

College of Agriculture and Natural Resources

### Michigan's Logging Sector

#### Michigan Society of American Foresters April 10, 2015

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### Michigan's Logging Sector – and a bit about Wisconsin

- US Business Census
- •Employment trends
- Income
- Demographics
- MSU Department of Forestry surveys
- Operations
  - Years in business
  - Levels
  - Stumpage arrangements & sources
  - Species harvested
  - Production & Deliveries
- Issues
- Lake States' logging survey proposal

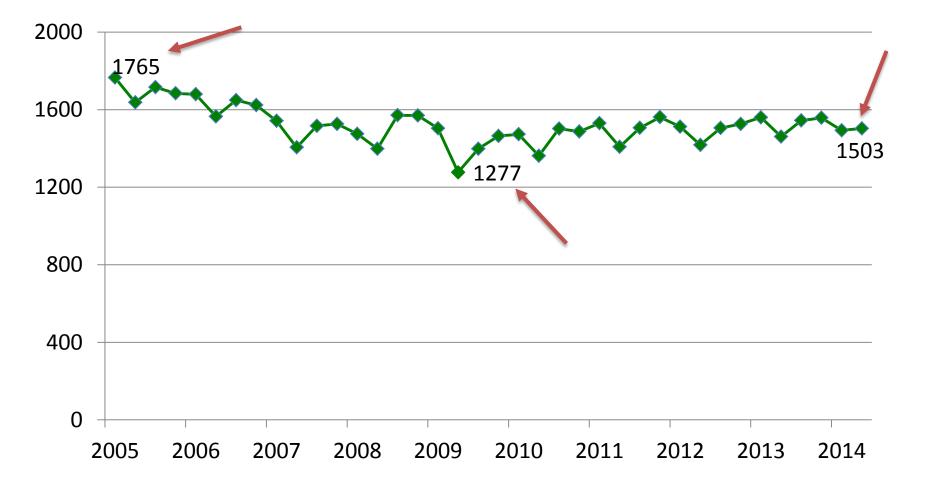


# Michigan's logging sector economic contributions

Impact	Employment	Output	Labor Income
	(Jobs)	(\$ Million)	
Direct	3,123	257.2	131.4
Total	5,158	494.3	216.9

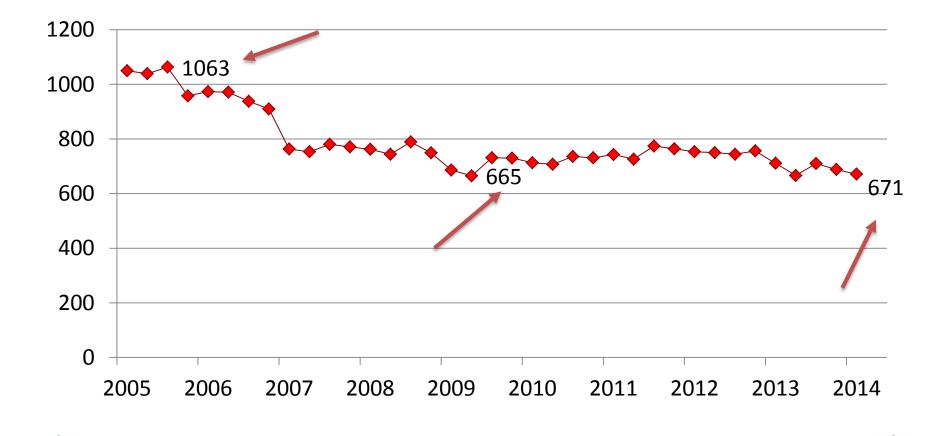


#### Michigan logging employment 2005-2014

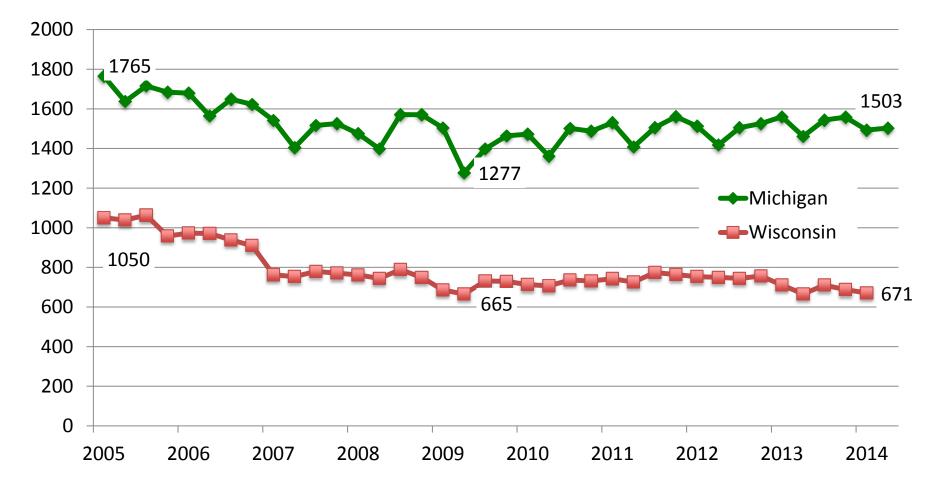




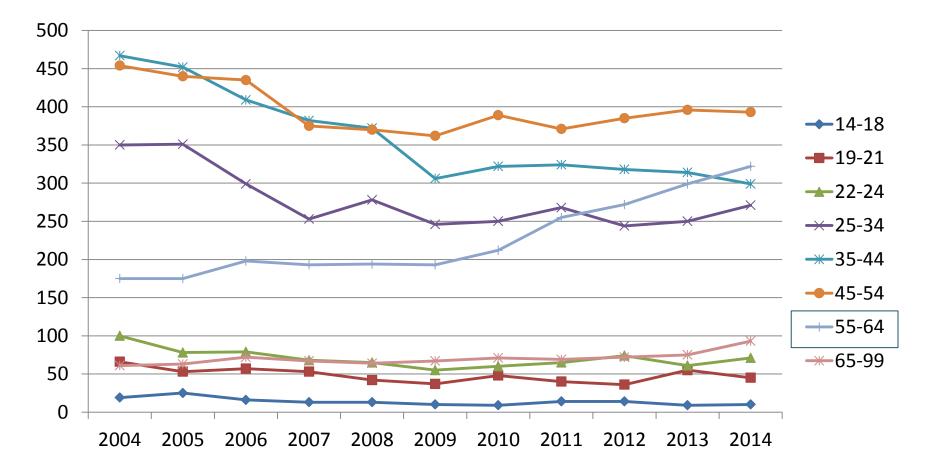
#### Wisconsin logging employment 2005-2014



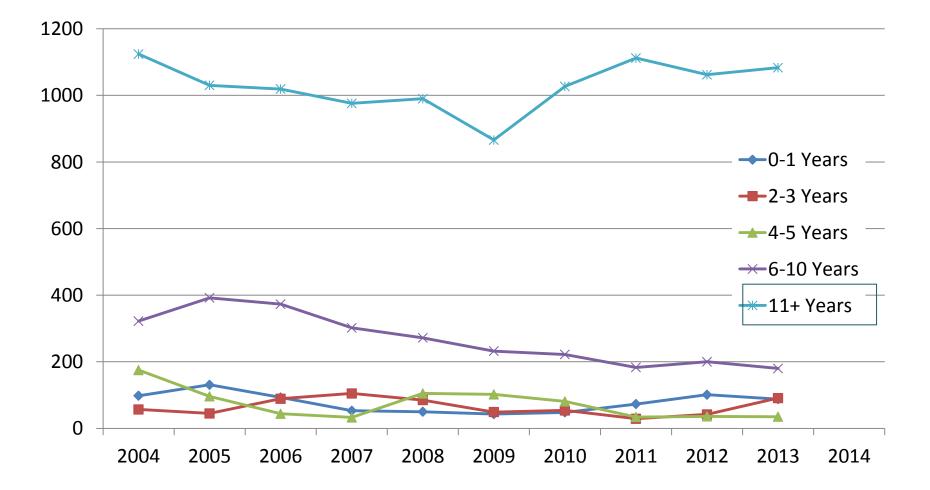
# Michigan & Wisconsin logging employment, 2005-2014



# Michigan logging employment by employee age group, 2004-2014



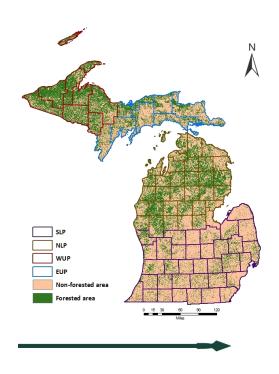
# Michigan logging employment by firm age group, 2004-2014





### MSU logging surveys

- two Michigan Forest Biofuels projects
- comprehensive mail surveys of Michigan logging firms
  - 2008 statewide
  - 2010 for the Eastern Upper & Northern Lower Peninsula of Michigan & then for remainder of state
- www.michiganforestbiofuels.org





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#### MSU logging sector survey

2008 for the Forest Bioenergy Statewide Collaboration Center

- statewide 1085 firms
- Potter-Witter, GC, Kuipers, Mueller; Dept. of Forestry
- assessment of timber supply
- firm size, production capacity, current production



Michigan Forest Biofuels Research

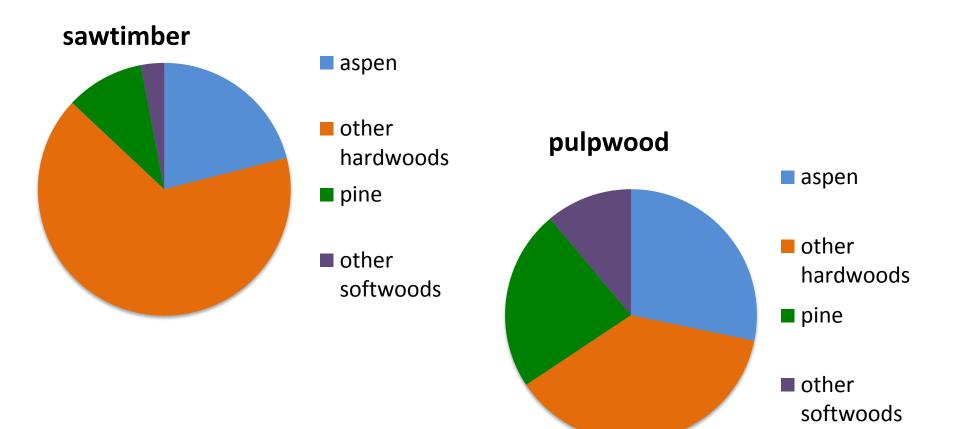


#### Logging sector characteristics studied

- 2009 employment vs. normal
- years in business
- consumption
- production
- transportation
- desired futures

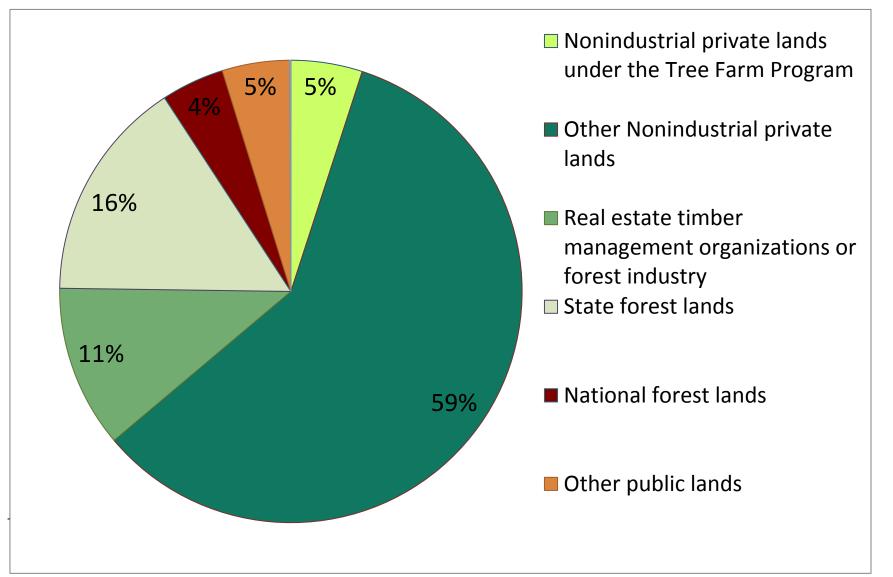


#### Species harvested



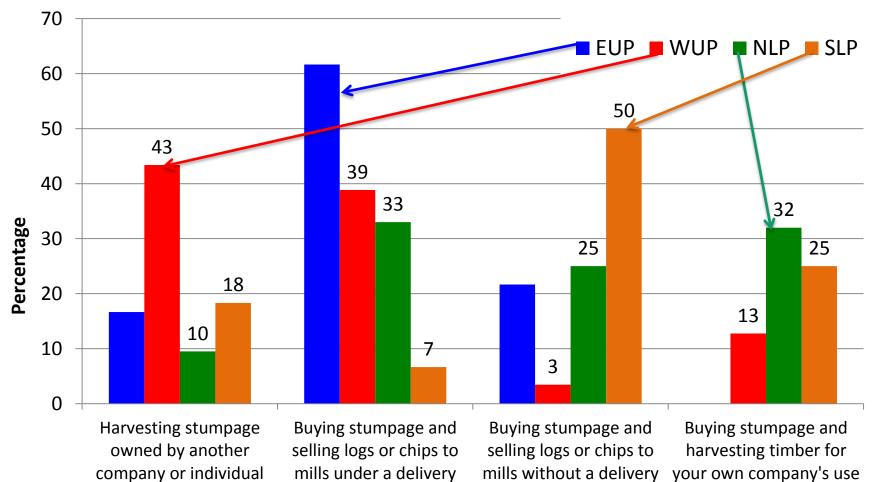
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#### Stumpage sources by ownership





#### Stumpage arrangements



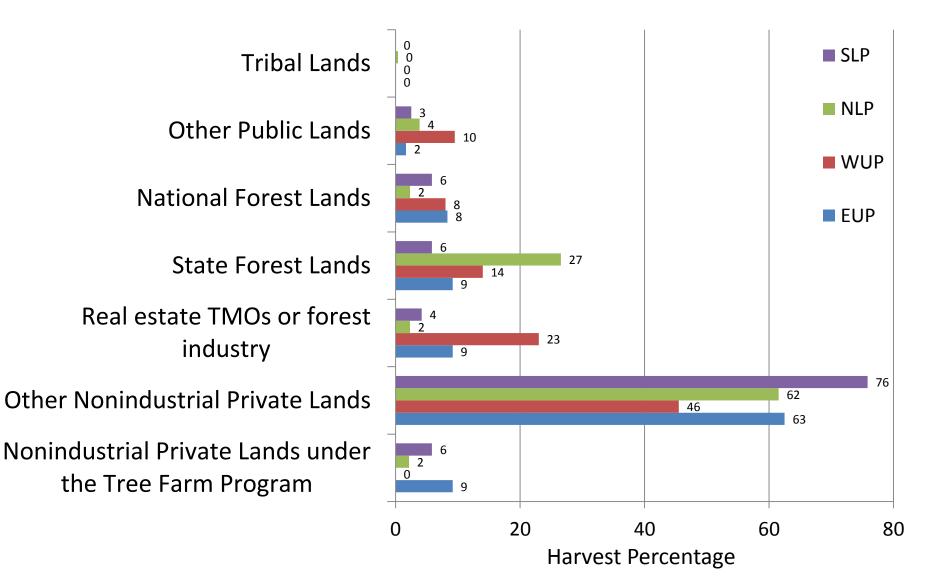
contract

contract

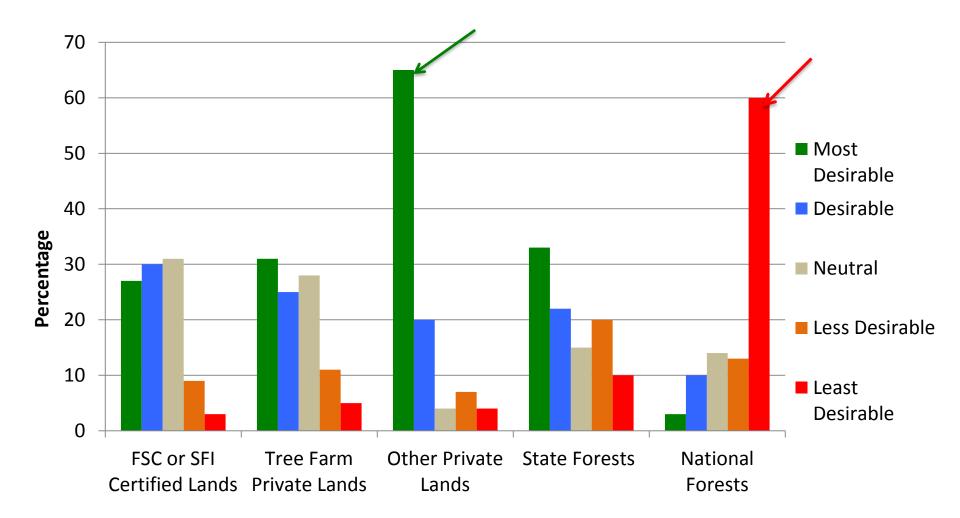
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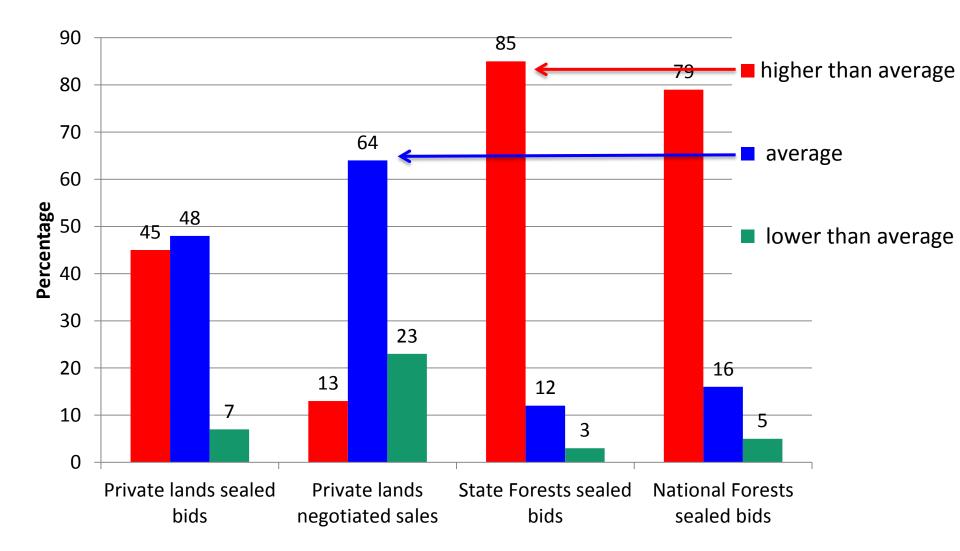
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### Harvest by land ownership



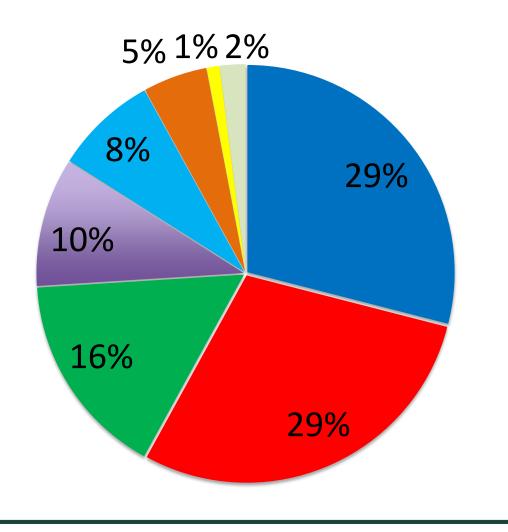








#### **Destination of production**



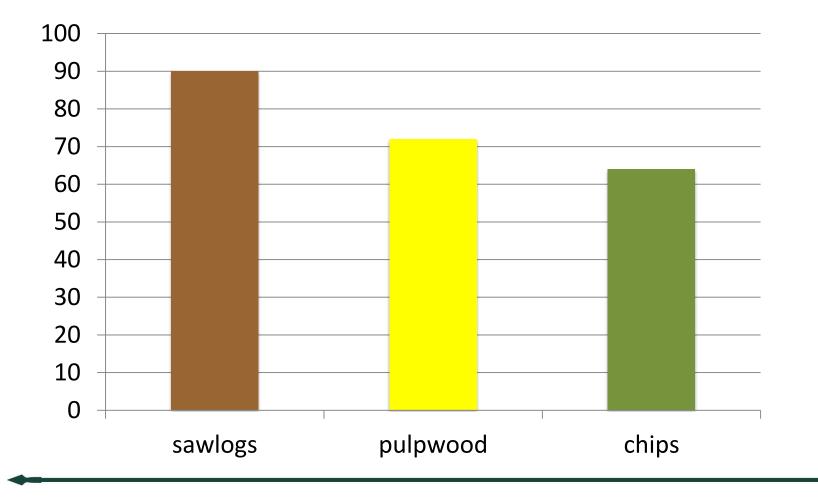
- pulp & paper mills
- hardwood sawmills
- OSB mills
- softwood sawmills
- landings

other

- veneer mills
- power generators



#### Deliveries within 90 mile of logging site





#### Deliveries outside Michigan

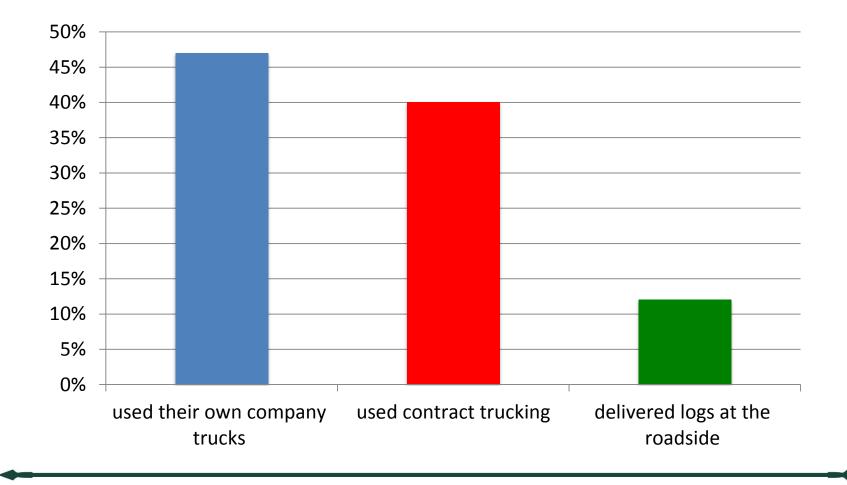
- Wisconsin:
  - Florence
  - Forest
  - Oconto
  - Vilas
- Ohio: Ashland
- Indiana: Brown

#### Regional differences in deliveries

- SLP firms supplied a significantly higher percentage of their total output to hardwood sawmills
- NLP firms supplied significantly higher percentage of their total production to OSB mills
- Upper Peninsula firms supplied a significantly higher percentage of their total production to pulp and paper mills



#### Transportation



#### Effects of mill closures - 2009

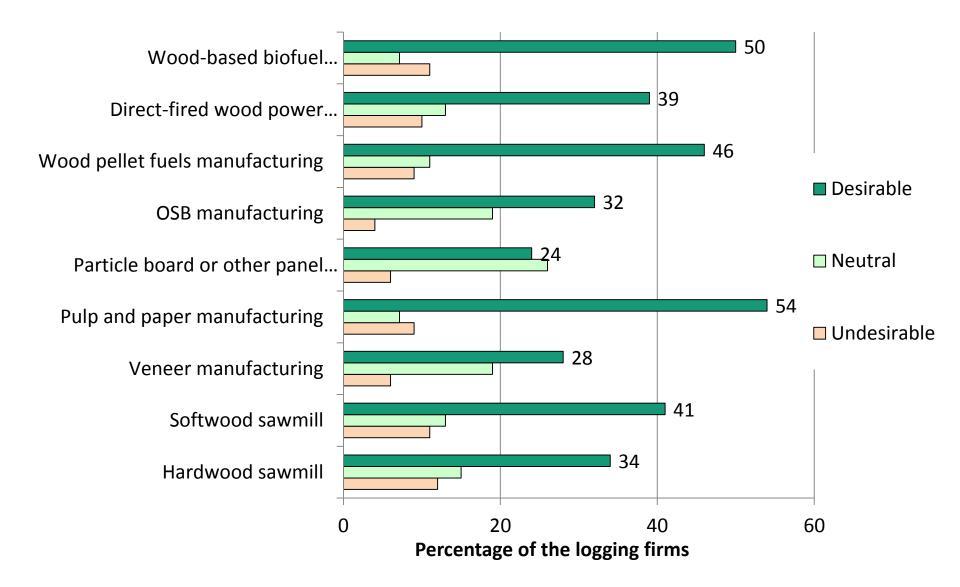
no significant effect	50%
cost increased/lost market	39%
down sized	6%
changed species mix	3%
relocated	3%

### Barriers to increased harvesting in Michigan

High stumpage price	18%
Insufficient labor force	16%
Competition for stumpage	13%
Insufficient Timber Supply	11%
Insufficient sale from government owned forests	11%
Fuel prices	9%
Competition from big companies	7%
Low mill price	4%
Cost of doing business in MI	4%
Poor road condition	2%
Parcelization (property splits)	2%
Financing for equipment	2%



#### Desirability of new facilities



## Lake States' logging survey 2016

- Who
  - Michigan State University
  - University of Wisconsin Madison
  - University of Wisconsin Stevens Point
  - University of Minnesota
- What
  - common set of questions
  - customized state questions

#### Acknowledgements

- Forest Biomass Statewide Collaboration Center
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- Michigan Economic Development Corporation
- Michigan AgBio Research
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- Brett Kuipers, Graduate Research Assistant, MSU

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#### Why Study Forest-based Biofuel in Michigan?

In Michigan, wood biomass is one possible source of renewable transportation fuel and other types of energy. Research on how woody materials are grown, harvested, and transported to where they are refined and used in energy production can help ensure that fuels from forests are produced sustainably and efficiently.

Two parallel research projects are examining in detail this forest-tofuel process, or supply chain, within the state of Michigan.

- Learn more about the biofuel supply chain
- Learn about wood bioenergy
- View videos and presentations on wood bioenergy

#### http://www.michiganforestbiofuels.org



How much forest-based biomass is available?



sustainably produced?

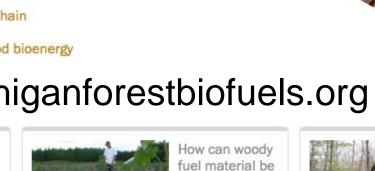


How can we efficiently harvest, move and produce biofuel?

#### **Events & Postings**

Event : Heating the Midwest Annual Conference Announcement : New Forestry Video Posted Announcement : Forest Biomass Information System tool is now available RESEARCH CONDUCTED IN CONJUNCTION WITH







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## An Examination of Michigan's Logging Sector in the Emerging Bioenergy Market

Shivan G.C. Karen Potter-Witter

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