**Western Forest Economist**
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# An updated view of the demand for forest products in Alaska – A better understanding of the products and markets for Alaska producers

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# A personal note . . .

1. **Spent from 1957 to date working in FPI**
2. **Cut a lot of wood (started in family owned logging business)**
3. **Participated in facility (sawmill) design (profiled standing timber resource, calculated log yields, designed sawing patterns, created logic for scanning systems, etc.)**
4. **Moved to SE Alaska 2001 and determined:**

**ALASKA IS DIFFERENT**

# Why all the focus on demand for timber from the Tongass?

**Tongass Timber Reform Act of 1990 (TTRA 1990) repealed the TTA (1947) statutory volume of 4.5 billion board feet per decade and stated that henceforth:**

***"…the Secretary shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forests resources, seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual demand for timber from such forest and (2) meets the market demand for such forest for the planning cycle". (Title I, sec. 101)***

# A few comments about methods. . .

- **Derived demand - Demand for resulting products converted back to required volume of timber in the mill yard.**

- **Scenario analysis – Method used to project possible future outcomes.**

- **Tongass Timber Demand Model – A tool used to convert levels of product demand back to required volume of timber in the mill yard. (A simulation model and not an optimization model! All price and costs are exterior to the model!)**

# Some notes about timber demand. . .

- ***a priori*** **– It is the sum total of the predictor’s best estimate of what might happen.**

- ***a posteriori*** **– It is fact and what actually happened.  It represents the equilibrium of all factors (demand, price, supply, technology, etc.).**

# More notes about timber demand. . .two components

1. ***Long-term component***
    a) ***In terms of products converted back to timber***
    b) ***PNW responsibility***

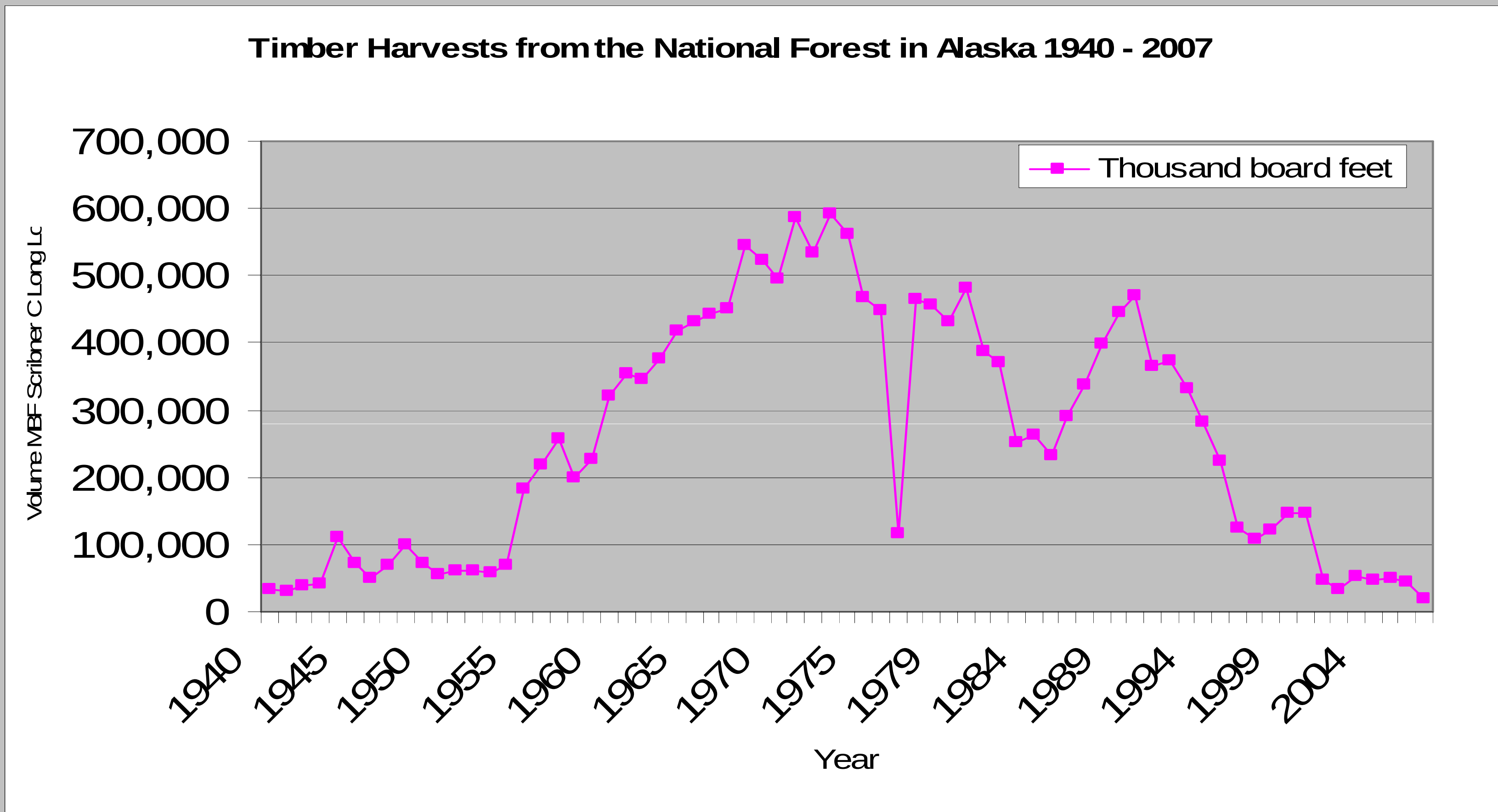
2. ***Short-term component***
    a) ***In terms of required blocks of timber (annual timber sales program – number of blocks offered for sale)***
    b) ***Region 10 – Tongass responsibility***

# Mill capacity information. . .

- Study originally started in 2000 to help with annual demand (Conducted: 02,03,04,05, 06)
- Calculated capacity rating for SE mills
- Obtained owner estimates:
  - ➢ Sources of timber (NF, State, other)
  - ➢ Annual processed volume
  - ➢ Species processed
  - ➢ Form of products (lumber, cants, others)
  - ➢ Markets for products (local Alaska, domestic (lower 48), export – Pacific Rim, Canada, Europe)

**Given these comments, let us move onto the data that reflects changing trends in the demand for Tongass timber!**

# Timber harvests from the National Forest in Alaska 1940-2007



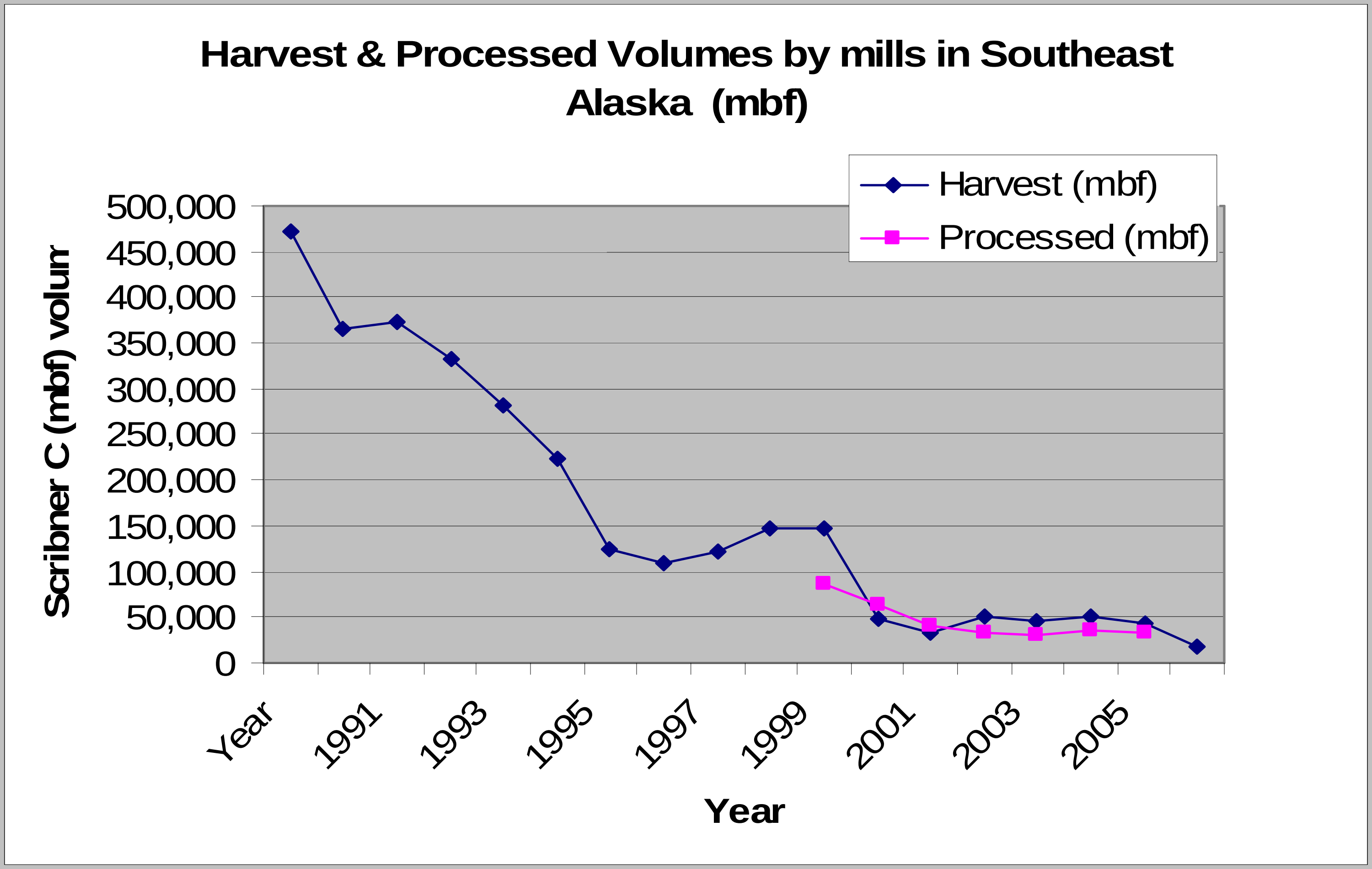
# Ratio of export vs. domestic shipments prior to 1997

**95% of lumber products exported**

**85% of pulp products exported**

# A pulp mill in Alaska. . .

# A comparison of harvest vs. processed volumes . . .

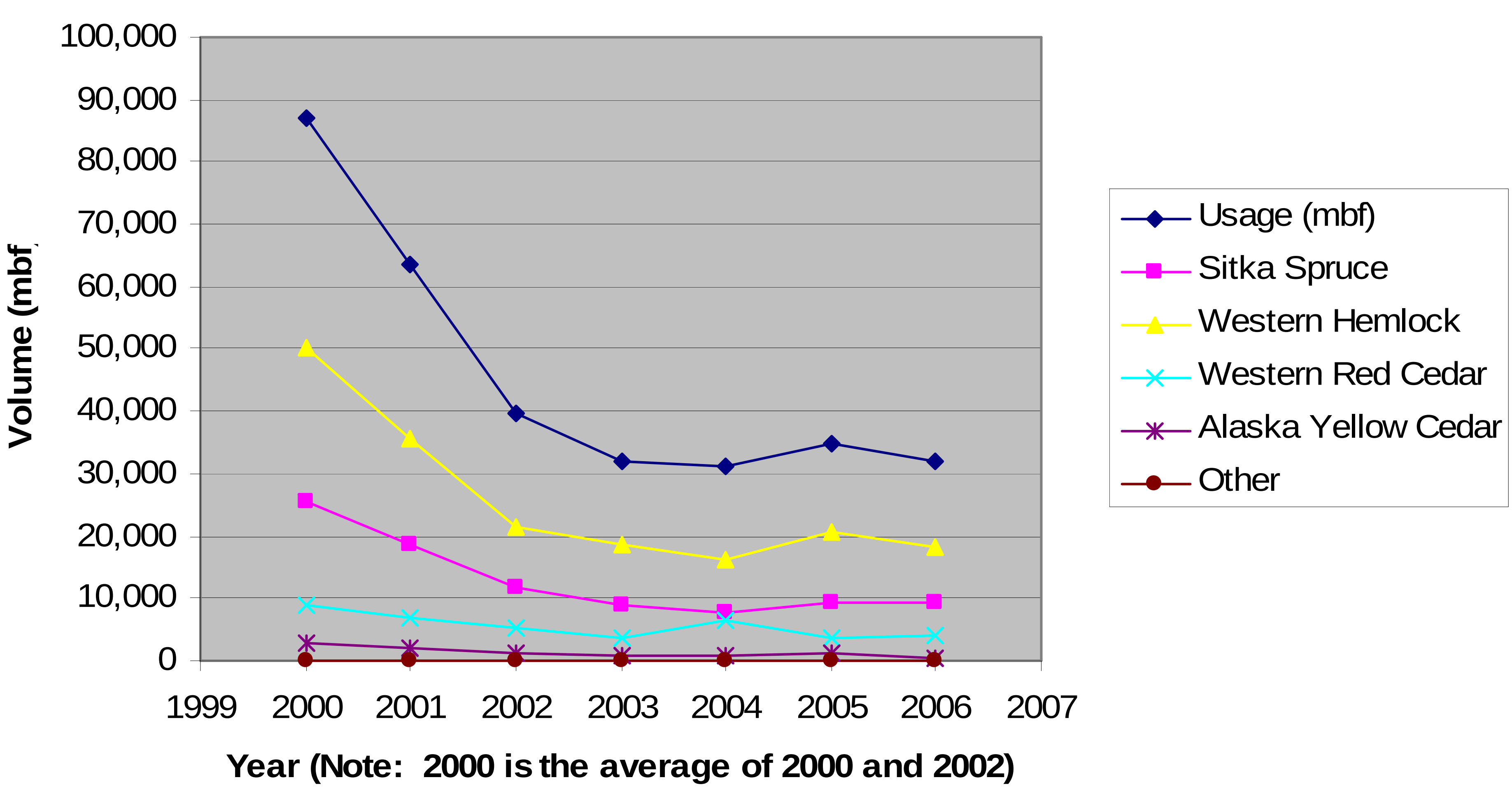


# Relationship between harvest volume and processed volumes. . An inventory adjustment

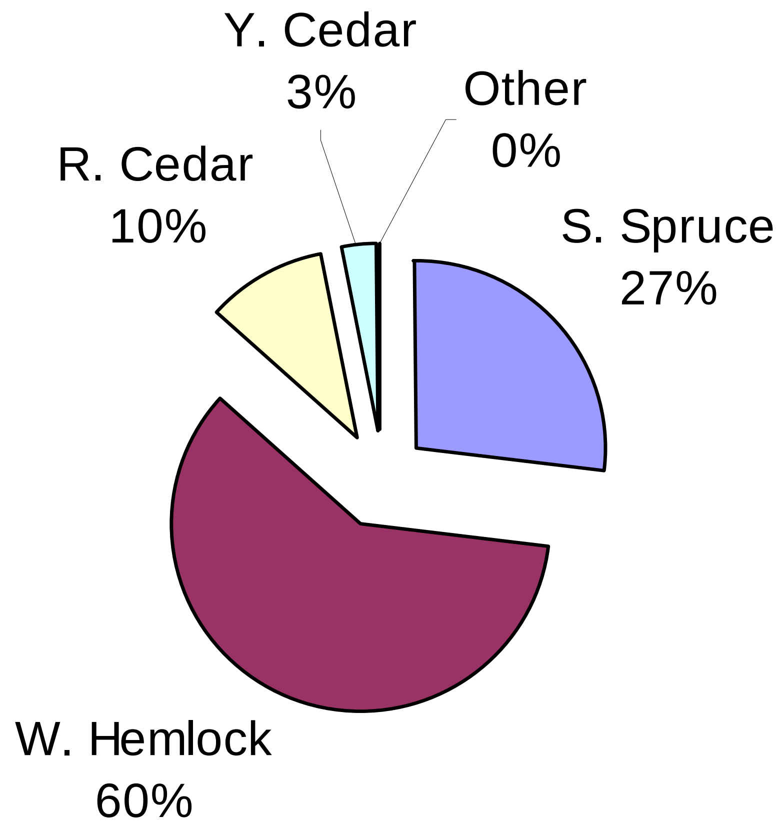
**Processed volume =**

Starting yard  and wood volumes (mbf)
+ additions to inventory (mbf)
– closing inventory in woods and yard (mbf)

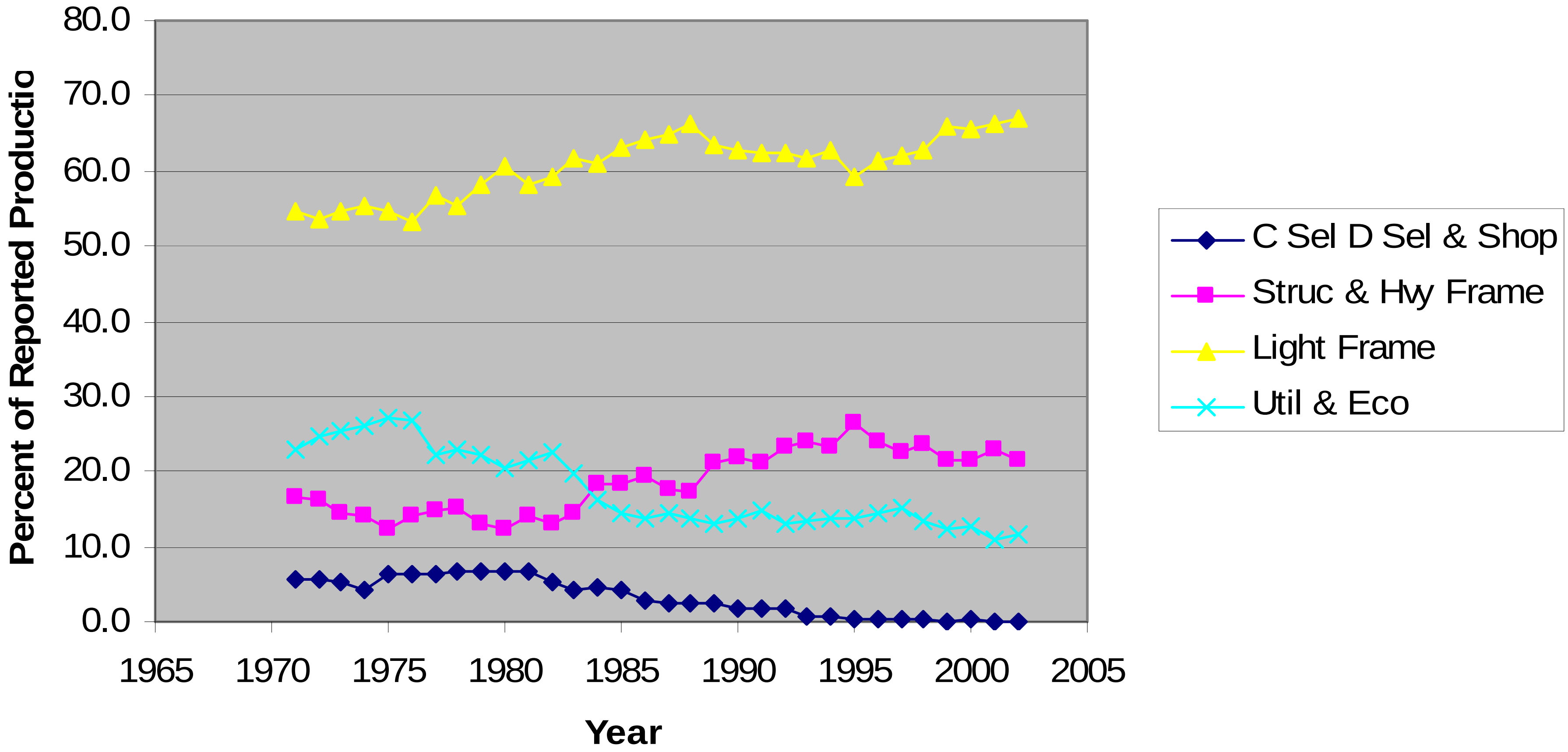
## Volume of species utilized by southeast Alaska sawmills CY2000-2006

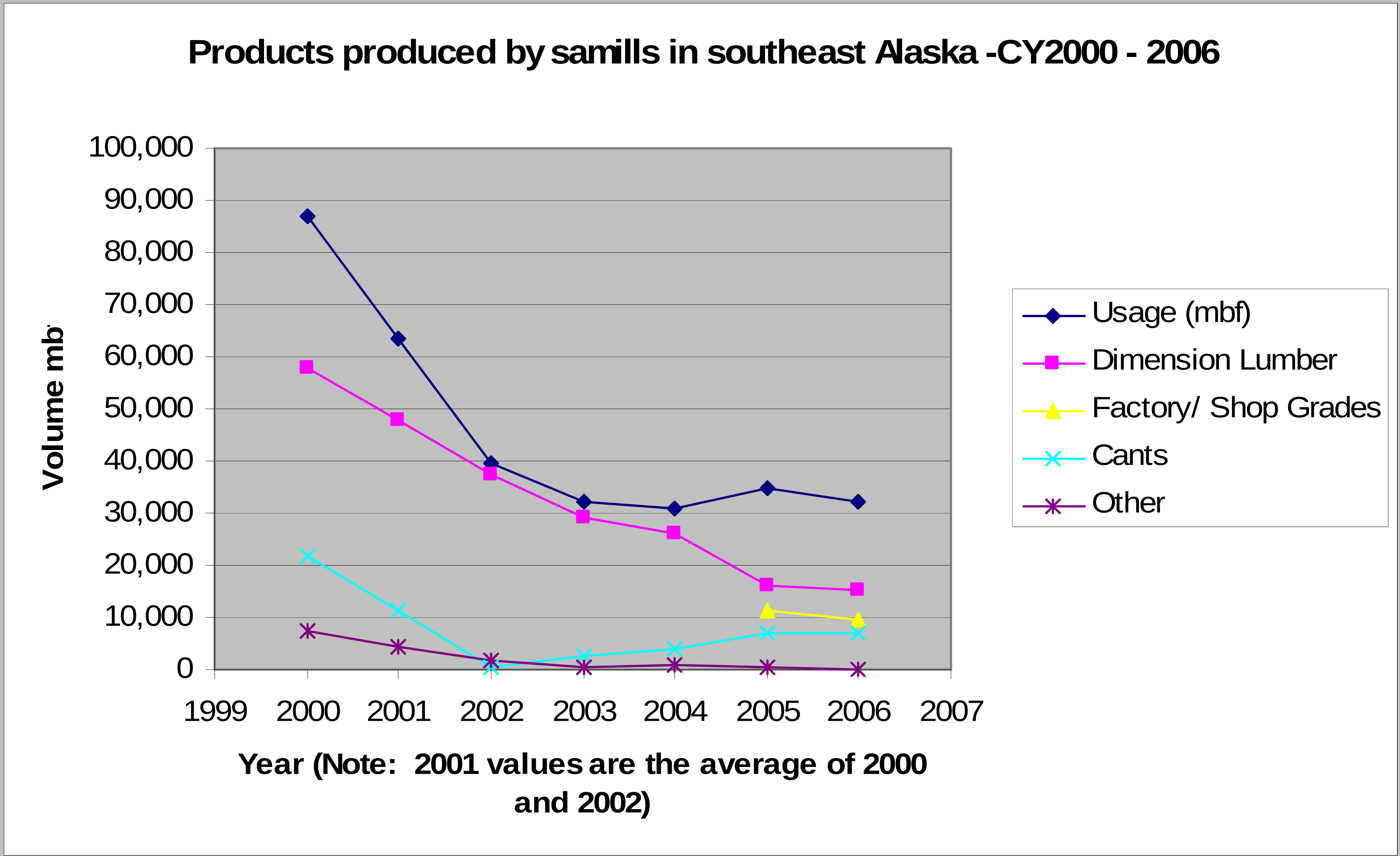


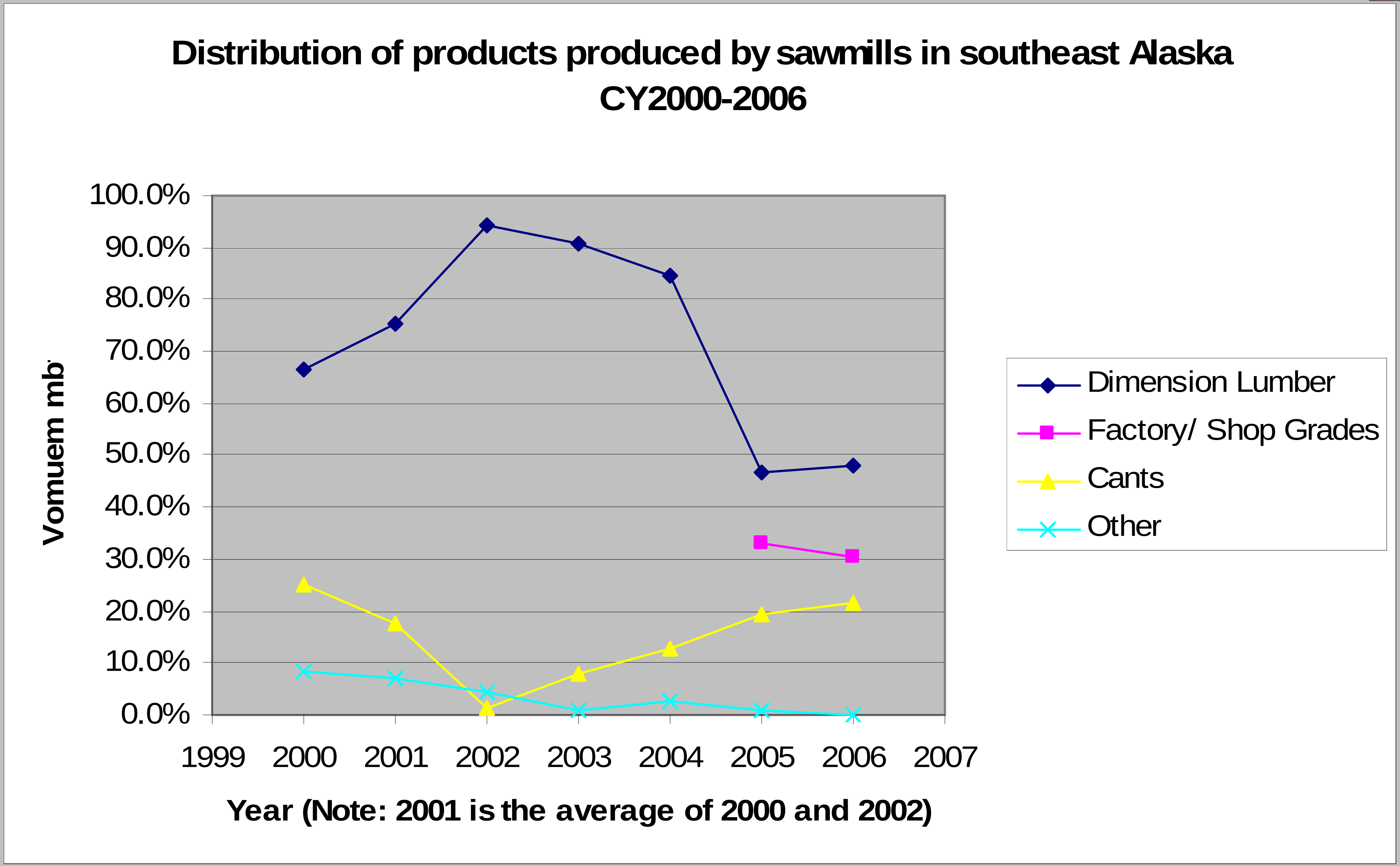
## Species processed by Southeast Alaska Mills - 2006



## Distribution of Products Reported by Coast Hem-Fir Producers PNW 1971 to 2002

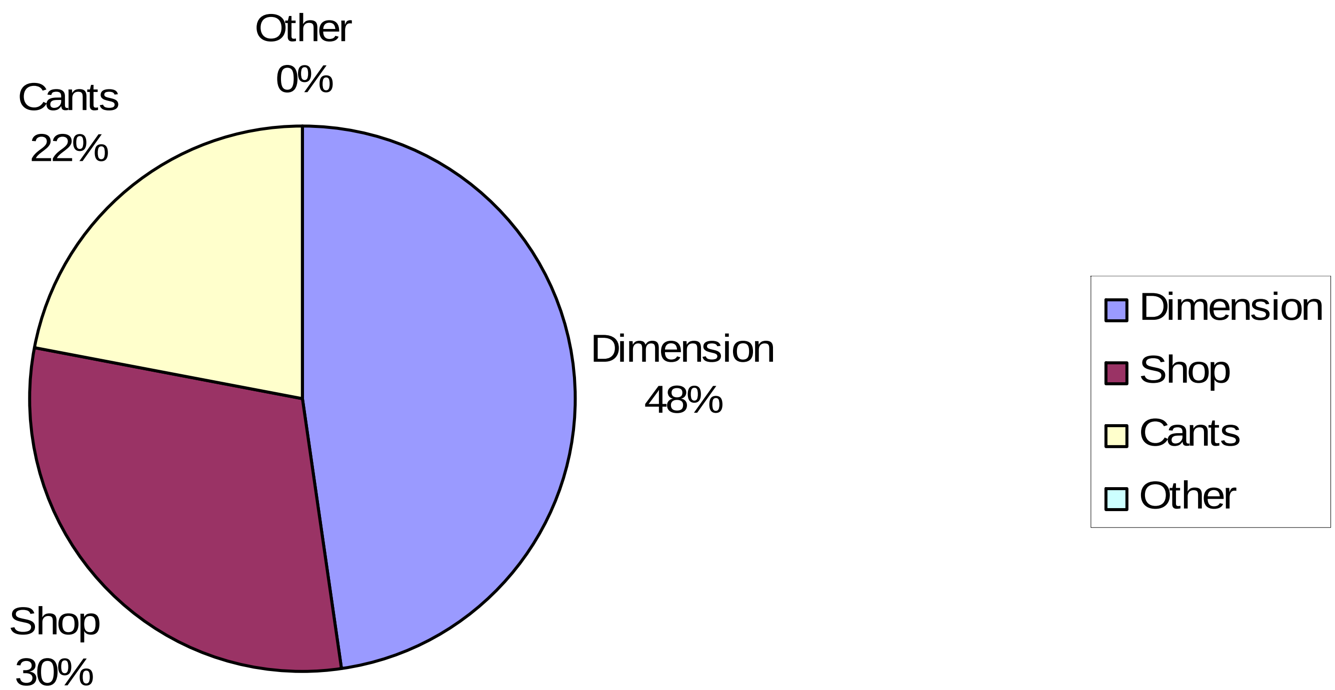


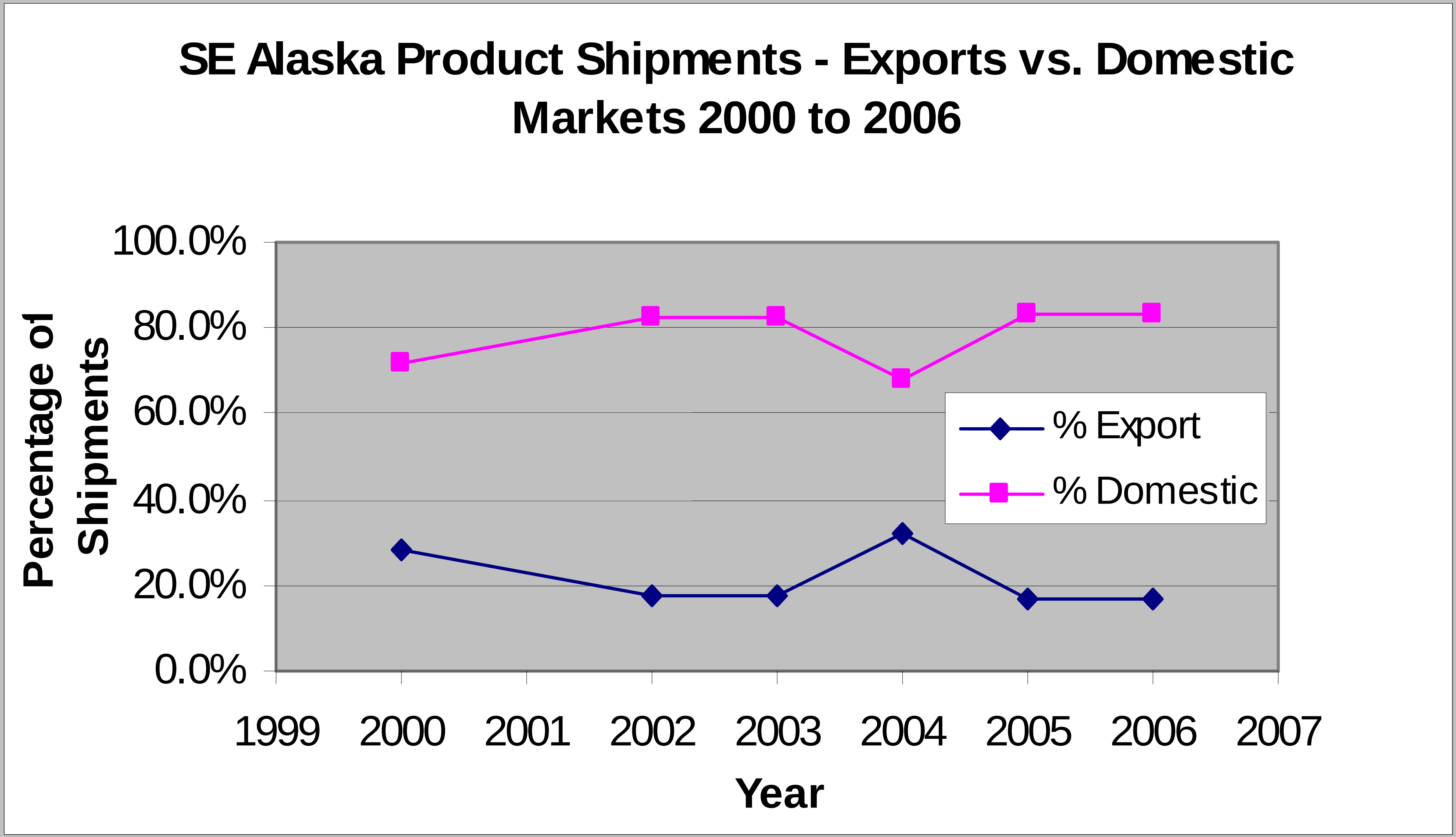

Products produced by samills in southeast Alaska -CY2000 - 2006
Volume mb
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year (Note: 2001 values are the average of 2000 and 2002)
Usage (mbf)
Dimension Lumber
Factory/ Shop Grades
Cants
Other



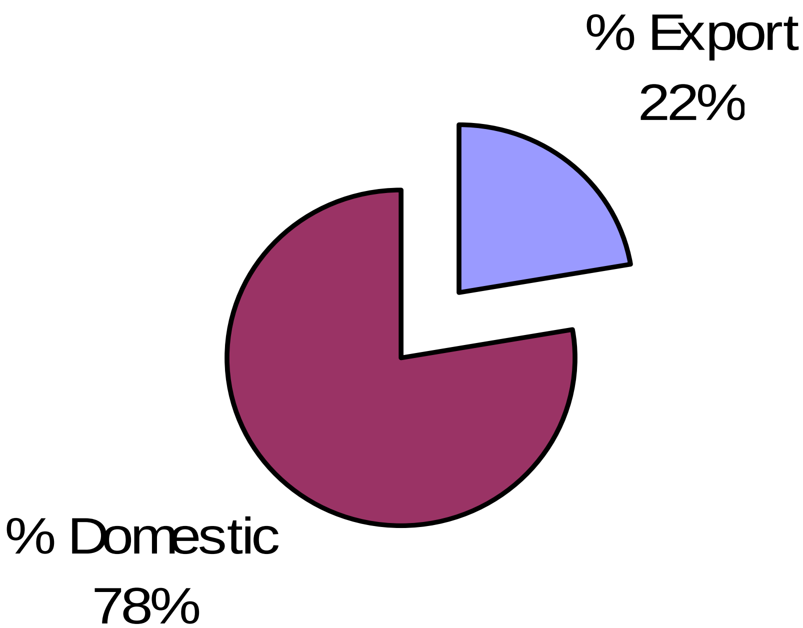
Distribution of products produced by sawmills in southeast Alaska
CY2000-2006
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Vomuem mb
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year (Note: 2001 is the average of 2000 and 2002)
Dimension Lumber
Factory/ Shop Grades
Cants
Other

## Distribution of Lumber Products Produced by SE Alaska Mills 2006

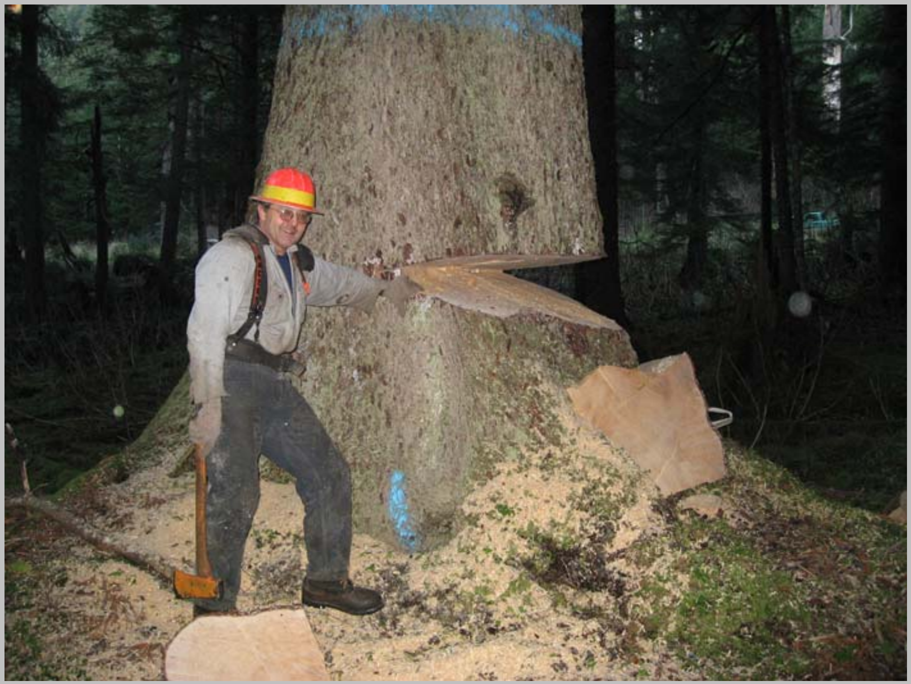



SE Alaska Product Shipments - Exports vs. Domestic Markets 2000 to 2006
Percentage of Shipments
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
1999
2000
2001
2002
2003
2004
2005
2006
2007
Year
% Export
% Domestic

## Markets for SE Alaska Forest Products 2004 -2006



# A comment about cants. . .



# Some cants are high value export product others are heavy timbers

- **Produced from large old-growth logs**
- **Buyer visits mills, check log pedigree**
- **Buys logs and specifies breakdown pattern**
- **Mill custom saws to buyer’s specification**
- **Cants (large side boards) are exported**
- **Cants are resawn at destination**

# What is the value of exported cants?

# ????? But $$$$$

The products from many cants are high value specialty products and the traditional laws of supply and demand do not apply.

Please note some cants are also marketed as ties!

# The new forest products industry in SE Alaska . . .

1. An industry supported by old-growth timber
2. An industry that serves domestic markets (78% domestic and 22% export in recent years).
3. Products produced:
   a. High-value export products
   b. Factory & shop grades (a value twice that of dimension lumber)
   c. Larger sizes of dimension lumber and heavy timbers for architectural applications
4. Increasing volumes of product retained in Alaska

# Economic implications. . .

1. The industry processes large old-growth trees (large and small logs) and technology applicable to dimension production is not relevant
2. Dimension lumber and related trends are of minor importance and possibly irrelevant
3. Demand for specialty products inelastic
4. Transition to young-growth will be painful

# Innovation in Alaska. . .

# The view from McDonald's is Sitka