

The Effects of Regulations on the U.S. Salmonid Industry: West Virginia Findings*

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A national survey of the U.S. salmonid (trout, salmon, arctic char) industry was conducted in 2017–2018 to measure the farm-level costs of regulations. This fact sheet reports findings from the state of West Virginia (Figure 1).

The total statewide on-farm regulatory cost burden for West Virginia was \$30,566 per year (adjusted for coverage). Per farm, annual regulatory costs averaged \$3,026 and \$0.38 per pound. The cost of permits constituted the greatest percentage (41%) of the increased regulatory costs on farms, followed by manpower (31%), and direct costs, which included testing for fish health certificates and effluent discharges (16%) (Table 1).

In addition to the increased on-farm costs, regulatory actions resulted in lost sales revenue that included: \$22,000 per year in lost market sales and \$58,000 per year in lost revenue from reduced production capacity. No lost sales revenues were reported from thwarted attempts at expansion. Per farm, lost market sales were \$2,200 per year, and the value of lost production averaged \$5,783 per year. Regulatory costs on farms constituted 4% of total costs on West Virginia salmonid farms and lost sales revenue 7% of total costs.

Respondents reported that the most problematic regulations were those associated with transportation regulations (U.S. Department of Transportation),

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Figure 1. State surveyed

The total on-farm regulatory cost burden for West Virginia was \$30,566 per year.

Table 1. West Virginia on-farm regulatory costs

Cost category	% of total regulatory costs
Direct costs (testing, etc.)	16%
Manpower	31%
Farm-level changes	12%
Permits/licenses	41%

followed by EPA effluent discharge permitting, water access, and the U.S. Food and Drug Administration Veterinary Feed Directive (Figure 2). In terms of costs, EPA effluent discharge regulations comprised the greatest percent of total regulatory costs (49%), followed by county and local regulations (46%), and fish health testing requirements for interstate transportation (5%) (Figure 3).

In summary, the regulatory costs on salmonid farms in West Virginia were less per farm, on average, resulting in a lower average cost per pound of fish and a lower percentage of total costs than the national average (Table 2). Lost revenue as a percentage of total costs was also less than that of the national average. West Virginia trout farms are small-scale farms, many of which sell primarily in state.

Study results showed that the regulatory cost burden on the U.S. salmonid industry has increased farm costs substantially and constrained the industry's ability to increase product supply to meet strong market demand, which is being met by increasing trout and salmon imports. Innovative regulatory monitoring and compliance frameworks that reduce the on-farm regulatory cost burden are needed. The types of regulatory reforms with potential to reduce regulatory costs in West Virginia include: reduced frequency of testing for effluent discharge and fish health certificates, adoption of uniform fish health testing standards, adoption of risk-based approaches to environmental management, and development of clear appeals processes for aquaculture farmers (Table 3).

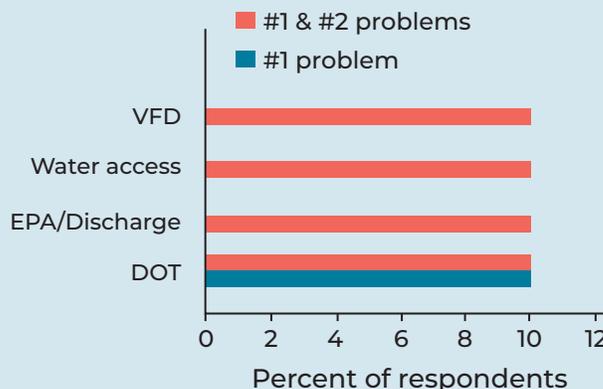


Figure 2. Most problematic regulations in West Virginia

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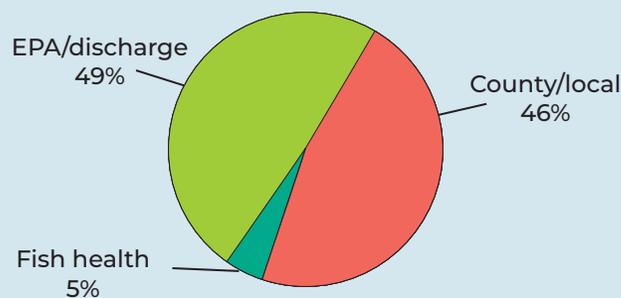


Figure 3. Types of regulations in West Virginia: percent of total regulatory costs

Table 2. Summary of national and West Virginia study results

Regulatory burdens and impacts	National findings	West Virginia
BURDEN		
Total national on-farm regulatory cost burden	\$16.1 million/year	\$30,566/year
Per farm average regulatory cost	\$150,506/farm	\$3,026/farm
Average regulatory cost per pound of production*	\$1.23/pound	\$0.38
Percent regulatory costs of total farm costs	12%	4%
IMPACT		
Lost market sales	\$7.1 million/year	\$22,000/year
Lost revenue from reduced production	\$5.3 million/year	\$58,000/year
Estimated lost revenue due to thwarted expansion attempts	\$40.1 million/year	\$0
Percent lost revenue sales of total costs	28%	7%
* Averaged by farm		

Table 3. Regulatory reforms with potential to reduce regulatory costs

Regulatory reforms
<ul style="list-style-type: none"> • Reduce regulatory redundancy • For farms with history of good performance: <ul style="list-style-type: none"> ◦ Reduce frequency of effluent testing ◦ Reduce frequency of fish health testing • Adopt uniform fish health testing standards • Develop clear appeal procedures for farmers • Adopt risk-based approaches to environmental management

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