

# Economic Impact of the Forest Products Industry in Maine

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Summary information from:  
*Economic Contribution of Maine's Forest Product Industry,  
2014 and 2016 (estimated)*

A report prepared for the Maine Forest Products Council, June 2016

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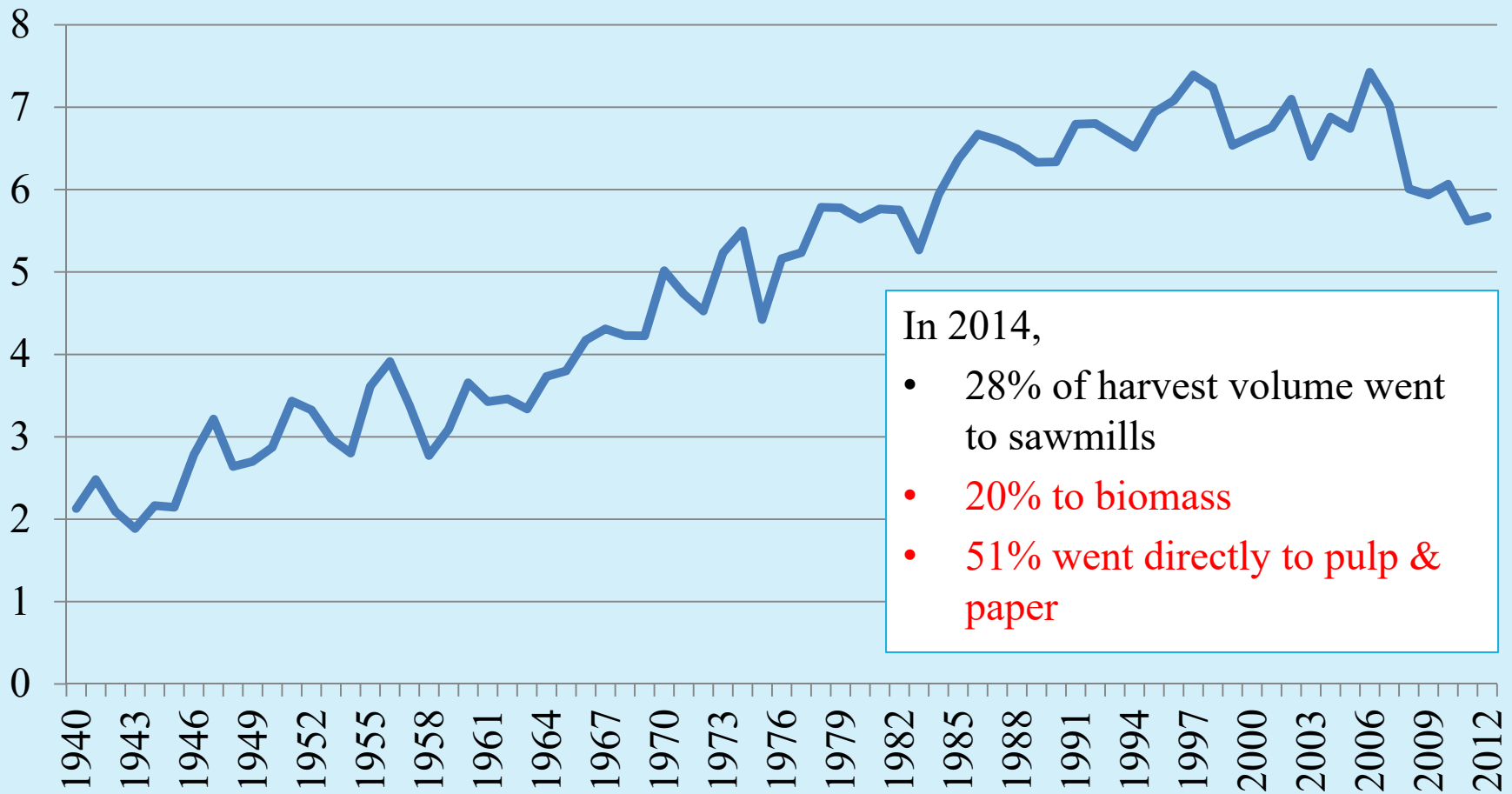
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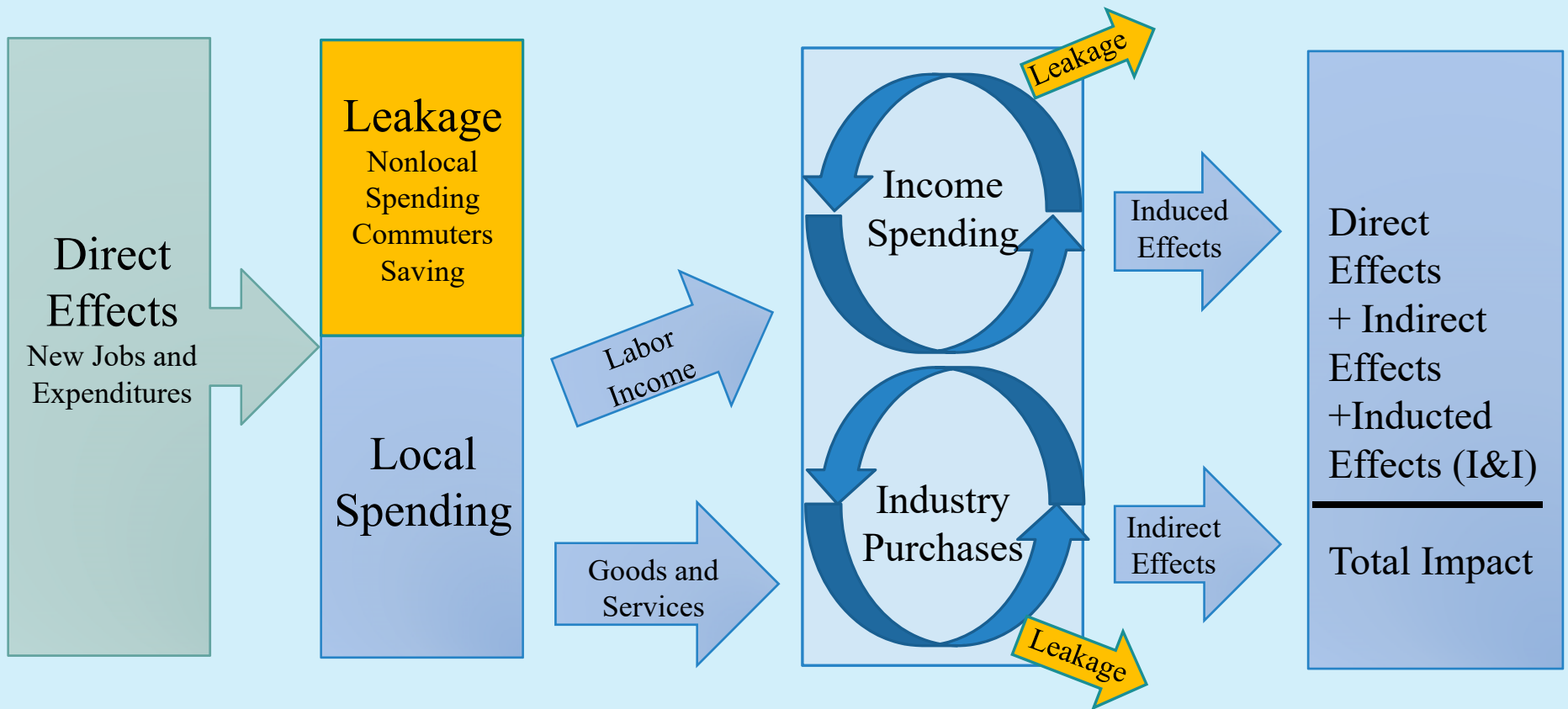
# Harvest in Maine, million cords



In 2014,

- 28% of harvest volume went to sawmills
- 20% to biomass
- 51% went directly to pulp & paper

# IMPLAN and Economic Impact



# Defining the Forest Products Industry

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## Forest Products Industries

- Harvesting
- Biomass Electricity
- Sawmills
- Plywood and Veneer
- Pulp and Paper
- Wood Products (Hardwood Specialty)
- Wood Furniture

## FP Support Industries

- Regeneration and Management
- Machinery Repair and Lease
- Transportation
- Research
- Land Lease

- Non-Forest Product Industries (FPI)/All other Sectors

## 2014 and 2011 Results

2014 (in 2016 \$USD)	Direct Contribution	Multiplier Effects			Total Impact
	FPI	FPI	FPI Support	non-FPI	Total
<b>Output</b>	\$5,642,301,353	\$676,974,725	\$467,789,920	\$2,987,544,490	\$9,774,610,488
<b>Employment</b>	14,370.4	2,180.5	1,222.6	21,182.4	38,955.9
<b>Compensation</b>	\$763,642,873	\$99,596,923	\$57,577,968	\$852,493,180	\$1,773,310,944
<b>Prop Income</b>	\$94,749,775	\$56,326,942	\$36,989,988	\$108,411,044	\$296,477,749
2011 (in 2011 \$USD)	Direct Contribution	Multiplier Effects			
	Forest Products	Forest Products	Non-Forest Products		Total
<b>Output</b>	\$5,063,915,031	\$643,676,568	\$2,267,788,190		\$7,975,457,789
<b>Employment</b>	12,003	5,072	21,714		38,789
<b>Labor Income*</b>	\$721,541,907	\$184,150,509	\$960,935,289		\$1,866,637,705

\* Labor Income = Employee Compensation + Proprietor Income

## 2014 Results: FPI's Contribution to Maine

2011 to 2014	2011 (in 2014 \$USD)	2014 (in 2014 \$USD)
Maine GDP	\$55.1B	\$55.8B (1.3%) <sup>1</sup>
FPI Value Added	\$3.5B	\$3.1B (-11.4%) <sup>2</sup>
Percent of GDP	6.38% (1 out of 15.7)	5.56% <sup>3</sup> (1 out of 18.0) (-12.9%) <sup>4</sup>
Total Economic Impact	\$8.5B	\$9.8B (+15.3%) <sup>6</sup>
All Maine Jobs	794,279	810,672 (+2.1%)
FPI Jobs	38,789	38,956 (+0.4%) <sup>7</sup>
Percent of Employment	4.88% (1 out of 20.5)	4.81% <sup>9</sup> (1 out of 20.8) (-1.5%) <sup>10</sup>
Total Payroll	\$1,978.9M	\$2,069.8M (+4.6%) <sup>11</sup>
Total State & Local Taxes	\$320.1	\$318.5M (-0.5%) <sup>17</sup>

## Impacts attributable to each sector as part of the FPI, 2014

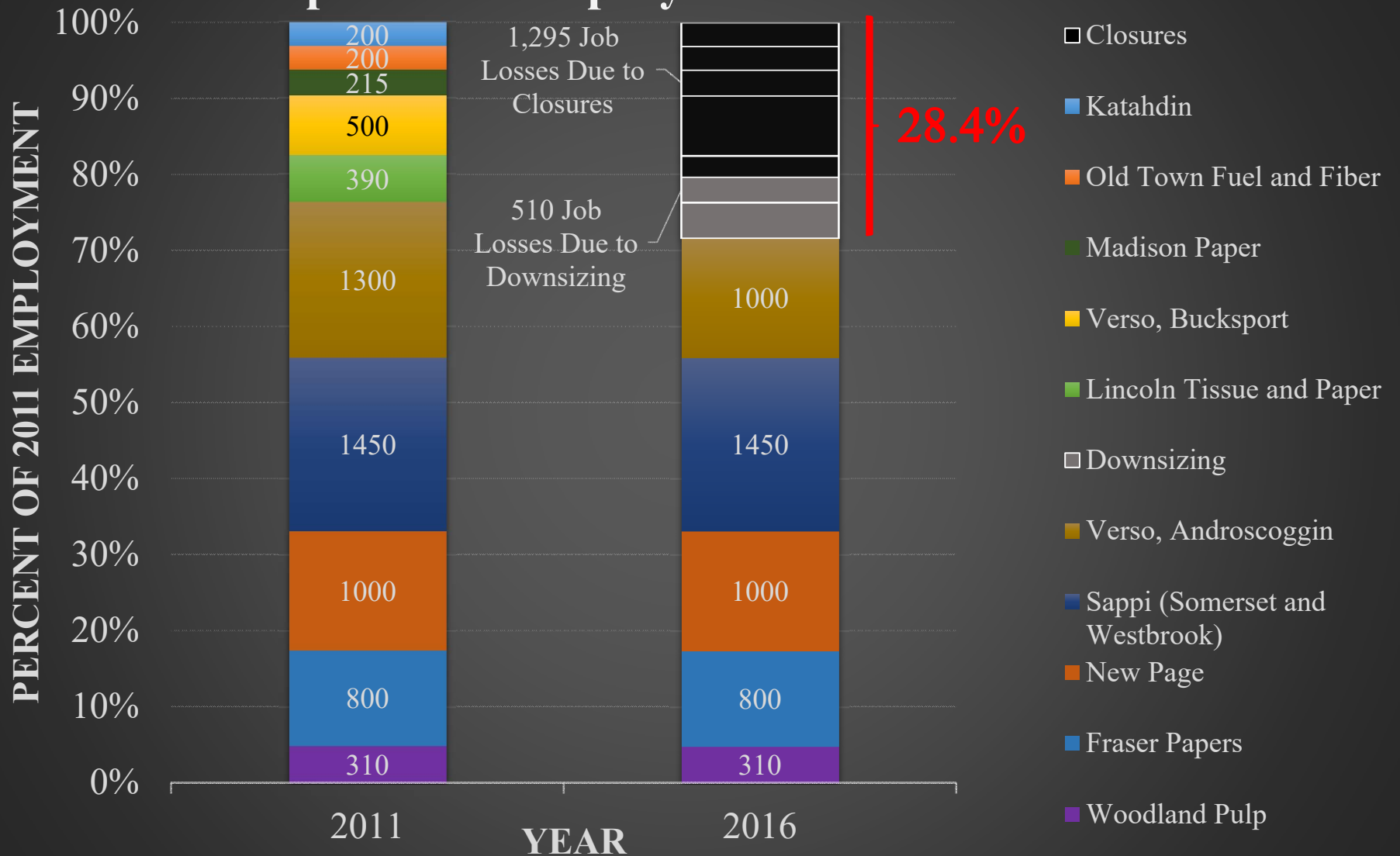
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<b>FPI Sector</b>	<b>Employment</b>	<b>Output Impact (Total)</b>
Forestry, Logging, Hauling, Bioelectric	6,248.6	\$744,567,619
Solid Wood	11,485.3	\$2,260,096,583
Pulp & Paper	21,221.9	\$6,769,946,286
MAINE	38,955.9	\$9,774,610,488

2014 \$USD

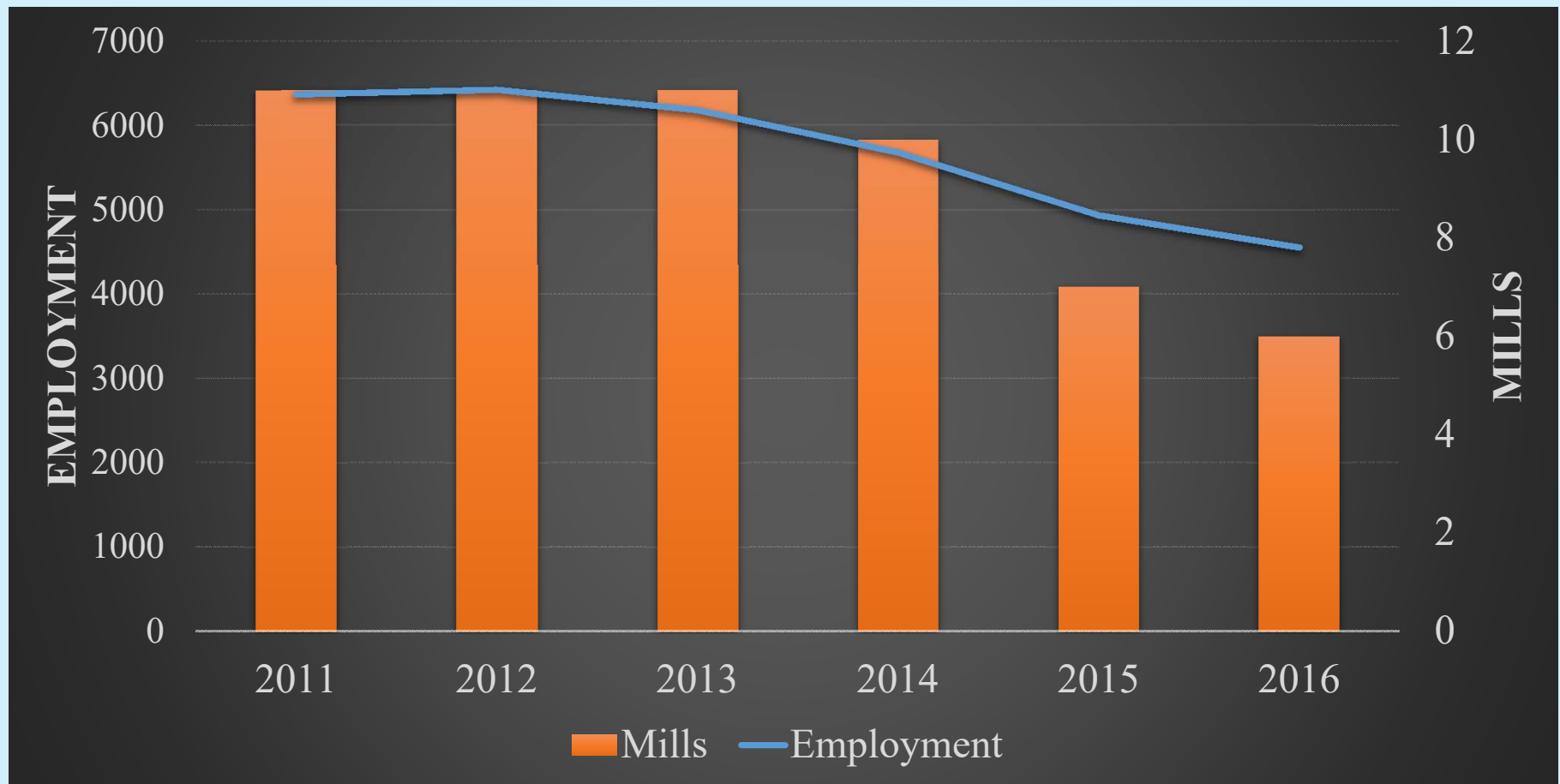
# Recent changes in P&P

## Paper Mill Employment: 2011 to 2016





## Declines in employment and number of mills



# Accounting for closures

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<b>Mill</b>	<b>Location</b>	<b>Estimated employment loss</b>	<b>Date</b>
<b>Lincoln Tissue &amp; Paper</b>	Lincoln	180 (downsize)	November 2013
<b>Katahdin Fuel &amp; Fiber</b>	East Millinocket	200	February 2014
<b>Verso</b>	Bucksport	500	December 2014
<b>Lincoln Tissue &amp; Paper</b>	Lincoln	210	September 2015
<b>Verso Androscoggin</b>	Jay	300 (downsize)	October 2015
<b>Expera</b>	Old Town	200	November 2015
<b>Covanta Energy (2)</b>	West Enfield & Jonesboro	44	March 2016
<b>Madison Paper</b>	Madison	200	May 2016

# Accounting for closures

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- ❑ Five pulp and paper mills and two biomass plants have closed since late 2013
- ❑ The results presented are based on the loss of 1,805 direct pulp and paper positions and then regaining 51 positions at Rumford
  - ❑ We assume, on average, output per employee from the closed mills is only 65% of those which are still operating
- ❑ For the BioElectric closures, the 44 lost position are assumed to have equal per employee output to those that remain

# Results with recent closures

2016 (in 2016 \$USD)	Direct Contribution	Multiplier Effects			Total Impact
	Pulp and Paper	FPI	FPI Support	non-FPI	Total
Output	(\$918,679,755)	(\$70,039,682)	(\$71,305,941)	(\$465,004,764)	(\$1,525,030,142)
Employment	-1,754.0	-163.9	-178.3	-3,115.5	-5,211.7
Compensation	(\$126,122,301)	(\$8,522,660)	(\$8,596,209)	(\$131,748,365)	(\$274,989,535)
Prop Income	(\$5,307,594)	(\$3,284,769)	(\$5,291,215)	(\$16,502,664)	(\$30,386,242)

2016 (in 2016 \$USD)	Direct Contribution	Multiplier Effects			Total Impact
	Bioelectric	FPI	FPI Support	non-FPI	Total
Output	(\$42,524,966)	(\$5,458,307)	(\$2,164,327)	(\$17,389,587)	(\$67,537,187)
Employment	-44	-26	-4	-127	-200
Compensation	(\$2,834,684)	(\$1,157,728)	(\$219,684)	(\$4,561,935)	(\$8,774,031)
Prop Income	\$0	(\$1,069,575)	(\$186,216)	(\$835,174)	(\$2,090,965)



2016 (in 2016 \$USD)	Direct Contribution	Multiplier Effects			Total Impact
	FPI	FPI	FPI Support	non-FPI	Total
Output	\$4,889,266,934	\$617,574,623	\$414,408,861	\$2,620,051,284	\$8,541,301,702
Employment	12,572.4	1,990.1	1,040.1	17,935.4	33,538.0
Compensation	\$664,056,504	\$93,717,637	\$50,976,529	\$748,919,925	\$1,557,670,595
Prop Income	\$93,099,947	\$54,106,618	\$32,933,481	\$95,226,720	\$275,366,766

## Comparing 2011 and 2016

2011 to 2016	2011 (in 2016 \$USD)	2016 (in 2016 \$USD)
Maine GDP	\$55.7B	\$55.4B (-0.5%) <sup>26</sup>
FPI Value Added	\$3.5B	\$2.7B (-21.7%) <sup>27</sup>
Percent of GDP	6.38% (1 out of 15.7)	4.96% <sup>28</sup> (1 out of 20.2) (-22.2%) <sup>29</sup>
Total Economic Impact	\$8.6B	\$8.5B (-1.2%) <sup>31</sup>
All Maine Jobs	794,279	811,321 (+2.1%)
FPI Jobs	38,789	33,538 (-13.5%) <sup>32</sup>
Percent of Employment	4.88% (1 out of 20.5)	4.13% <sup>34</sup> (1 out of 24.2) (-15.3%) <sup>35</sup>
Total Payroll	\$1,999.0M	\$1,833.0M (-8.3%) <sup>36</sup>
Total State & Local Taxes	\$323.4M	\$278.4M (-13.9%) <sup>42</sup>

## Comparing 2014 and 2016

2014 to 2016	2014 (in 2016 \$USD)	2016 (in 2016 \$USD)
Maine GDP	\$56.4 B	\$55.4B (-1.8%)
FPI Value Added	\$3.2 B	\$2.7B (-15.6%)
Percent of GDP	5.67% (1 out of 17.6)	4.96% (1 out of 20.2) (-13.6%)
Total Economic Impact	\$10.1 B	\$8.5B (-15.8%)
All Maine Jobs	810,672	811,321 (+0.1%)
FPI Jobs	38,956	33,538 (-13.9%)
Percent of Employment	4.81% (1 out of 20.8)	4.13% (1 out of 24.2) (-14.1%)
Total Payroll	\$2,149.4 M	\$1,833.0M (-14.7%)
Total State & Local Taxes	\$330.5 M	\$278.4M (-15.8%)

# Conclusions

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- ❑ FPI is still an important and integrated part of Maine's economy
- ❑ \$8.5B in total output impact
- ❑ The share of FPI as part of the total state GDP has slightly declined
  - ❑ \$1 out of every \$20 of state GDP is associated with the FPI
- ❑ 1 out of every 24 jobs in Maine is associated with the FPI
  - ❑ Employment in sawmills, plywood/veneer, and other wood products increased by 363 (from 4376.6 to 4739.6)



Thank you!

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2014 and 2016 (estimated)*

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