

## The Effects of Regulations on the U.S. Salmonid Industry: Ohio 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 the findings from the state of Ohio (Figure 1).

The total statewide on-farm regulatory cost burden for Ohio was \$74,699 per year (adjusted for coverage). Per farm, annual regulatory costs averaged \$18,488 and \$0.37 per pound. The majority of the increased regulatory costs on farms were related to manpower costs (62%), followed by direct costs, which included testing for fish health certificates and effluent discharges (23%), and farm-level changes (10%). The costs of the permits constituted only 5% of the regulatory cost burden (Table 1). Regulatory costs on farms constituted 6% of total costs on Ohio salmonid farms, and no lost sales revenues due to regulations were reported by respondents.

Respondents reported that the most problematic regulations were those associated with the U.S. Food and Drug Administration Veterinary Feed Directive (VFD), followed by fish health testing required to obtain certificates for interstate transport, and processing regulations (Figure 2). In terms of costs, EPA effluent discharge regulations were the most costly (59%) of total regulatory costs, followed by county and local

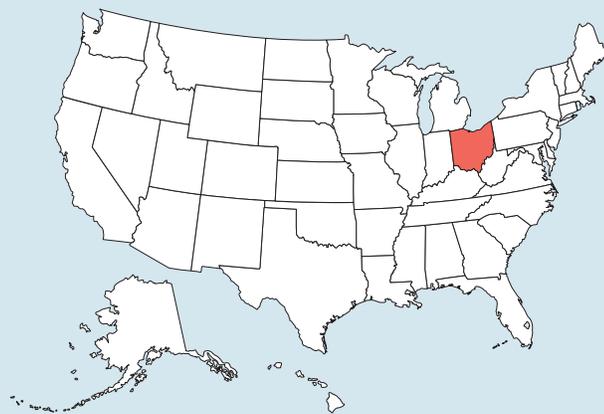


Figure 1. State surveyed

*The total on-farm regulatory cost burden for Ohio was \$74,699 per year.*

Table 1. Ohio on-farm regulatory costs

Cost category	% of total regulatory costs
Direct costs (testing, etc.)	23%
Manpower	62%
Farm-level changes	10%
Permits/licenses	5%

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regulations (32%), fish health testing to obtain certificates for interstate transport (8%), and food safety (1%) (Figure 3).

In summary, the regulatory costs on salmonid farms in Ohio cost less, on average, per farm, per pound of fish, and as a percentage of total costs than the national average (Table 2). There was no lost revenue reported by respondents, although at 6% of total costs, regulations still constituted a substantial cost for salmonid farmers in Ohio.

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 Ohio 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).

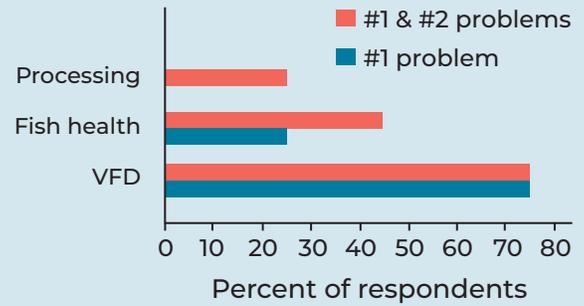


Figure 2. Most problematic regulations in Ohio

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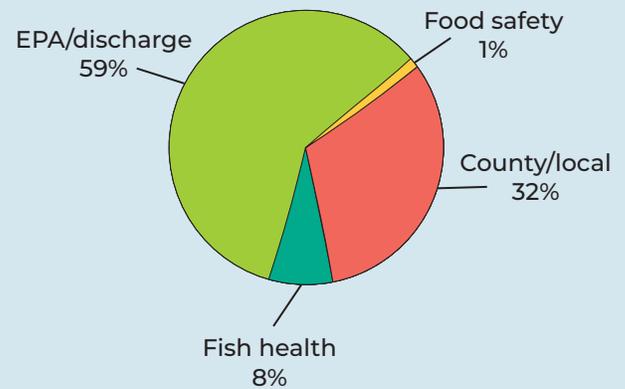


Figure 3. Types of regulations in Ohio: percent of total regulatory costs

Table 2. Summary of national and Ohio study results

Regulatory burdens and impacts	National findings	Ohio
<b>BURDEN</b>		
Total national on-farm regulatory cost burden	\$16.1 million/year	\$74,699/year
Per farm average regulatory cost	\$150,506/farm	\$18,488/farm
Average regulatory cost per pound of production*	\$1.23/pound	\$0.37/pound
Percent regulatory costs of total farm costs	12%	6%
<b>IMPACT</b>		
Lost market sales	\$7.1 million/year	\$0
Lost revenue from reduced production	\$5.3 million/year	\$0
Estimated lost revenue due to thwarted expansion attempts	\$40.1 million/year	\$0
Percent lost revenue sales of total costs	28%	0%
* Averaged by farm		

Table 3. Regulatory reforms with potential to reduce regulatory costs

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

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