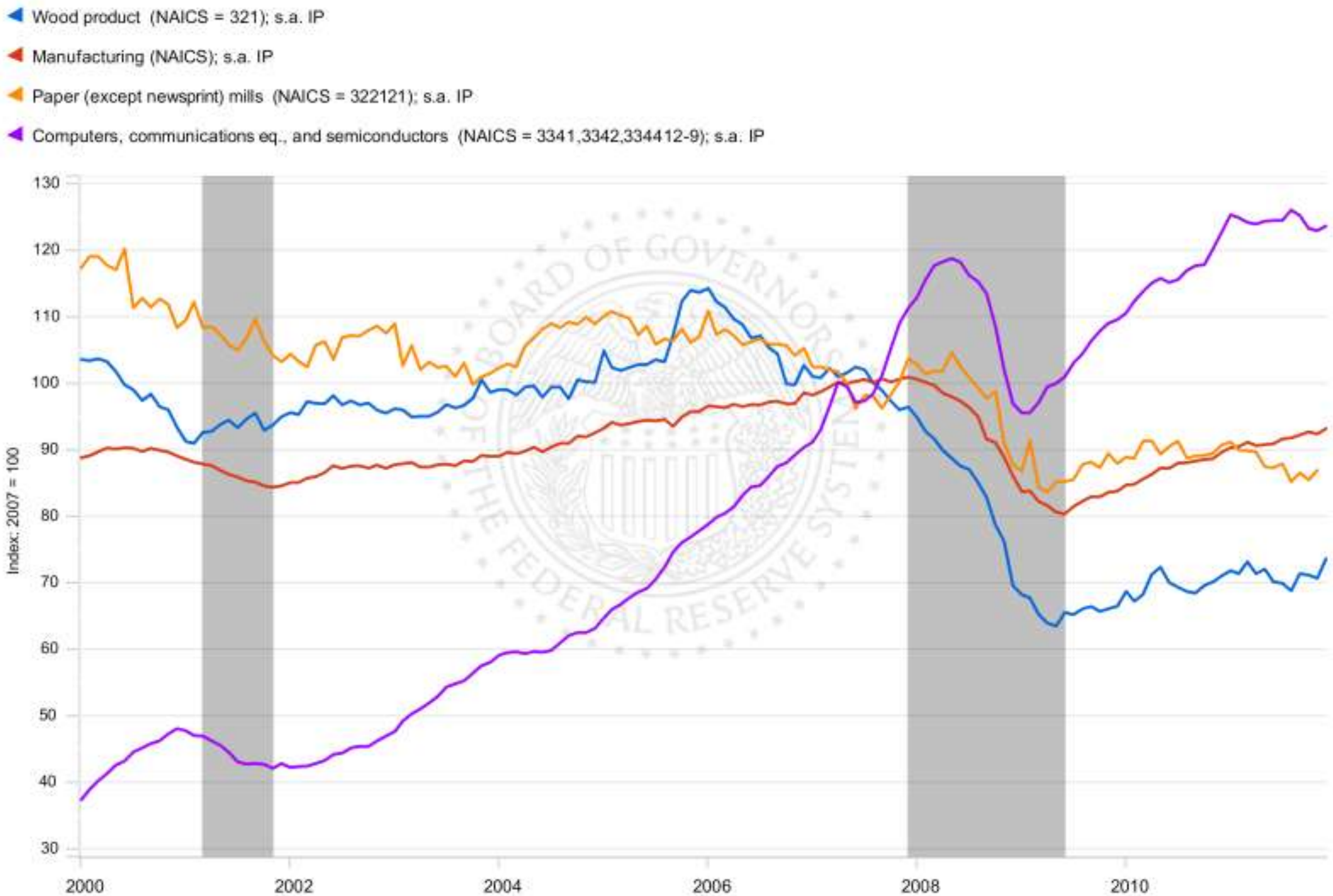
Source: Federal Reserve Board 2012
Note: The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

Forest Product Indices (2007=100)



Source: Federal Reserve Board 2012
Note: The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

Production Index – Are Forest Products Still in Recession?



Source: Federal Reserve Board 2012
Note: The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

The Next 10 Years – Paper Manufacturing

Steve Betzler

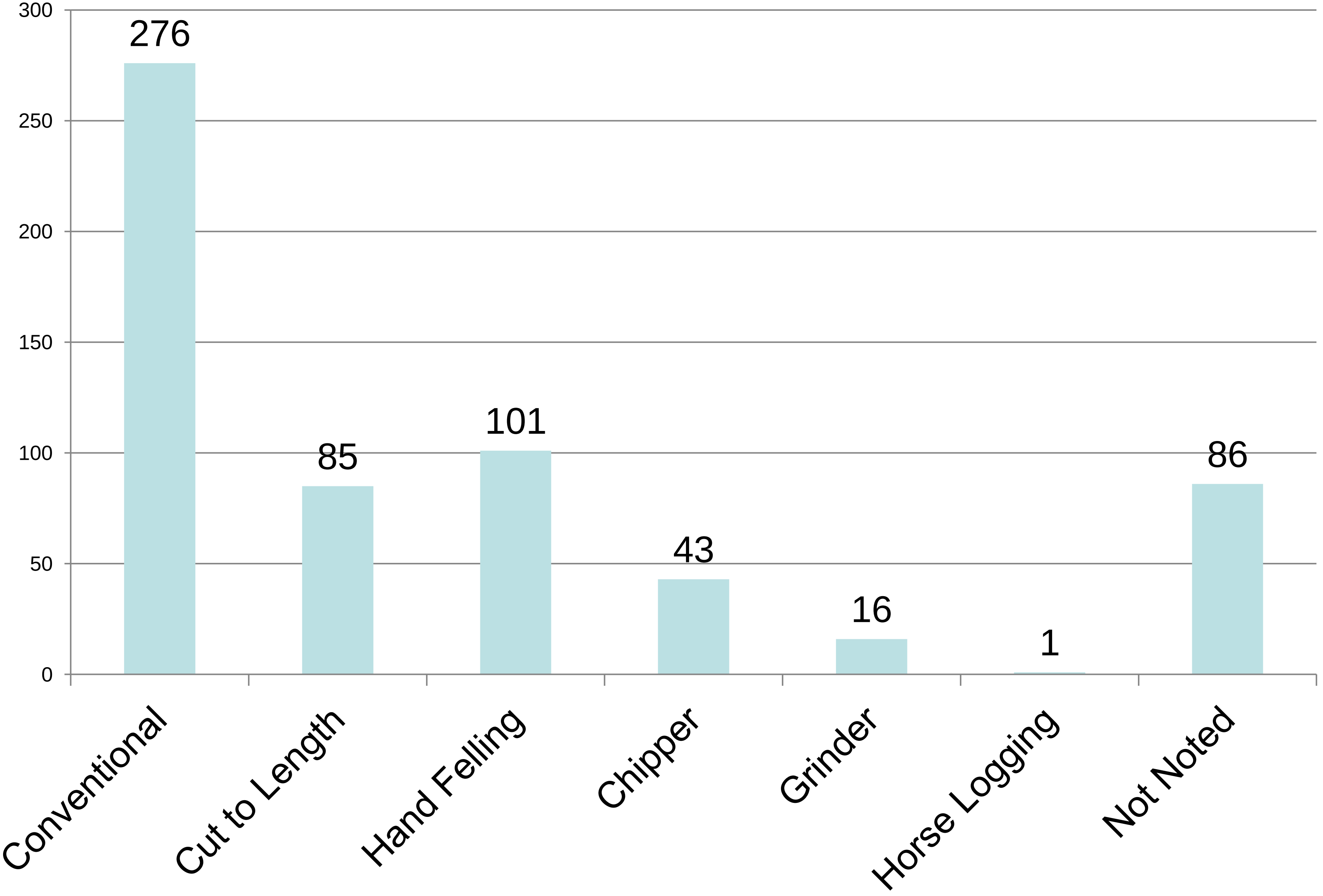
MN Power

Logging Infrastructure

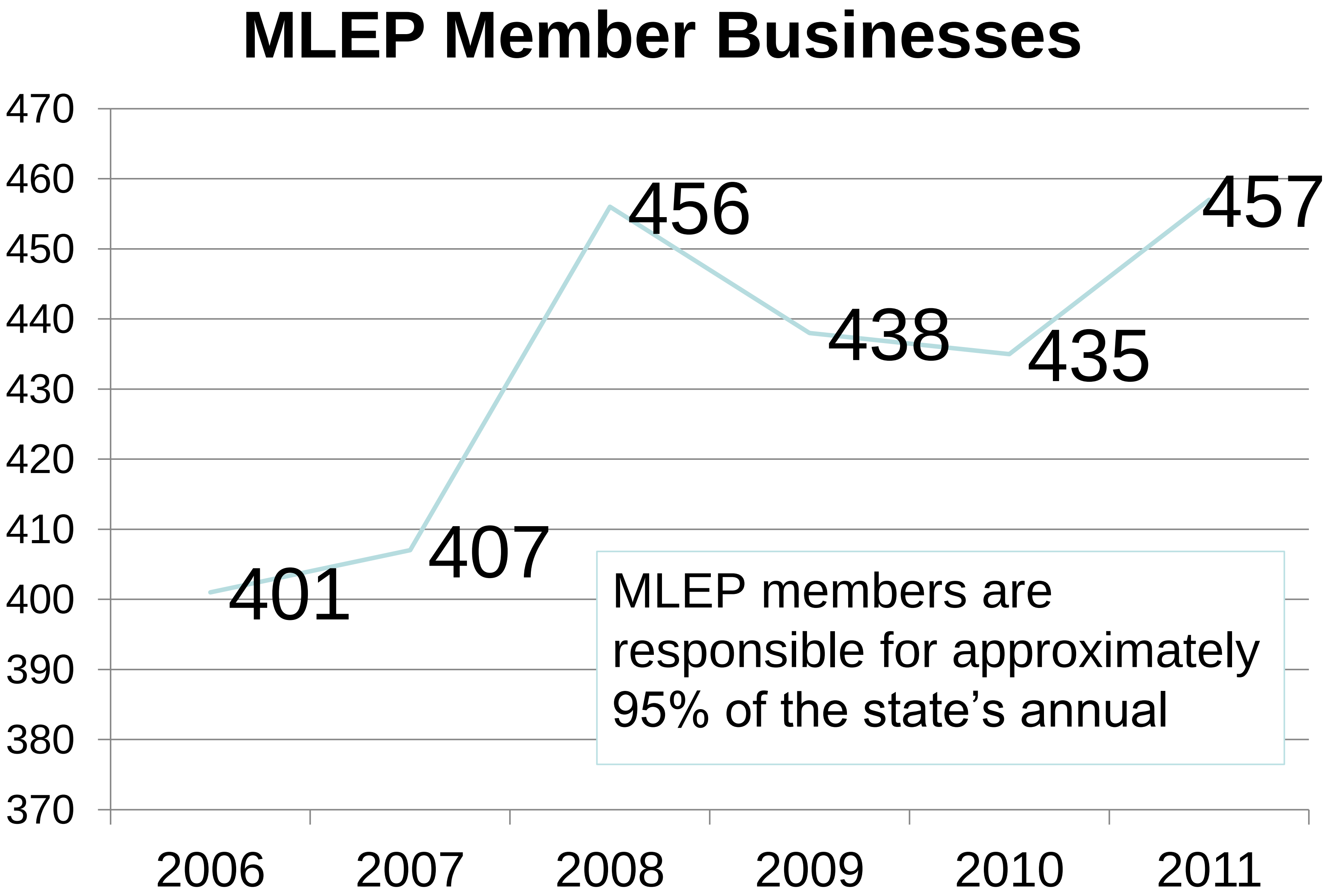
Dave Chura

MLEP

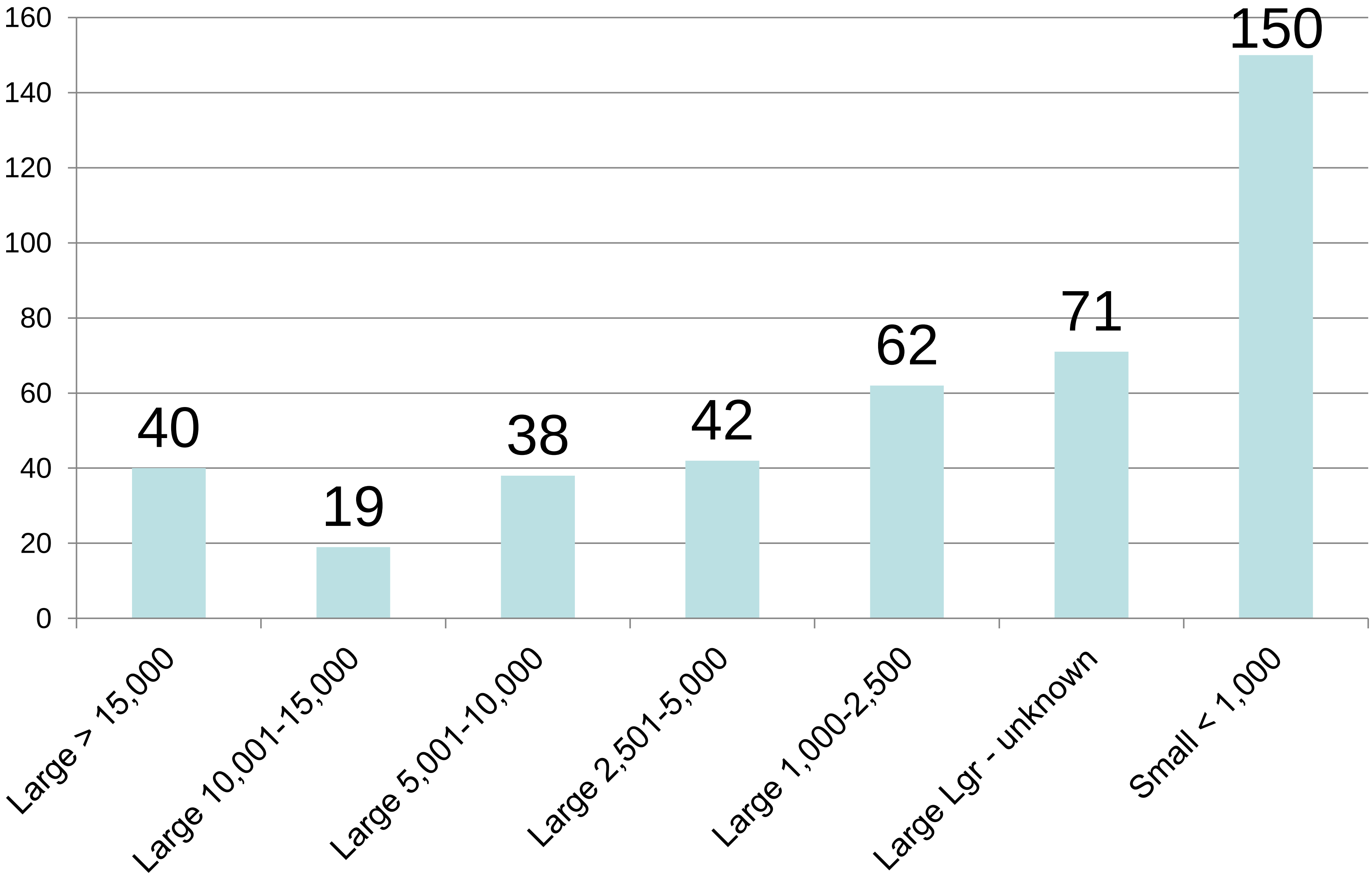
Logging Operation and Type – 2012



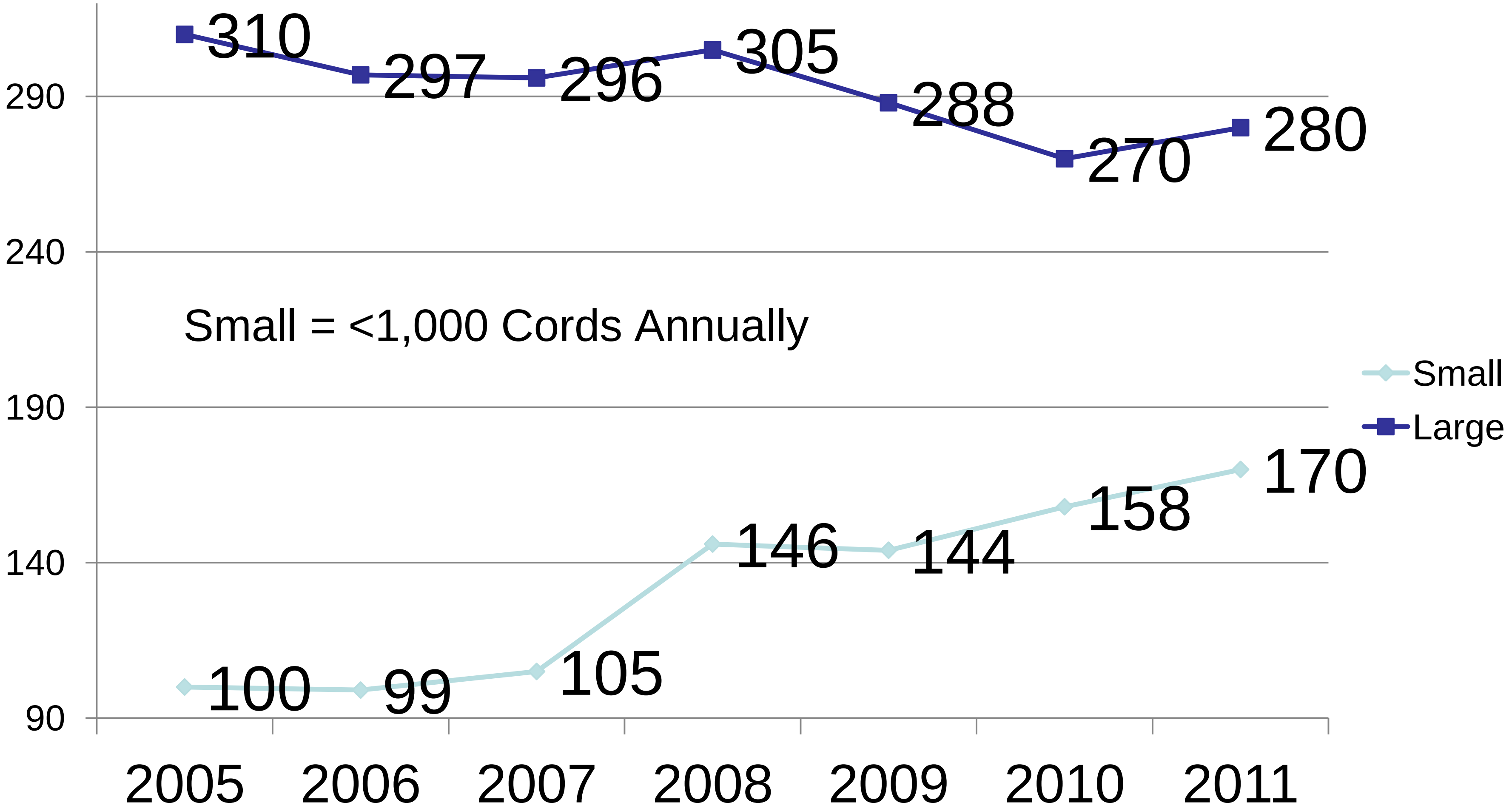
Logging Infrastructure



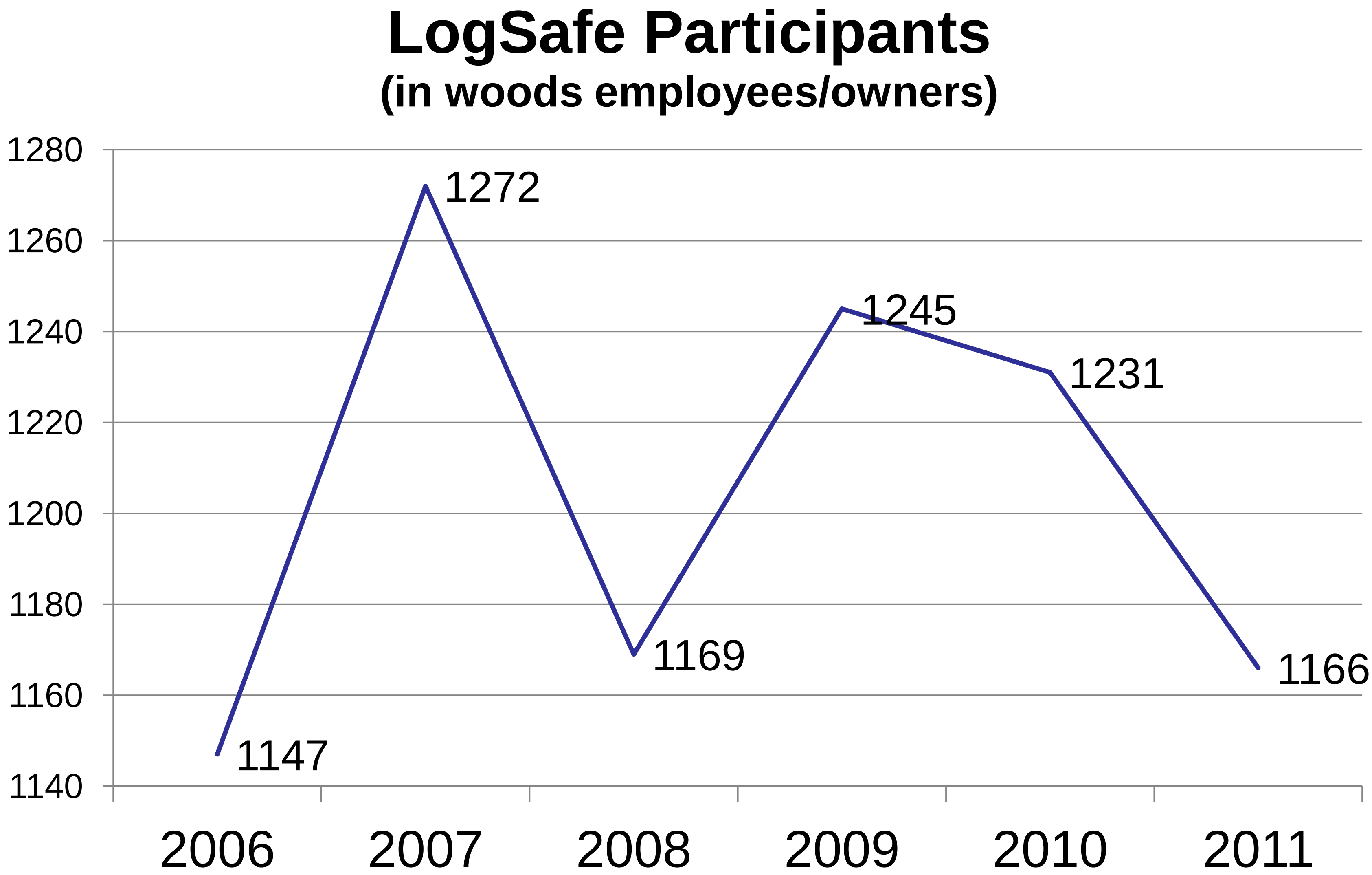
Operation Size - 2012



Membership Trend 2005-2011



Logging Infrastructure

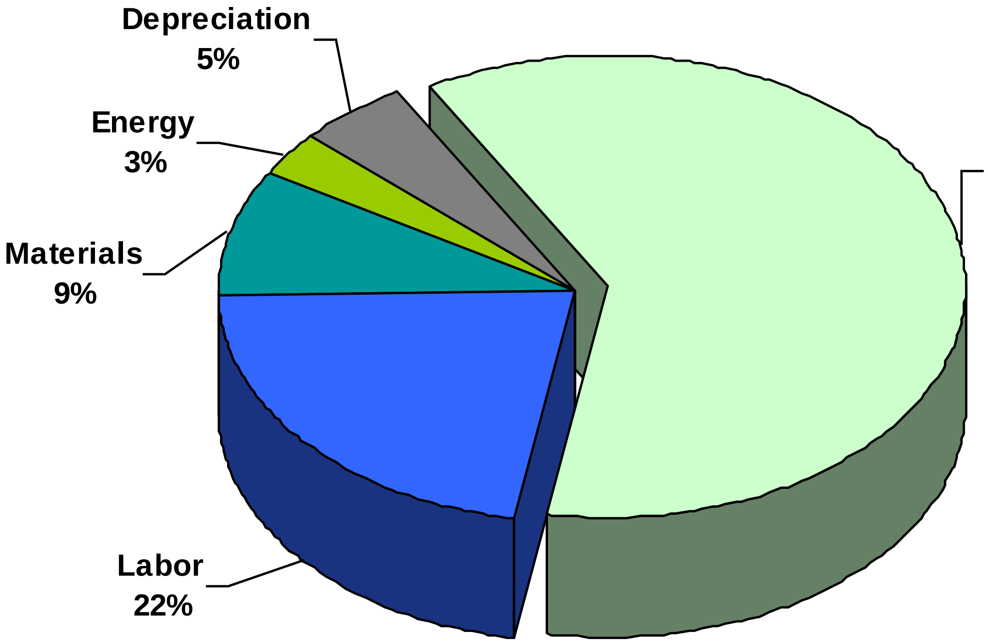


Average Capital Investment*

Cut to Length	$500,000
Conventional	$600,000
Grinder	$250,000
Chipper	$150,000
Trucking:	
Lowboy	$20,000
Van Trailer	$7,500
Walking Floor Trailer	$20,000
Semi Tractor	$45,000
Trailer w/ Ctr Mount Ldr	$25,000

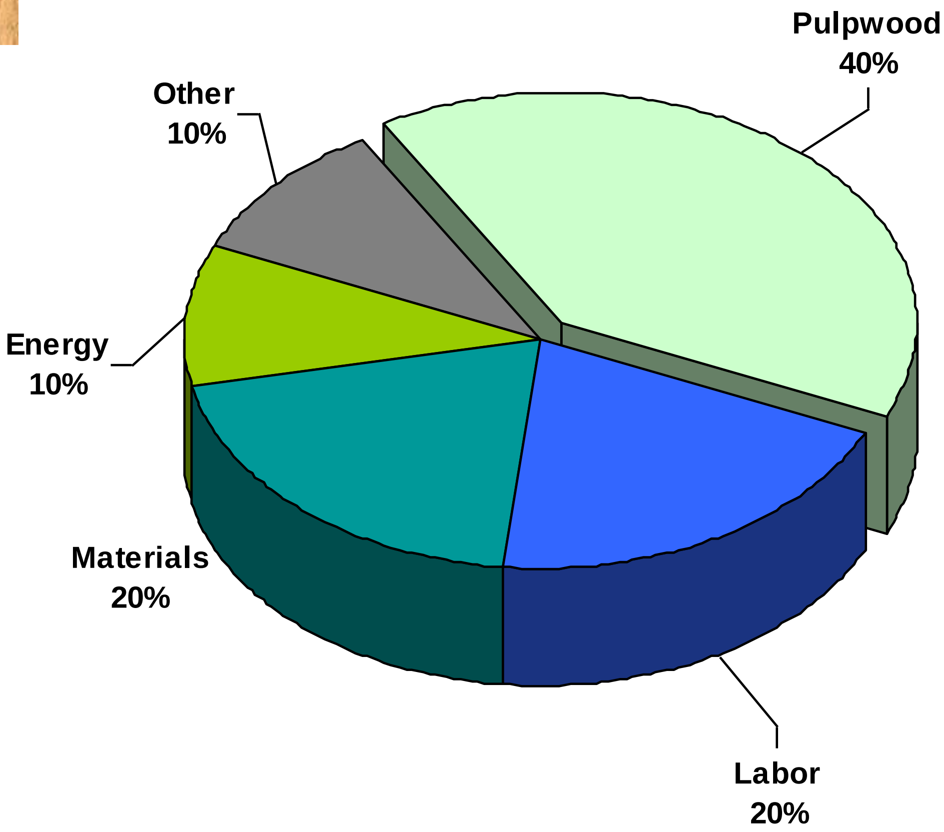
*reflects estimated market value of used equipment with mid range hours/use

Costs Associated with Production of Lumber



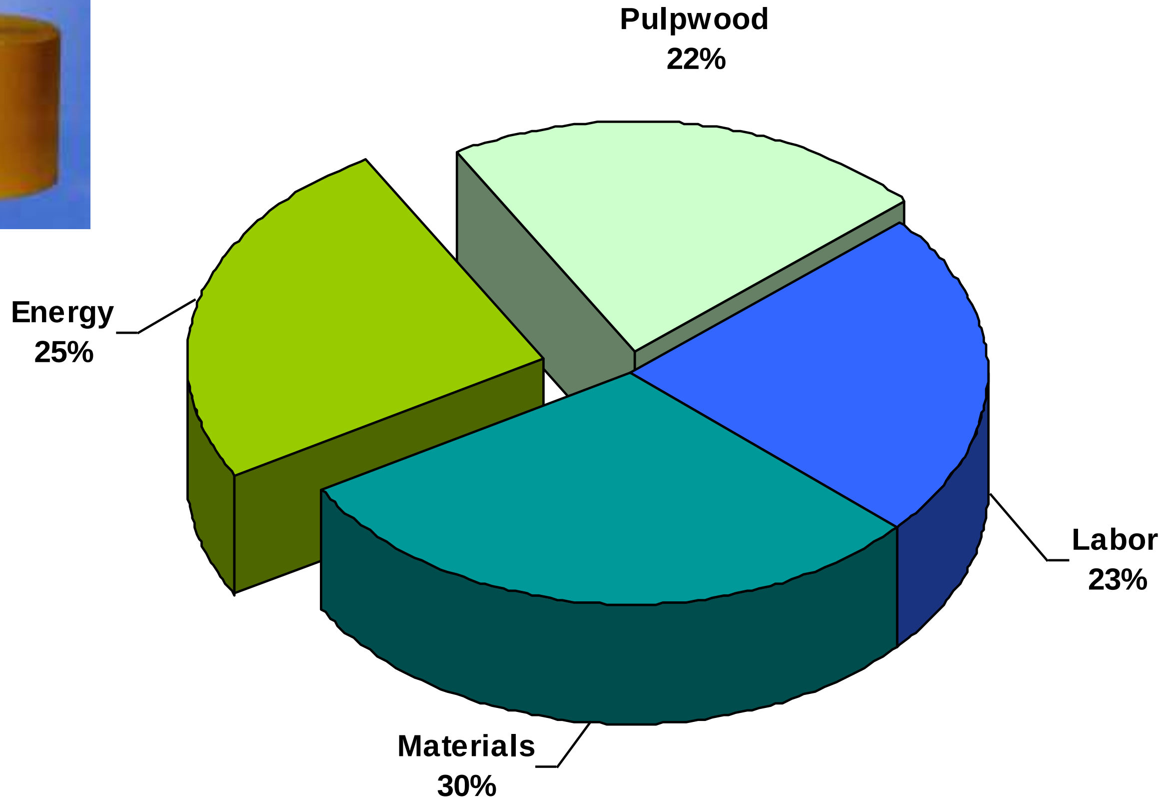
Source: Minnesota Forest Industries

Costs Associated with Production of Oriented Strand Board



Source: Minnesota Forest Industries

Costs Associated with Production of Paper



Source: Minnesota Forest Industries

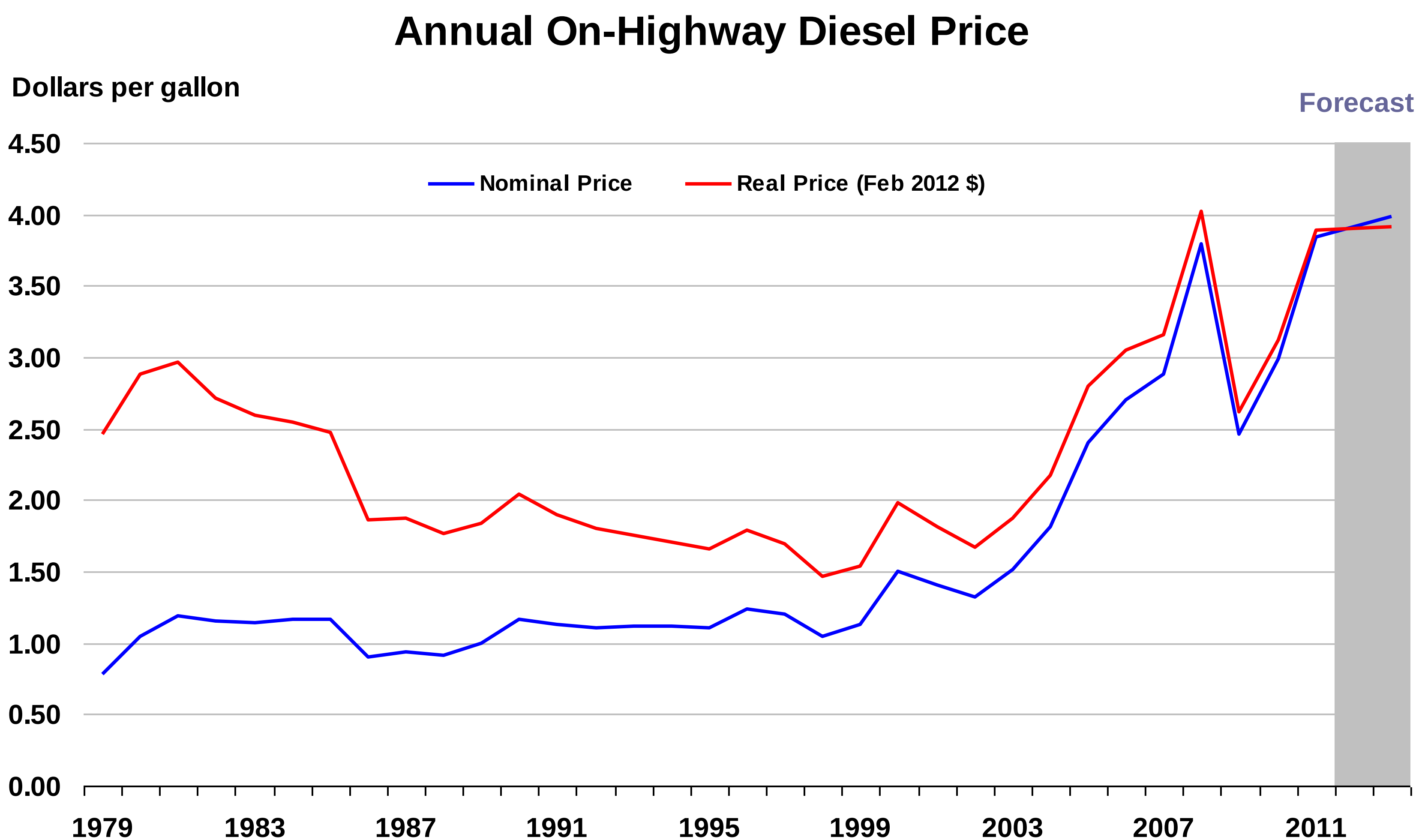
Cost Pressures Facing Industry

- Transportation
- Energy
- Reliable and Affordable Timber Supply (Forest Management)

Cost Pressures--Transportation

- Access (all season access)
- Maintain forest road infrastructure and bridges
  - *Indentify good access high productive areas for long-term management*
- Increase transportation weights (interstate)
  - *MN Law allowing additional weight hauling with sixth axel estimated savings of $8.3 million, annually.*

Cost Pressures--Transportation



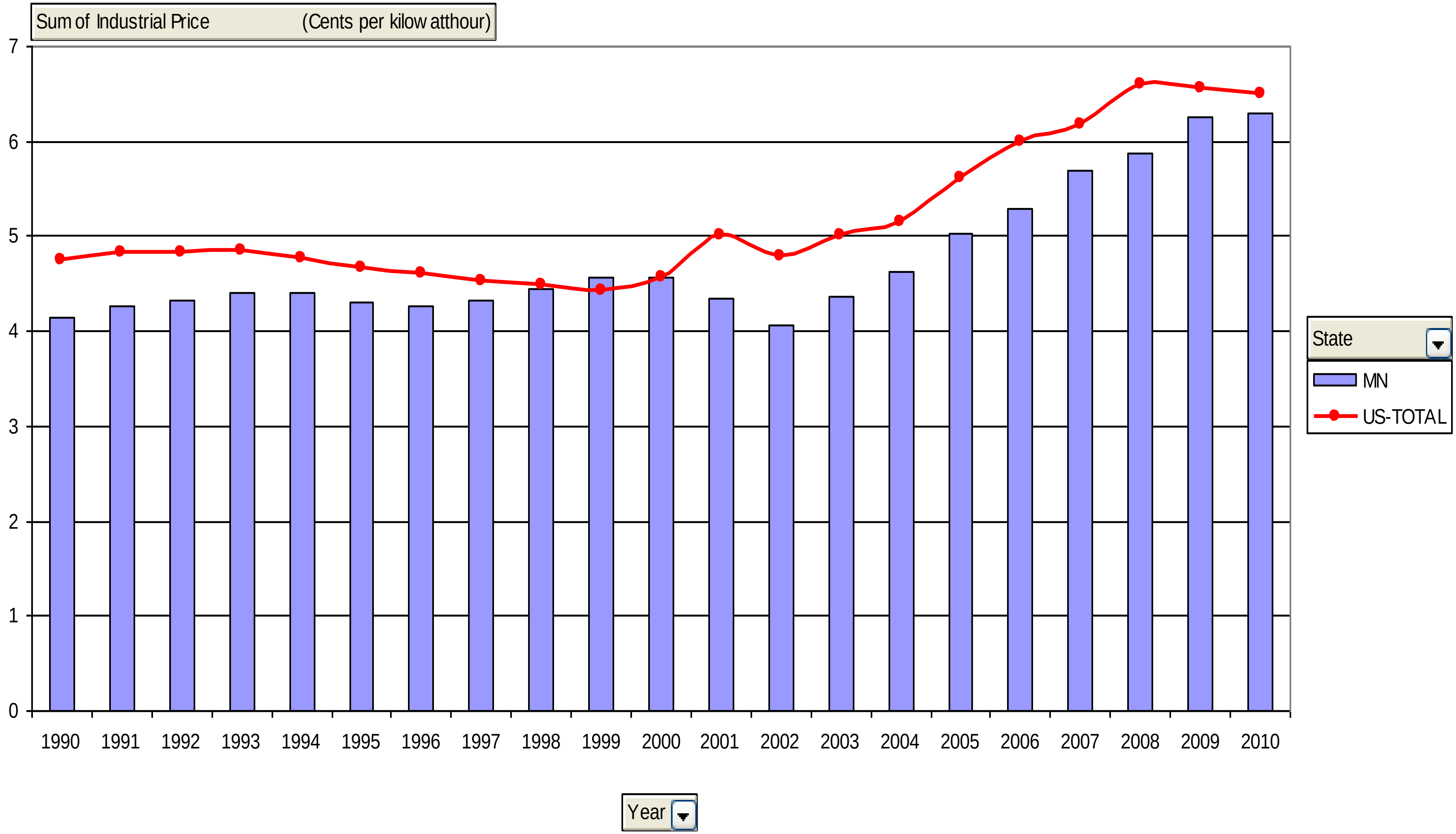
EIA Short-Term Energy Outlook, February 2012

Cost Pressures--Energy

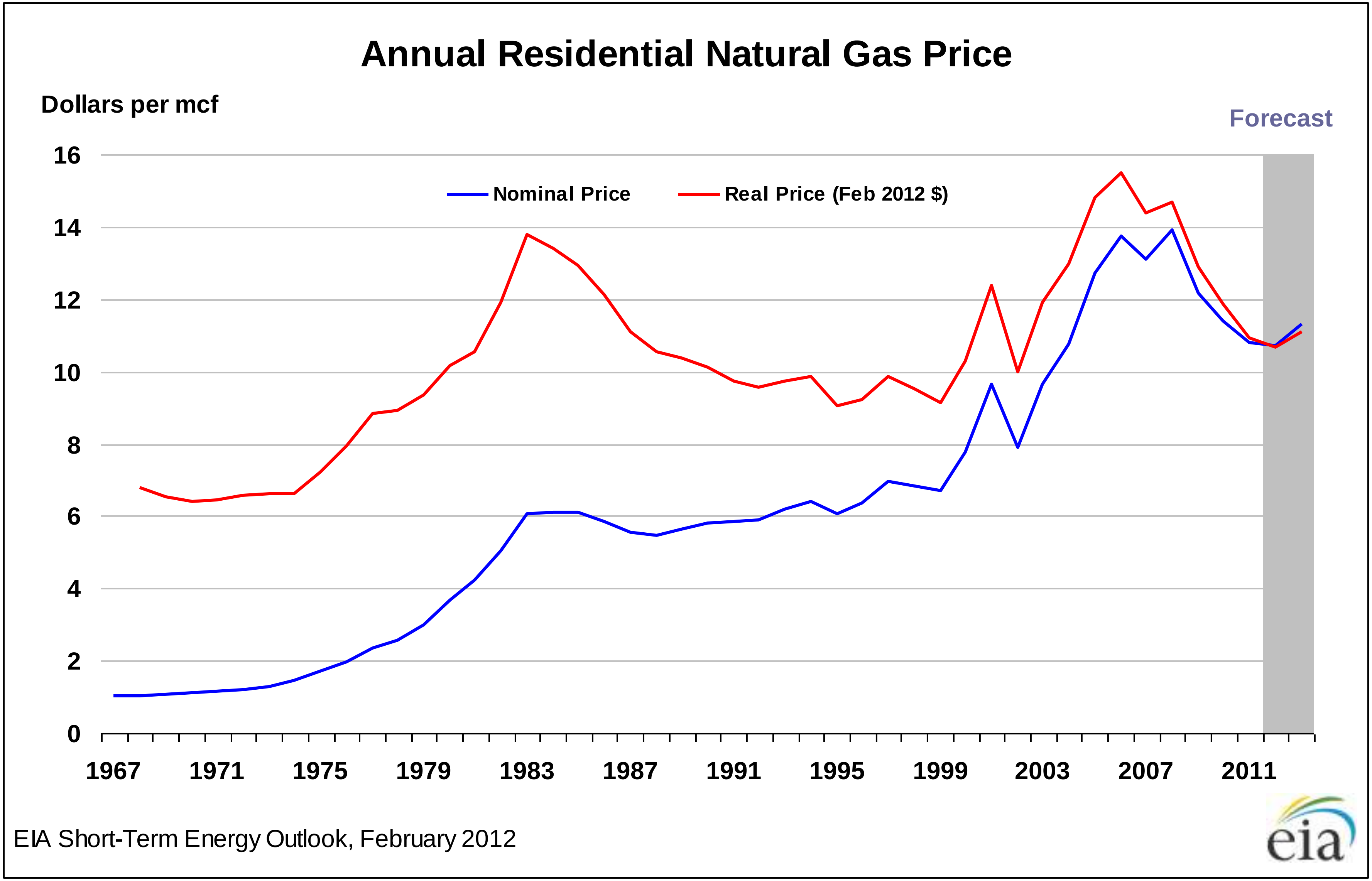
- Policy that Increase Energy Costs Negatively Impact the Forest Products Industry.

- Credit for Renewable Energy Generation?

Cost Pressures--Energy

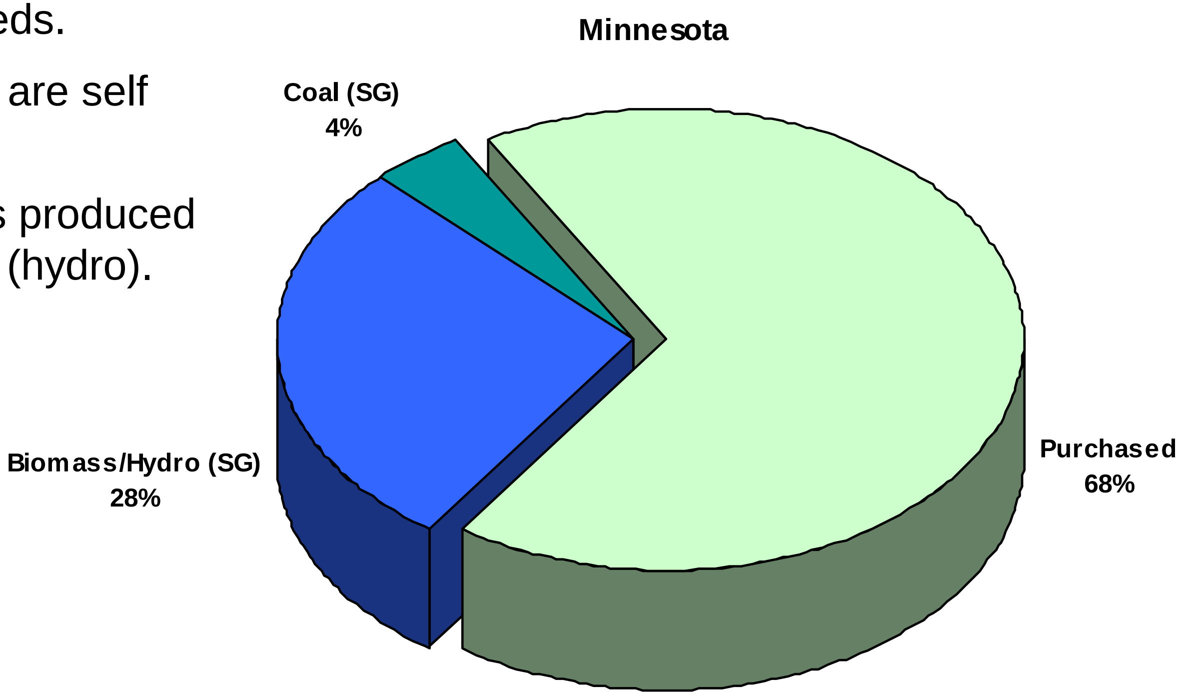


Cost Pressures--Transportation



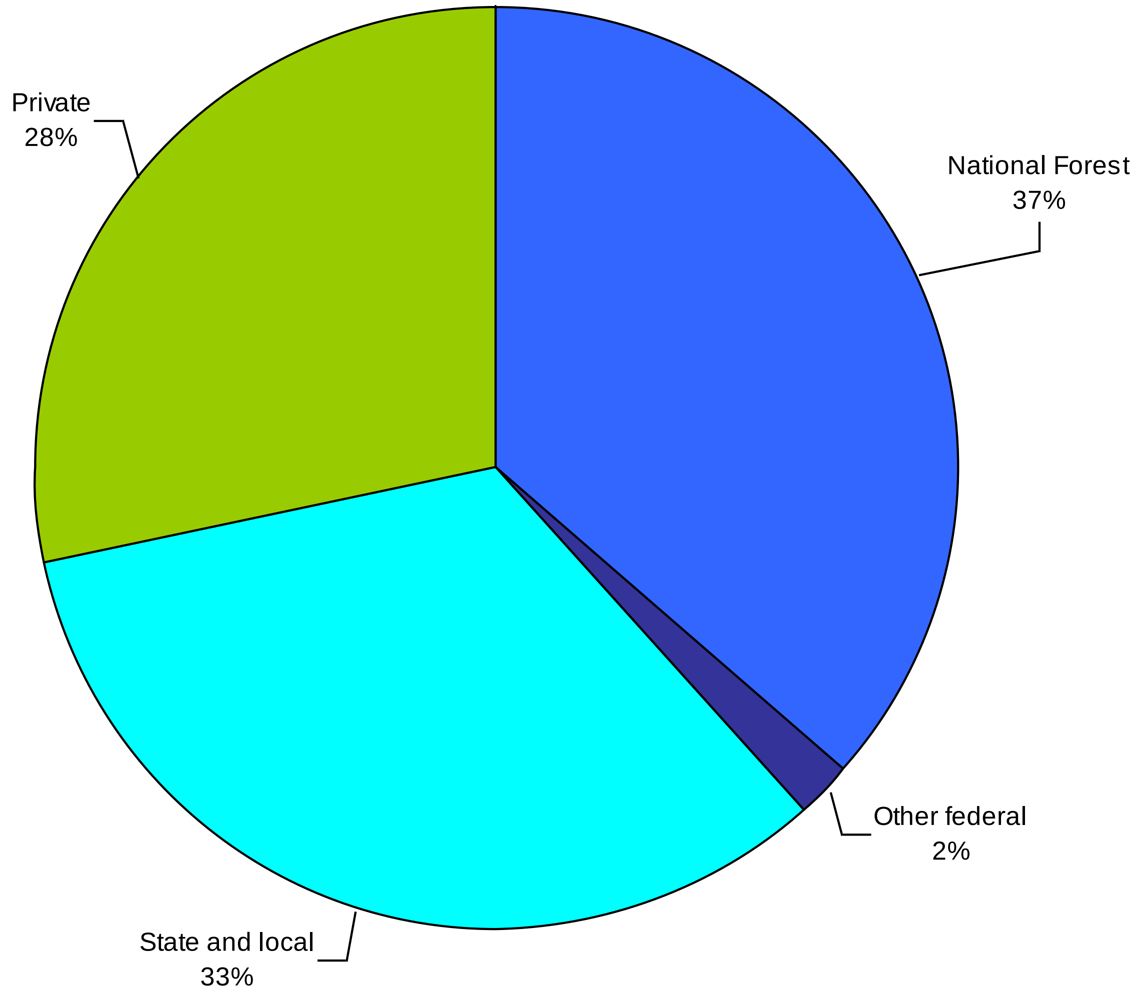
Energy—MN Forest Products Industry

- ✓ Capital investments of more than $500 million in co-generation facilities.
- ✓ More than 1.2 million tons of wood waste are used to generate electricity.
- ✓ Mills with co-generation facilities meet 11-75 percent of energy needs.
- ✓ 32 percent of energy needs are self generated (SG)
  - ✓ 28 percent of energy is produced from biomass or water (hydro).



Source: Minnesota Forest Industries

NE Landscape Forests – Forestland Ownership

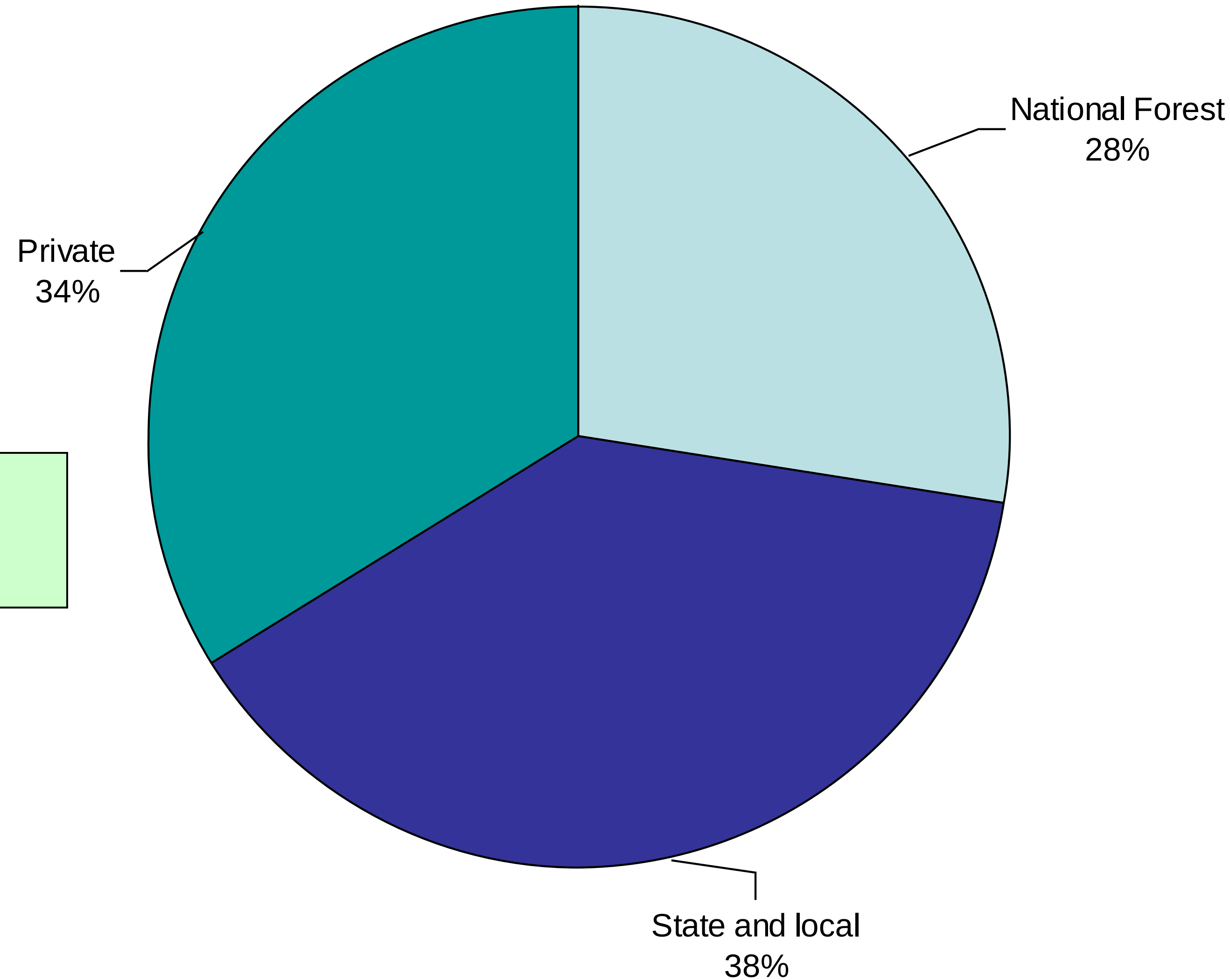


Forestland

5.7 MM ac.

Source: FIA

NE Landscape Forests – Timberland Ownership

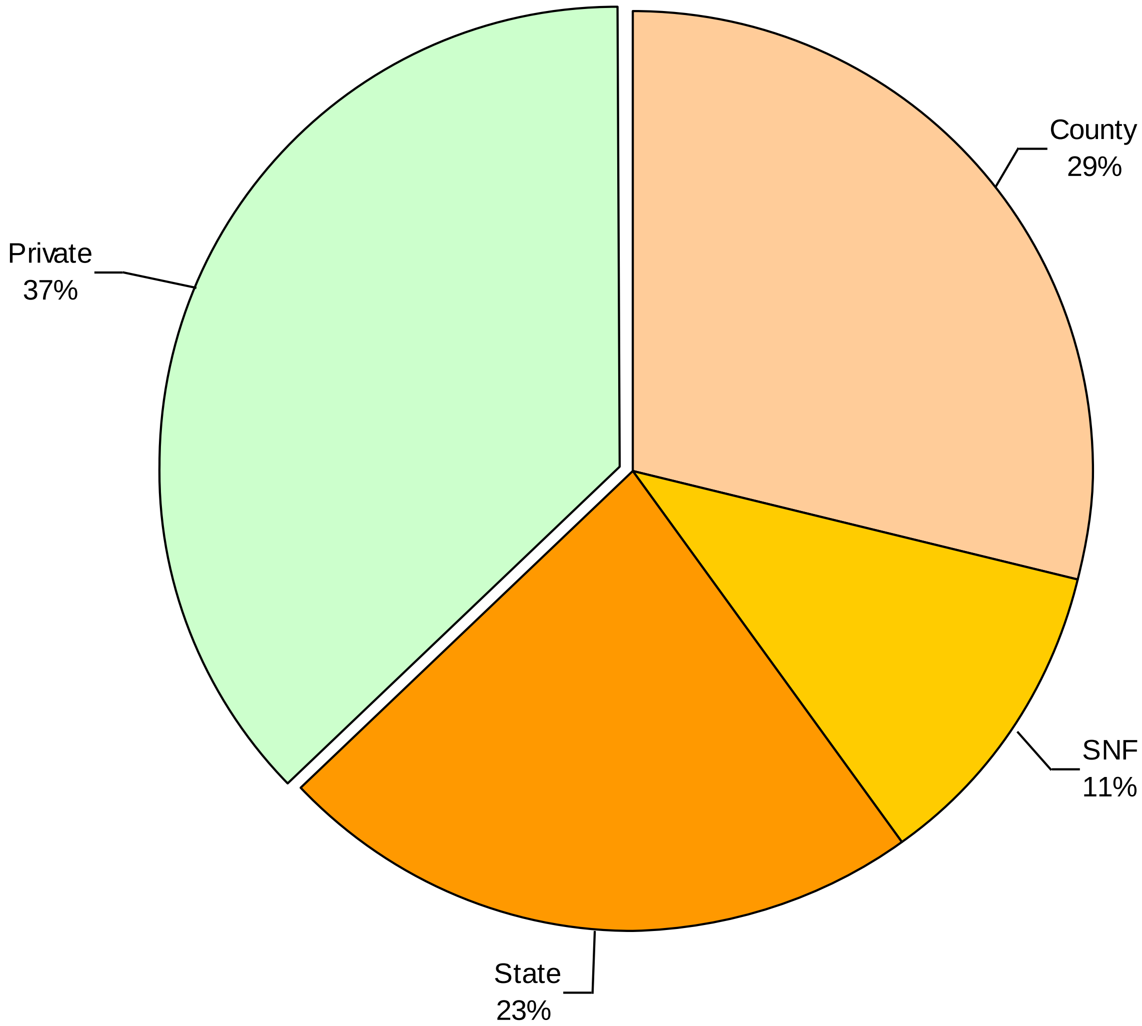


Forestland

4.6 MM ac.

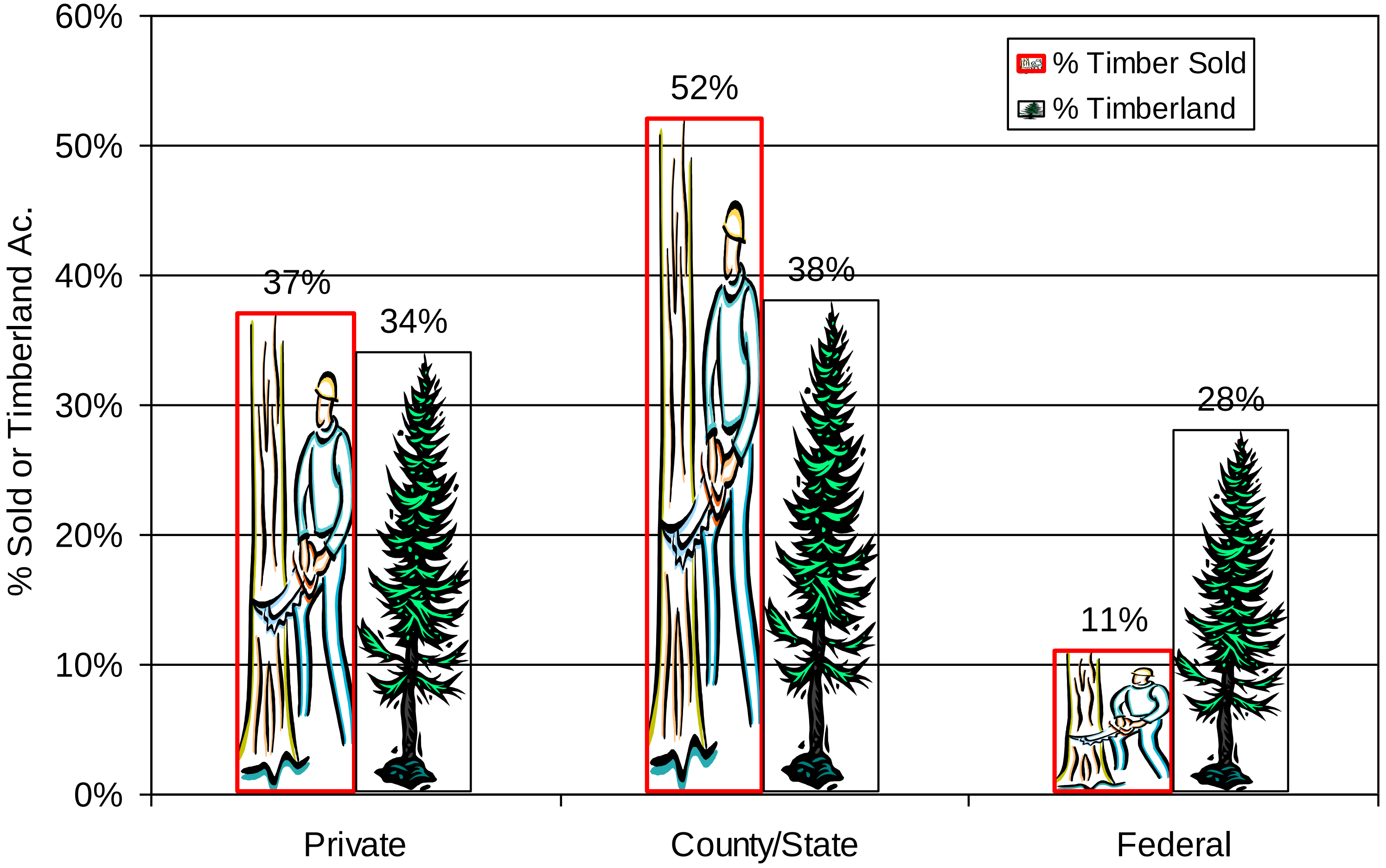
Source: U.S. Department of Agriculture, Forest Service, Northern Research Station

NE Landscape Forests – Who Supplies the Timber 2010



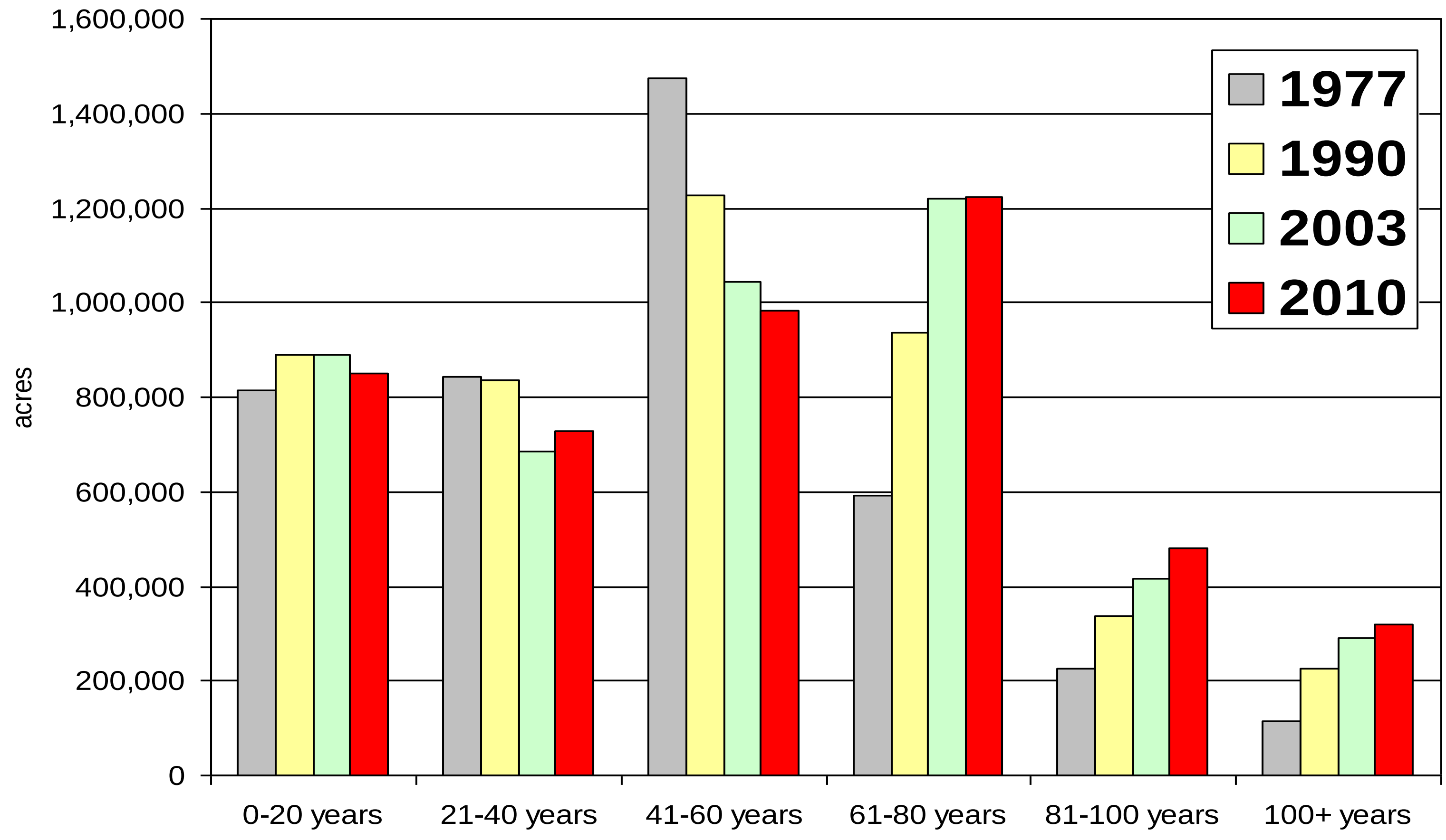
Source: U.S. Department of Agriculture, Forest Service, Northern Research Station

Harvest and Timber Sold (2006-2010 avg) by Ownership



Source: U.S. Department of Agriculture, Forest Service, Northern Research Station, MFI, MN-DNR

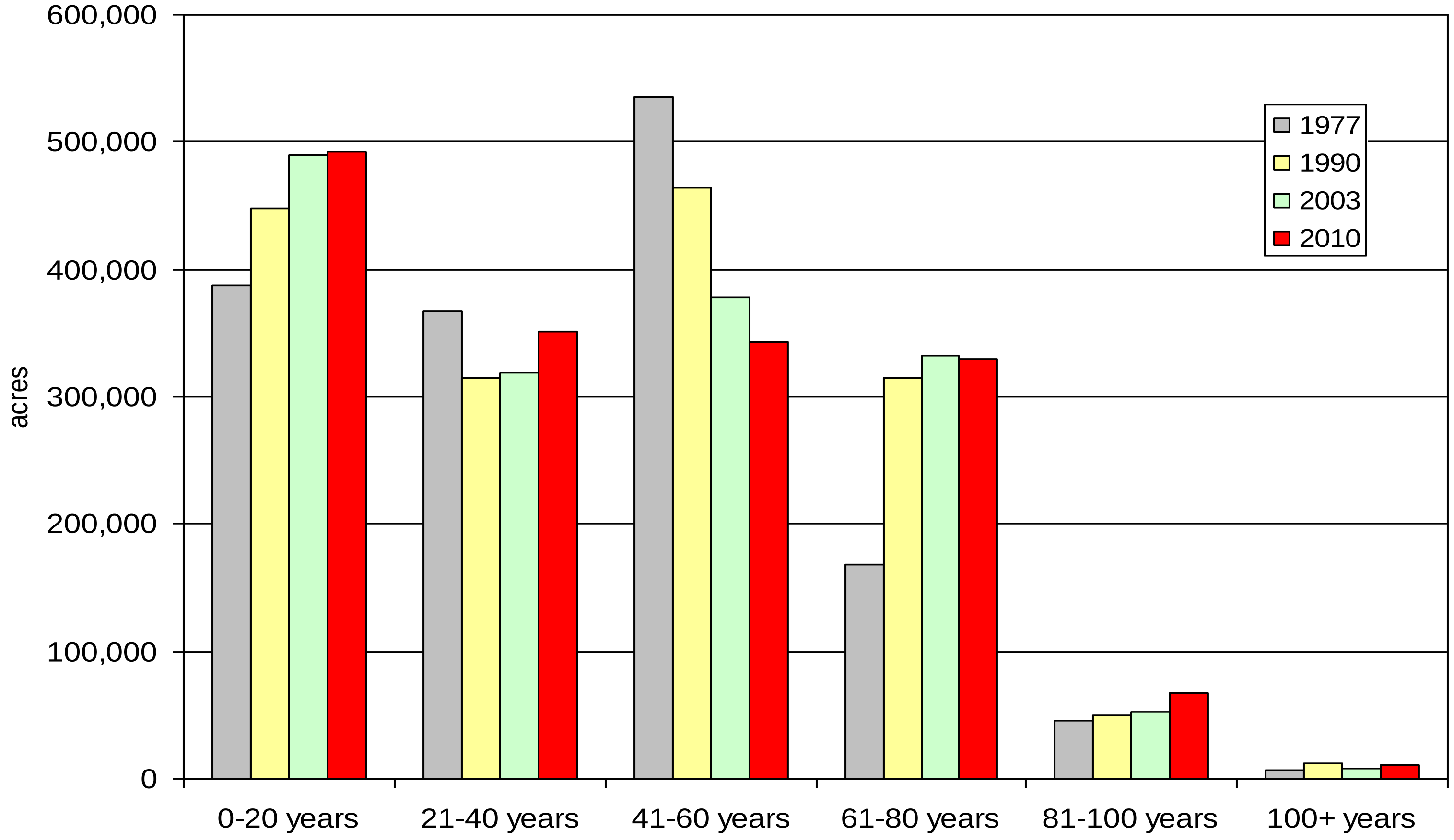
Timberlands Age-class NE Landscape



Year	Total	0-20 years	21-40 years	41-60 years	61-80 years	81-100 years	100+ years
1977	4,067,016.00	20.1%	20.7%	36.2%	14.5%	5.6%	2.9%
1990	4,454,931.00	20.0%	18.8%	27.6%	21.0%	7.5%	5.1%
2003	4,549,202.00	19.5%	15.1%	23.0%	26.8%	9.2%	6.4%
2010	4,580,364.00	18.6%	15.9%	21.4%	26.7%	10.5%	6.9%

Source: U.S. Department of Agriculture, Forest Service, Northern Research Station

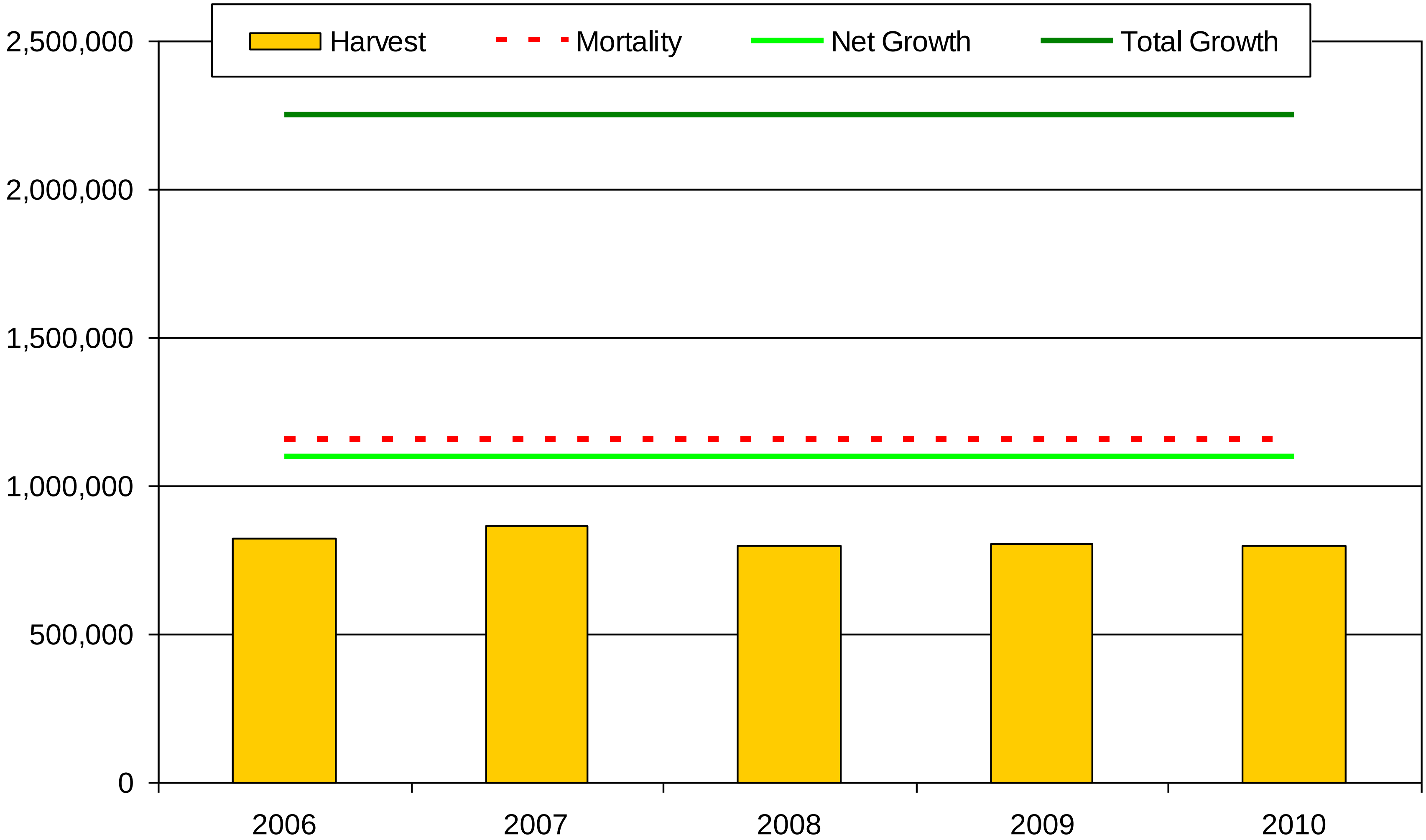
ASPEN Timberlands Age-class NE Landscape



Year	Total	0-20 years	21-40 years	41-60 years	61-80 years	81-100 years	100+ years
1977	1,511,620.00	9.5%	9.0%	13.2%	4.1%	1.1%	0.2%
1990	1,604,005.00	10.1%	7.1%	10.4%	7.1%	1.1%	0.3%
2003	1,580,523.00	10.8%	7.0%	8.3%	7.3%	1.2%	0.2%
2010	1,594,196.00	10.8%	7.7%	7.5%	7.2%	1.5%	0.2%

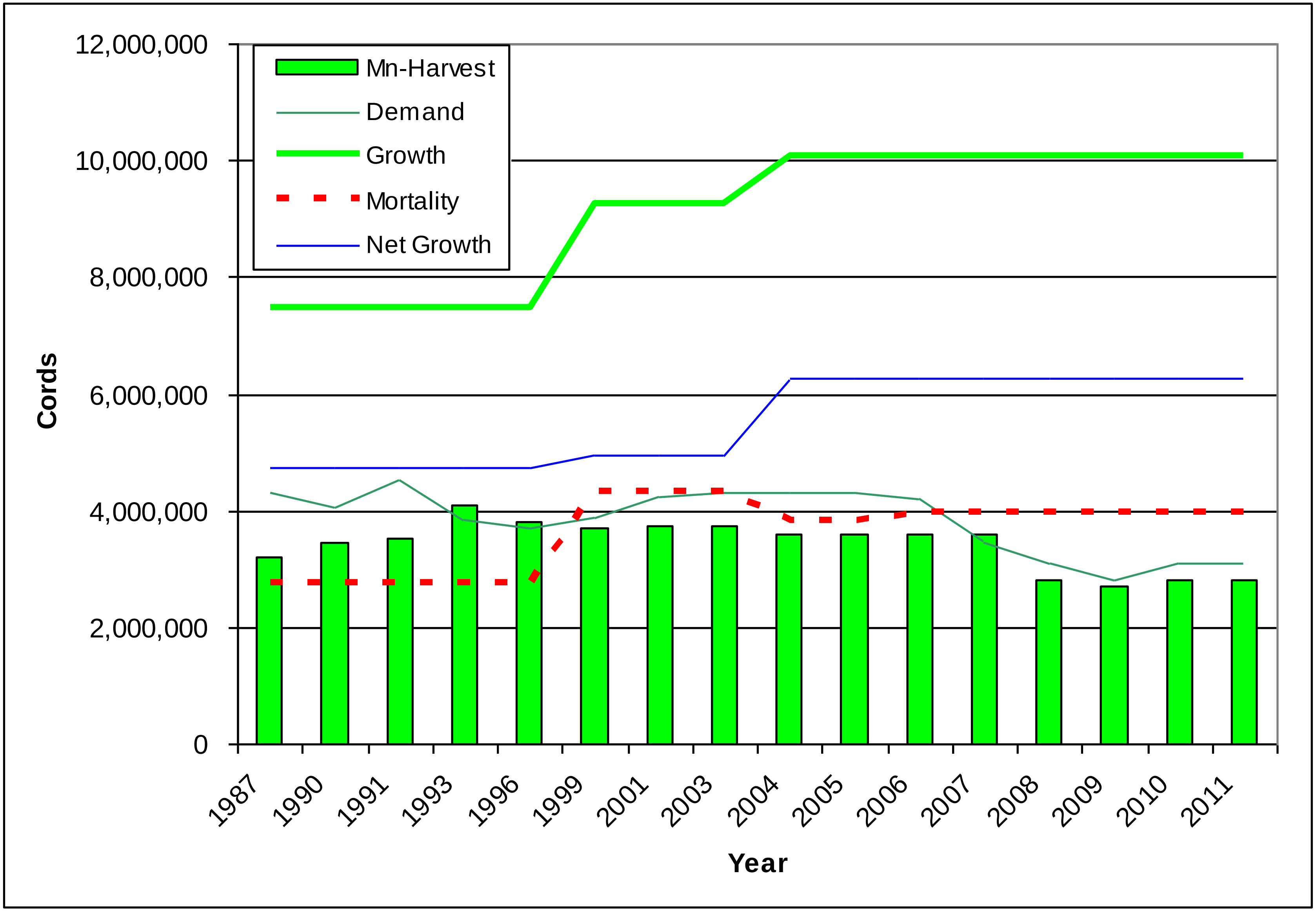
Source: U.S. Department of Agriculture, Forest Service, Northern Research Station

NE Landscape Forests – Harvest, Mortality and Growth (timberlands)



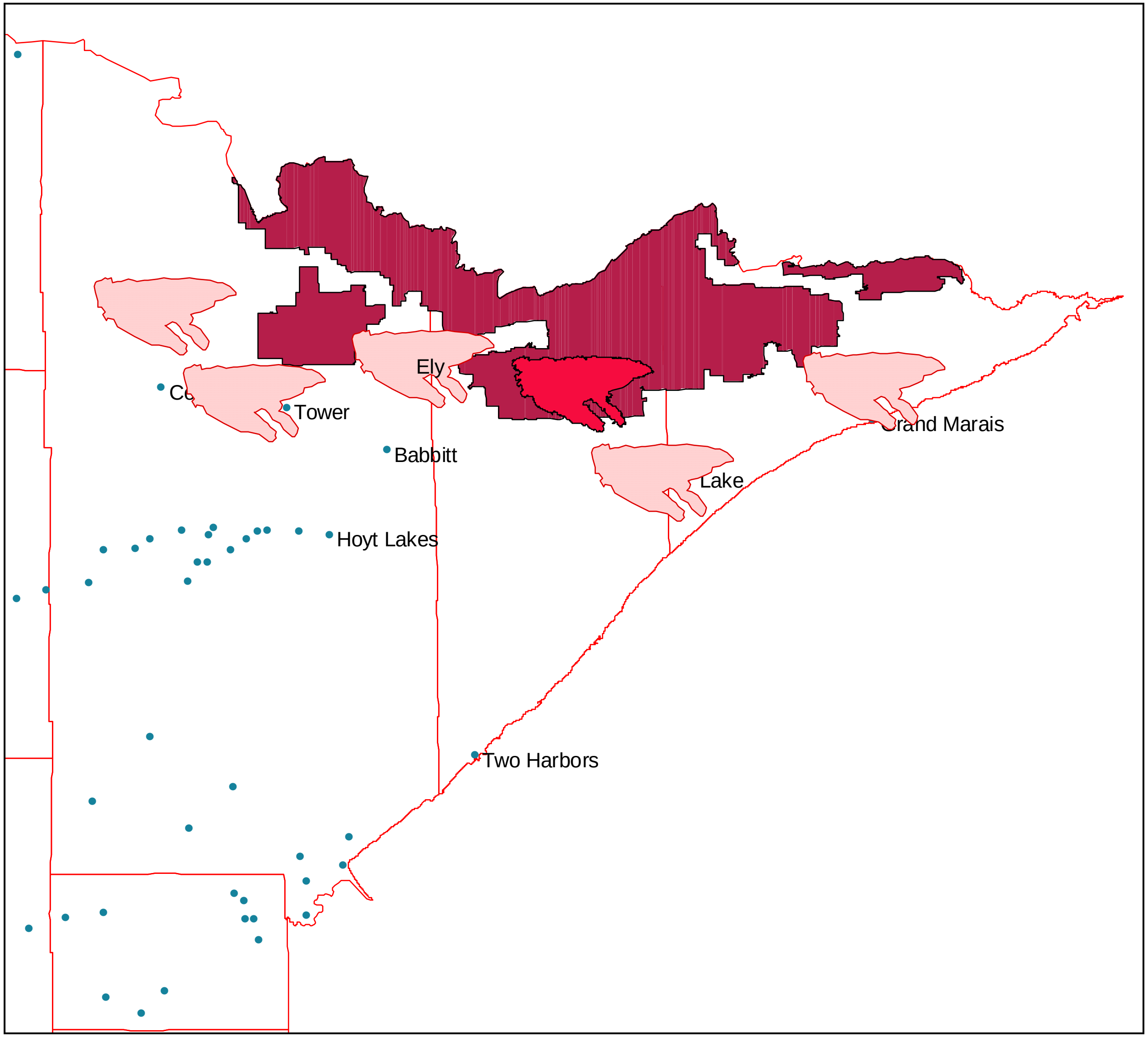
Source: U.S. Department of Agriculture, Forest Service, Northern Research Station

Average Annual Growth compared with Harvest



Source: U.S. Department of Agriculture, Forest Service, Northern Research Station

Viable Forest Products Industry = Healthy Forests



What we know:

Areas where the forest products industry and logging infrastructure was lost greatly impacts impacts forest health, over time. Aging forests become more susceptible to insects disease and eventually will be set-back with large scale disturbances, wildfire.

Key Points

- Remaining Industry and Infrastructure has survived some extremely tough times
- Contractions will continue in the U.S.
  - how can MN forest products industry survive
- What can the NE Landscape Committee do to encourage a climate of modernization, expansion and recruitment
- The variables that the NE Committee can influence
  - Forest management
  - infrastructure (roads, access, planning)
  - improving forest health
  - Increasing forest productivity, higher quality timber, more volume per acre.

Key Points -- Sawmills

Sawmills

- Hurt by reductions in overall harvest volume
- Favoring saw timber guidelines in leave tree guidelines’
  - many of these blow down
- Rotation ages of red pine stands getting high
- Final harvest and regeneration of pine stands
- Thinning intensity, should we be thinning more often
- Intense competition for saw timber
- Markets are still not the best
- May see additional mill shutdowns in the state, if supply situation does not improve