

The Economic Impact of the Wood Industry in Northwest Pennsylvania

Bruce E. Lord

Charles H. Strauss

Michael J. Powell

The Pennsylvania State University

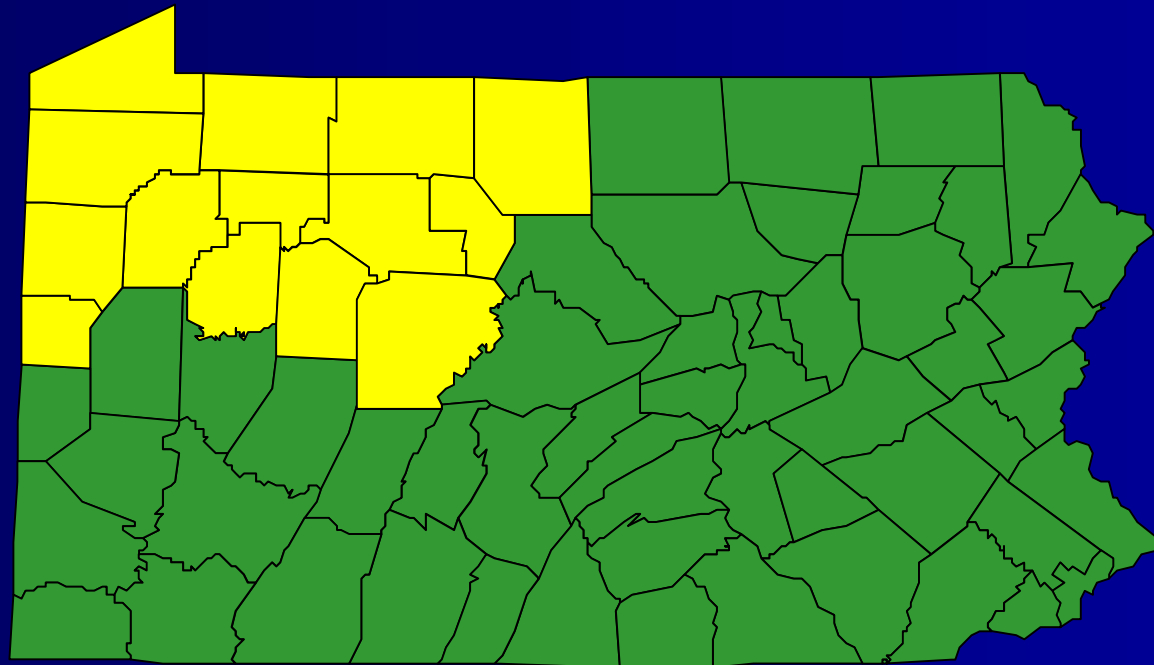
Objectives

- Develop regional profile of the wood industry
- Determine the direct and secondary impacts of this industry
- Evaluate the relative role of the wood industry in the region's economy
- Compare timber demands to regional wood supply

The AHUG Region

- Fourteen-county region
- Home of an important timber resource and an associated wood products industry for over 100 years
- Two-thirds of the region is forested
- 4.7 million acres commercially classified as timberland
 - red maple (*Acer rubrum*)
 - black cherry (*Prunus serotina*)
 - northern red oak (*Quercus rubrum*), and sugar maple (*Acer saccharum*)

The Allegheny Hardwoods Utilization Group Region



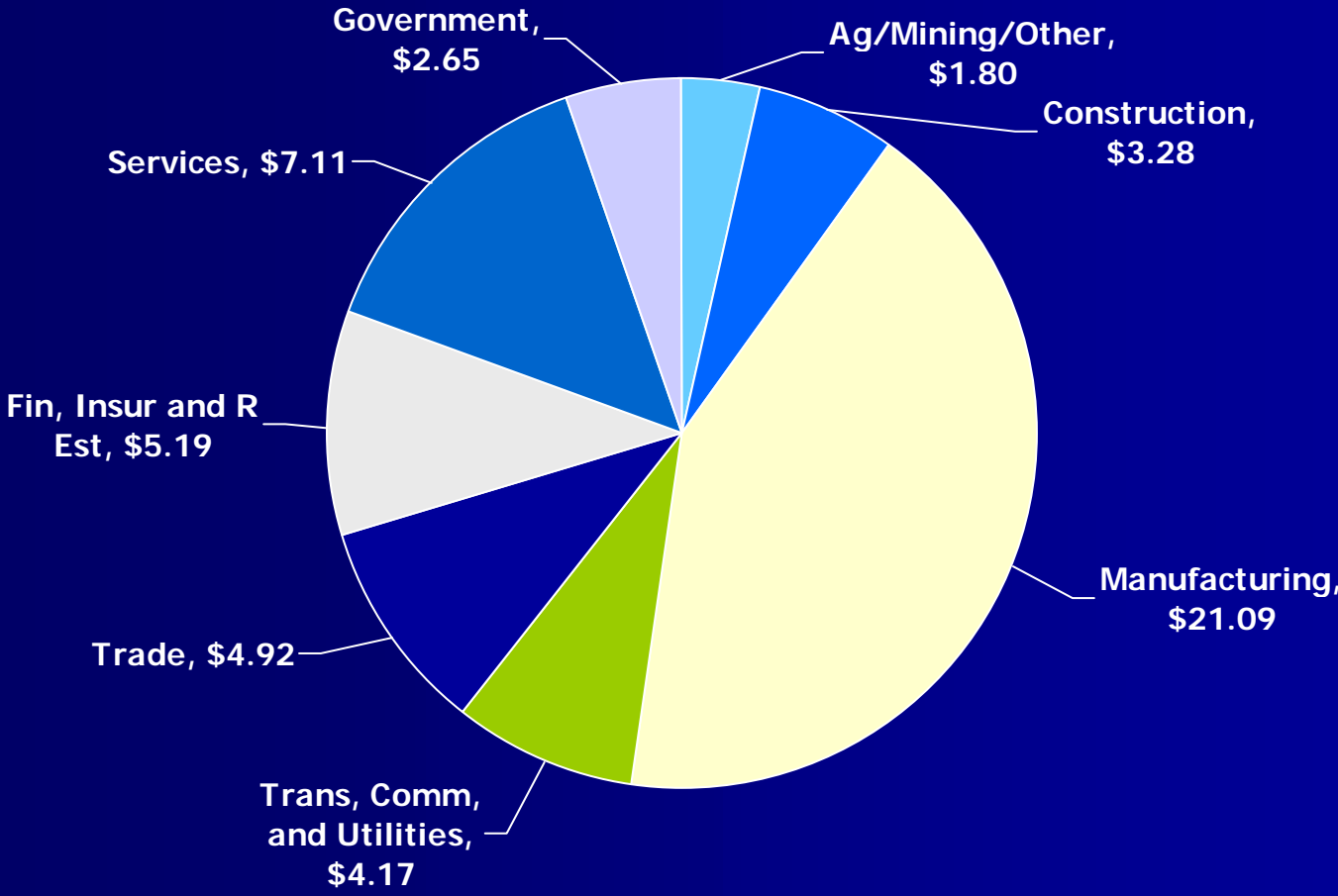
The AHUG Region

- Consistent with this dominant forest cover, several of its eastern counties are very rural with fewer than 20 people per square mile.
- In contrast, the western portion contains several urban centers making up the majority of the region's total population of 969 thousand in 2000.
- 90 people per square mile on average

The AHUG Region

- The region's economy produced \$50 billion of output, and supported over 500 thousand jobs (2000)
 - Manufacturing (42%)
 - Services (14%)
 - Finance, insurance and real estate (10%)
 - Wholesale and retail trade (10%)

The AHUG Economy (billions)



Lead Sectors

<i>Industry</i>	<i>Industry Output*</i>	<i>Total Value Added*</i>	<i>Employ.</i>	<i>Employee Comp.*</i>
Petroleum Refining	\$2,797	\$227	1,085	\$60
Owner-occupied Dwellings	\$2,031	\$1,538		
Railroad Equipment	\$1,823	\$536	6,313	\$410
Miscellaneous Plastics Products	\$1,533	\$449	8,766	\$303
Hospitals	\$1,474	\$900	23,310	\$751
Wholesale Trade	\$1,341	\$921	15,032	\$519
State & Local Government - Education	\$1,253	\$1,253	29,784	\$1,254
Banking	\$1,185	\$784	6,643	\$221
Fabricated Metal Products, N.E.C.	\$1,149	\$426	7,913	\$335
Communications, Except Radio and TV	\$1,147	\$635	4,611	\$200
Regional Total	\$50,182	\$24,403	510,755	\$13,849

*Monetary figures are recorded in millions of dollars.

Procedures

- Harris InfoSource was used to establish initial inventory of wood processing industries.
- Surveys were conducted to verify their size and key inputs.
 - All sawmills processing over 5 mmbf
 - Secondary enterprises with over 50 employees
 - Sample of remaining businesses

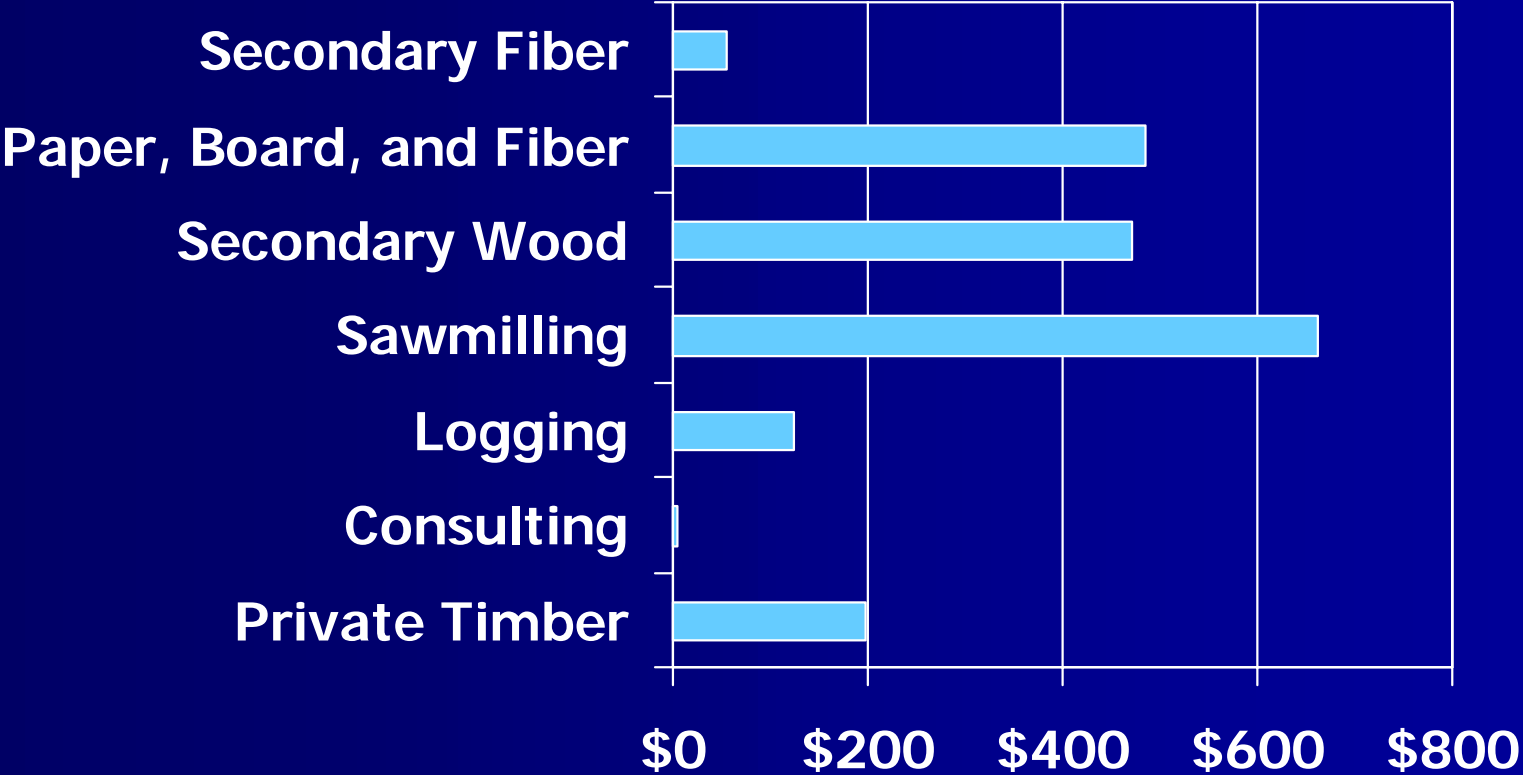
Procedures

- Economic impacts were modeled using the IMPLAN input-output model.
- The USDA Forest Service's Forest Inventory Analysis (FIA) and Forest Vegetation Simulator (FVS) were used to estimate the timber supply.

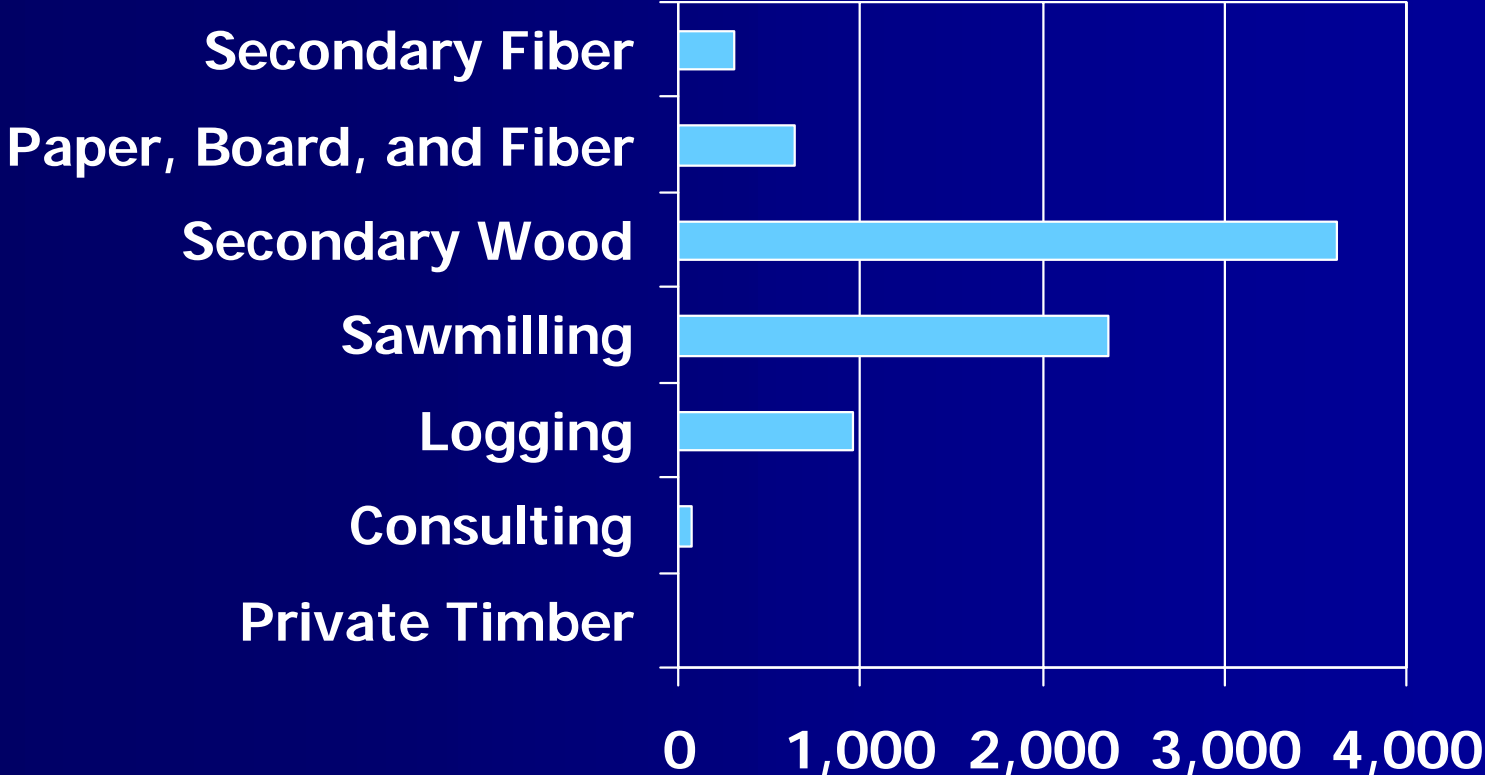
The Wood Industry

- 4% to regional output (\$2.0 billion)
- 2% of the region's employment (7,960 jobs)
- Sawmill sector
 - \$661 million output
 - 2,369 employment
 - supports logging and secondary wood product manufacturing in the region
- Paper, board, and fiber
 - \$485 million in output
 - 636 jobs
- Secondary wood manufacture
 - \$472 million in output
 - 3,624 jobs

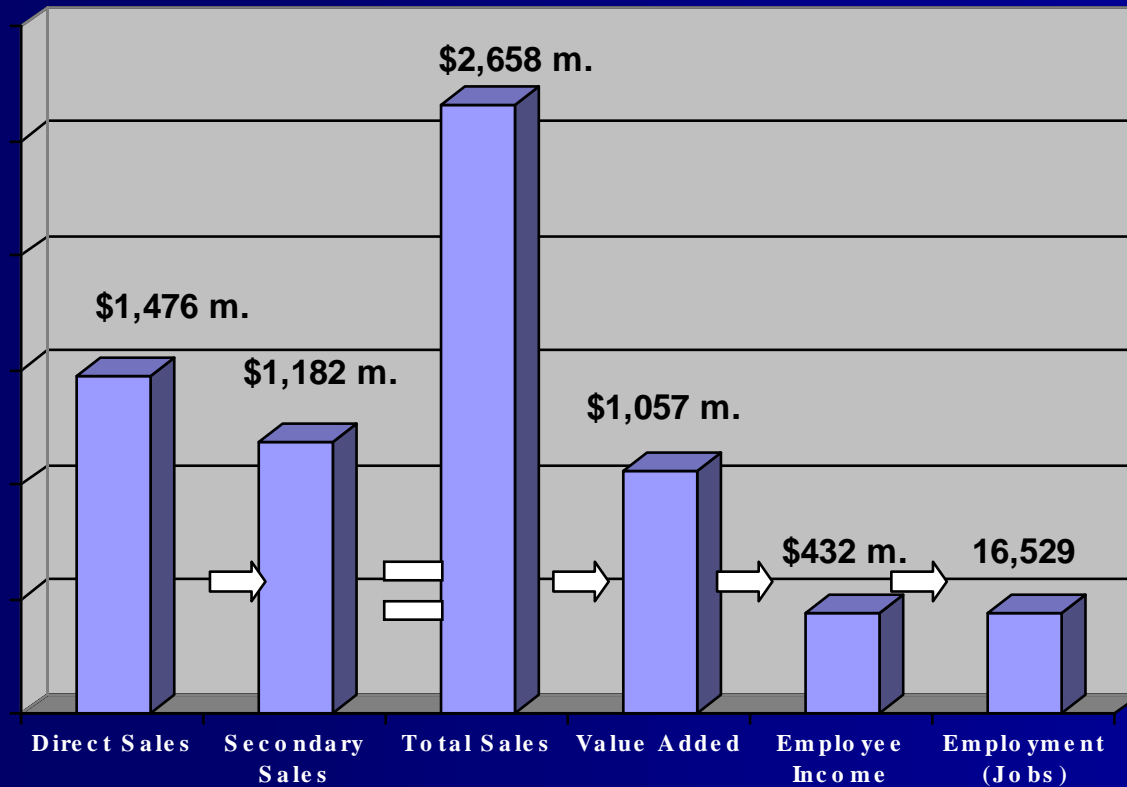
Wood Industry Output (\$2 billion)



Wood Industry Employment (7,970 jobs)



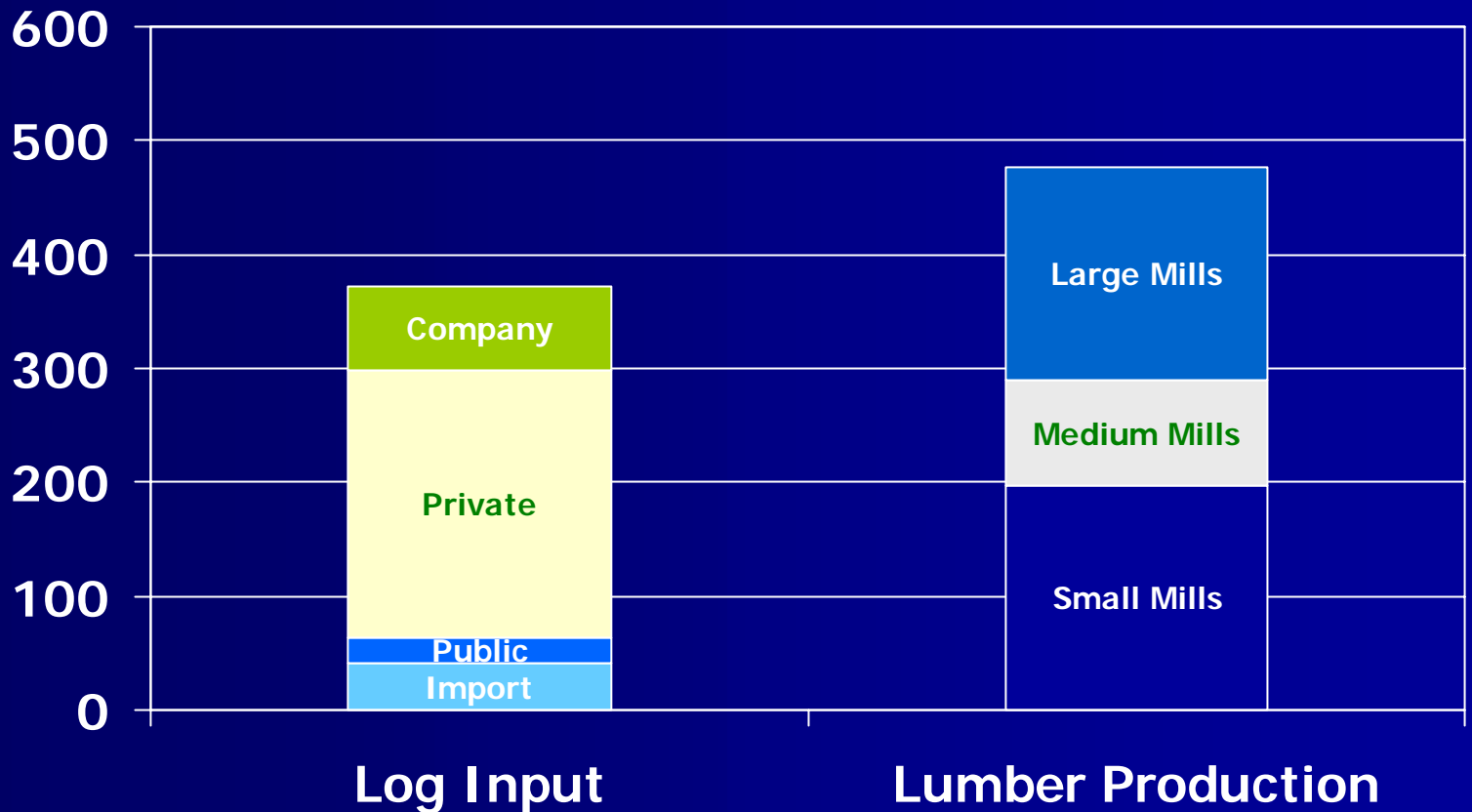
Economic Impacts



Economic Impacts (\$ millions)

<i>Sector</i>	<i>Direct Sales</i>	<i>Secondary Sales</i>	<i>Total Sales</i>	<i>Value Added</i>	<i>Employee Income</i>	<i>Employment (Jobs)</i>
Agriculture	\$0	\$231	\$231	\$195	\$4	510
Mining	\$0	\$12	\$12	\$4	\$1	49
Construction	\$0	\$25	\$25	\$16	\$10	407
Manufacturing	\$0	\$99	\$99	\$26	\$14	356
Wood	\$1,476	\$239	\$1,715	\$469	\$228	7,544
Transportation, Communications, and Public Utilities	\$0	\$147	\$147	\$70	\$31	976
Trade	\$0	\$144	\$144	\$100	\$56	2,788
Finance, Insurance, and Real Estate	\$0	\$111	\$111	\$75	\$16	618
Services	\$0	\$159	\$159	\$95	\$65	3,101
Government	\$0	\$15	\$15	\$6	\$5	114
Other	\$0	\$1	\$1	\$1	\$1	66
Total	\$1,476	\$1,182	\$2,658	\$1,057	\$432	16,529

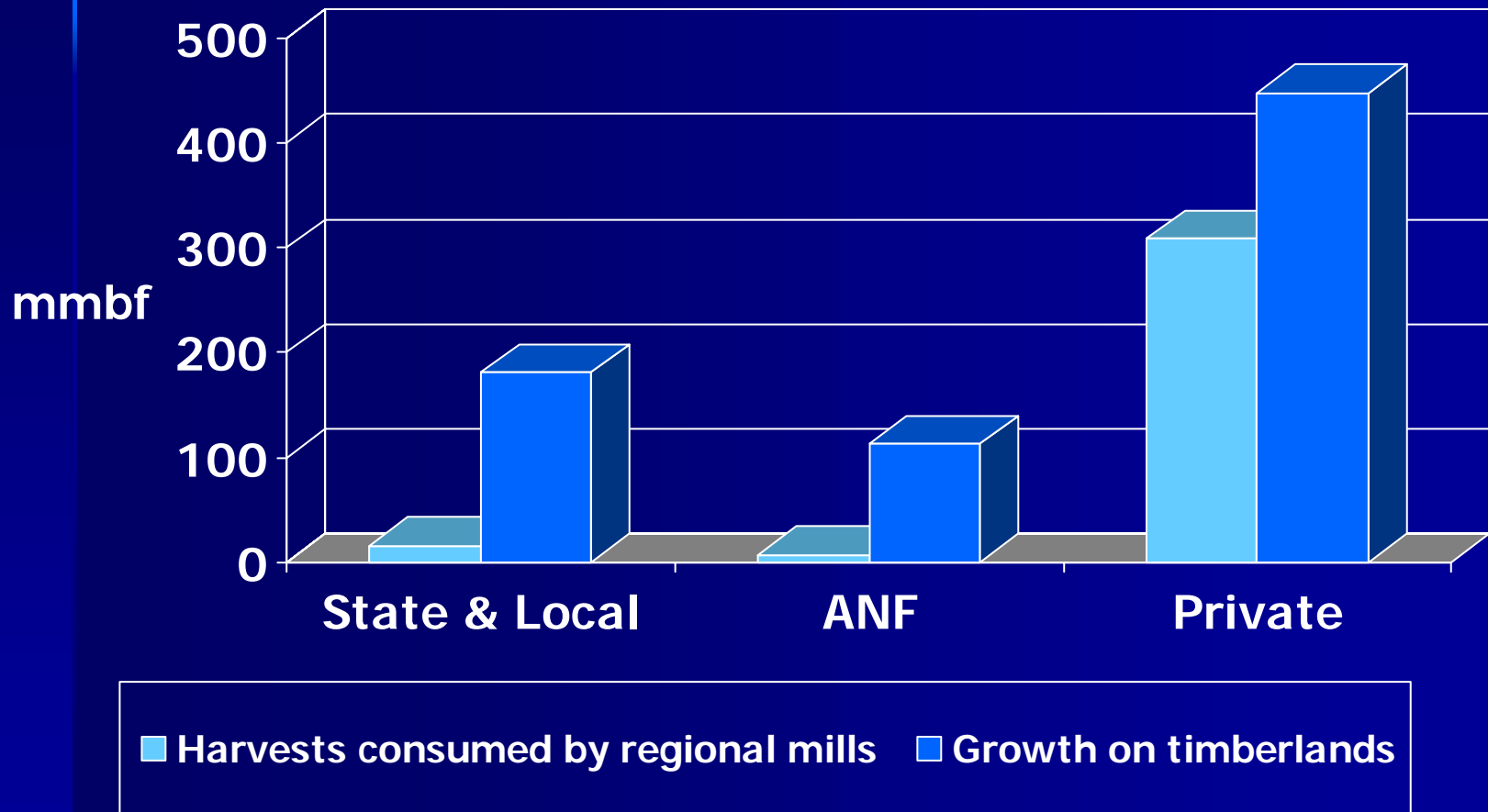
Harvest Levels



Growth and Harvests

<i>Ownership</i>	<i>Current harvests (mbf)</i>	<i>Current Volume (mbf)</i>	<i>Annual Growth (bdft/ac)</i>	<i>Acres</i>	<i>Total Growth (mbf)</i>
State & Local	15,660	9,978,792	183	988,792	180,949
ANF	6,327	4,782,843	237	475,000	112,575
Private	308,682	17,069,837	137	3,147,850	431,255
Import	41,410				
Total	372,078	31,831,472	158	4,611,642	724,779

Growth and Harvests



Conclusions

- The forest resources in northeast Pennsylvania are an integral component of life in the region.
- Covering two-thirds of the land base, the region's timberlands have been a historic component of the 14-county economy as well as a key feature of the rural character of much of the region.

Conclusions

- Pennsylvania's State Forests have been certified as sustainable by the Forestry Stewardship Council
- The USDA Forest Service has a long tradition of sustainable management
- No such controls exist for private lands

Moving Forward

- Additional inventory information becoming available from FIA
- Utilize USDA Forest Service's Forest Vegetation Simulator (FVS) to further evaluate sustainability of current harvest levels
- Repeat survey in remainder of Pennsylvania

Further information:

bel@psu.edu