

# Sustainable Forestry in Wisconsin...It's a “we” thing

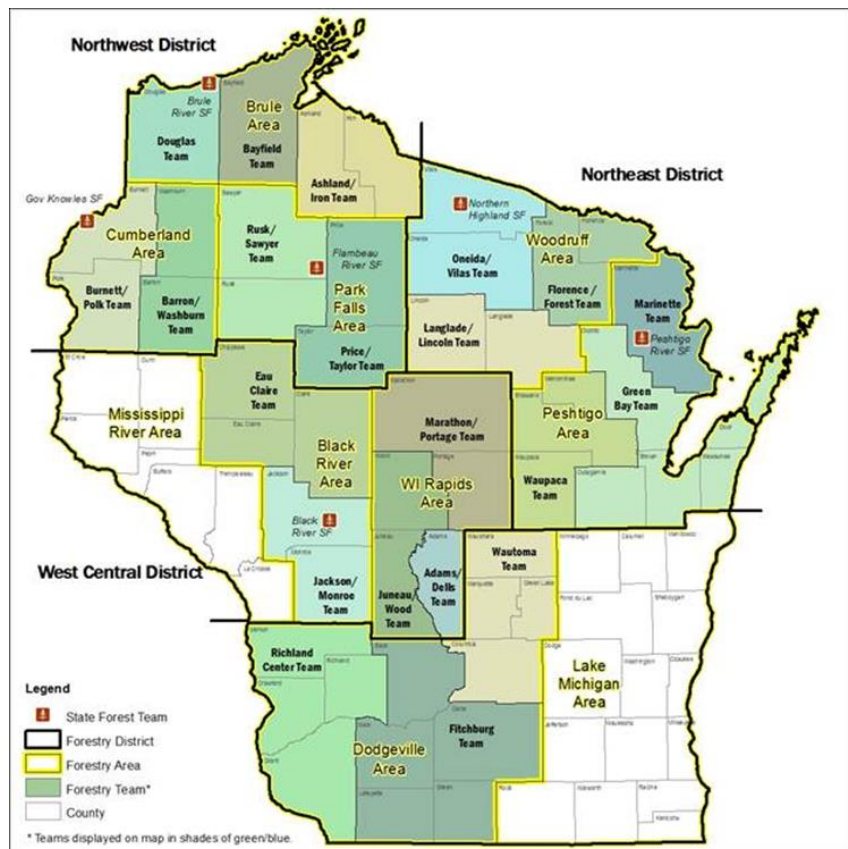


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Northeast District  
Forestry Leader  
Wisconsin DNR

# Overview

- Sustainable Forestry? To this group?
- History of forestry in Wisconsin
- Forestry's importance in Wisconsin
- Division of Forestry Programs
- Challenges and opportunities
- Discussion and questions

# Northeast District Organization



- Five Integrated Programs
  - Forest Fire Control
  - Private Forestry/MFL
  - State Forest Management (2)
  - Scattered State Land Management (160)
  - Assistance to 8 County Forests
  - Assistance to the US Forest Service (GNA)

# Sustainable Forestry Defined

The practice of meeting the forest resource needs and values of the present without compromising the similar capacity of future generations



## Definition 2

The Stewardship and use of forests and forest lands in a way, and at a rate, that maintains their **biodiversity, productivity, regeneration** capacity, vitality, and potential to fulfill, now and in the future, relevant ecological, economic, and social functions at local, national and global levels, and does not cause damage to their ecosystems.



# History of Wisconsin forestry







# The Cutover and Destructive Fires

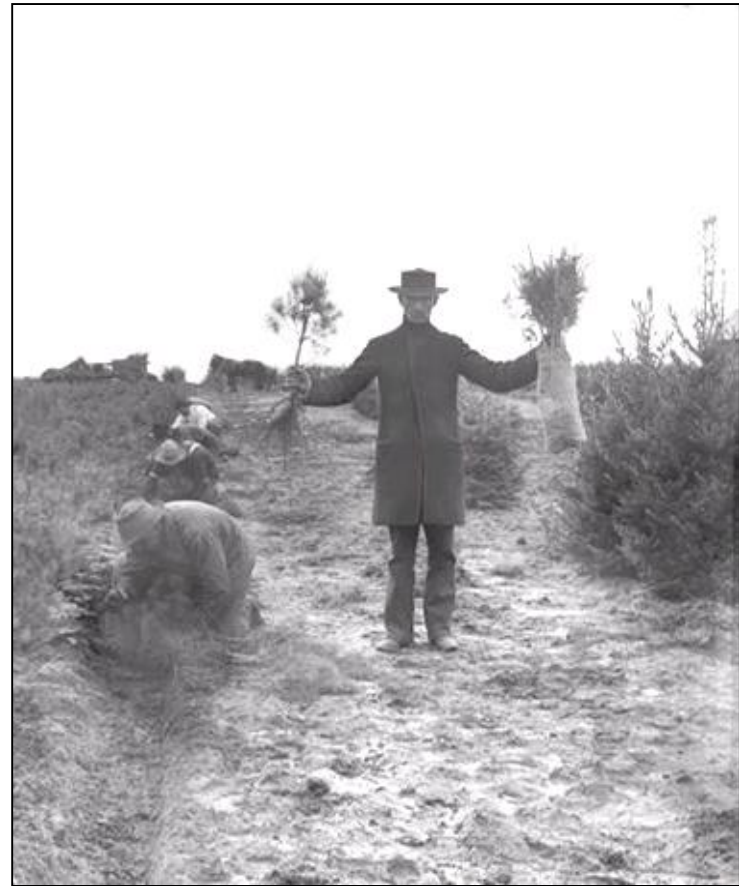
- Timber cutting ramped up after the Civil War
- 1899-1904 - Wisconsin led nation in lumber production
- Peshtigo Fire October 1871
  - Over 1.25 million acres burned
  - 1,200 – 1,300 lives lost;
- Phillips Fire July 1894
  - 1 million acres burned





# Concerns of Forest Depletion and Fire

- 1903 - first comprehensive forestry law passed
- 1904 - first State forester E.M. Griffith hired
- 1911 – First group of forest rangers hired
- First State Nursery at Trout Lake
- 300 fire wardens appointed



# The Roaring 20's...for Forestry too

- Forest protective laws were overhauled to protect forests from fire.
- Passage of the Forest Crop Law
  - Owner of 160 or more acres could declare his land suitable for forestry; 50 year renewable contract.
  - Reduced annual property tax combined with a severance tax when timber cut.
- Creation of the Forestry Mil Tax
- Establishment of State & County Forests
- Authorization for federal forests in Wisconsin

# The Forestry Mil Tax

- 1924 Constitutional Amendment
- A statewide property tax; no more than \$0.20 per \$1,000 value on all taxable property (2016: \$0.1697 per \$1,000)
- For “acquiring, preserving, and developing forests of the state.”



# Forestry Account Funded Programs

- Major DNR programs include:
  - State Lands
  - County Forests
  - Private Forestry
  - Forest Protection
  - Also: Urban Forestry, Forest Health, Forest Nurseries, Forest Products Services
- Partnerships are key to our success



# State Forests

- Initial lands acquired in early 1900's as Forest Reserves
- Several state forests established in 1920s
- Managed by statute (s.28.04) to provide multiple uses and benefits
- Today over 500,000 acres

# County Forests

- 1927 – County Forest Reserve Law authorized counties to engage in forestry
- 1929 legislature allowed tax-delinquent land to be put into county forests and entered in under the Forest Crop Law
- County Forest program separated from FCL in 1963. Now managed under s.28.11
- Today: 29 County Forests, 2.4 million acres

# National Forests

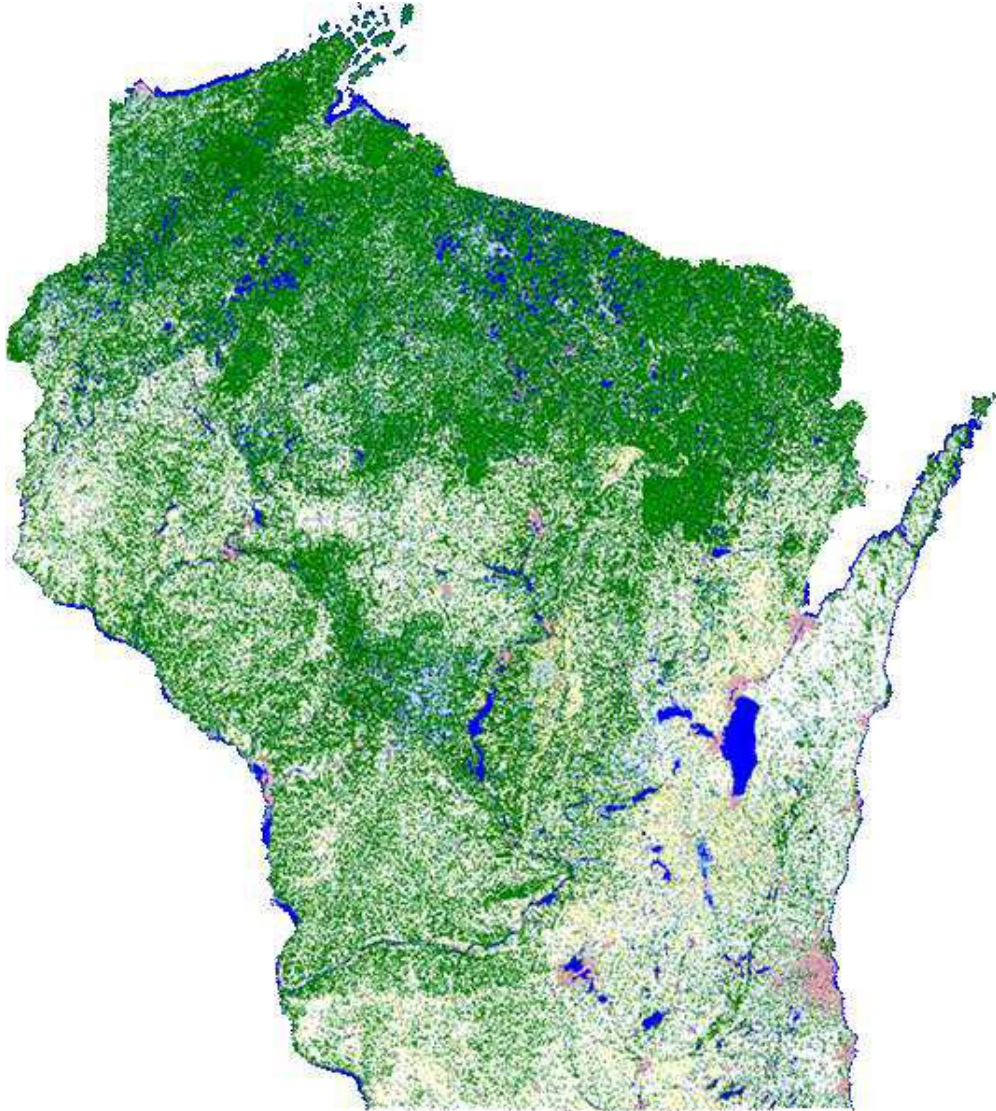
- 1925 – WI legislature authorized federal government to acquire up to 100,000 acres for a national forest. In 1933 increased to 2 million
- 1928 first purchase of 151,680 acres in Oneida, Forest and Vilas Counties
- Today the Chequamegon-Nicolet National Forest is 1.5 million acres

# Managed Forest Law

- 1985: Legislature replaced 1927 Forest Crop Law and 1954 Woodland Tax Law with MFL
- Provides tax incentives to manage private forest for timber and other public benefits
  - 25 or 50 year commitment to practice forestry
  - Reduced annual property taxes plus a yield tax
  - Written management plan reflecting owner objectives
  - Option to open or close (higher rate) land to public
- Over 3 million acres in the program today



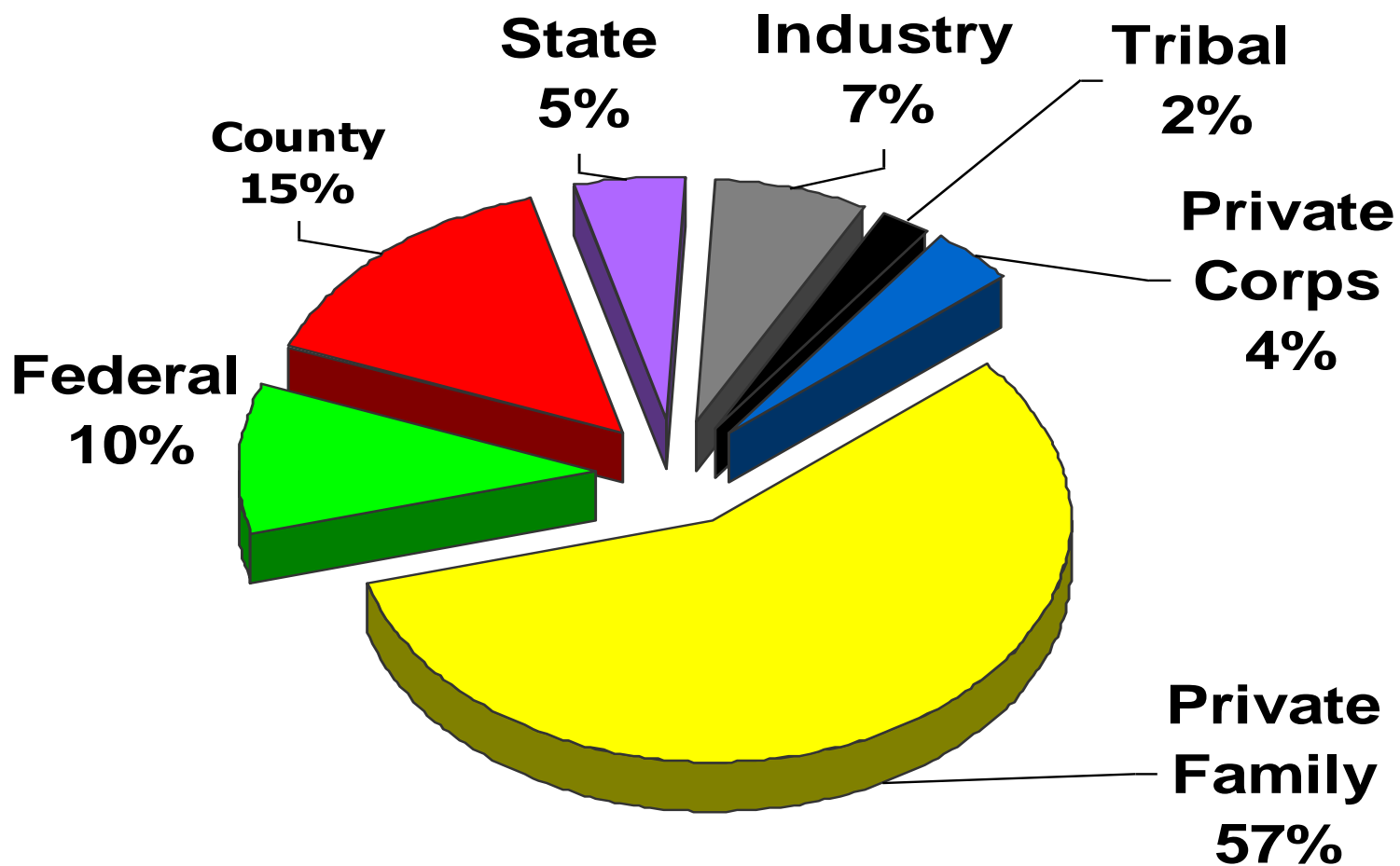
# Wisconsin Forests Today



- 48% forested
- 17.1 million acres



# Forest Land Ownership

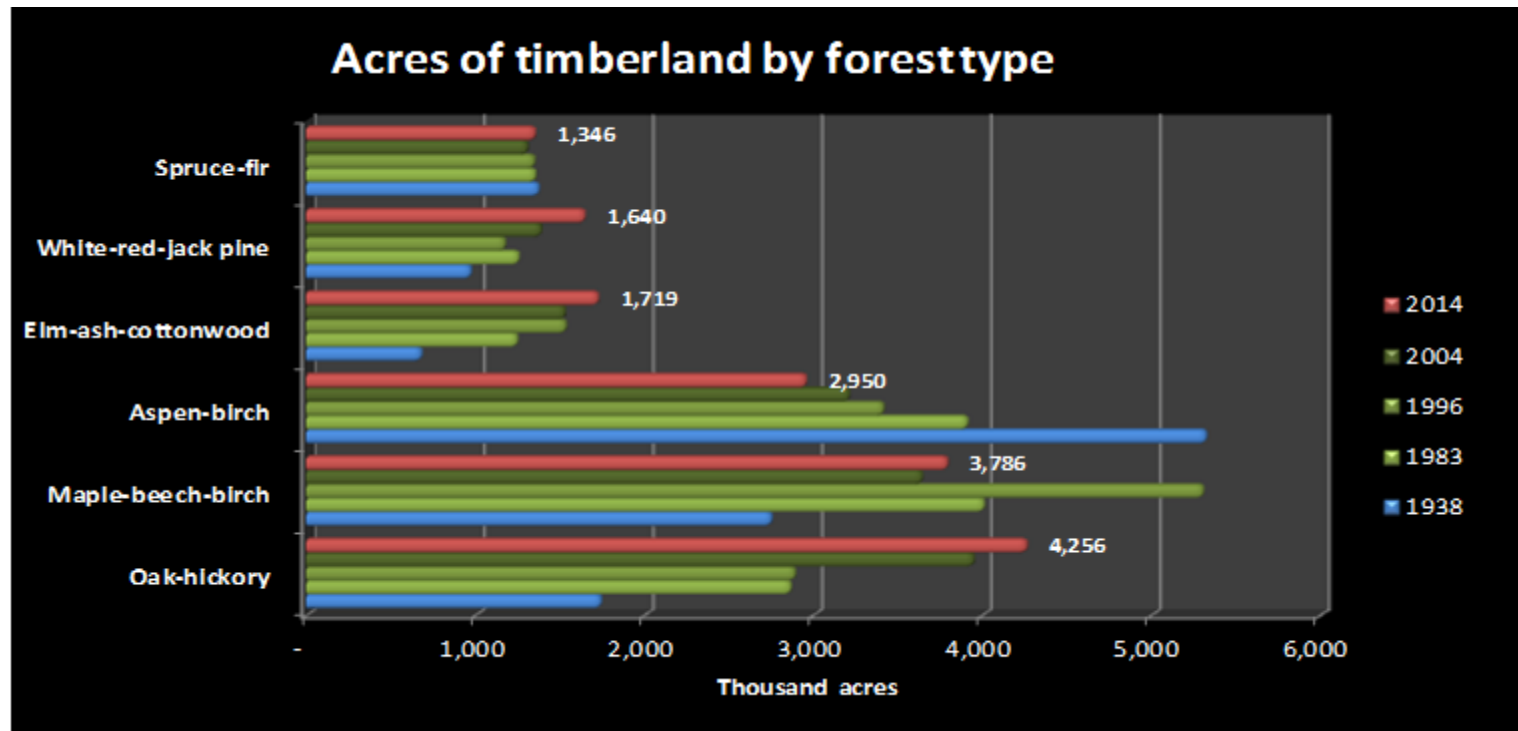


# Forest ownership in Wisconsin

Ownership	Acres	Percent
State lands (forested)	1,170,000	7%
Federal forests	1,622,000	9%
County forests	2,359,000	14%
Private forests	11,940,000	70%
MFL/FCL	3,450,000	26% of Private Ownership
TOTAL	17,100,000	

# Wisconsin's Forests are changing in character

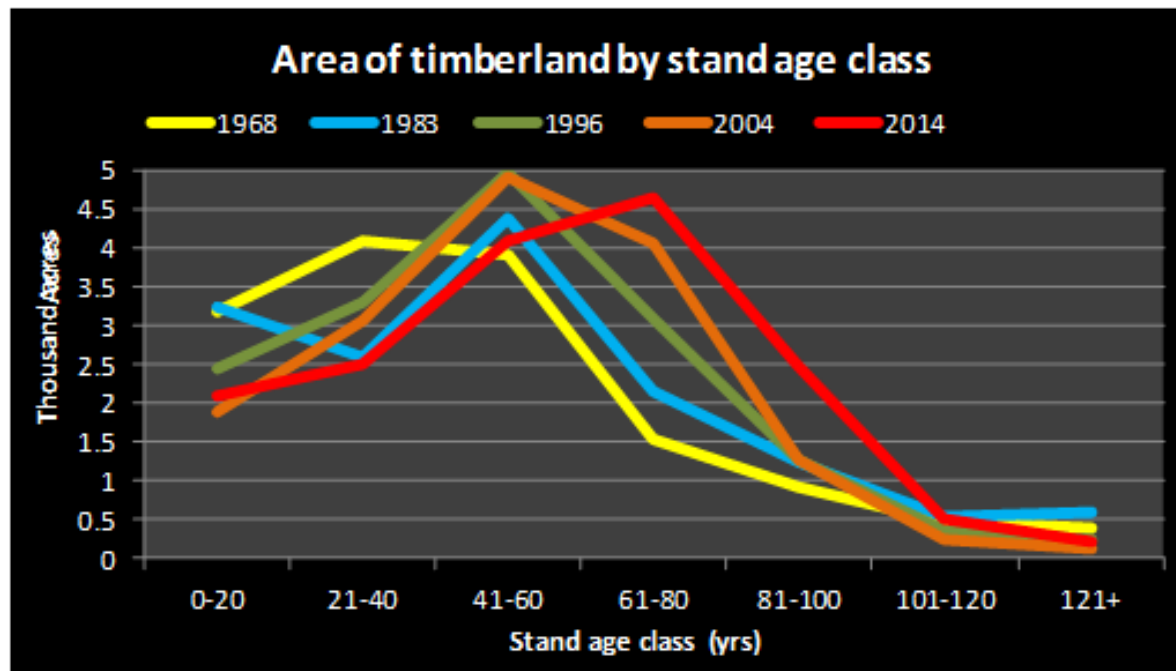
- Increasing forest types:
  - Oak-hickory
  - Northern hardwoods
- Decreasing forest types:
  - Aspen-birch



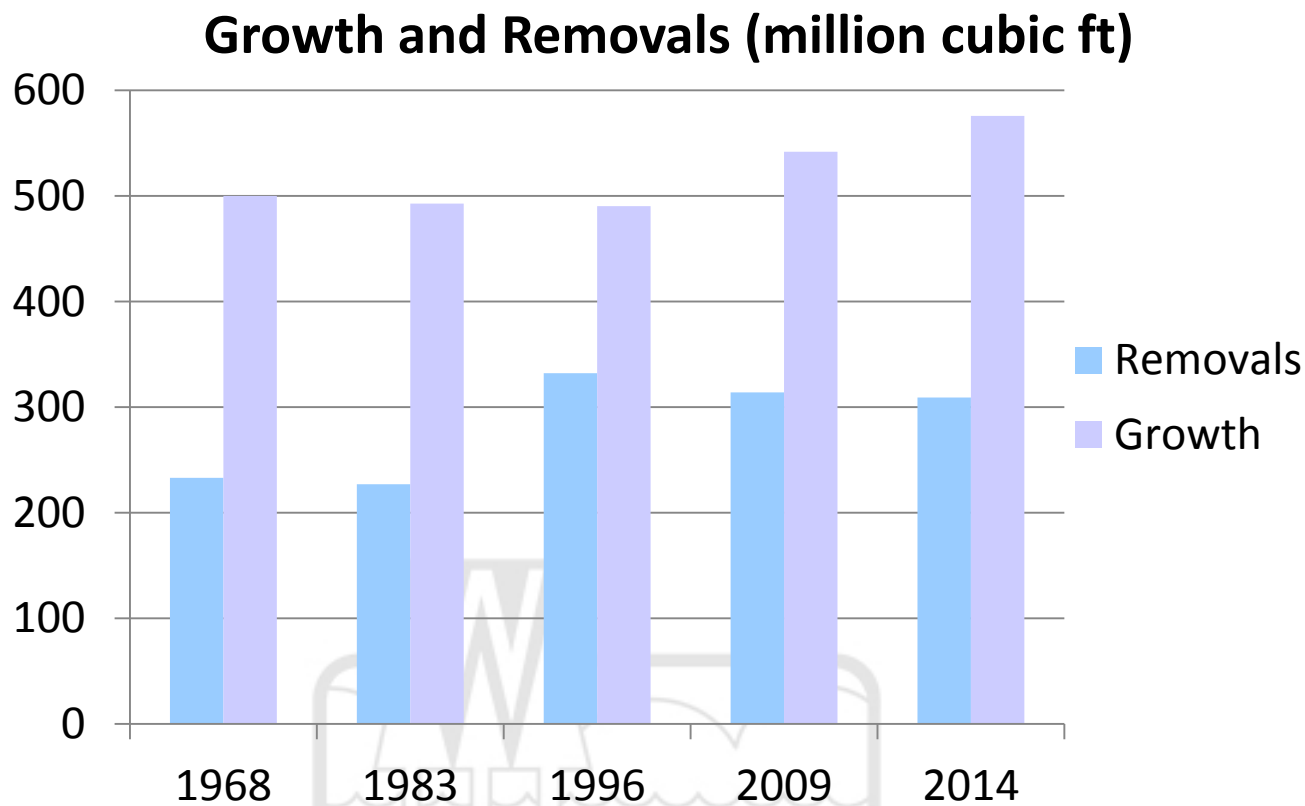


# Wisconsin's Forests are aging

Since 1968, Wisconsin's forests have become more **middle-aged** with fewer acres in the very youngest and very oldest age classes



# We are growing much more volume than we are harvesting

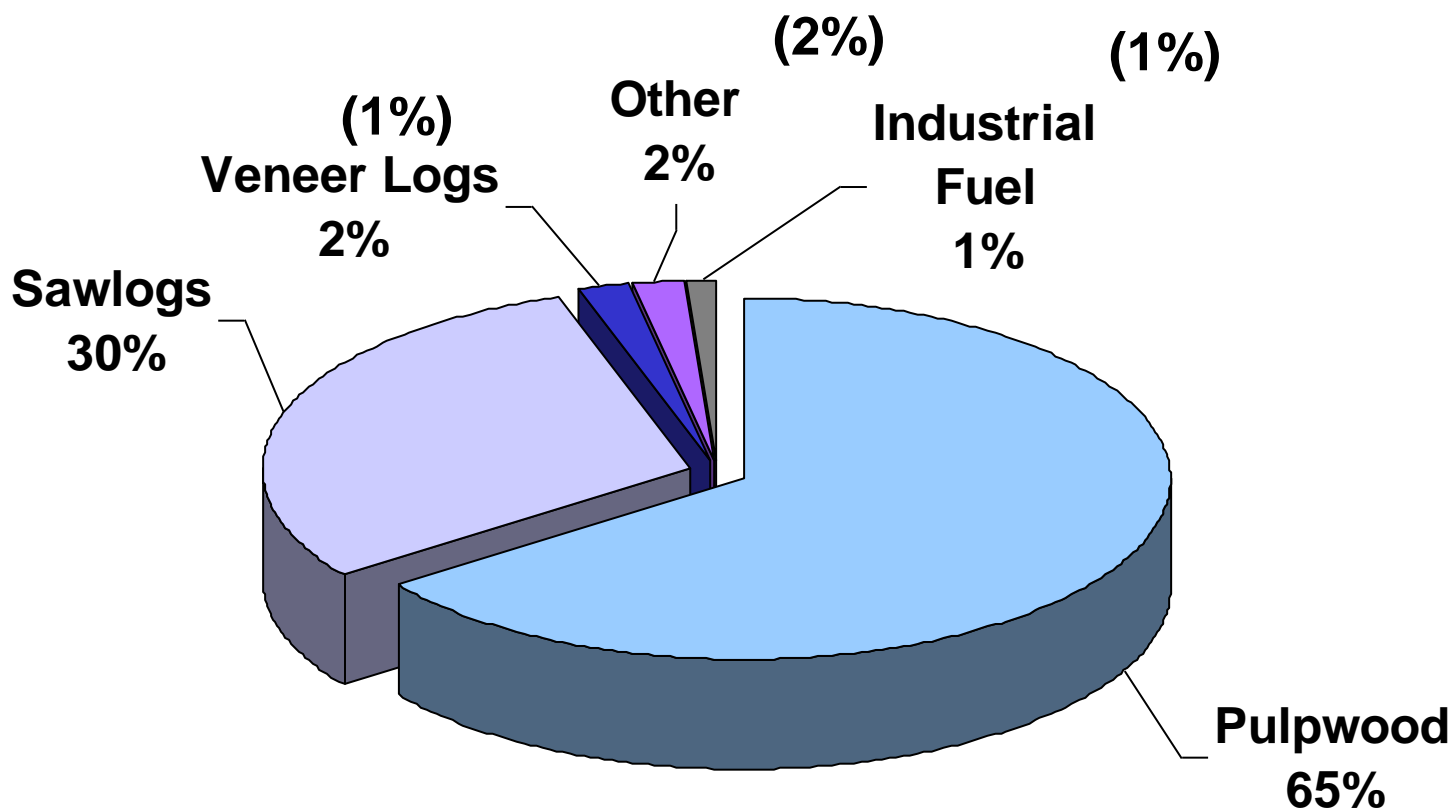


Growth to removal ratio was 1.86 in 2015

- # Wisconsin's Forest Products Industry
- National leader and core economic sector:
    - Value of Shipments = \$24.7 billion (#1 in nation)
    - Paper manufacturing (#1 in nation for more than 60 years)
    - Number of Forest Product Companies = 1,292 (#6 in nation)
    - Forest industry employment= 65,000
    - Second largest manufacturing employer; 1 in every 6 manufacturing jobs in Wisconsin related to forestry
    - Value of Secondary Impact = \$18.1 billion
    - Every job in the forestry industry, supports 1.7 additional jobs in Wisconsin
    - Number one employer in 10 counties
    - International exports totaled \$2.2 billion

## Traditional Products

# Wisconsin's Wood Products



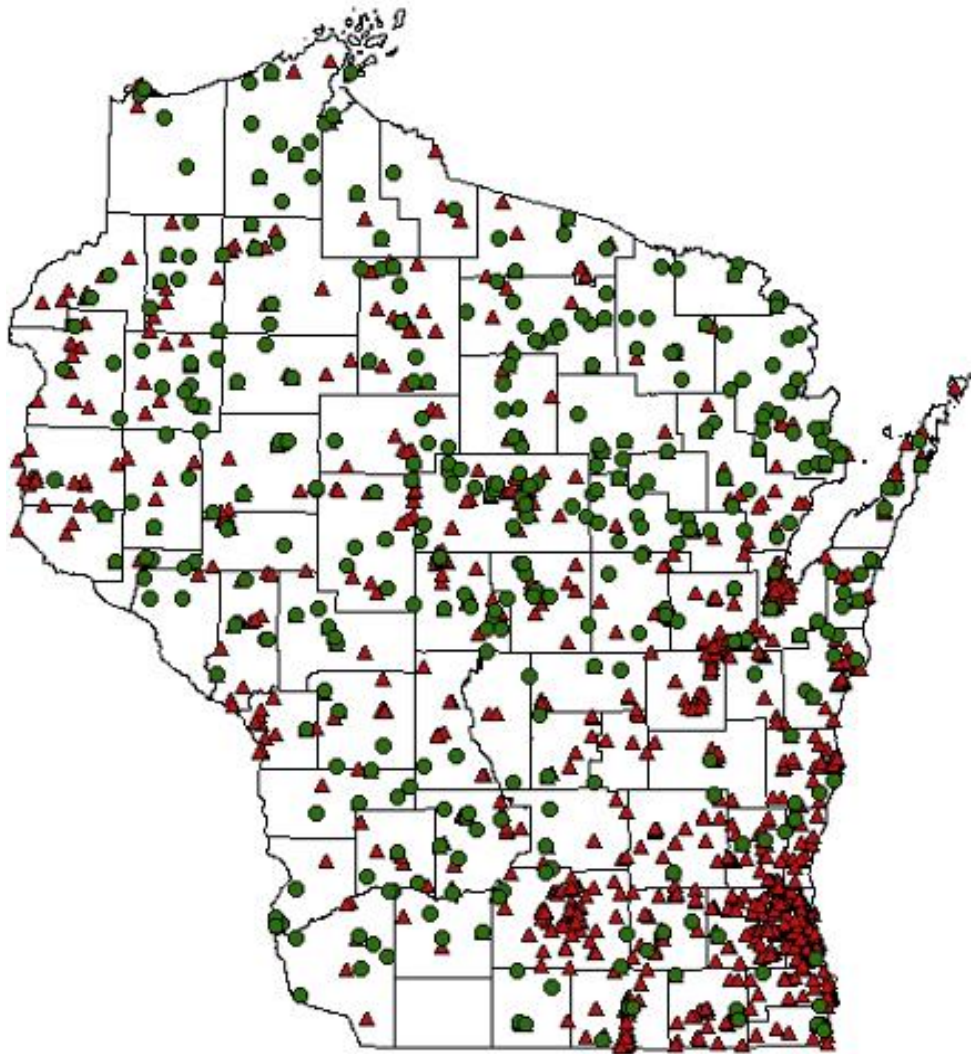
(2011 estimates)

# Direct Economic Effects

	Employment	Output	Value Added
Forestry and Logging	5,957 jobs	\$435 million	\$206 million
Pulp and Paper	31,372 jobs	\$19.2 billion	\$4.1 billion
Sawmills and Wood Products	27,568 jobs	\$5.1 billion	\$1.6 billion
Total	64,896 jobs	\$24.7 billion	\$5.9 billion

Source: IMPLAN (2014 data)





▲ Secondary Wood Industry

● Primary Wood Industry

- 1,292 primary and secondary forest product companies
- Every job in forestry supports 1.7 additional jobs in the state
- Wisconsin has been the #1 paper making state in the Nation for over 60 years

# Public Forests: Wisconsin is Different

- The counties have the largest percentage of public forest land in Wisconsin – nearly 2.4 million acres
- The state owns 1.52 million acres with just under 1 million acres forested.
  - State Forests cover only 538,000 ac.
- The Division of Forestry is responsible for State Forests and provides management assistance on all forested DNR lands

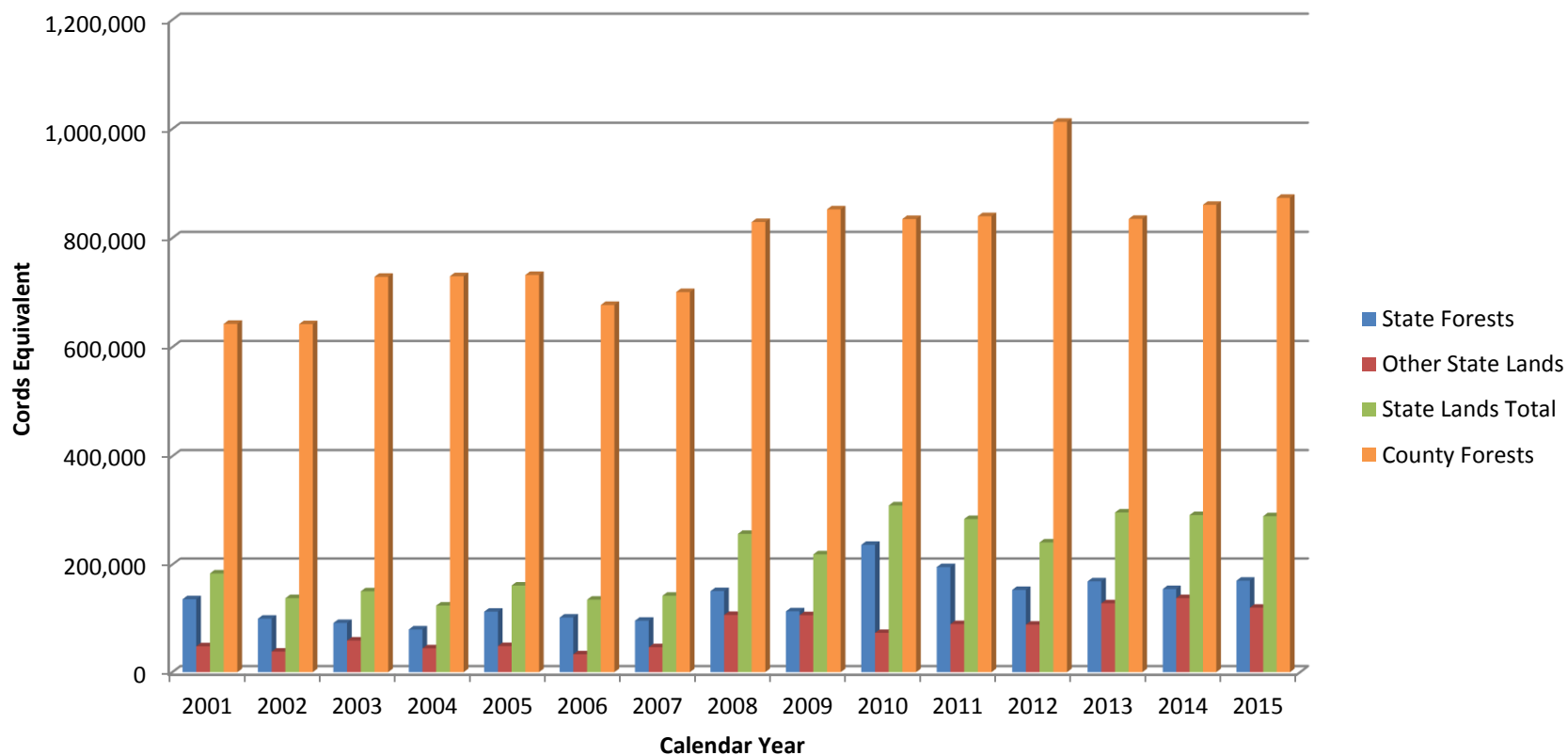


# Economic Impact of Forested acres

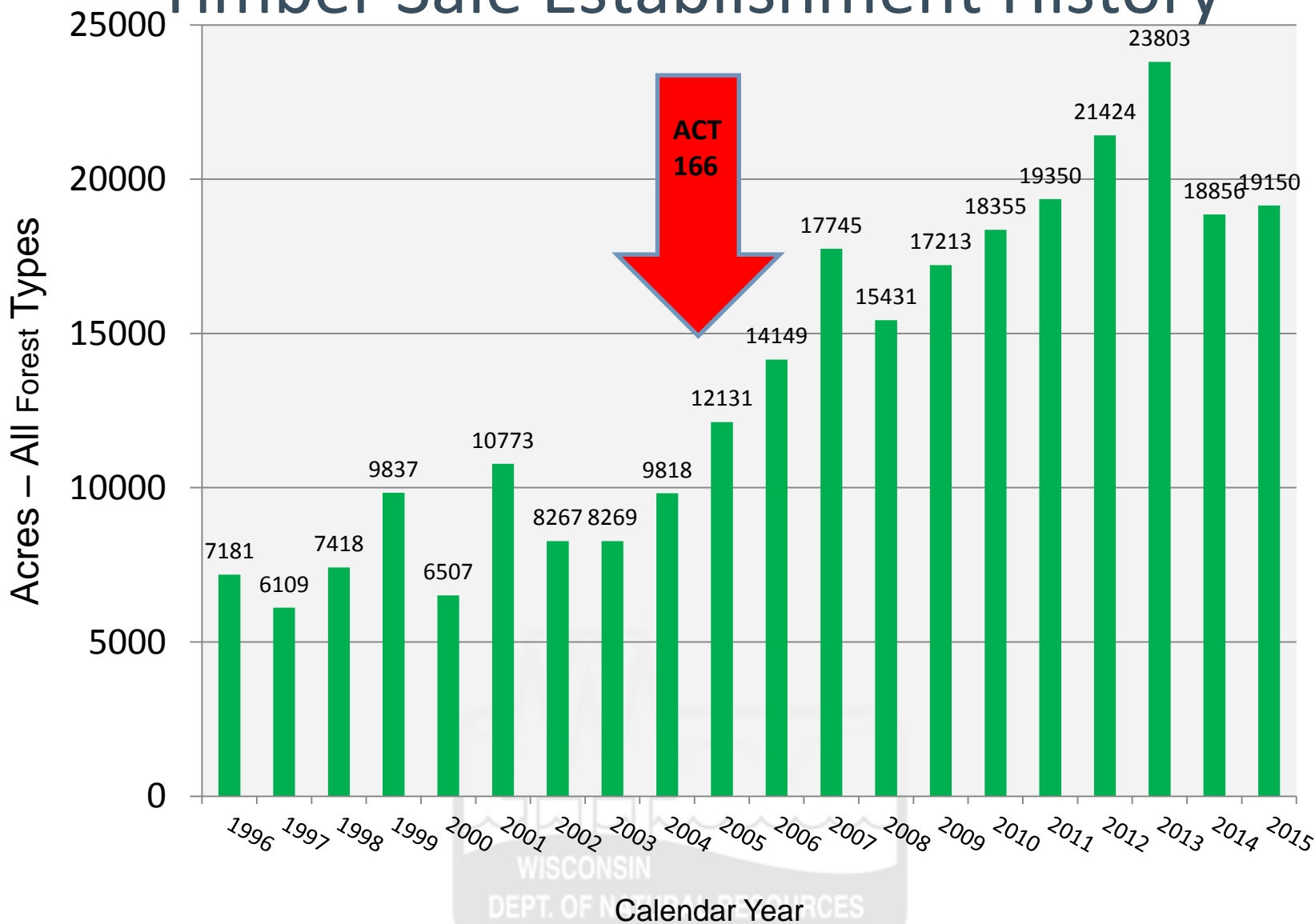
- DNR manages 980,000 forested acres  
(5.7% of Wisconsin's 17.1 million acres of forest)
- Approximately 80% of DNR forested lands are actively managed forests
- Provide economic benefits through both timber production and recreation.
- Record \$11 million in timber revenues in 2015
- Valued for diverse recreational opportunities

# Volume from State & County Lands

## Cord Eq. Volume of Timber Sales Completed



# Timber Sale Establishment History





# County Forestry Program

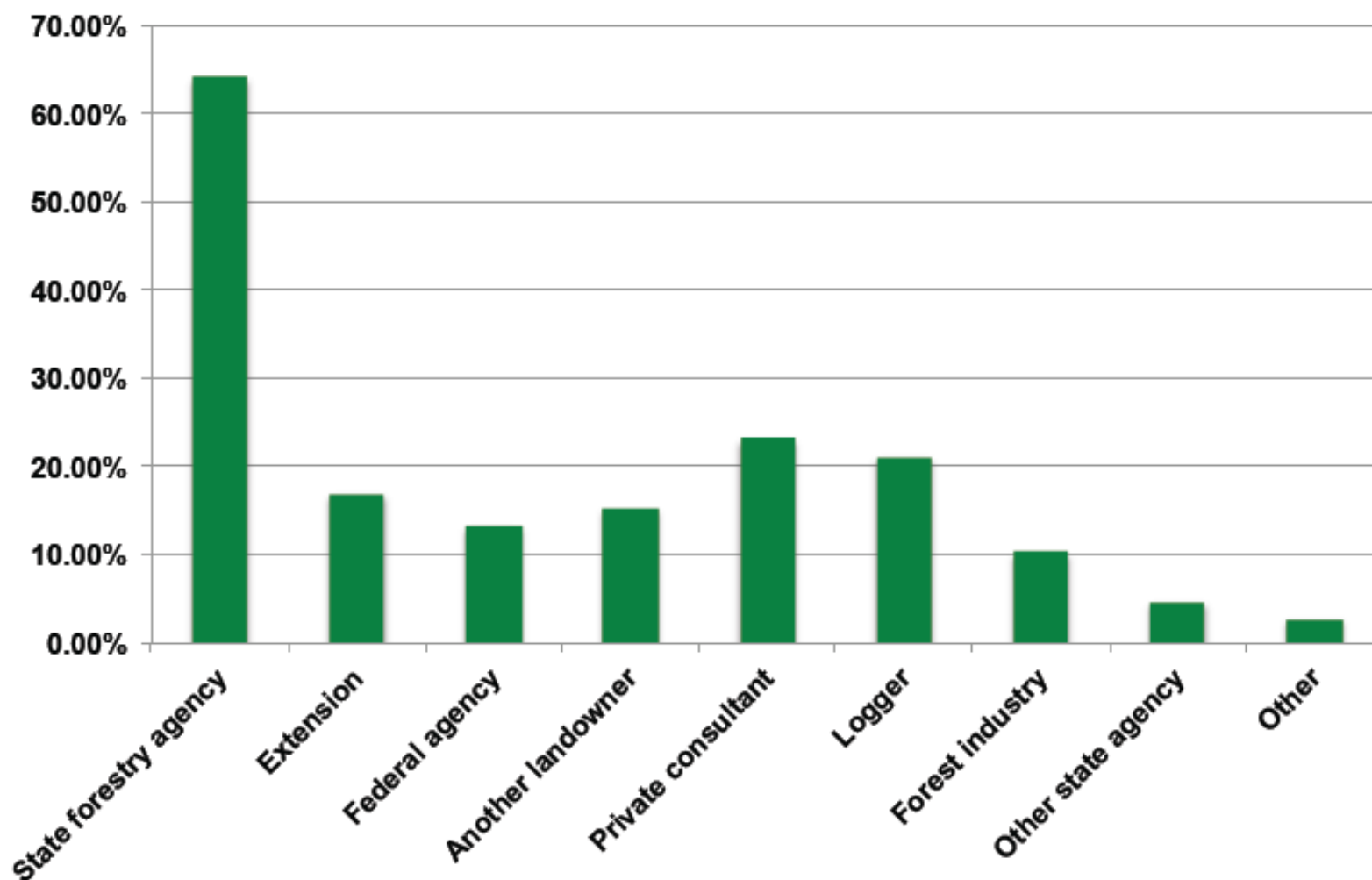
*The Department partners with 29 counties in the county forest program to provide a full array of benefits:*

- 2.4 million acres add greatly to both the local and state economy
- Over \$36 million in timber revenues in 2015
- Green Bay Packer Salary Cap in 2015: \$156,259,983
- Each county board and the DNR approves a 15-year plan.
- Wisconsin's county forest program is unique in the country in how it functions. WCFA is a valued partner.
- DNR provides staff assistance, grants and no interest loans to support county management of the program.

# Wisconsin's Private Forestry Program

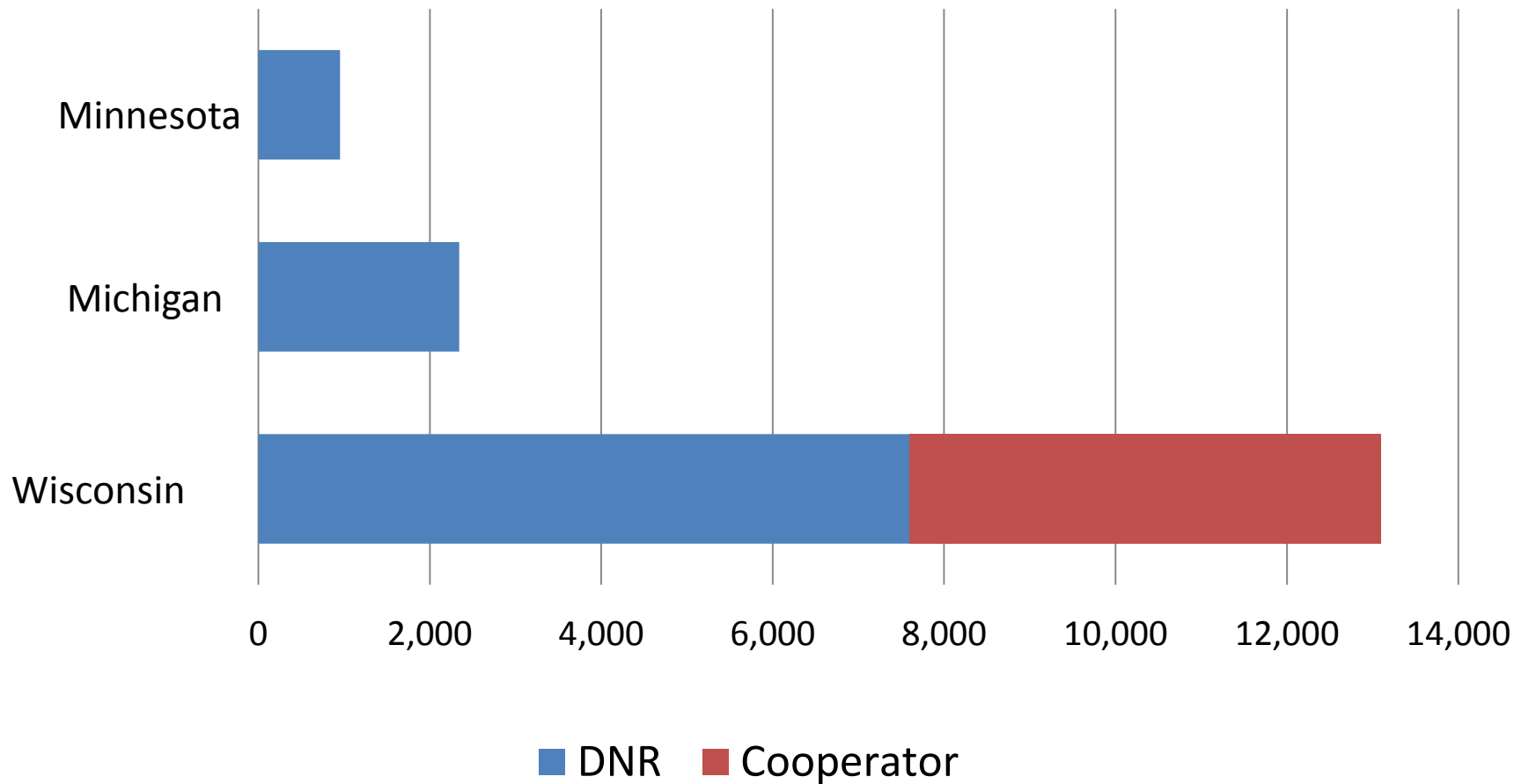
- 70% of Wisconsin's Forests are in Private Ownership
- DNR facilitates private landowner forest management to provide economic, ecological and social benefits for this and future generations.
- DoF seeks to supplement the private sector forestry professional workforce by filling roles not advantages or desired in that sector.

## TOP SOURCES FOR ADVICE



*Source: National Woodland Owners Survey*

## NUMBER OF LANDOWNER ASSISTS



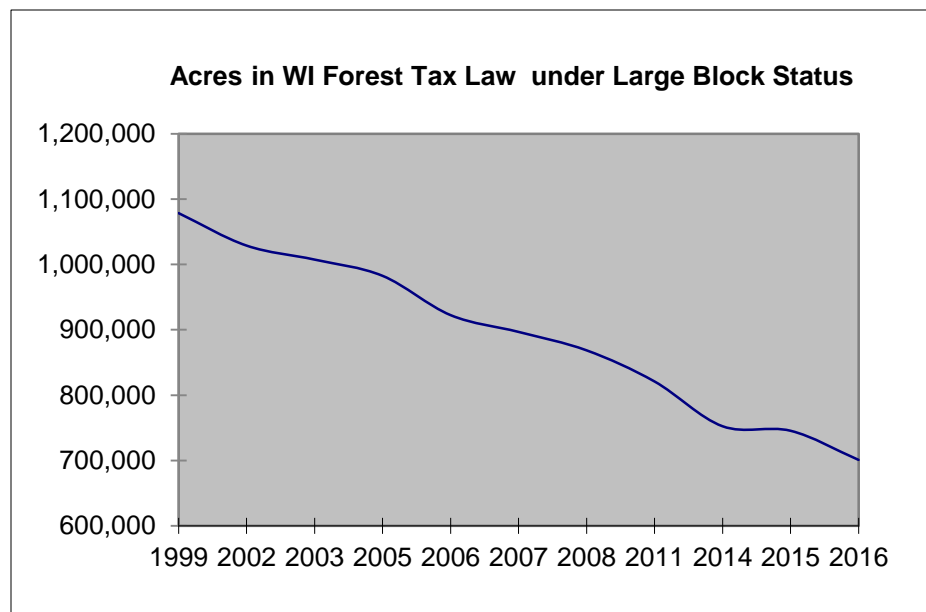
# The changing face of Wisconsin's largest forest owners

- Since, 1997, 62% increase in Non Industrial Private Forest Owners

- 263,000 (1997)
- 362,000 (2006)
- 426,000 (2013)

- Impending inter-generational transfer of land

Average Parcel Size NIPF Forest Lands (Acres)		
1997	2006	2013
37	28	26
Source: USDA – FIA & NWOS; 2006 & 2013		



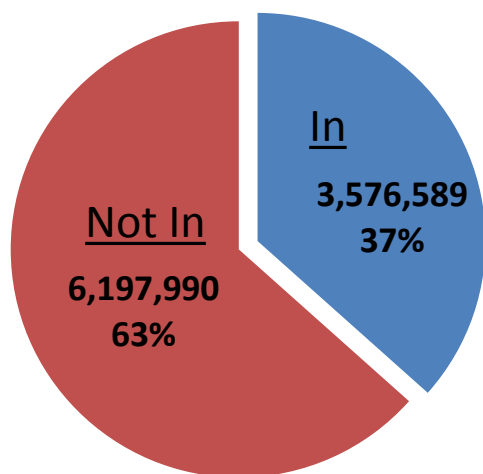


# Wisconsin's Forest Tax Programs

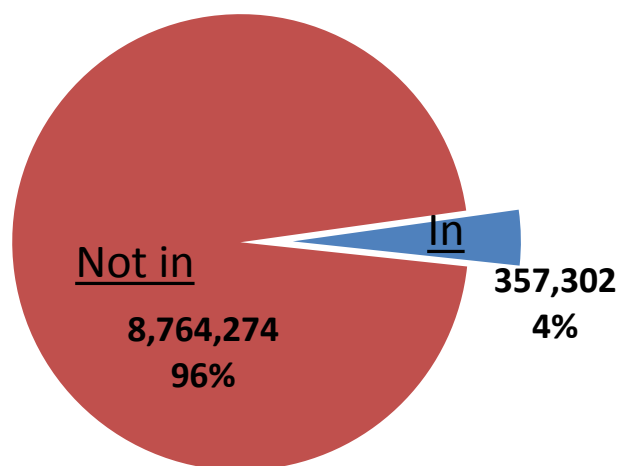
- Forest Crop Law (1927 – present)
- Managed Forest Law (1985 – present)
- 3,330,000 acres enrolled for 25 or 50 years
- > 50,000 enrollees
- Mandatory practices
  - Law requires timber sales to be conducted.
  - During recession, timber from private lands dipped significantly, however, MFL lands saw much smaller decrease.

# Family Forests in Forest Management Incentive Programs

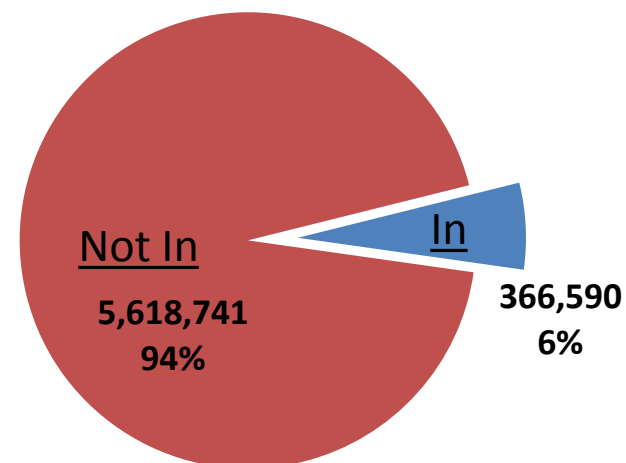
**Wisconsin  
(acres)**



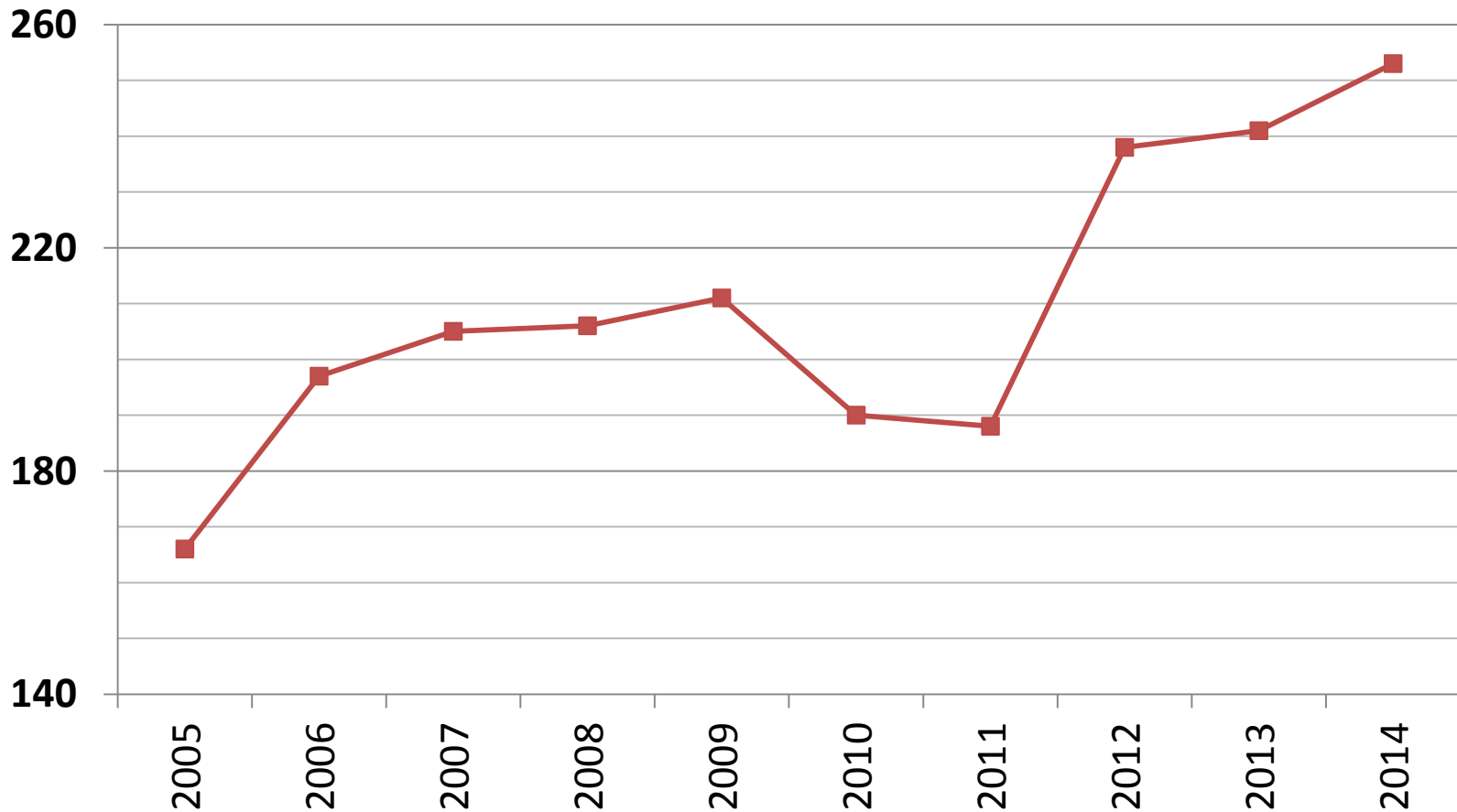
**Michigan  
(acres)**



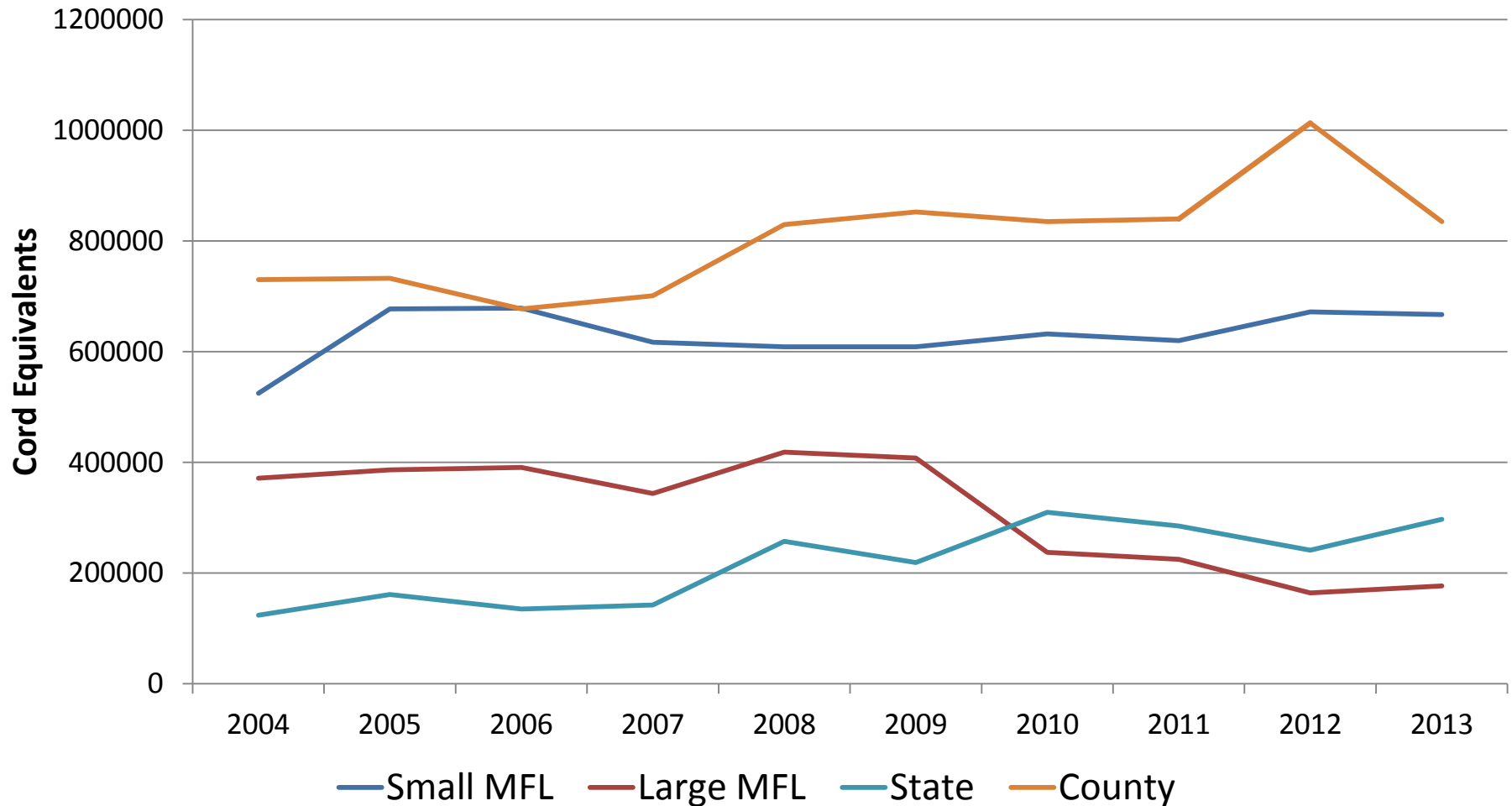
**Minnesota  
(acres)**



## 2005-2014 GROWTH IN PRIVATE-SECTOR COOPERATING FORESTERS



## Timber production as an economic driver: State invested programs



# Certification Enrollment: DNR Certificates (2015)

Certification Standard	FSC®	SFI®	ATFS	Dual Certified (percentage)	Total certified acres
<b>Total Acreage</b>	<b>3,205,723</b>	<b>3,761,822</b>	<b>2,571,175</b>	<b>86%</b>	<b>6,501,834</b>



Other private and tribal certified acres = 576,267 FSC, 132,206 SFI, 301,749 ATFS for a total of 1,010,222 acres



# Benefits we've experienced



**Assurance**



**Market access**



**Continuous Improvement**

# Challenges we've faced



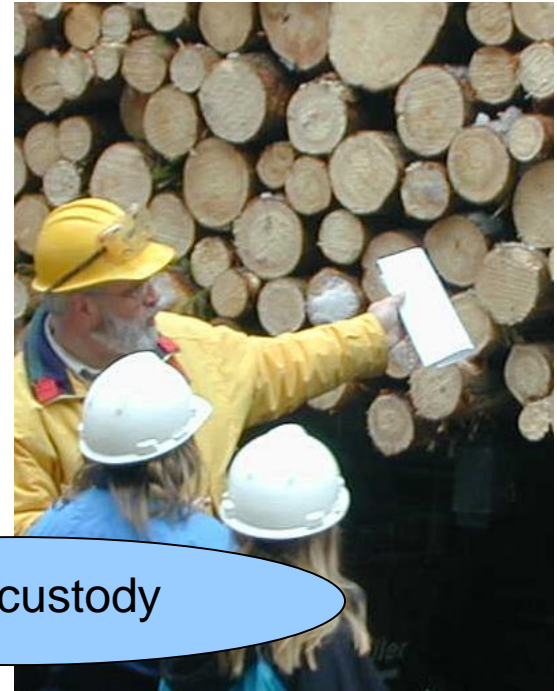
CARs

Loss of markets

Loss of companies

Chain of custody

Costs vs. benefits



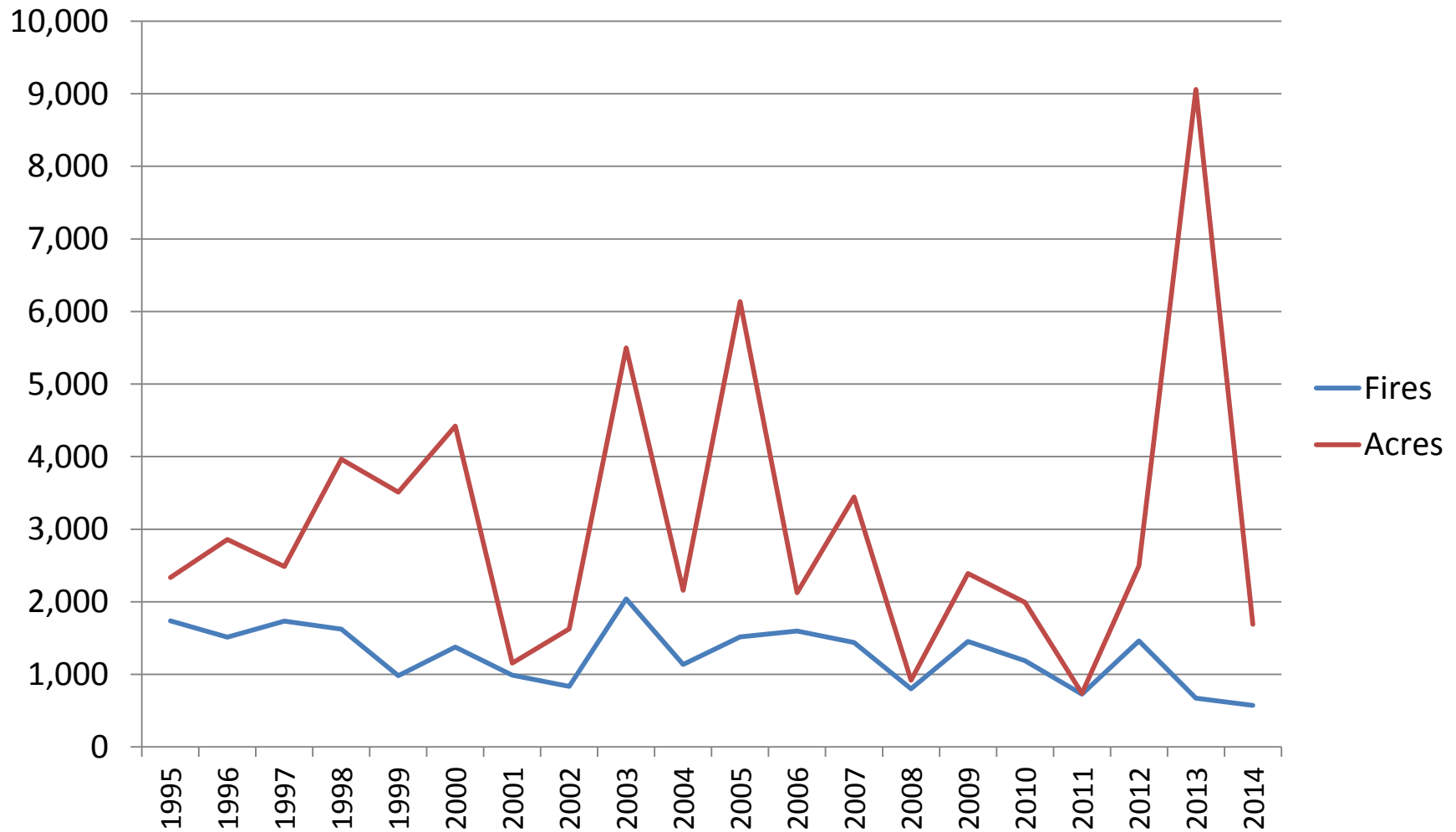


# Forest Protection Program

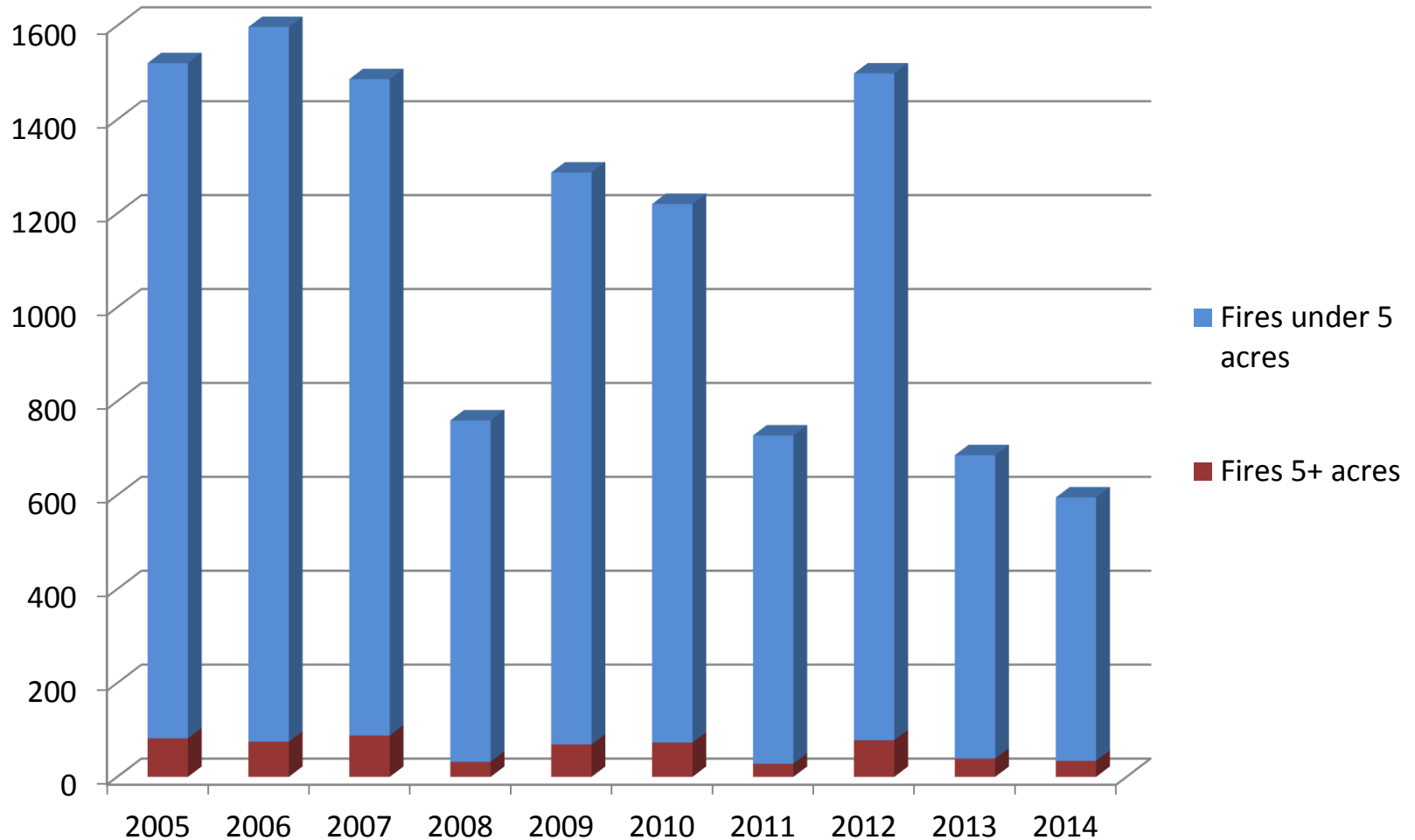
*The DNR's role in forest fire protection is to prevent, detect and rapidly suppress wildland fires in areas of the state that have the greatest potential for significant property and economic loss, natural resource destruction and loss of life.*

The Department complements the capacity of local fire departments by filling roles not efficiently covered on a community by community basis (e.g., Incident Management Teams, heavy equipment, detection).

# Annual # of wildfires and acreage



# Aggressive Initial Attack



# Other DNR Programs

- Forest Health (insects & diseases)
- Urban Forestry
- Forest Products Services
- Reforestation (Nurseries)
- Science and Information Technology

# Forestry Partners

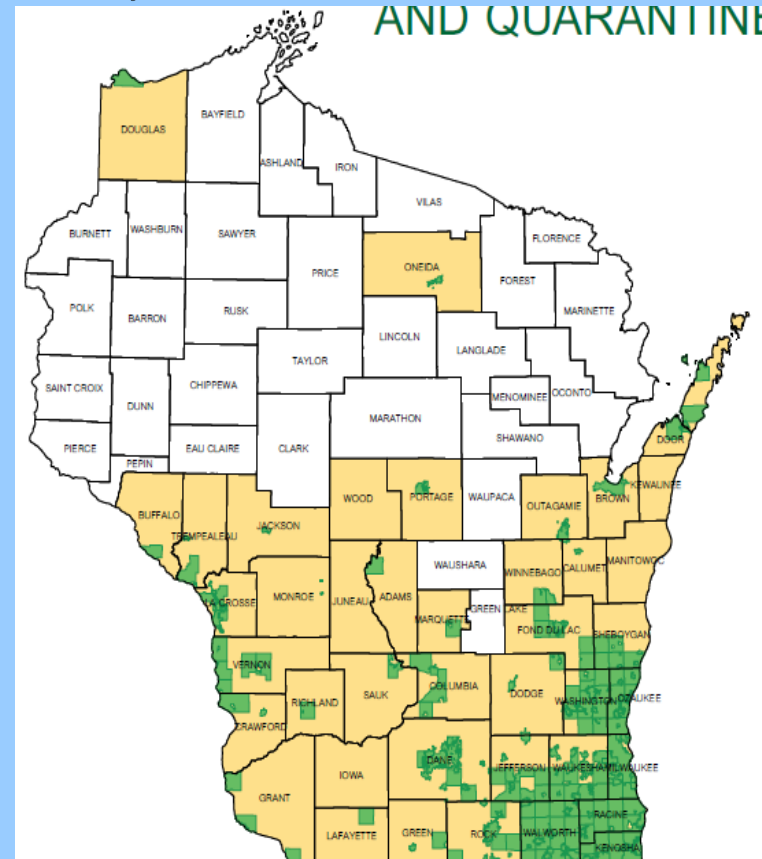
Protecting and managing 17 million acres of forest requires effective partnerships!

- Local fire departments
- Counties and communities
- Private sector foresters
- Logging professionals
- Federal land managers and firefighters
- Private landowners and managers
- And many others...

# Forest Economy Challenges

- Invasives and exotics (NLEB, EAB, OW, ARR)
- Wood supply
- Declining loggers and truckers
- Seasonal restrictions
- Landowner changes
- National forest harvest levels
- Parcelization and fragmentation
- High-grading
- Deer

EAB Quarantine Map



Thank you!

Curt Wilson

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