

# FIA data estimates of the Southern Megaregion

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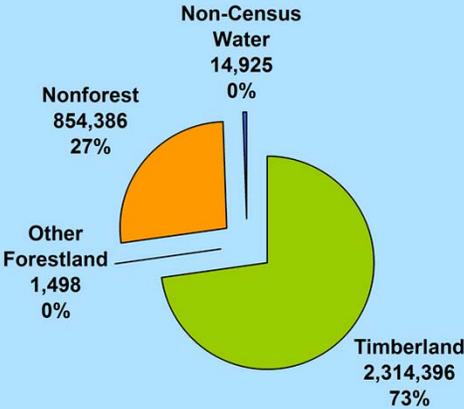
## Southern Megaregion

- This is a Maine Forest Service (MFS) regional and area of interest, and includes:
  - Capital Area FIA Unit, comprising the counties of Kennebec, Knox, Lincoln, and Waldo
  - Casco Bay FIA Unit, comprising the counties of Androscoggin, Cumberland, Sagadahoc, and York

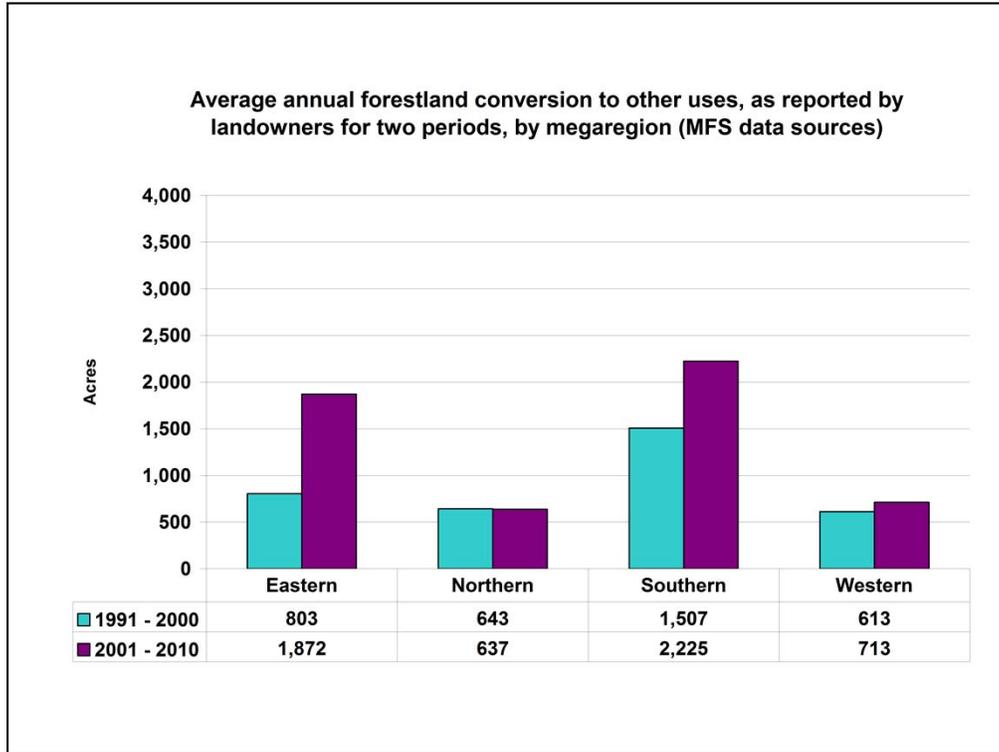
## Topics of interest (FIA 2010)

- Land use
- Land use conversion
- Major forest types
- Stand size class
- All live stocking class
- Distance to nearest road
- Species distribution
- Average trees per acre
- Sawtimber volume
- Merchantable volume
- Annual species and product mix of harvest
- Growth, Removals, & Mortality

Southern Megaregion - Land Use category, acres, and percentage

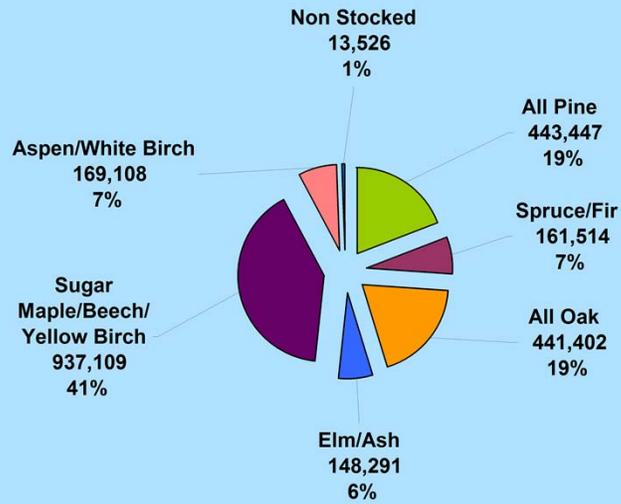


Much less timberland (73%) than statewide (89%)



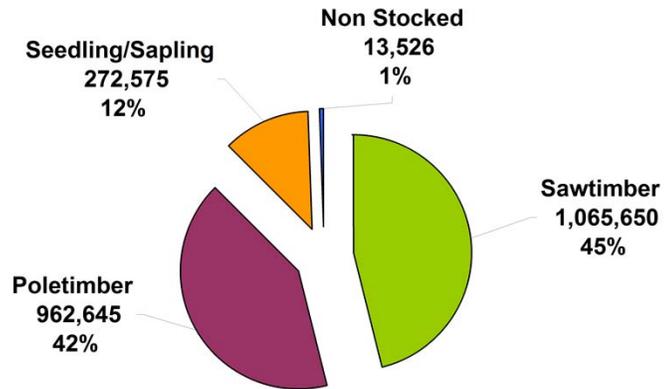
An area representing 14% of the state's timberland has averaged 42% of the land conversion annually since 1991

**Southern Megaregion - Major forest types, acres, and percentage**

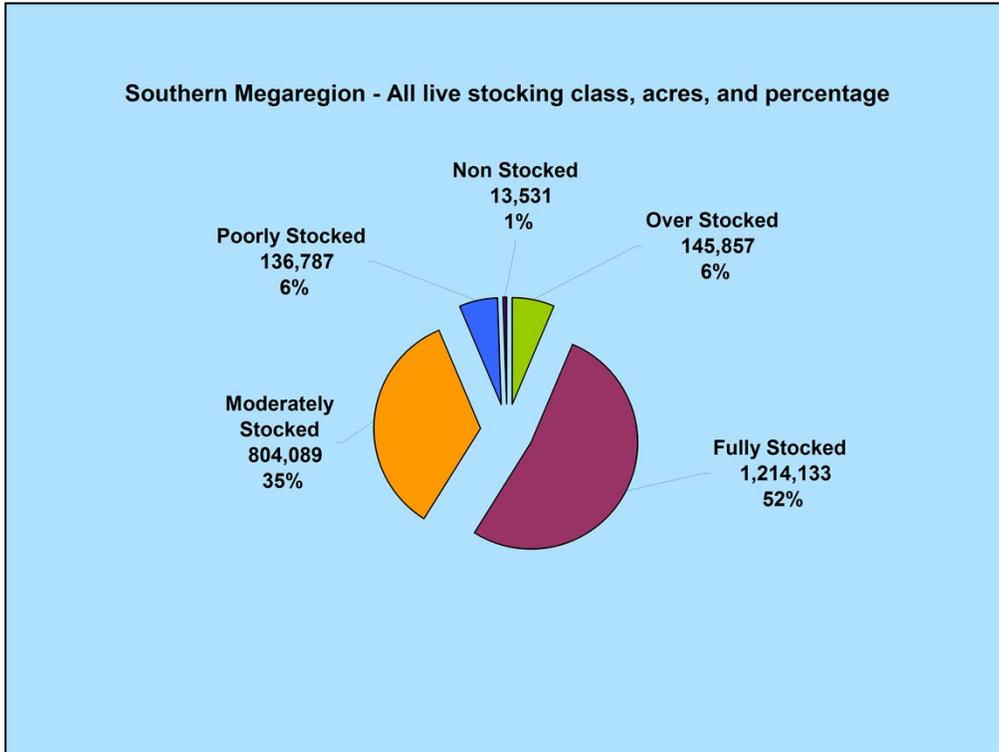


There is a major disconnect between the Sugar Maple/Beech/Yellow Birch forest type and the later representation these three noted species contribute in terms of number of trees and volume

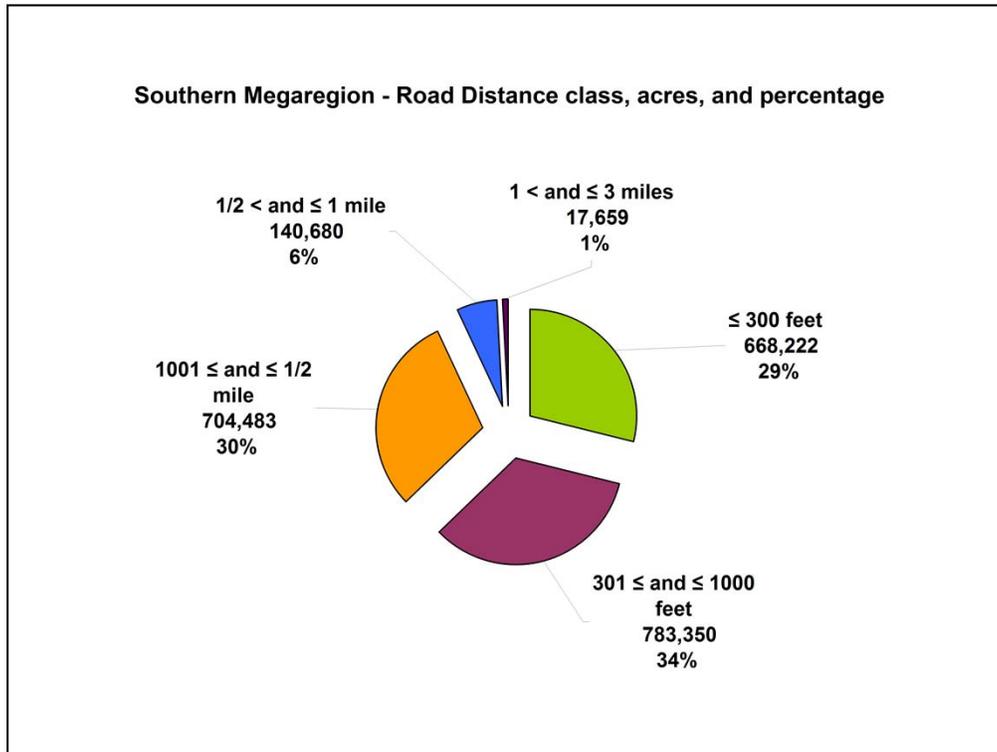
**Southern Megaregion - Stand size class, acres, and percentage**



Statewide split is 1/3 to 13 to 1/3. Much more stand size class acres in sawtimber and poletimber. Is there a need to focus on creating regeneration?

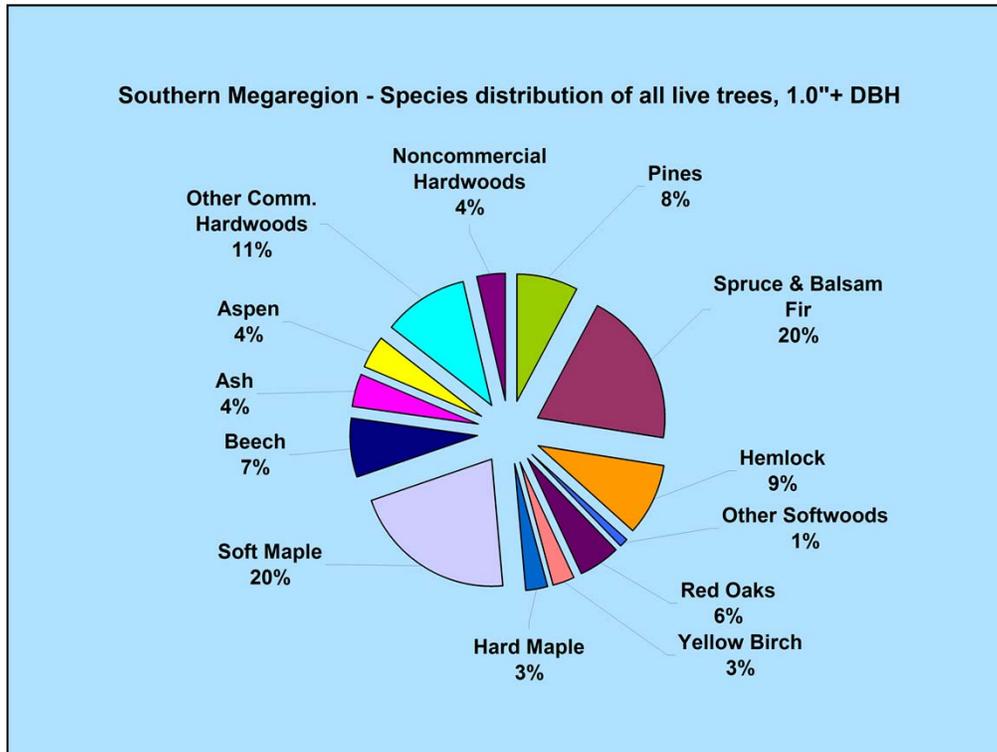


Shift from statewide being more heavily overstocked at 15%  
To the Southern Mega being more moderately stocked (35%) compared to 29%

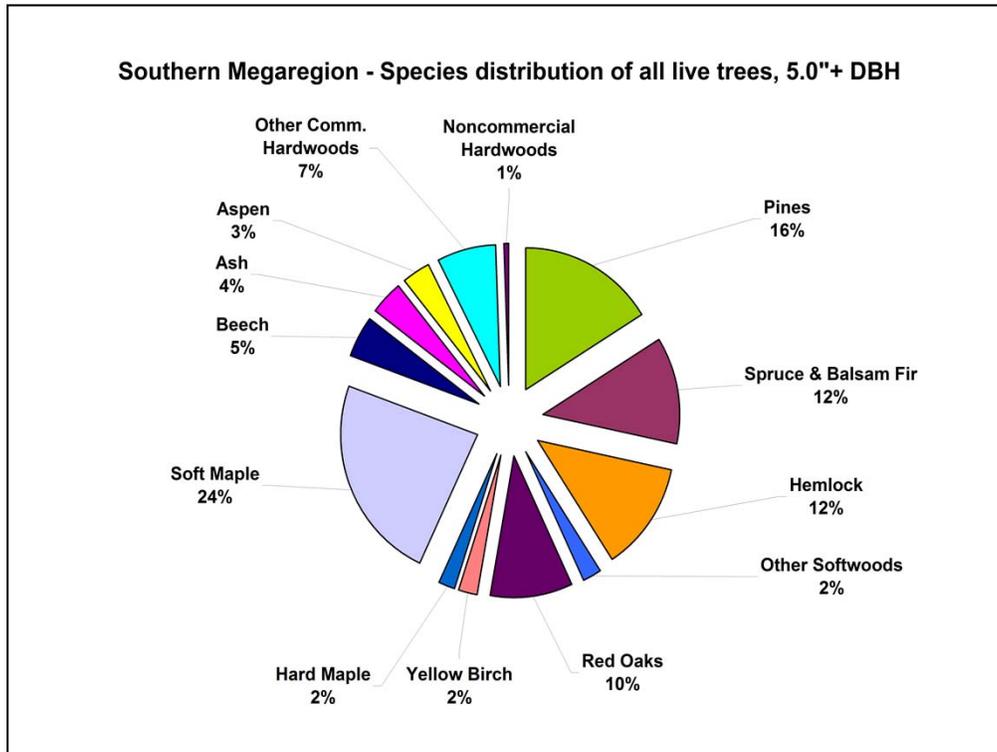


Straight line distance from FIA plot center to nearest improved road (pavement, gravel, grading, ditching)

63% of all timberland acres are within 1,000 feet, increased exposure and risk to new introductions of invasive/exotic plants, lots of edge

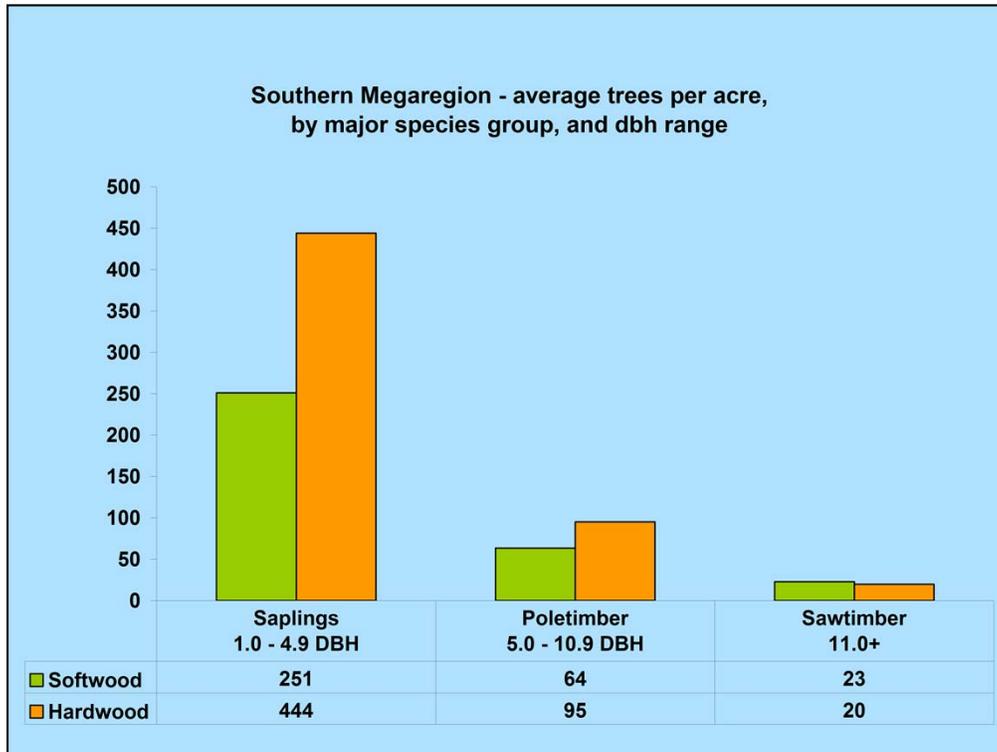


Hard Maple, Beech, & Yellow Birch are 41% of type acres but only 13% of the live trees. There is a lot of Soft Maple hiding in the Tolerant Hardwood Forest Type



Merchantable stocking is concentrated in Soft Maple, Pines, Hemlock, Spruce/Fir, and Red Oaks – a total of 74%

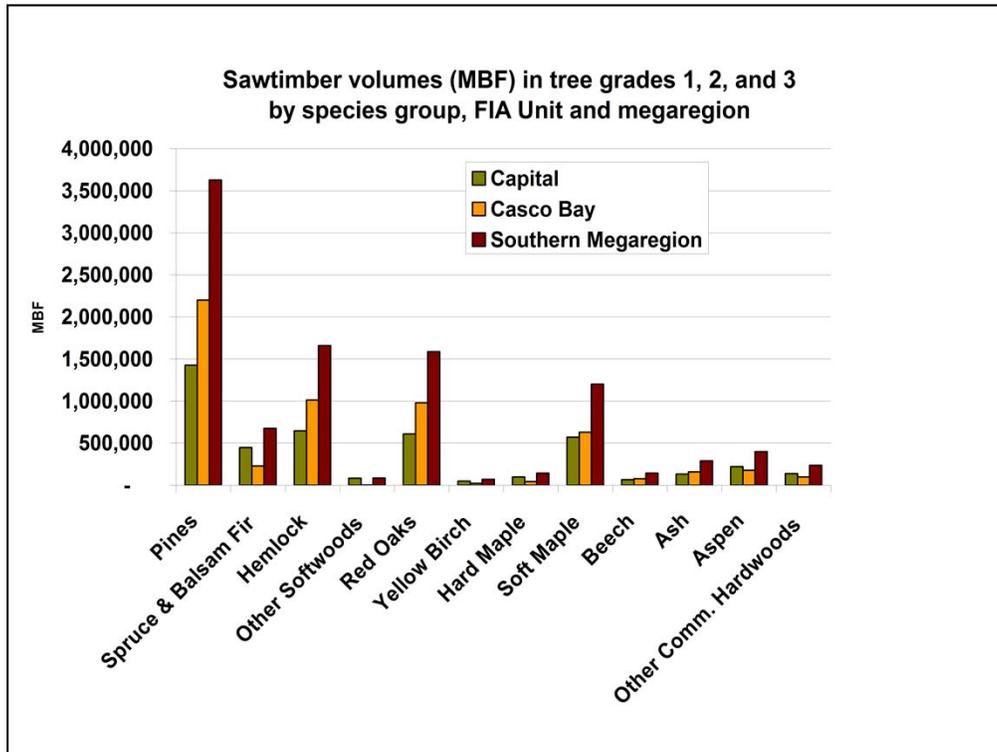
Soft Maple is the #1 preferred species of the Asian Longhorn Beetle!



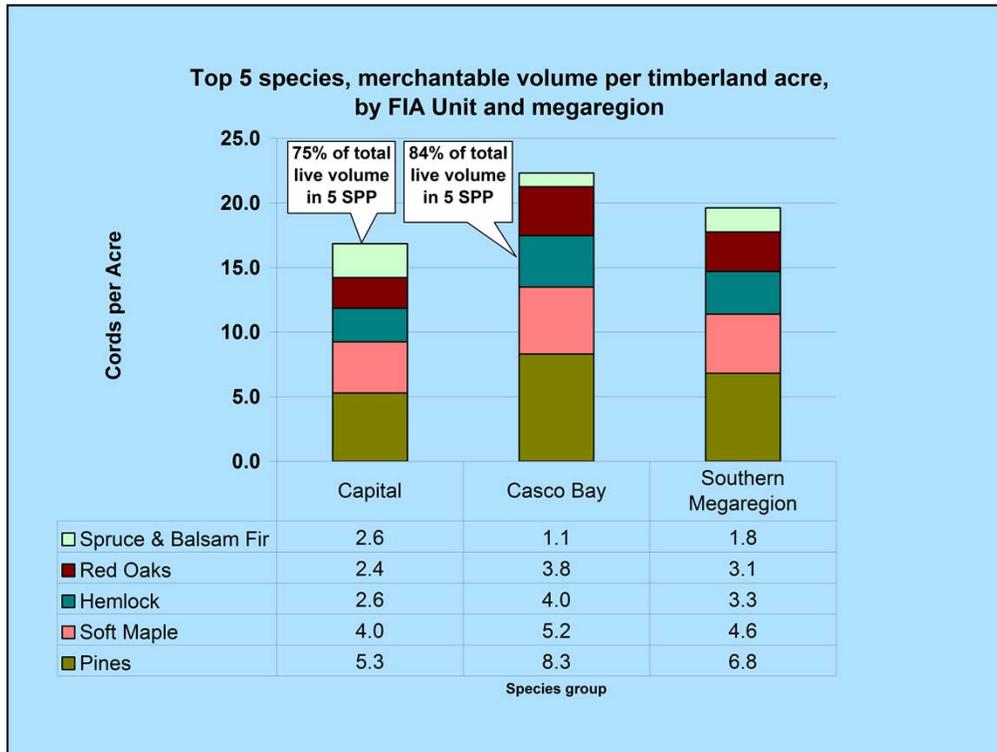
Saplings are 695 TPA compared to statewide average of 1,187 TPA

Poletimber is 159 TPA compared to statewide average of 132 TPA

Sawtimber is 43 TPA compared to statewide average of 40 TPA



Subtle differences between Capital and Casco Bay in Sawtimber volumes  
 Capital has plurality of spruce/fir, other softwoods (cedar), hard maple, and aspen  
 Casco Bay has plurality of pines, hemlock, and red oaks  
 Soft Maple is a wash

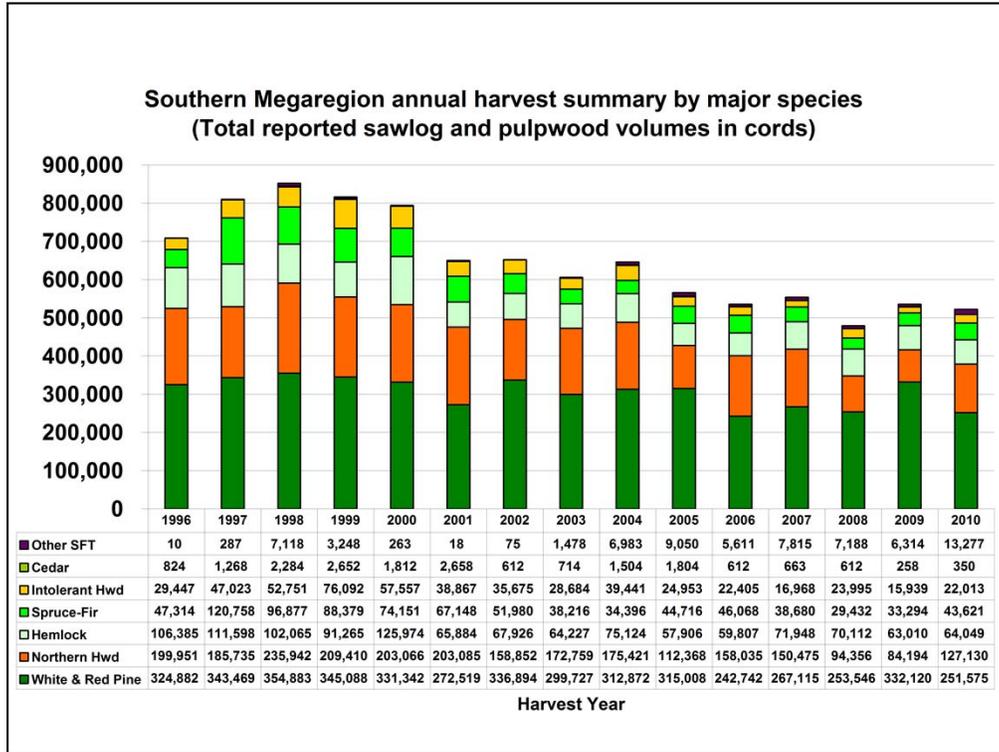


These are heavily stocked with merchantable volumes

Capital area – 22.5 cords per acre average

Casco Bay – 26.5 cords per acre average

Statewide Average is 16.5 cords per acre

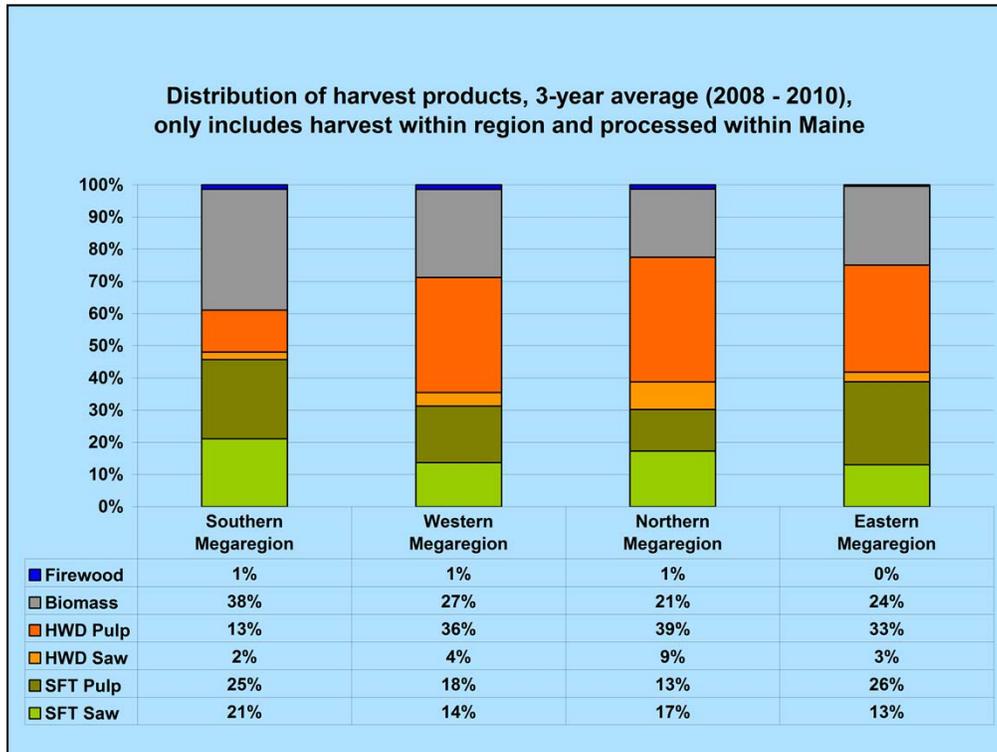


Average harvest over the 1996 – 2000 period is 796,000 cords

Average harvest over the 2006 – 2010 period is 525,000 cords; a 34% reduction

Need to put this somehow in context.

I know from other analytical work that average hardwood removals (cubic feet per timberland acre) in the Southern Megaregion trend nicely and match-up to the Statewide removal intensity. It will take some additional analysis because I am curious as to what the average removal per harvested acre is in the Southern Megaregion



Southern Megaregion harvest mix compared to other Megaregions

SFT Saw is 4 to 8% more

SFT Pulp is equal to 12% more

HWD Saw is 1 to 7% less

HWD Pulp is 20 to 26% less

Biomass is 11 to 17% more

Firewood is equal across all regions

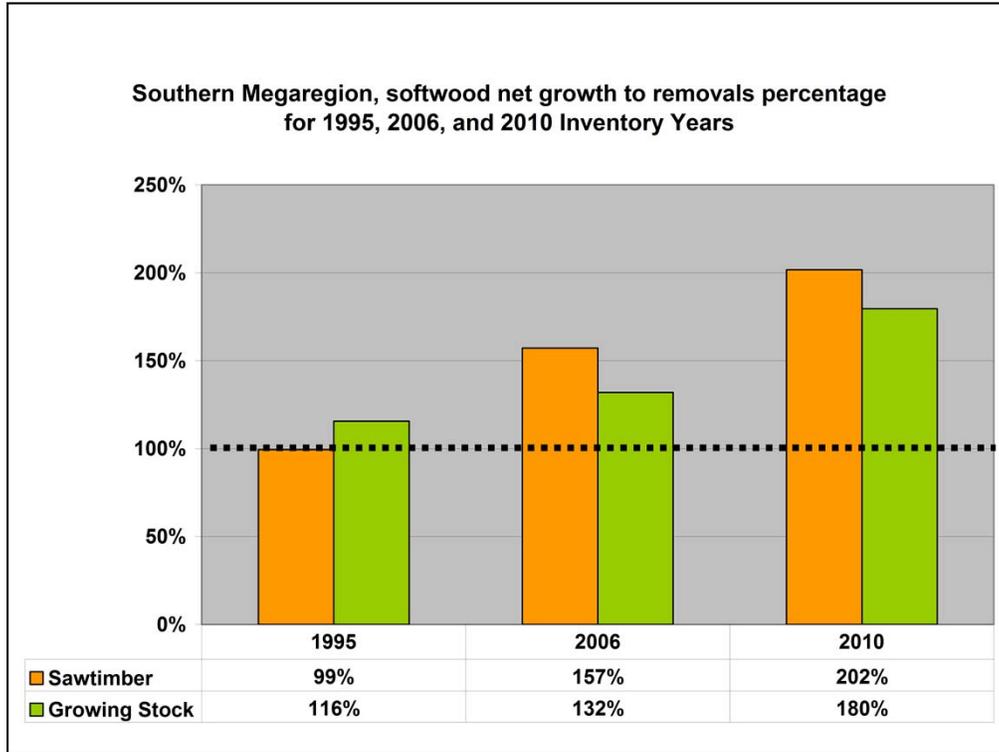
## Harvest Intensity (2007 – 2009)

### ➤ Southern Megaregion

- 1.9% of timberland acres were annually harvested
- 38.7 green tons per harvested acre
- 23% Sawtimber
- 39% Pulpwood
- 38% Biomass

### ➤ Statewide

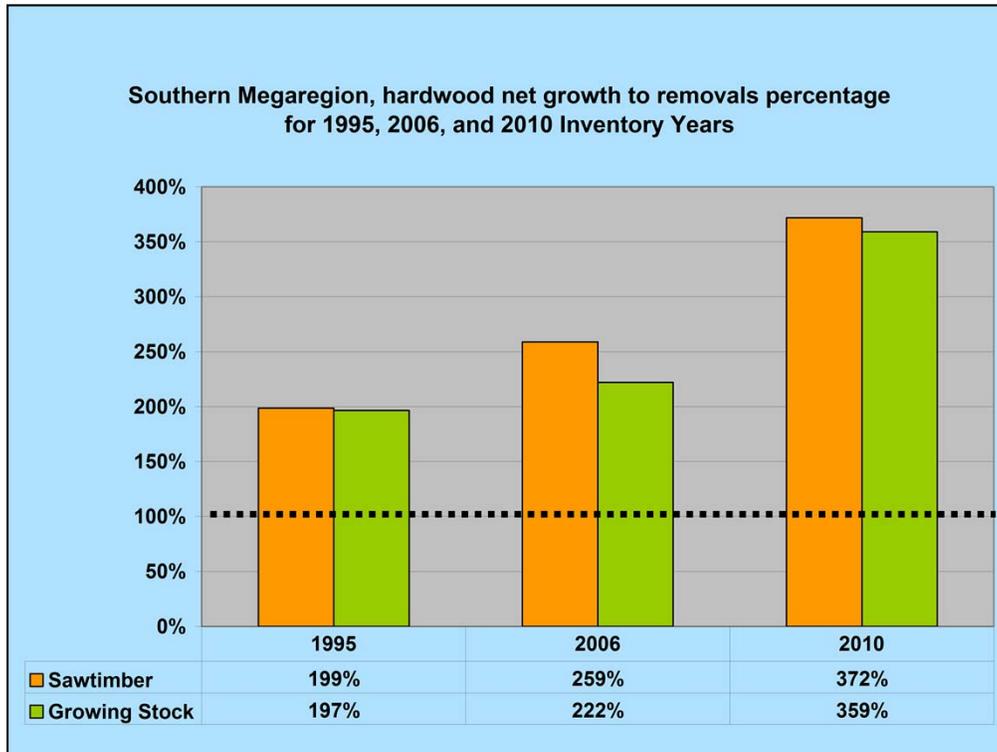
- 2.6% of timberland acres were annually harvested
- 32.6 green tons per harvested acre
- 27% Sawtimber
- 51% Pulpwood
- 22% Biomass



Dovetails with information on previous slide

Much more in balance with softwood back in 1995

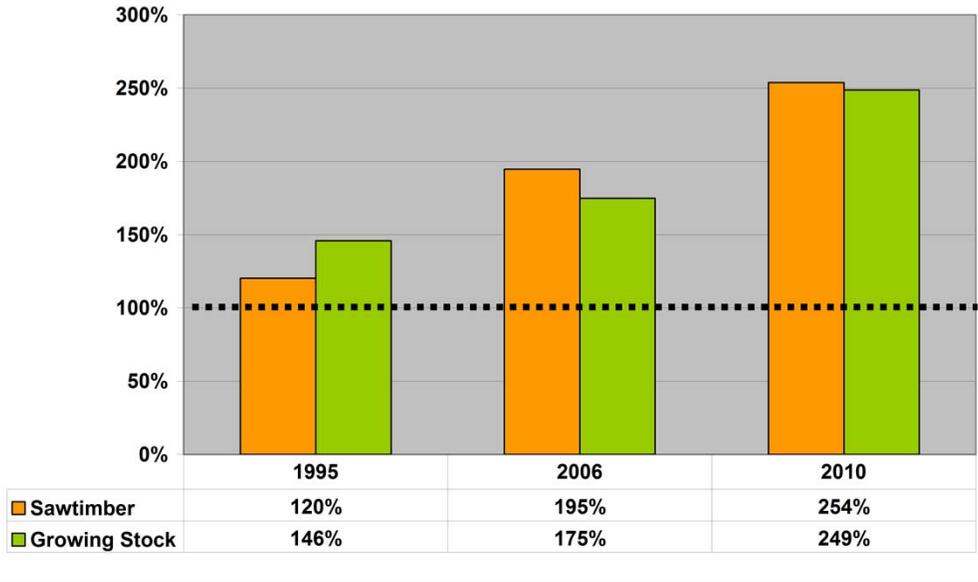
Sawtimber GR Ratio has gone from 100 to 200% in 15 years, storing more big trees on the stump



Have never been close to allowable cut in hardwood species, and it has only gotten worse in the last 15 years.

Storing even more on the stump, which brings up issues of vigor, health, and increased risk to pest epidemics.

**Southern Megaregion, all species net growth to removals percentage  
for 1995, 2006, and 2010 Inventory Years**



# Questions

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21