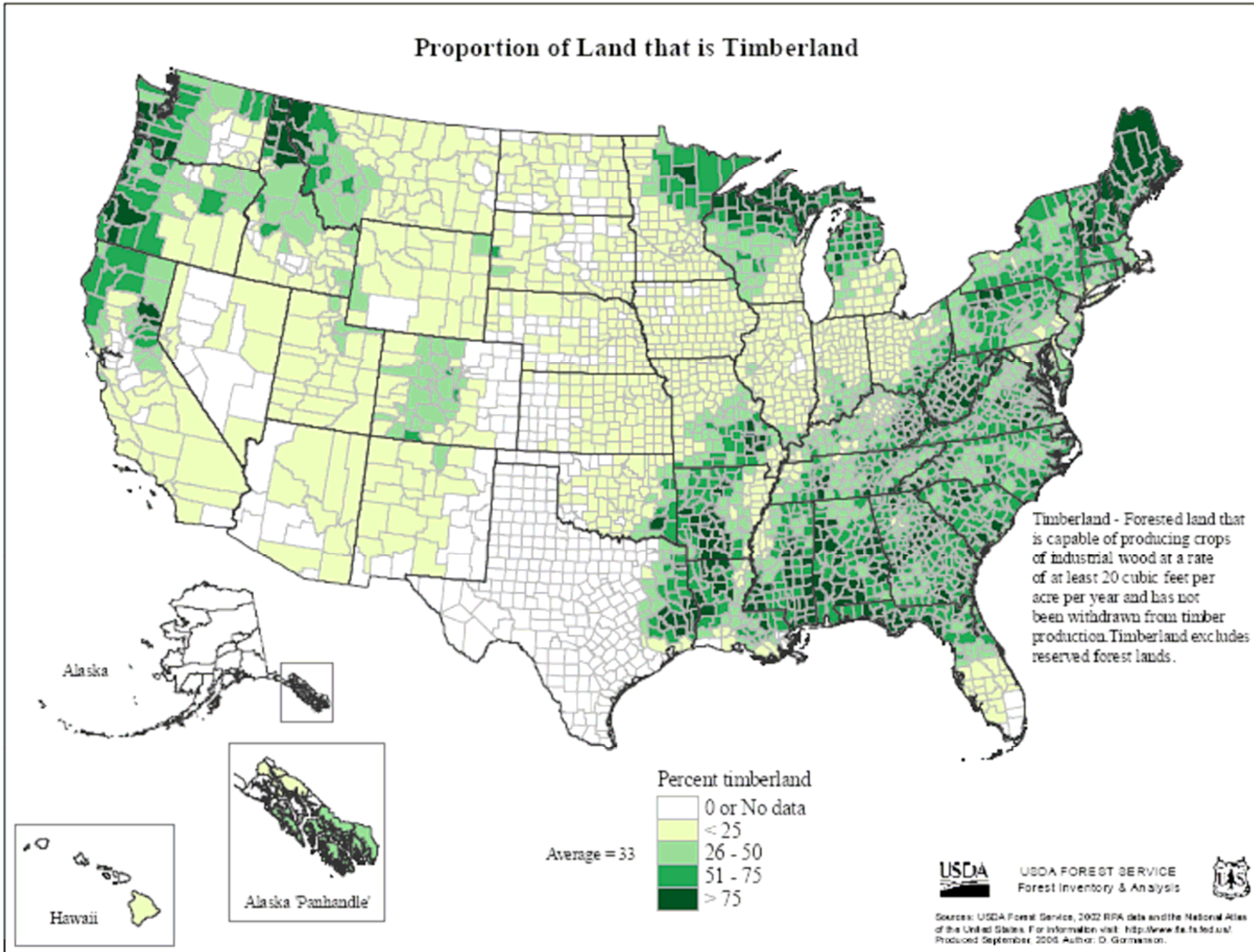
Future Forests II

Trends in the Forest Products Industry

Russ Forsburg
American AgCredit

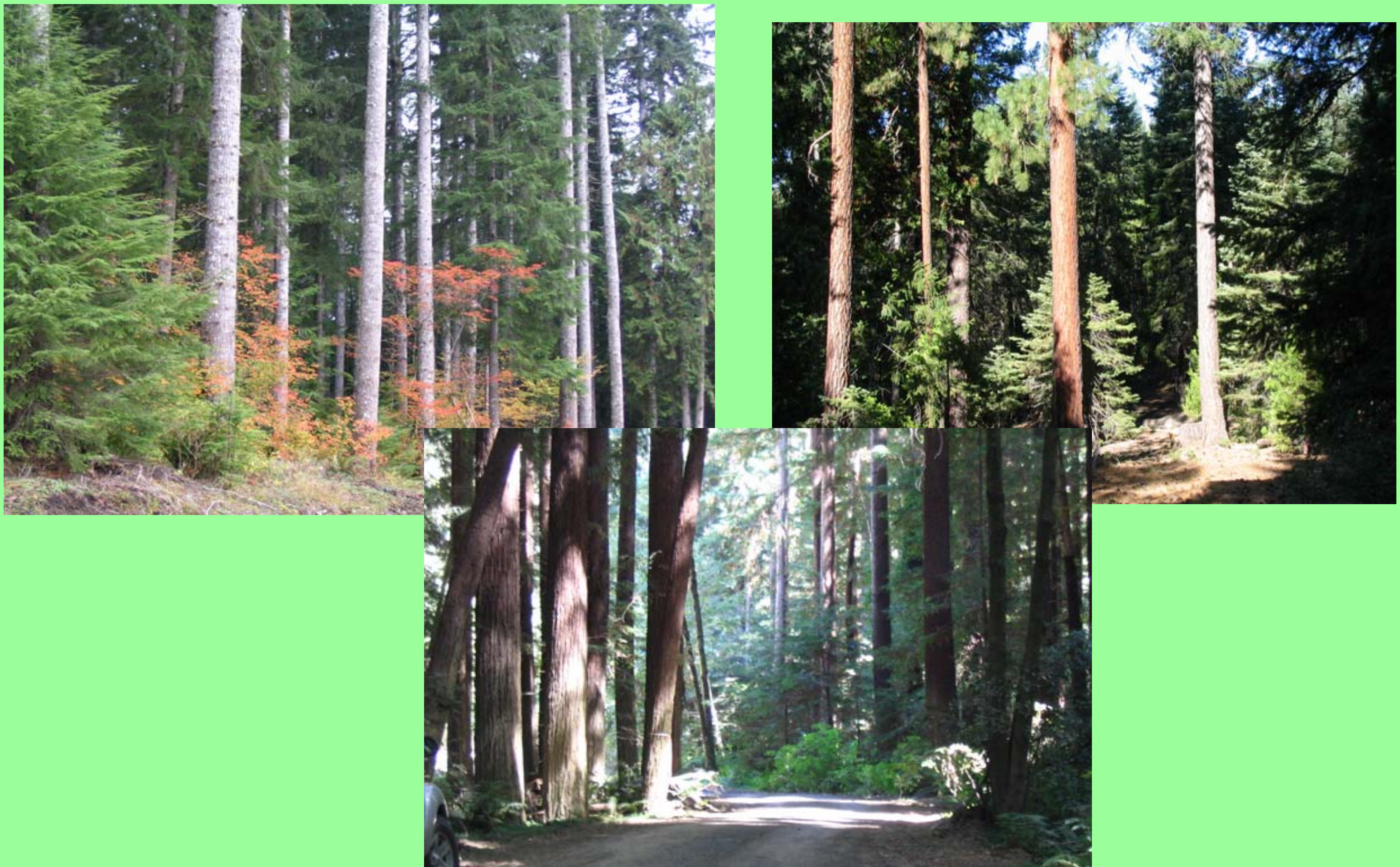
"When one tugs at a single thing in nature, he finds it attached to the rest of the world."

John Muir



Proportion of Land that is Timberland
Timberland - Forested land that is capable of producing crops of industrial wood at a rate of at least 20 cubic feet per acre per year and has not been withdrawn from timber production. Timberland excludes reserved forest lands.
Alaska
Hawaii
Alaska 'Panhandle'
Average = 33
Percent timberland
0 or No data
< 25
26 - 50
51 - 75
> 75
USDA FOREST SERVICE
Forest Inventory & Analysis
Sources: USDA Forest Service, 2002 RPA data and the National Atlas of the United States. For information visit: http://www.fia.fs.fed.us/.
Produced September, 2006. Author: D. Gormanson.

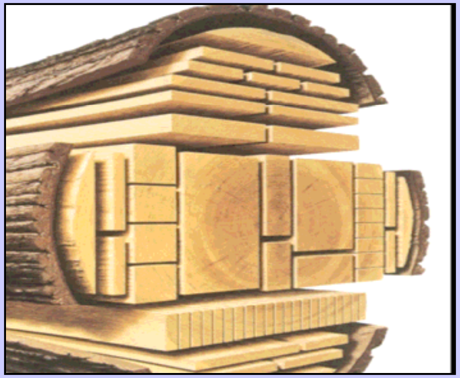
Pacific Northwest Forests



Southern Forests

Northeastern Forests

FOREST PRODUCTS SECTORS

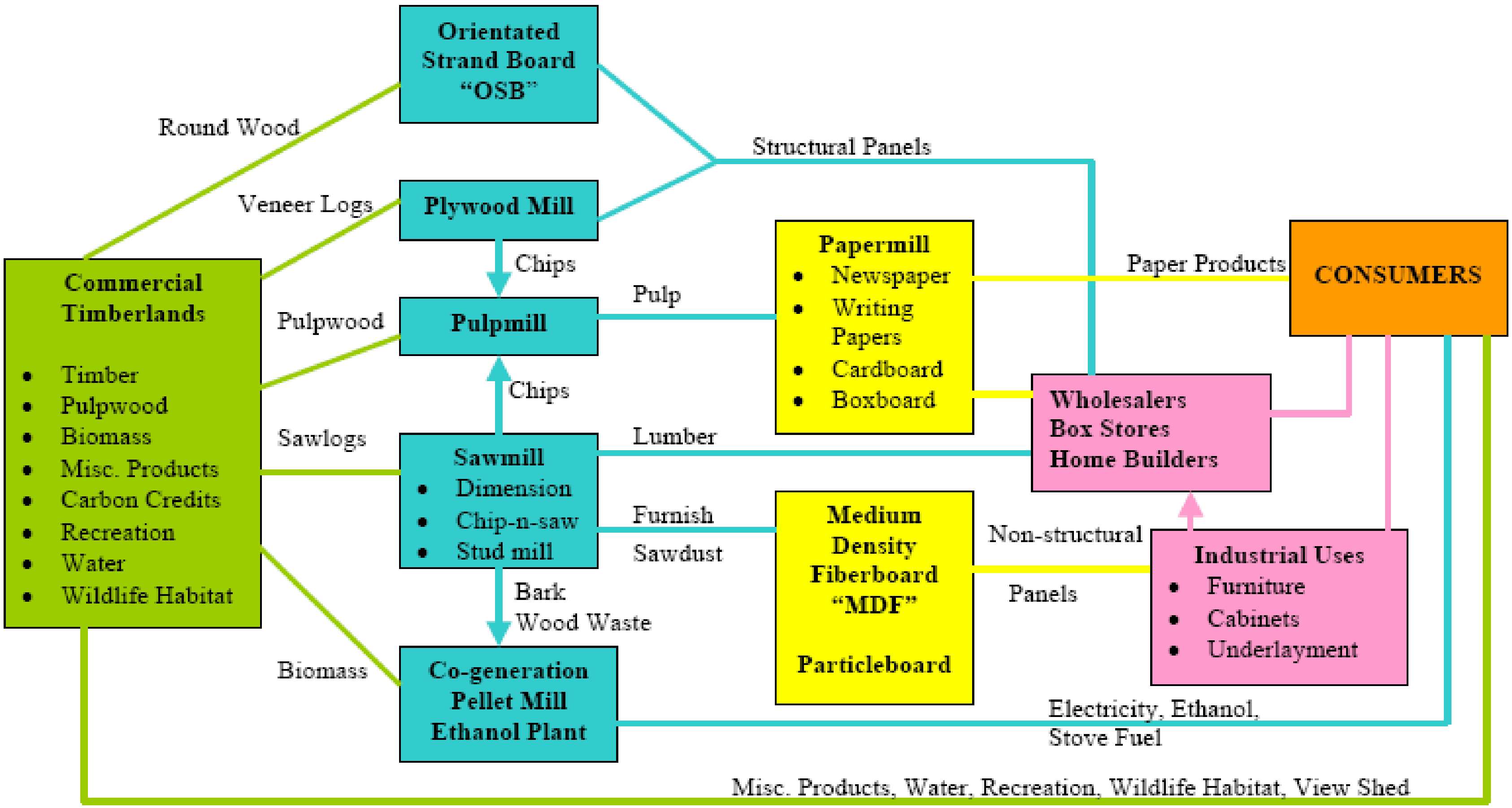


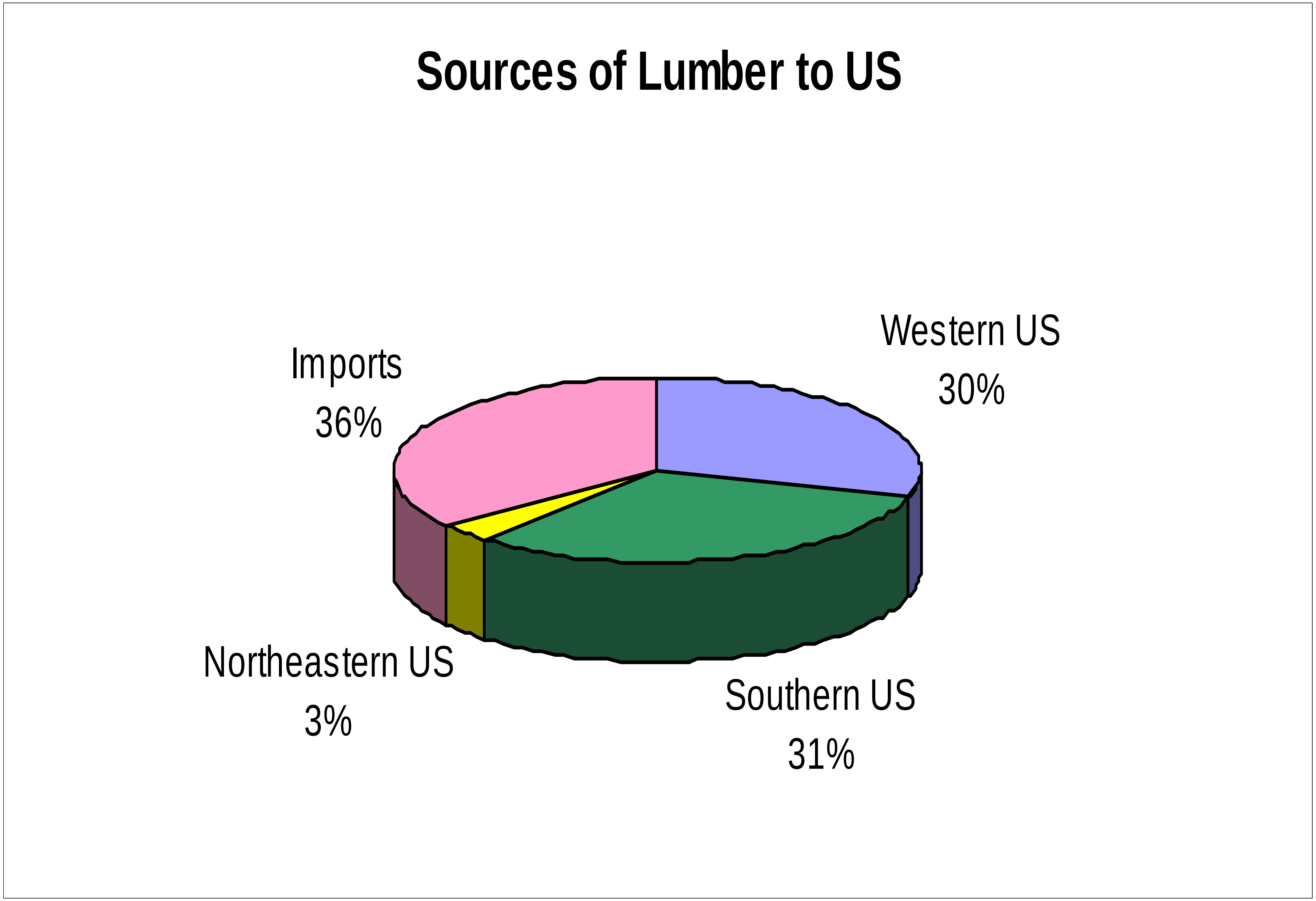
LUMBER

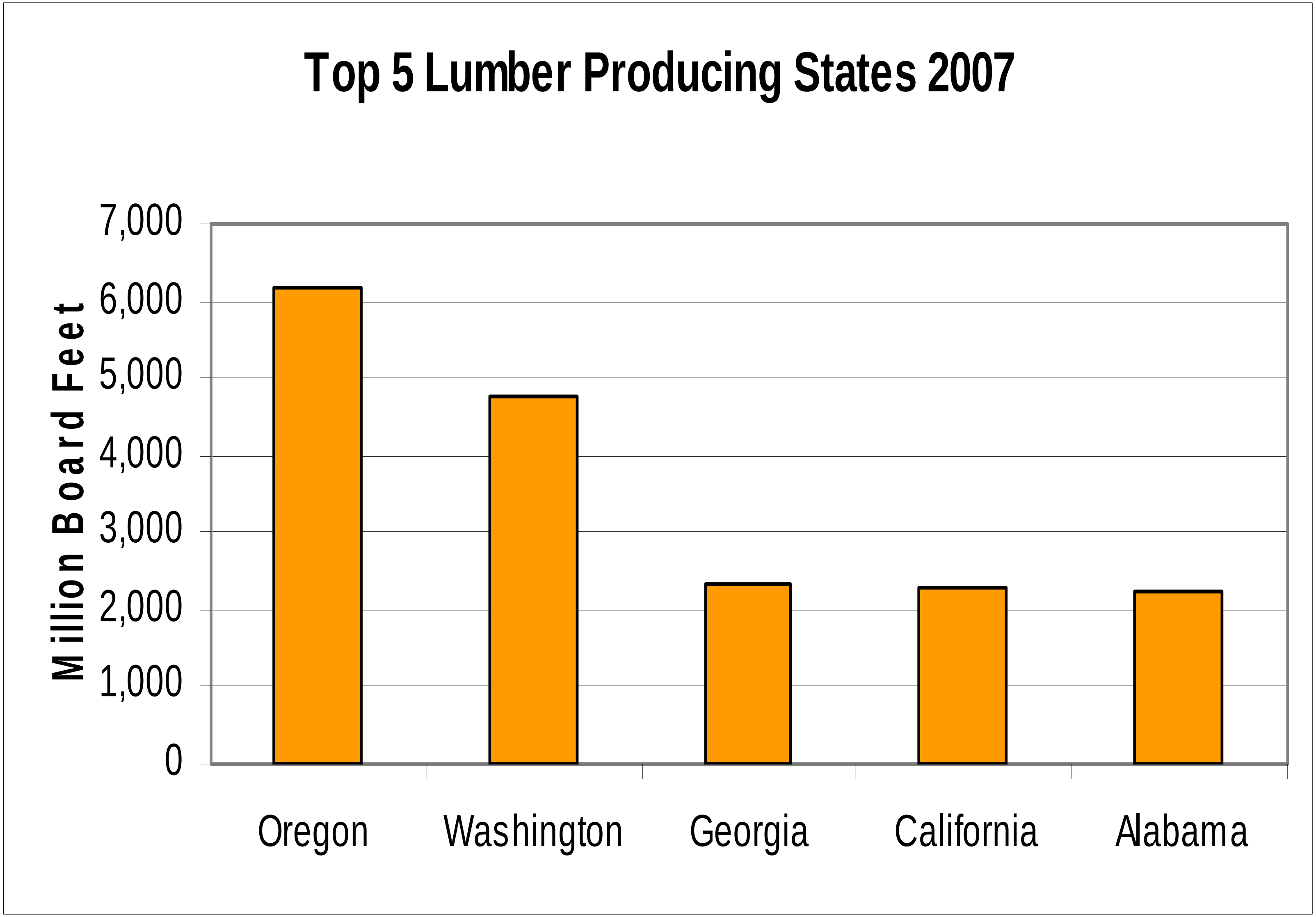
PANELS

PULP/PAPER

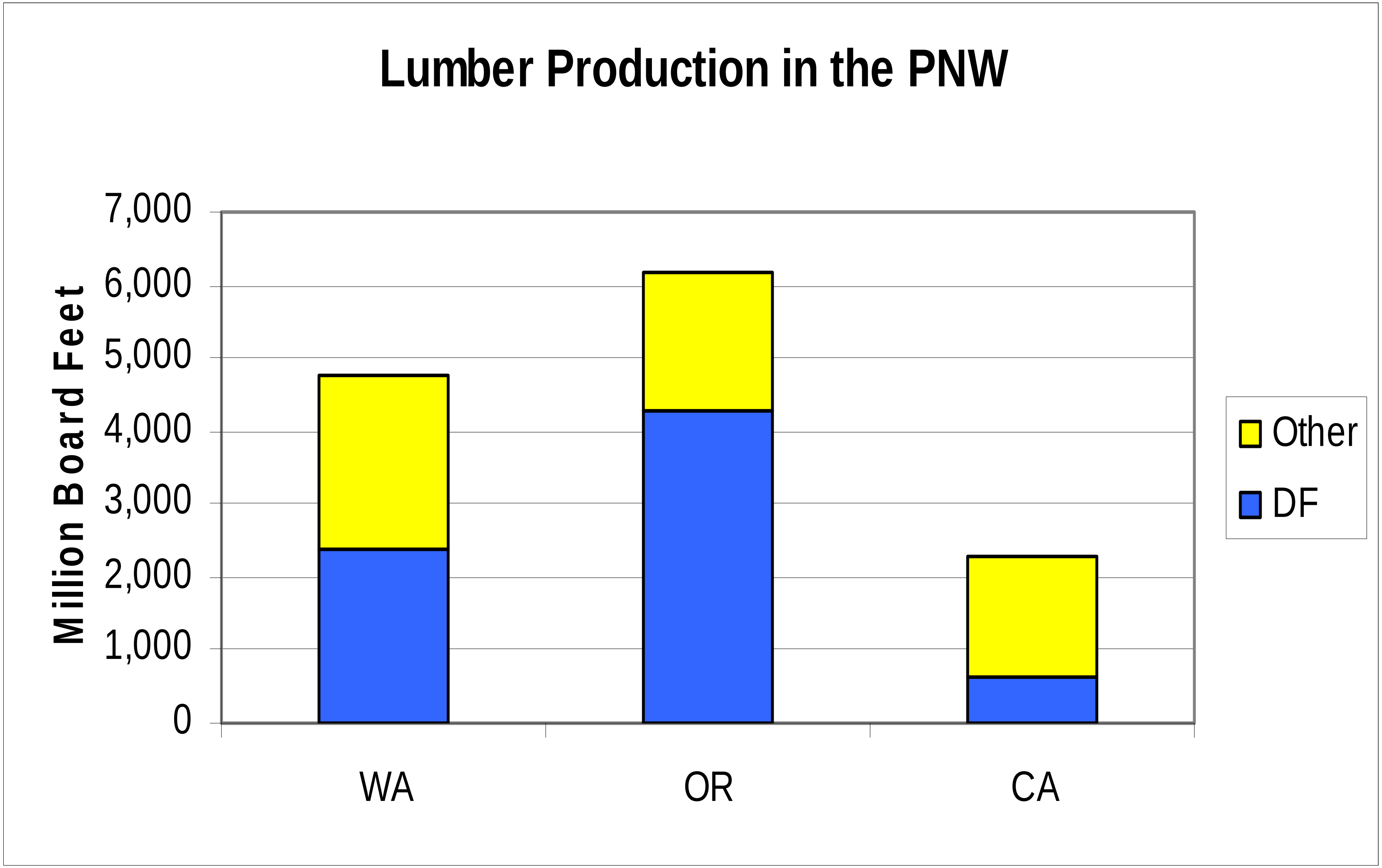
The Production of Forest Products From Timberlands to the Consumer



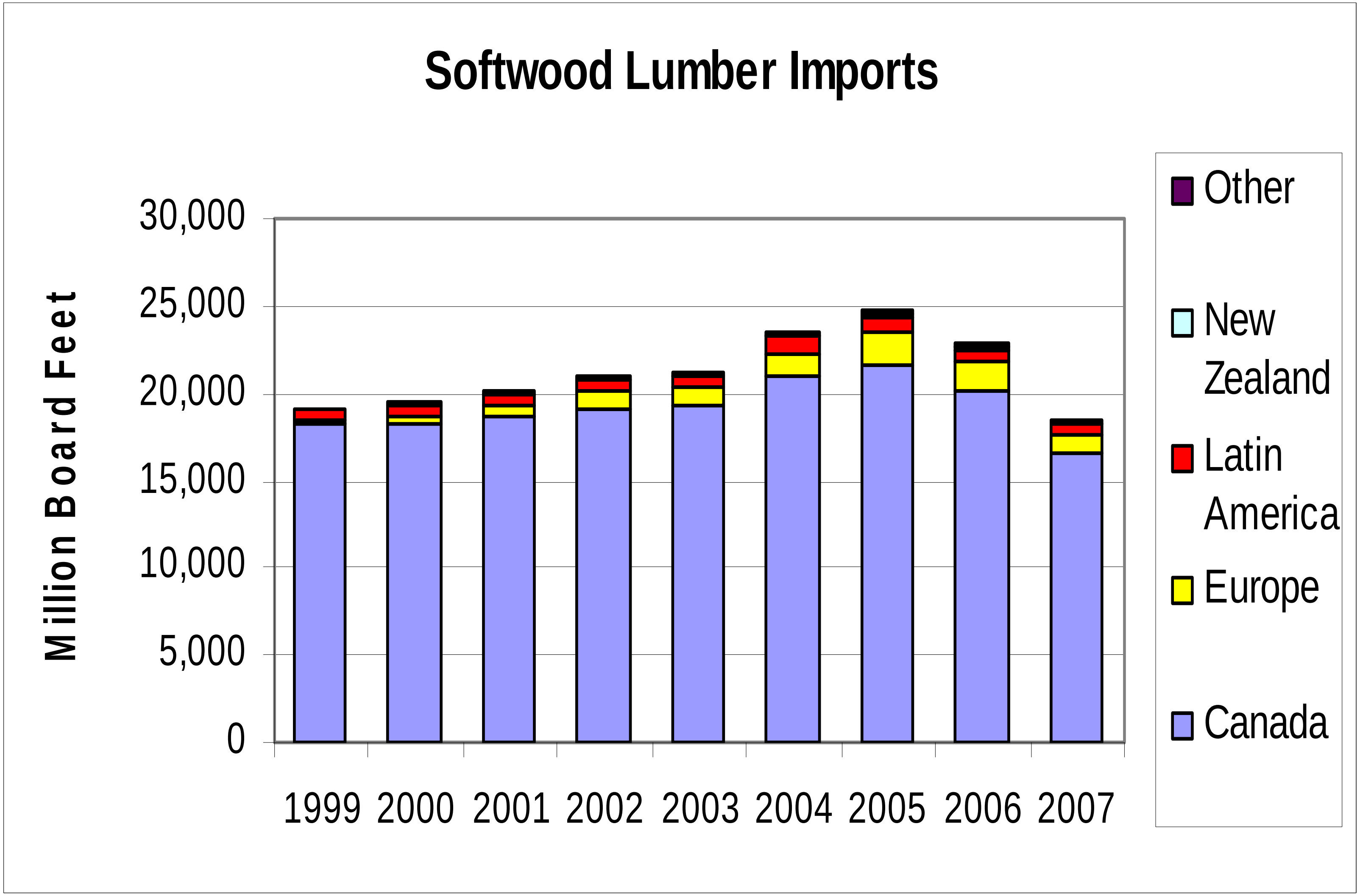

Sources of Lumber to US
Imports
36%
Western US
30%
Northeastern US
3%
Southern US
31%



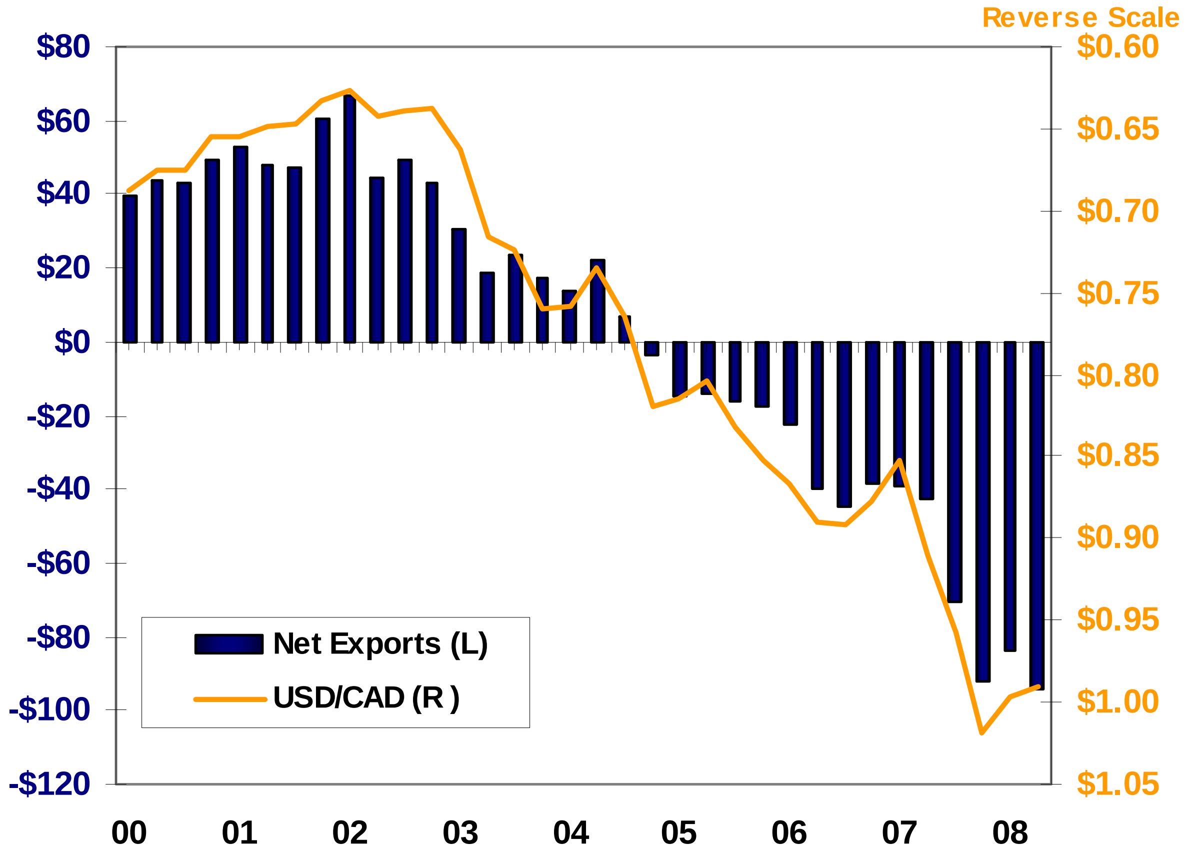
Top 5 Lumber Producing States 2007
Million Board Feet
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Oregon
Washington
Georgia
California
Alabama



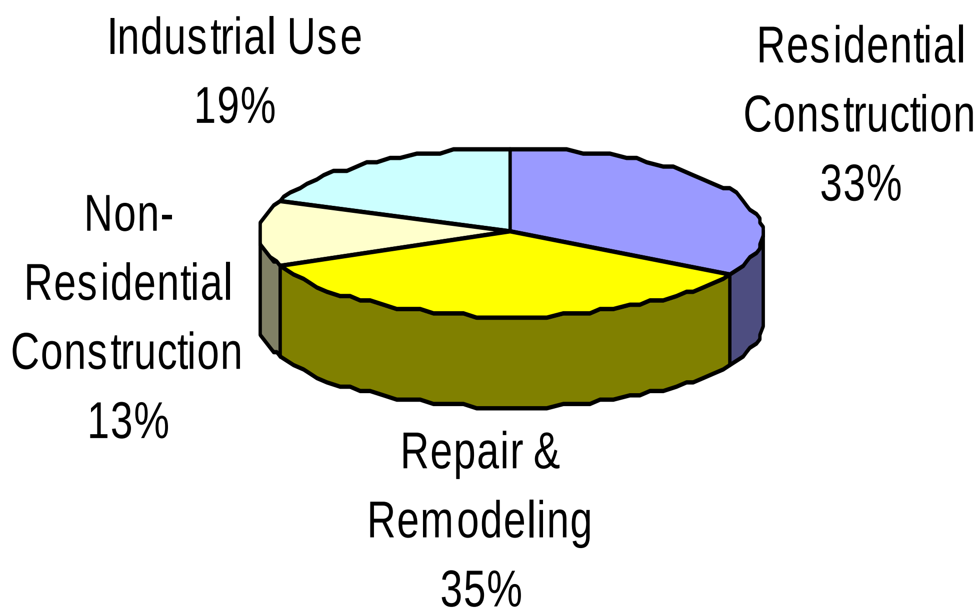
Lumber Production in the PNW
Million Board Feet
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
WA
OR
CA
Other
DF

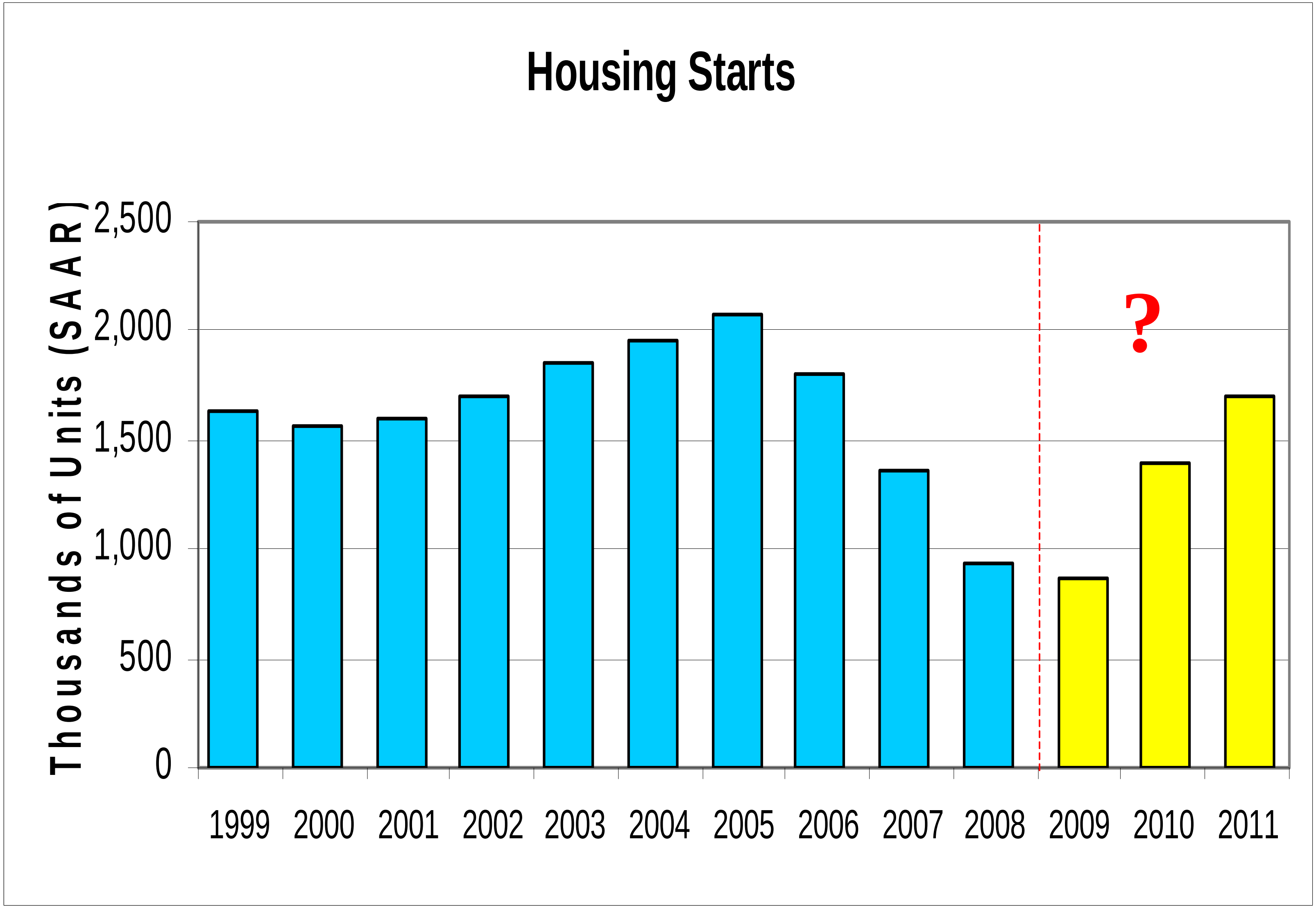

Softwood Lumber Imports
Million Board Feet
30,000
25,000
20,000
15,000
10,000
5,000
0
1999
2000
2001
2002
2003
2004
2005
2006
2007
Other
New Zealand
Latin America
Europe
Canada

The Strong Canadian Dollar Has Impacted Exports from Canada

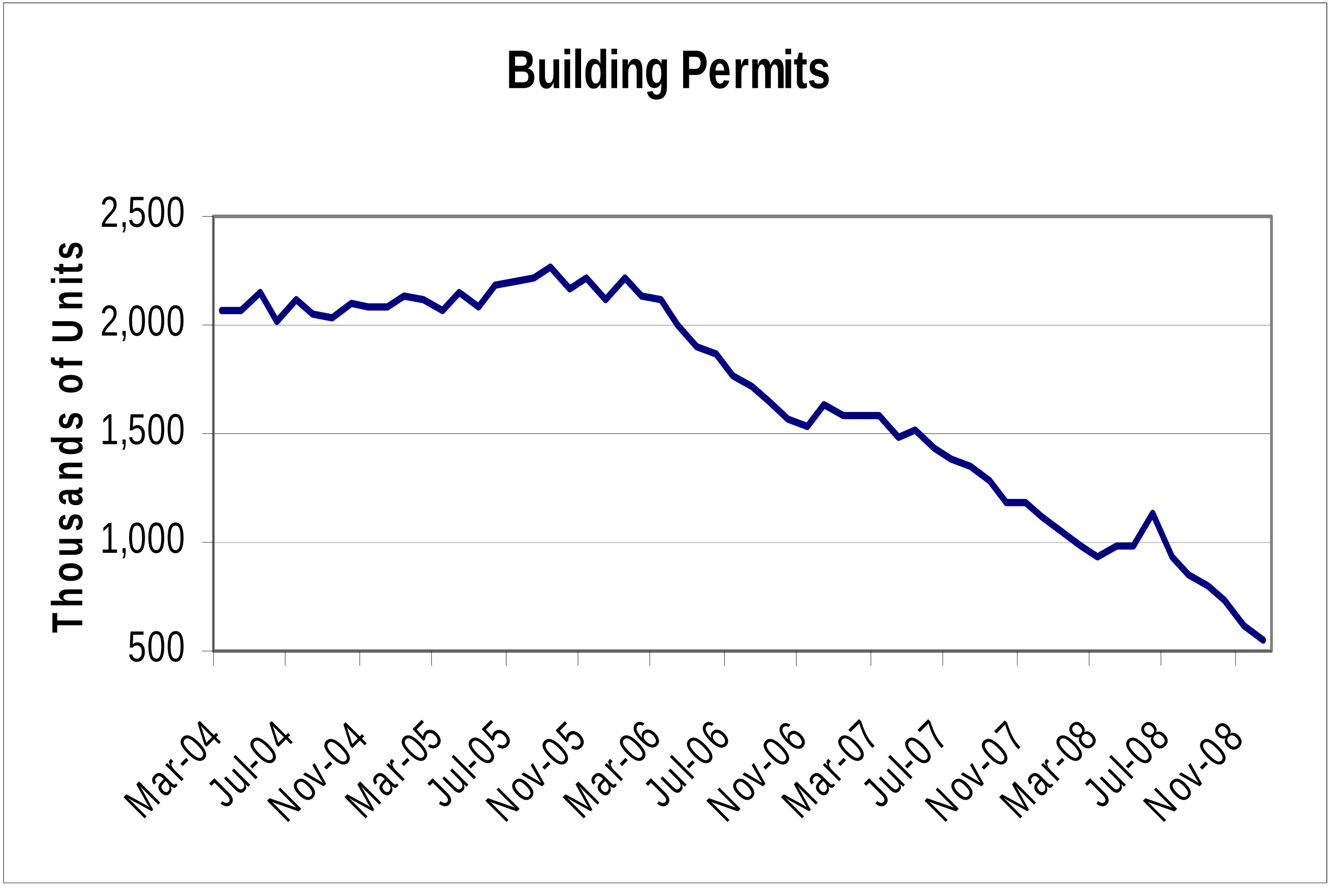


Total US Softwood Lumber Consumption

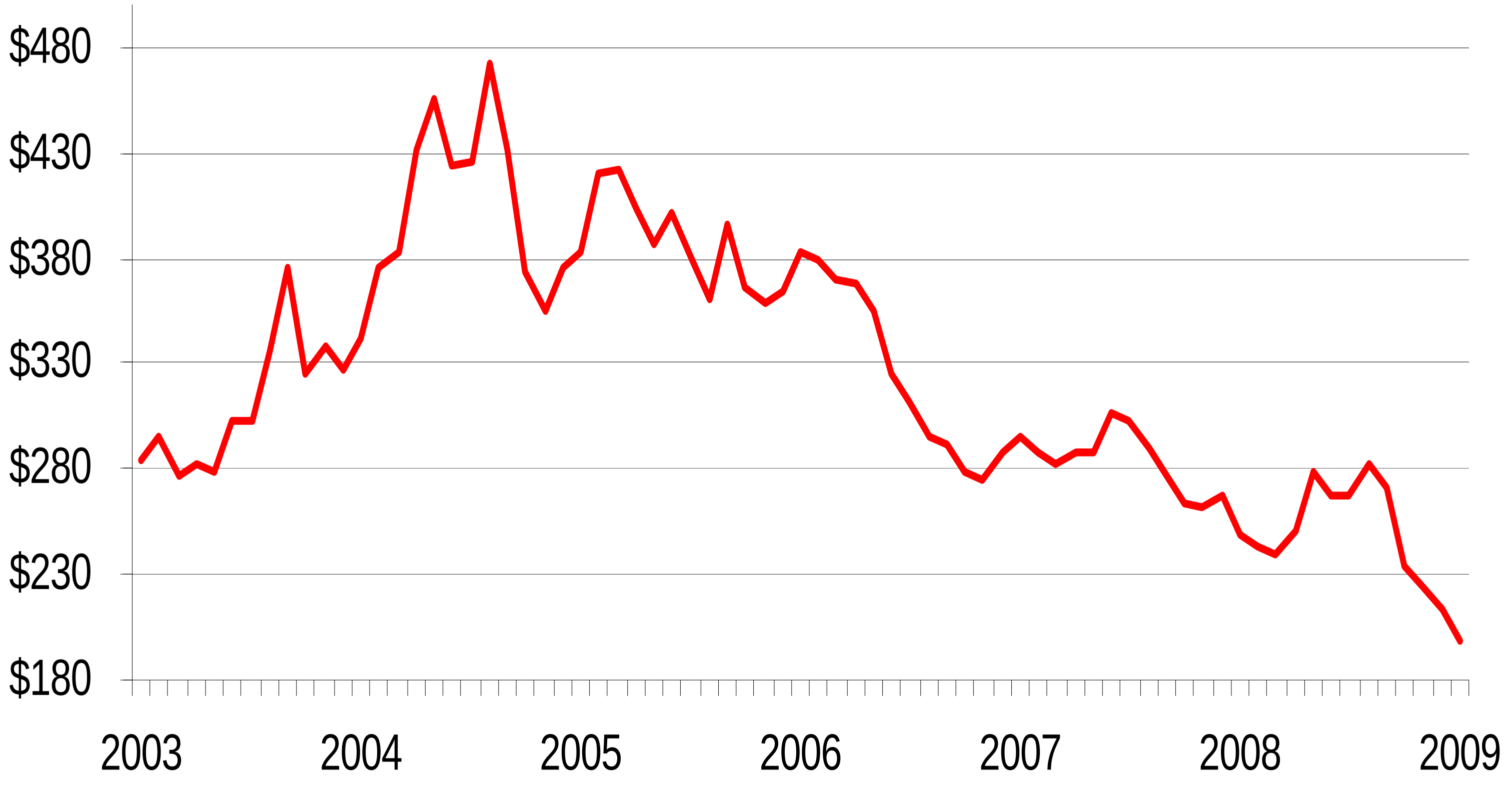


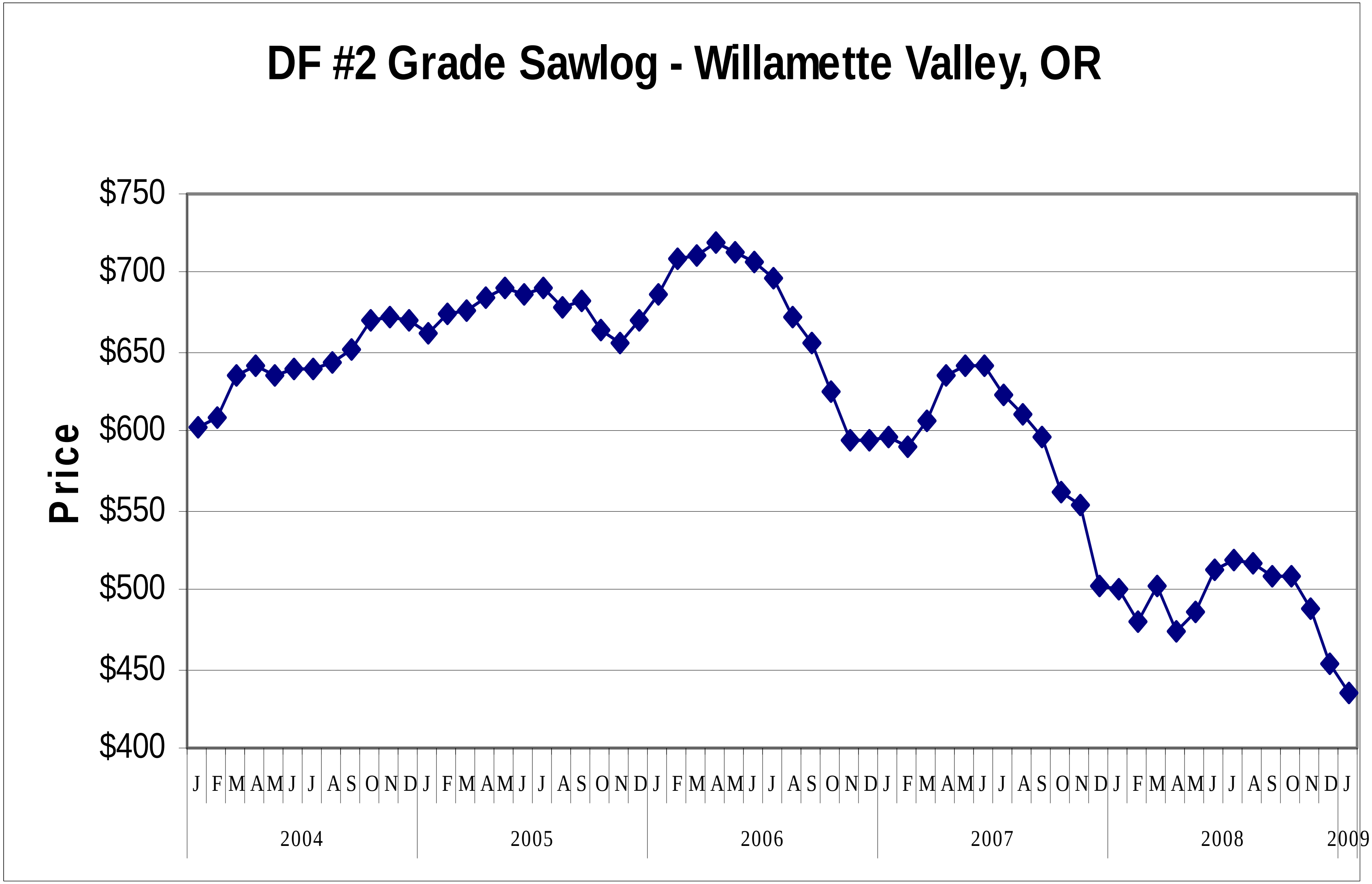


Housing Starts
Thousands of Units (SAAR)
2,500
2,000
1,500
1,000
500
0
?
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011

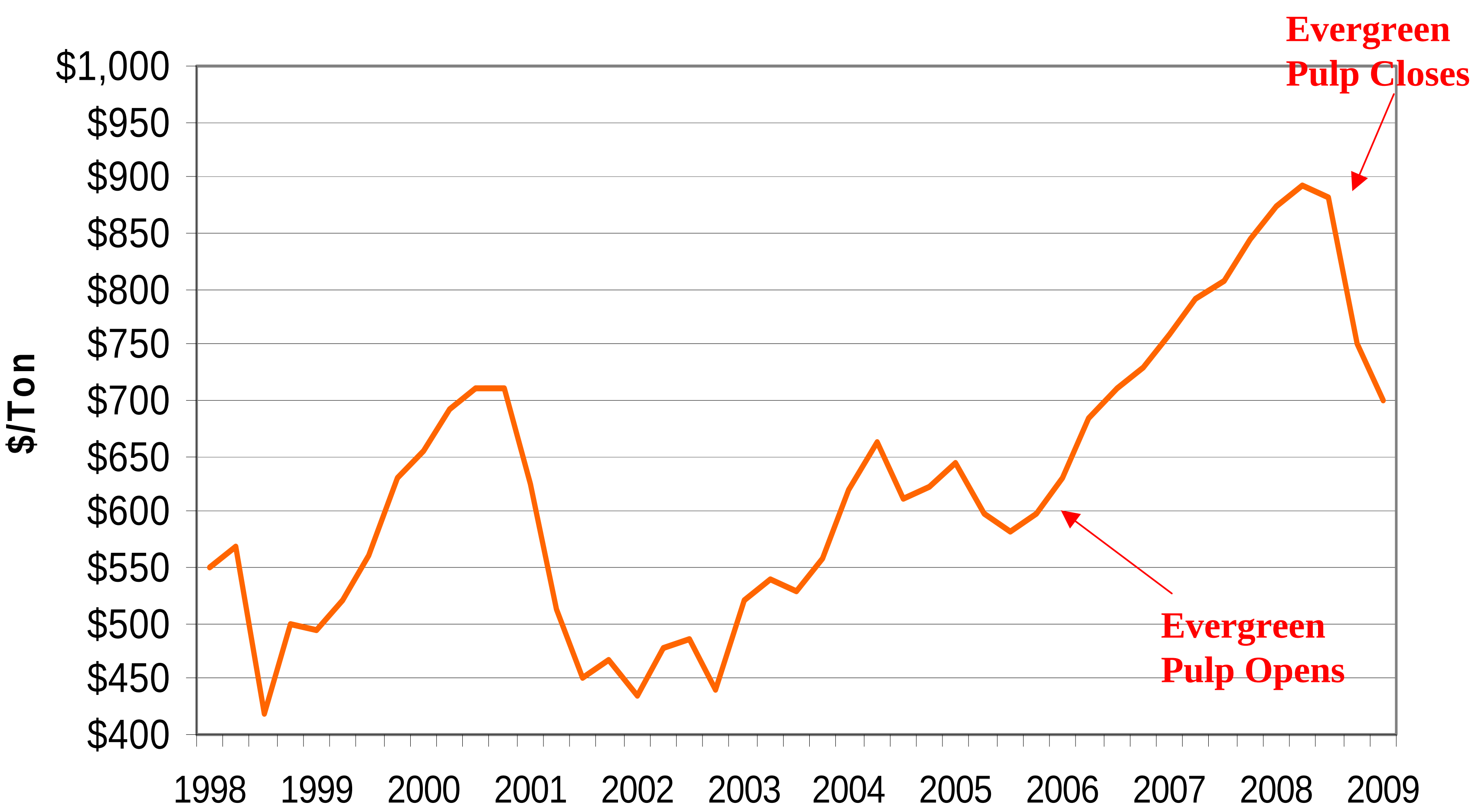

Building Permits
Thousands of Units
2,500
2,000
1,500
1,000
500
Mar-04
Jul-04
Nov-04
Mar-05
Jul-05
Nov-05
Mar-06
Jul-06
Nov-06
Mar-07
Jul-07
Nov-07
Mar-08
Jul-08
Nov-08

Random Lengths Framing Lumber Composite Price

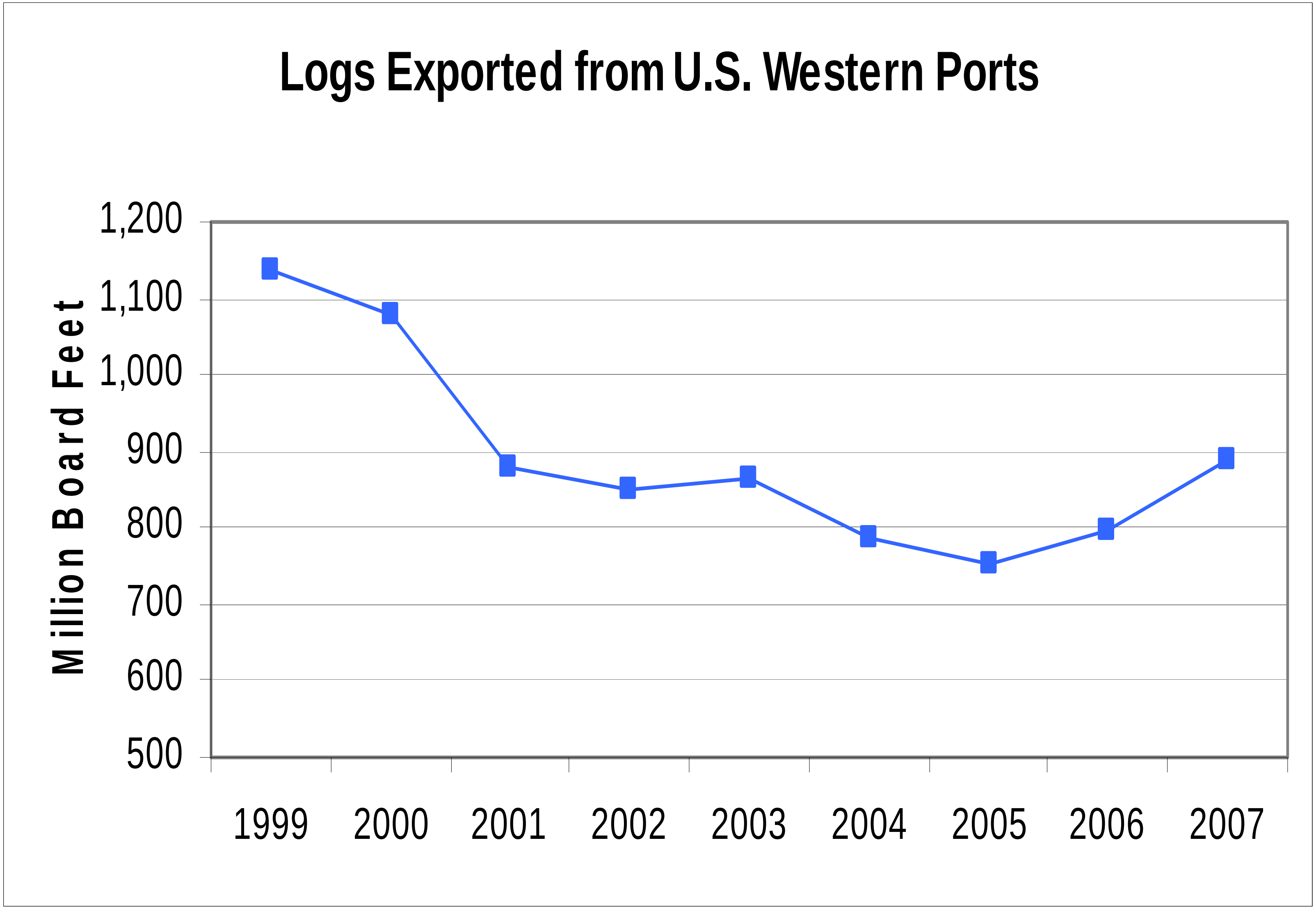


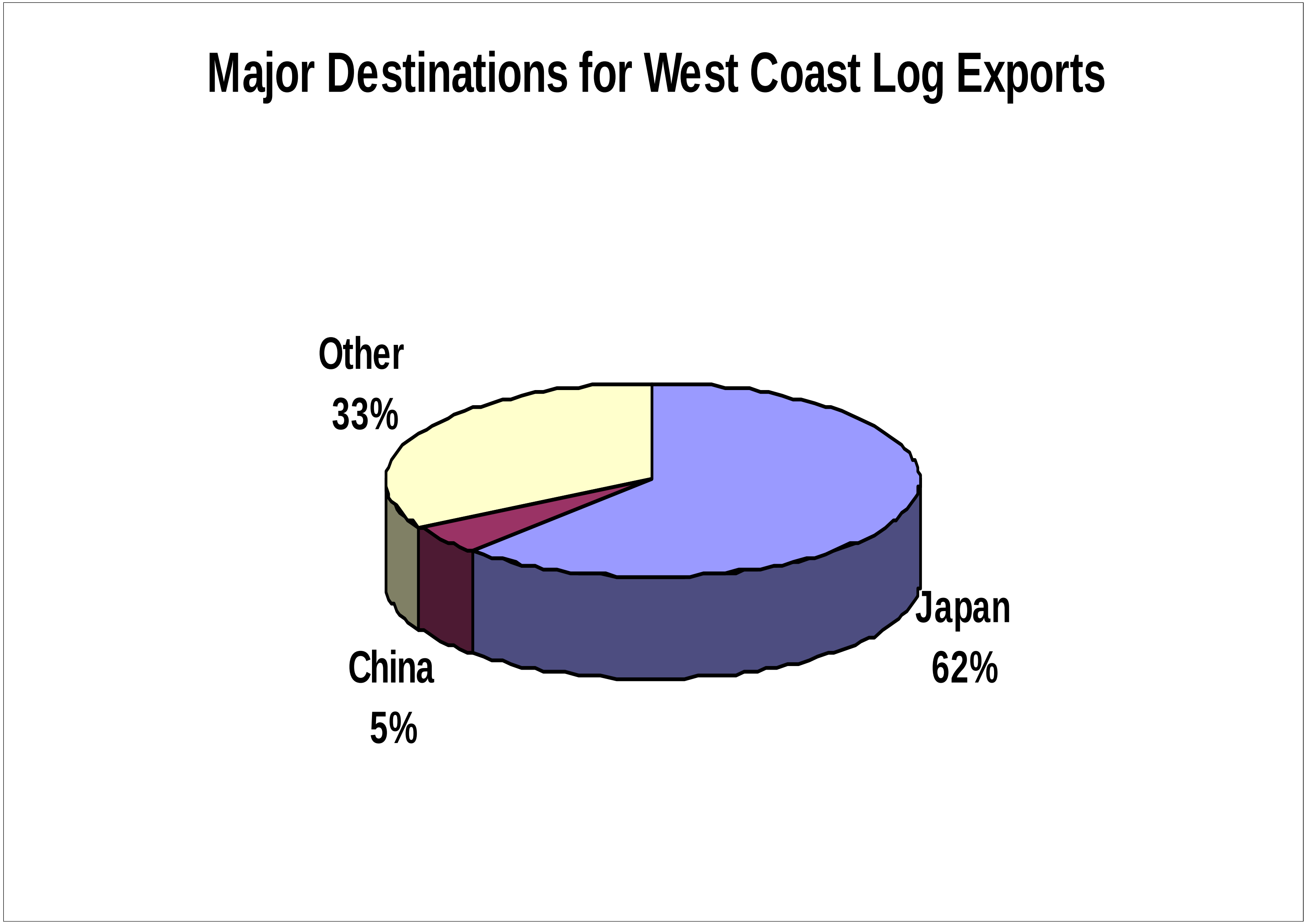

DF #2 Grade Sawlog - Willamette Valley, OR
Price
$750
$700
$650
$600
$550
$500
$450
$400
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J
2004
2005
2006
2007
2008
2009

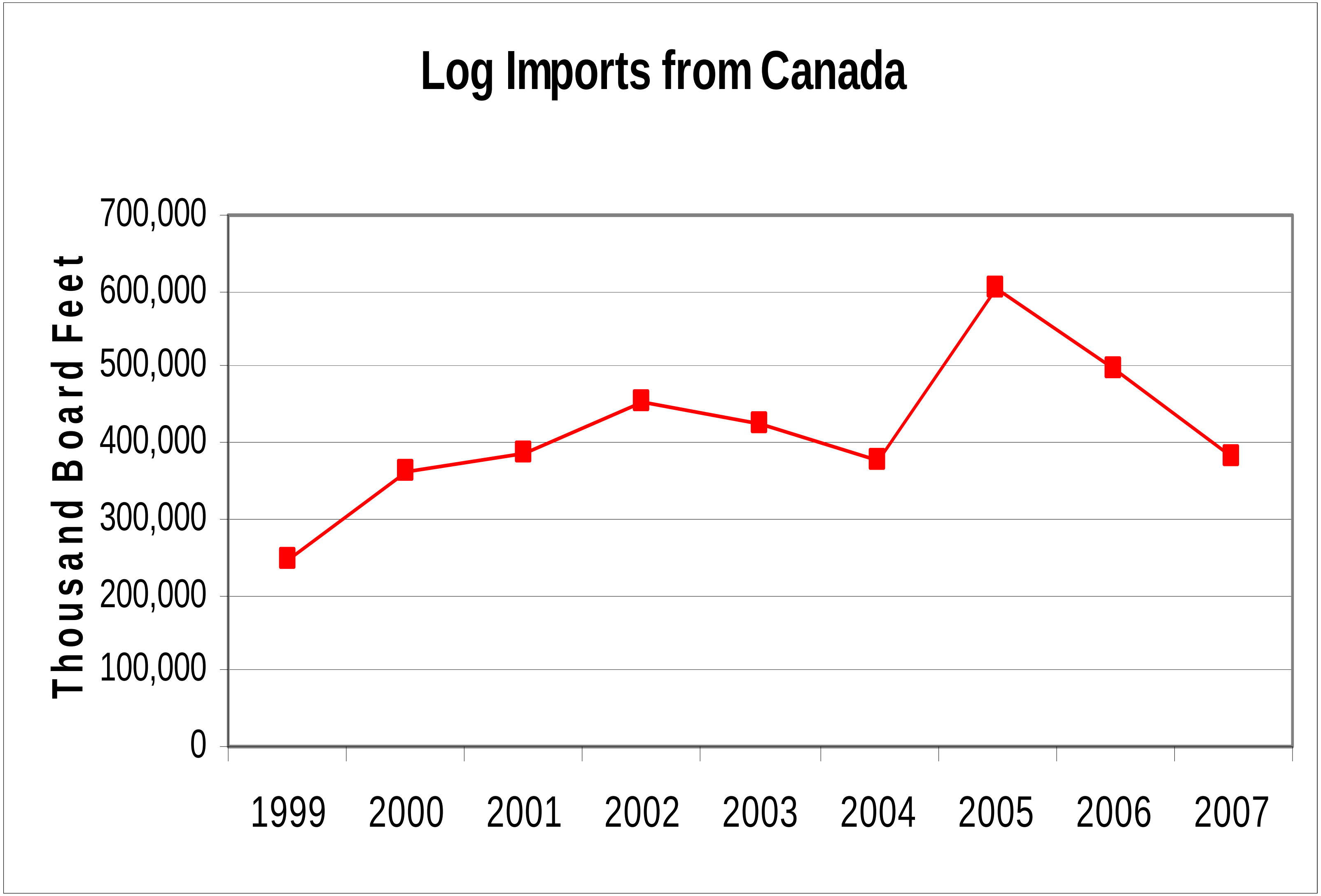
NBSK Price Trend



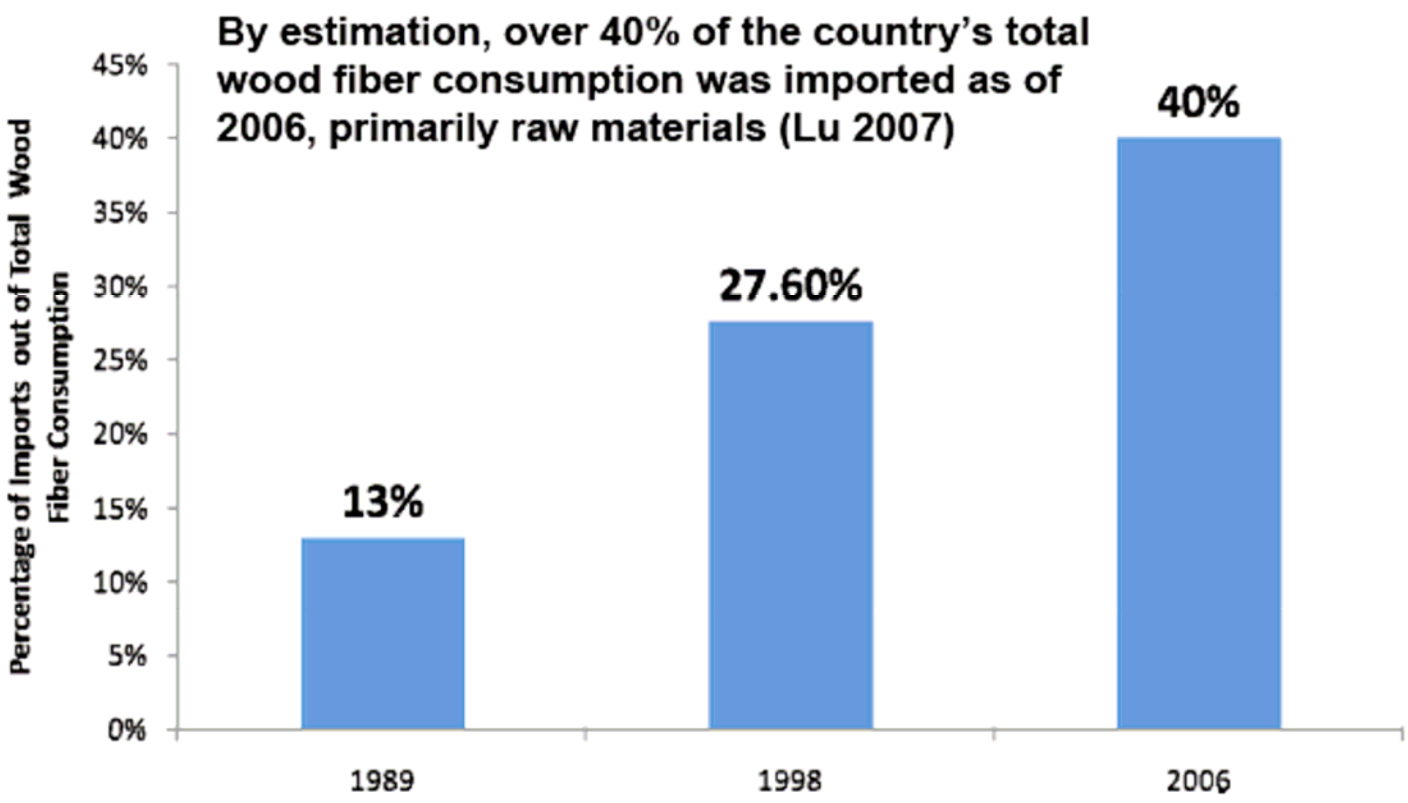

Pacific Rim Log Markets


Logs Exported from U.S. Western Ports
Million Board Feet
1,200
1,100
1,000
900
800
700
600
500
1999
2000
2001
2002
2003
2004
2005
2006
2007


Major Destinations for West Coast Log Exports
Other
33%
Japan
62%
China
5%


Log Imports from Canada
Thousand Board Feet
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
1999
2000
2001
2002
2003
2004
2005
2006
2007

China’s Growing Wood Demand

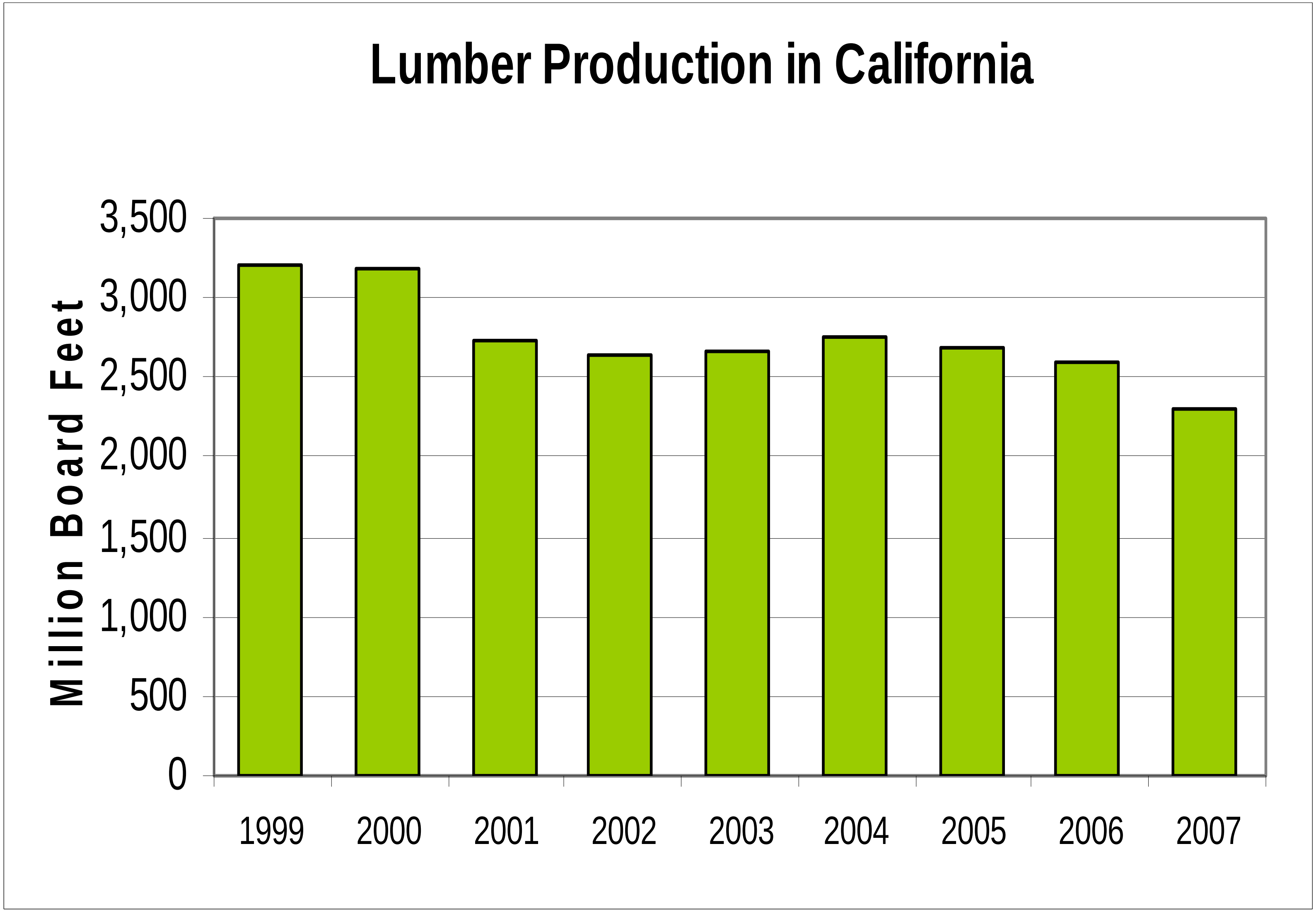


China Is A Major Log Importer

Russian Logs Are Getting More Expensive

California


North Interior
Timberlands
North Coast
Sacramento
Central Coast
San Joaquin/ Southern


Lumber Production in California
Million Board Feet
3,500
3,000
2,500
2,000
1,500
1,000
500
0
1999
2000
2001
2002
2003
2004
2005
2006
2007

California Forest Industry
Primary Manufacturers Currently in Operation
2000-2008 Closures
(sawmills unless otherwise indicated)

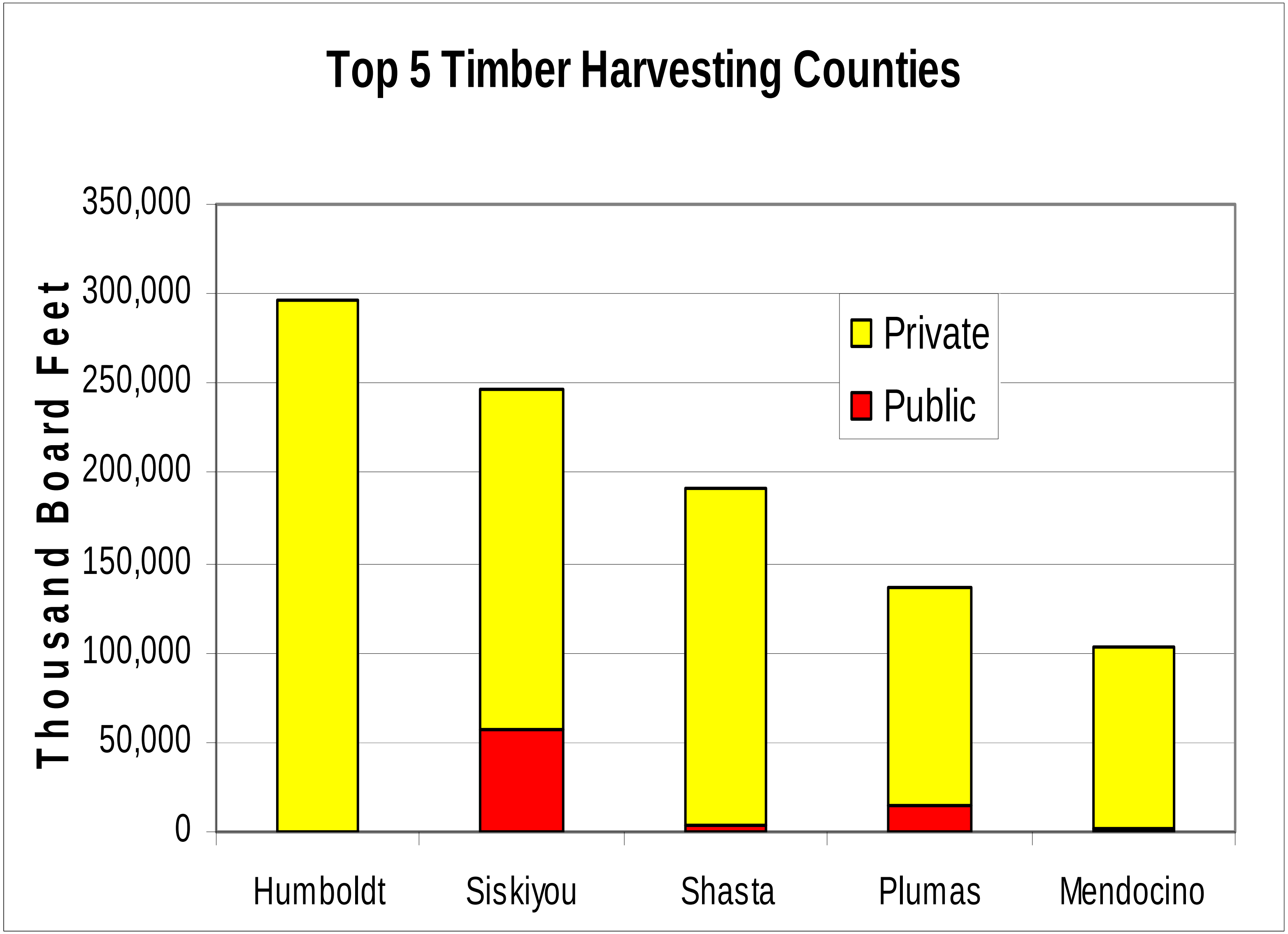
The forest products industry accounts for one in 10 jobs in 11 of the northern counties and more than half the manufacturing employment in many counties.

Between January 2000 and April 2008, 24 facilities have closed, leaving 38 currently in operation.

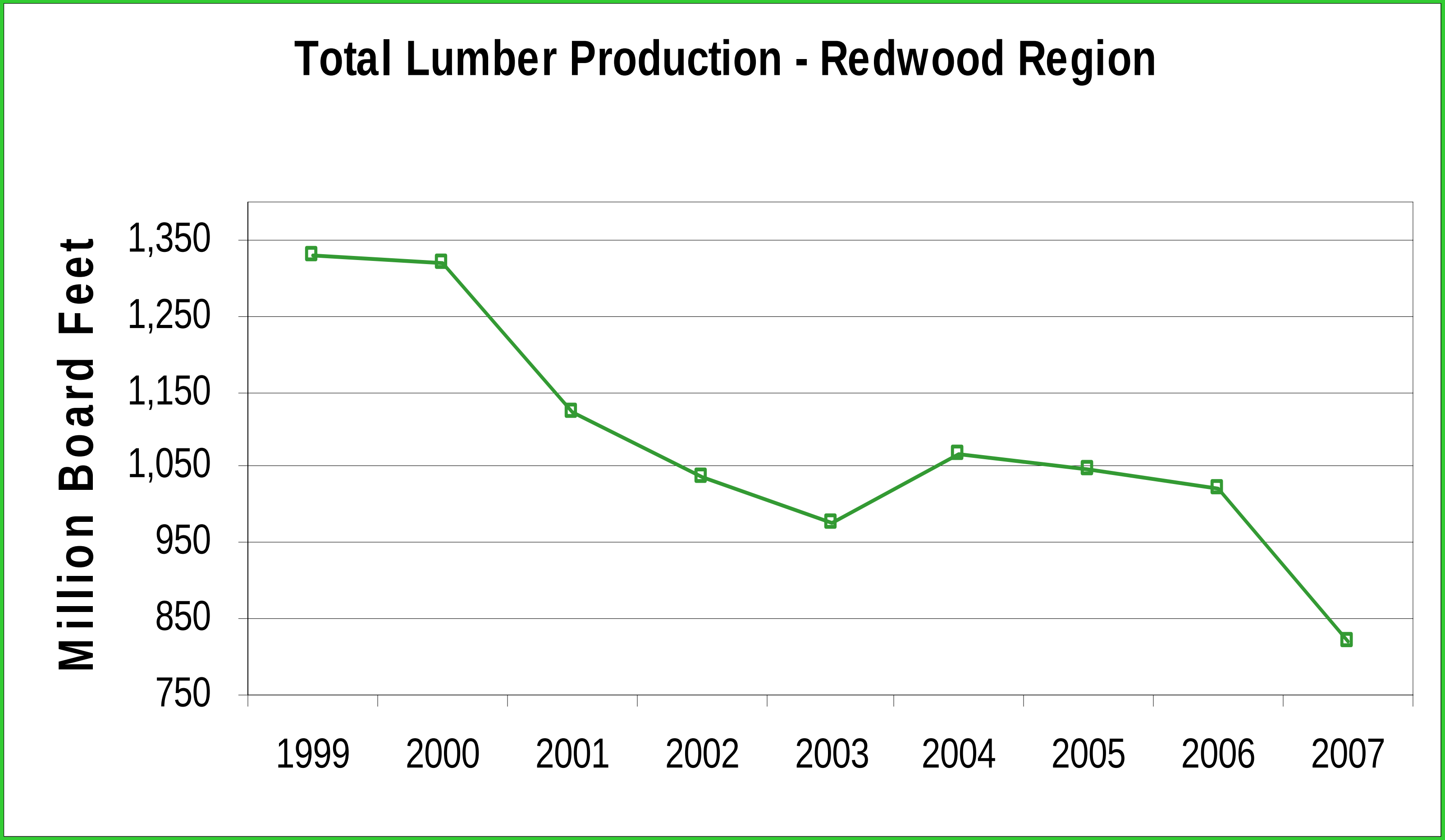
1. Agwood Mill & Lumber (Ukiah)
2. Annapolis Milling (Annapolis)
3. Berry's Sawmill (Cazadero)
4. Big Creek Lumber Co. (Davenport)
5. Big Valley Lumber Co. (Bieber)
6. Blue Lake Forest Products (Blue Lake)
7. Burney Forest Power (Burney)
8. California Cedar Products (McCloud)
9. California Cedar Products (pencil slat) (Stockton)
10. California Redwood (Korbel)
11. California Redwood (Orick)
12. Collins Pine Co. (Chester)
13. Eel River Lumber Products (Fortuna)
14. Eel River Sawmills Inc. (Redcrest)
15. Evergreen (pulp) (Samoa)
16. Georgia-Pacific (Fort Bragg)
17. Hambro Forest Products (board) (Arcata)
18. Hambro Forest Products (board) (Crescent City)
19. Heartwood Products (Branscomb)
20. Humboldt Flake Board (Arcata)
21. J.H. Baxter (preserve) (Weed)
22. Louisiana-Pacific (board) (Oroville)
23. Mad River Redwood (fencing) (Arcata)
24. Masonite/Mill Paper (board) (Ukiah)
25. Mendocino Redwood (Fort Bragg)
26. Mendocino Redwood (Ukiah)
27. PALCO (Carlotta moved to Scotia)
28. PALCO (Fortuna)
29. PALCO (mill A) (Scotia)
30. PALCO (mill B) (Scotia)
31. PALCO (Scotia)
32. PALCO/Britt Lumber (Arcata)
33. Ply-Core, Inc. (veneer) (Anderson)
34. R.J.S. Lumber Co. (Philo)
35. Redwood Empire (Cloverdale)
36. Roseburg Forest Products (veneer) (Weed)
37. Schmidbauer Lumber Co. (Eureka)
38. Shasta Green (Burney)
39. Shasta Paper Company (pulp) (Anderson)
40. Sierra Cedar Products (Marysville)
41. Sierra Forest Products (Dinuba)
42. Sierra Forest Products (Terra Bella)
43. Sierra Pacific Ind. (Anderson)
44. Sierra Pacific Ind. (Arcata)
45. Sierra Pacific Ind. (Burney)
46. Sierra Pacific Ind. (Camino)
47. Sierra Pacific Ind. (Central Valley)
48. Sierra Pacific Ind. (Lincoln)
49. Sierra Pacific Industries (Loyalton)
50. Sierra Pacific Ind. (Oroville)
51. Sierra Pacific Ind. (Quincy)
52. Sierra Pacific Ind. (Susanville)
53. Sierra Pacific Ind. (Chinese Camp)
54. Sierra Pacific Ind. (Standard)
55. Sierra Pine (board) (Martell)
56. Sierra Pine (board) (Rocklin)
57. Sound Studs (stud) (Anderson)
58. Timber Products Co. (veneer) (Yreka)
59. Trinity River Lumber Co. (Weaverville)
60. Wetsel-Oviatt (El Dorado)
61. Willits Redwood (Willits)
62. Wisconsin-California (Anderson)

Source: California Forestry Association, Paul F. Ehinger & Assoc. (April 2008)

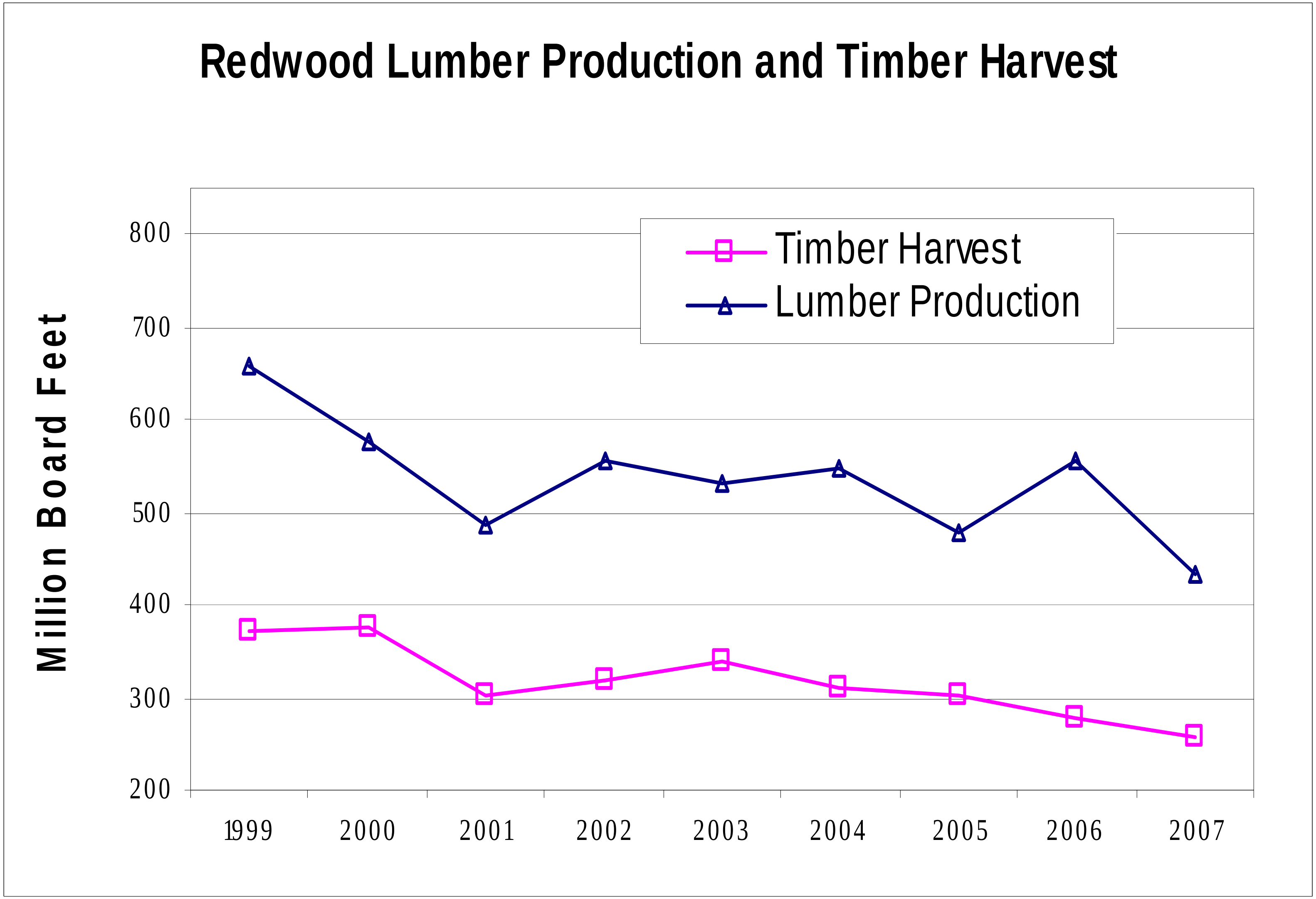
○ 2000-08 closures

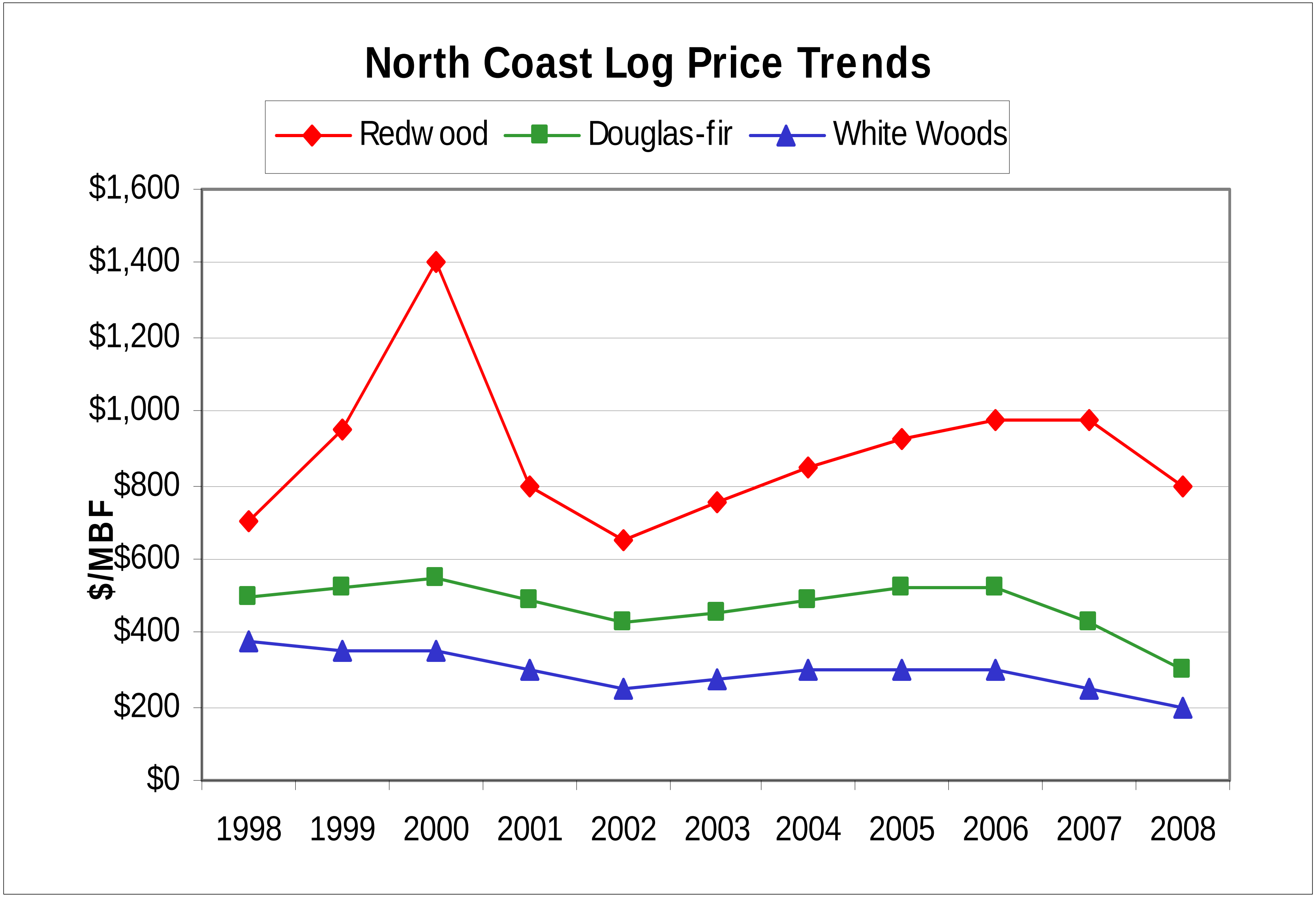

Top 5 Timber Harvesting Counties
Thousand Board Feet
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
Private
Public
Humboldt
Siskiyou
Shasta
Plumas
Mendocino

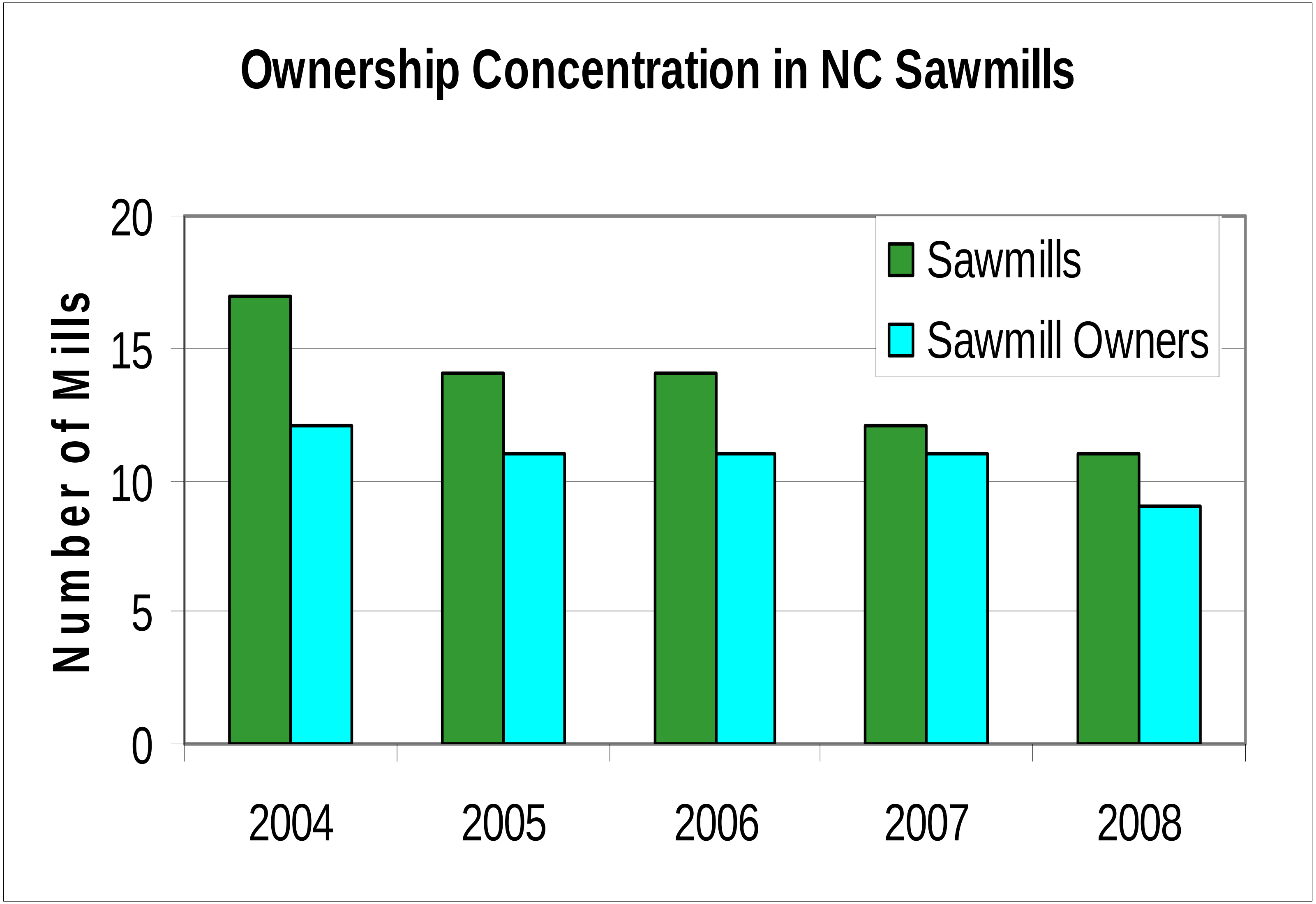
North Coast



Total Lumber Production - Redwood Region
Million Board Feet
1,350
1,250
1,150
1,050
950
850
750
1999
2000
2001
2002
2003
2004
2005
2006
2007


Redwood Lumber Production and Timber Harvest
Million Board Feet
800
700
600
500
400
300
200
1999
2000
2001
2002
2003
2004
2005
2006
2007
Timber Harvest
Lumber Production


North Coast Log Price Trends
Redwood
Douglas-fir
White Woods
$/MBF
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008



Ownership Concentration in NC Sawmills
Number of Mills
20
15
10
5
0
2004
2005
2006
2007
2008
Sawmills
Sawmill Owners

Trends to Consider

Short Term:

- Soft log prices will be flat through mid 2010.
- Lack of competition for logs on North Coast will continue.
- Closure of pulp mill means that sawmills will pay 10% to 15% less for DF logs.

Long Term:

- Pent up demand for housing will result in strong increase in starts (when ever recovery arrives). Will North American sawmill capacity keep up?
- Canadian timber supply/lumber production constraints will continue.
- Increase in log exports to Pacific Rim from PNW. What are the Russians up to?
- Fuel prices will increase. Increase in logging and hauling costs.
- DF prices will move up. Will there be an increase in demand on North Coast?
- Lack of competition for RW means prices will move up more slowly. Will Californians rediscover redwood?
- What will be the impact of carbon sequestration and bio-fuel production on North Coast values?