

Type of Entity	No. of Establishments (FRIA)	% SBA Small
Fish Primary Processors	18	78%
Fish Secondary Processors	10	100%
Fish Producers/hatcheries	624	100%
Fish Feed Mills	14	86%
Fish Live Loaders, Haulers, Wholesalers	11	100%
Fish Importers, Brokers	165	100%
Total	842	

Sources: 2003 NASS, USDC, FDA, DNB, Census of Agriculture, Economic Census, DHS/CBP

FSIS updated Table 3 of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact Analysis (February 24, 2011).

Available here:

http://www.fsis.usda.gov/wps/wcm/connect/1ff464d1-ae27-4d78-831d-b21ccce26ec5/Catfish_Impact_Analysis.pdf?MOD=AJPERES

The table is replicated as Table 5 in the Regulatory Flexibility Act Assessment of the Final Regulatory Impact Analysis (FRIA)

OMB mid-year discount factor

7%	3%
0.94	0.97
0.87	0.94
0.82	0.92
0.76	0.89
0.71	0.86
0.67	0.84
0.62	0.81
0.58	0.79
0.54	0.77
0.51	0.74

Wage/Hour Data used in FRIA

Category	Wage/Hour	Benefits	Total	OCC	Hours per Year	Annual Salary
QC Manager	\$ 25.87	0.33	\$ 34.41	11-3051	2,087	71,813.67
Supervisors/QC Tech	\$ 19.01	0.33	\$ 25.28	51-1011	-	-
Production Workers	\$ 13.54	0.33	\$ 18.00	51-9000	-	-

Additional Costs Associated with the Development of a Sanitation SOP

Step One - Sanitation SOPs - Plan Development

No. of Processes	No. of Establishments	Time (Hours) /1	One Time Cost
1 - Typical	4	8	\$1,101
2 - Complex	10	8	\$2,753
2 - Not Complex Place	9 5	4 -	\$1,239 -
Total	28		\$5,093

For further discussion see Table 6 of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact Analysis (February 24, 2011).

/1 QC Manager Wage Rate

Step Two - Sanitation SOPs recordkeeping and record storage

Recordkeeping	No. of Establishments	Record-keeping Time (Hours/Day) /1	Review Time (Hours/Day) /2	Recurring Cost /3
One Shift	8	0.25	0.17	\$18,299
Two Shifts	4	0.5	0.34	\$18,299
Not Affected	16	-	-	-
Total				\$36,598

Record storage	No. of Establishments Affected	Additional Storage Space (square feet)	Annual Additional Storage Cost /4	Recurring Costs
One Shift	8	6	\$58	\$462
Two Shifts	4	7	\$67	\$270
Not Affected	16	-	-	-
Total				\$732
Total Recordkeeping and Record Storage Recurring Costs				\$37,330

For further discussion see Table 7 of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact Analysis (February 24, 2011).

/1 Production Worker Wage Rate

/2 QC Tech Wage Rate

/3 Operating Days Per Year - 260

/4 Recordkeeping storage costs were based on a national survey of storage costs showing an average annual cost of \$8.40 per square foot in 1994, which was updated to \$9.63 per square foot.

Step Three - Sanitation SOPs training

Personnel	No. of Establishments	No. of Shifts	Time (Hours)	Recurring Cost per Training
Verification:				

For further discussion see Table 8 of the Appendix A -

QC Tech	17	1	2	\$860
	6	2	2	\$607
Sub-Total	23			\$1,466
Recordkeeping:				
Production Worker	17	1	2	\$612
	6	2	2	\$432
Sub-Total	23			\$1,044
Total				\$2,510

For further discussion see Table 3 of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact

/1 Training Period occurs every 4 years

Step Four - Sanitation SOPs ongoing additional domestic

Type	No. of Establishments	Time (Hours)	Cost Per Establishment	Cost	
				One Time	Recurring
Additional Sanitation	3	0.17	\$796		\$2,387
Additional Water	3	-	\$160		\$480
Additional Cleaning Equipment	23	-	\$130	\$2,990	
Total				\$2,990	\$2,867

For further discussion see *Sanitation SOPs Ongoing Additional Implementation Costs* section of the Appendix A - Executive Order

Step Five - Total Costs for Sanitation SOPs

Measure	Costs	
	One-time	Recurring
Plan Development, Validation and Reassessment	\$5,093	
Recordkeeping and Record Storage		\$37,330
Training (years 1, 4, 7 & 10)		\$2,510
Additional Ongoing Implementation	\$2,990	\$2,867
Total	\$8,083	\$42,707

Annualization Table

Year	Costs						Net PV of Cost		discount factor 7%	year discount
	Plan Development	Recordkeeping and Storage	Training	Additional Ongoing	Total Direct	7 Percent	3 Percent			
1	\$5,093	\$37,330	\$2,510	\$5,857	\$50,790	\$47,467	\$49,310	0.935	0.971	
2	-	\$37,330		\$2,867	\$40,197	\$35,109	\$37,889	0.873	0.943	
3	-	\$37,330		\$2,867	\$40,197	\$32,812	\$36,786	0.816	0.915	
4	-	\$37,330	\$2,510	\$2,867	\$42,707	\$32,581	\$37,945	0.763	0.888	
5	-	\$37,330		\$2,867	\$40,197	\$28,660	\$34,674	0.713	0.863	
6	-	\$37,330		\$2,867	\$40,197	\$26,785	\$33,664	0.666	0.837	
7	-	\$37,330	\$2,510	\$2,867	\$42,707	\$26,596	\$34,725	0.623	0.813	
8	-	\$37,330		\$2,867	\$40,197	\$23,395	\$31,732	0.582	0.789	

9	-	\$37,330		\$2,867	\$40,197	\$21,864	\$30,807	0.544	0.766
10	-	\$37,330	\$2,510	\$2,867	\$42,707	\$21,710	\$31,778	0.508	0.744
10-year Present Value						\$296,979	\$359,310		
Annualized Total						\$42,283	\$42,122		

Step Two - Sanitation SOPs recordkeeping and record storage

Recordkeeping	No. of Establishments Affected	Record-keeping Time (Hours/Day) /1	Review Time (Hours/Day) /2	Recurring Cost /3
One Shift	8	0.25	0.17	\$18,299
Two Shifts	4	0.5	0.34	\$18,299
Not Affected	16	-	-	-
Total				\$36,598
Record storage	No. of Establishments Affected	Additional Storage Space (square feet)	Annual Additional Storage Cost /4	Recurring Costs
One Shift	8	6	\$58	\$462
Two Shifts	4	7	\$67	\$270
Not Affected	16	-	-	-
Total				\$732
Total Recordkeeping and Record Storage Recurring Costs				\$37,330

/1 Production Worker Wage Rate

/2 QC Tech Wage Rate

/3 Operating Days Per Year - 260

/4 Recordkeeping storage costs were based on a national survey of storage costs showing an average annual cost of \$8.40 per square foot in 1994, which was updated to \$9.63 per square foot. Annual storage costs for sanitation SOP records were assumed to be \$60 per establishment.

Additional costs associated with the development of a HACCP Plan

Step One - Development of a HACCP Plan

Firms	No. of Establishments	Cost			
		Per Process	Reassessment per process	One Time	Recurring
One Process	4	\$8,000	\$70	\$32,000	\$280
Two Process	11	\$6,000	\$70	\$132,000	\$1,540
Total				\$164,000	\$1,820

For further discussion see HACCP Plan Development, Validation, and Reassessment Additional Costs section and Table 10 of the Appendix A -

Step Two - Projected additional domestic cost of HACCP training

Establishment/ Type of	No. of Establishments	No. of Additional Employees per establishment	No. of Additional Employees	Recurring Cost per training period /1
One shift:				
QC Manager	2	8	16	\$ 22,022.40
QC Technician	3	5.3	16	\$ 16,179.20
Two shifts:				
QC Manager	3	5.3	4	\$ 5,505.60
QC Technician	3	5.3	4	\$ 4,044.80
Total	11			\$ 47,752.00

For further discussion see HACCP Training Additional Costs section and Table 11 of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact Analysis (February 24, 2011).

/1 Total Training Hours = 40

Step Three - HACCP additional personnel additional domestic cost

Shift / Process	No. of Establishments	HACCP Employees	Percent of time	Recurring Cost per Establishment /1
One shift:				
One Process	2	2	5%	\$7,181
Two Processes	3	12	10%	\$21,544
Two shifts:				
One process	3	6	5%	\$10,772
Two processes	3	6	10%	\$21,544
				\$61,042

For further discussion see HACCP Personnel Additional Costs section and Table 12 of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact Analysis (February 24, 2011).

/1 QC Manager wage rate used.

Step Four - HACCP additional domestic costs for recordkeeping and monitoring (certification)

Shift / Task /Process	No. of Establishments	HACCP Processes in Plans	CCPs per Plan	Time Per CCP (Minutes)	Recurring Cost
One Shift:					
Recordkeeping /1:					
1 process	4	1	5	3	\$4,680
2 processes	11	2	5	3	\$25,740
Monitoring /2:					
1 process	4	1	5	1	\$2,191
2 processes	11	2	5	1	\$12,050
Two shifts:					
Recordkeeping:					
1 process	1	1	5	3	\$1,170
2 processes	2	2	5	3	\$4,680
Monitoring:					
1 process	1	1	5	1	\$548
2 processes	2	2	5	1	\$2,191
					\$53,250

For further discussion see HACCP Recordkeeping and Record Storage Additional Costs section and Table 13 of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact Analysis (February 24, 2011).

/1 Production Worker Wage Rate
/2 QC Tech Wage Rate

Step Five - Additional Storage Costs

Type	No. of Establishments	Additional square feet per establishment	Additional Annual Cost per establishment	Recurring Total Record Storage Costs /1
Additional Record Storage	18	6.23	\$60	\$1,080

For further discussion see HACCP Recordkeeping and Record Storage Additional Costs section of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact Analysis (February 24, 2011).

/1 Recordkeeping storage costs were based on a national survey of storage costs showing an average annual cost of \$8.40 per square foot in 1994, which was updated to \$9.63 per square foot. Annual storage costs for sanitation SOP records were assumed to be \$60 per establishment.

Step Six. HACCP additional domestic costs for Other - Process Control Laboratory Testing

Type	No. of Establishments	One Time Cost	Recurring Cost /1
Primary establishments	7	\$ 7,350.00	\$ 6,125.00
Secondary Establishments	5	\$ 5,250.00	\$ 4,375.00
Total	12	\$ 12,600.00	\$ 10,500.00

Number of Samples in Baseline - 30
Testing Cost Per Sample - \$35
Additional Ongoing Samples - 25

Step Seven - Total Costs for HACCP

Measure	First year / One-time Cost	Recurring Cost
Plan development, valid	\$ 164,000.00	\$ 1,820.00
Training (years 1 & 6)	\$ 47,752.00	

Additional Personnel -	\$ 61,041.62	\$ 61,041.62
Recordkeeping and certi	\$ 53,249.73	\$ 53,249.73
Record Storage	\$ 1,079.91	\$ 1,079.91
Other Costs	\$ 12,600.00	\$ 10,500.00
	\$ 339,723.26	\$ 127,691.26

Annualization Table of additional costs associated with the development of a HACCP plan

Year	Additional Cost							Net PV of Cost		OMB mid-year discount factor 7%	OMB mid-year discount factor 3%
	Plan Development, Validation, Reassessment	Training	Personnel	Recordkeeping and Certification	Record Storage	Other Ongoing	Total Direct	7 percent	3 percent		
1	\$164,000	\$47,752	\$61,042	\$53,250	\$1,080	\$12,600	\$339,723	\$317,498	\$329,828	0.935	0.971
2	\$1,820	\$0	\$61,042	\$53,250	\$1,080	\$10,500	\$127,691	\$111,530	\$120,361	0.873	0.943
3	\$1,820	\$0	\$61,042	\$53,250	\$1,080	\$10,500	\$127,691	\$104,234	\$116,856	0.816	0.915
4	\$1,820	\$0	\$61,042	\$53,250	\$1,080	\$10,500	\$127,691	\$97,415	\$113,452	0.763	0.888
5	\$1,820	\$0	\$61,042	\$53,250	\$1,080	\$10,500	\$127,691	\$91,042	\$110,148	0.713	0.863
6	\$1,820	\$47,752	\$61,042	\$53,250	\$1,080	\$10,500	\$175,443	\$116,905	\$146,931	0.666	0.837
7	\$1,820	\$0	\$61,042	\$53,250	\$1,080	\$10,500	\$127,691	\$79,520	\$103,825	0.623	0.813
8	\$1,820	\$0	\$61,042	\$53,250	\$1,080	\$10,500	\$127,691	\$74,317	\$100,801	0.582	0.789
9	\$1,820	\$0	\$61,042	\$53,250	\$1,080	\$10,500	\$127,691	\$69,456	\$97,865	0.544	0.766
10	\$1,820	\$0	\$61,042	\$53,250	\$1,080	\$10,500	\$127,691	\$64,912	\$95,014	0.508	0.744
10-year Present Value								\$1,126,830	#####		
Annualized Total								\$160,435	\$156,512		

Additional costs associated with the New Labels

Type of Product Type of label	Fresh		Frozen	
	Pre-printed	Sticker	Pre-printed	Sticker
No. of Establishments	33	33	33	33
Average No. of Additional Labels per Establishment	3	3	4	4
Average No. of Additional Labels Setups/ Plates	99	99	132	132
One-Time Average Cost per Label Setup	\$310	\$260	\$310	\$260
Average No. of Additional Recurring Labels per Establishment	7,000	4,600	7,000	4,600
Average No. of Additional Recurring Labels	231,000	151,800	231,000	151,800
Recurring Average Costs per Label	\$0.03	\$0.03	\$0.005	\$0.005
Total One-Time Average Costs for Label Setup				\$131,670
Total Additional Recurring Costs				\$13,398
Annualized Total Costs (7 percent over 10 years)				\$30,918
Annualized Total Costs (3 percent over 10 years)				\$28,384.16

For further discussion see *New Labels: Additional Domestic Costs* section and Table 15 of the Appendix A - Executive Order 12866 - Preliminary Regulatory Impact Analysis (February 24, 2011).

Additional domestic cost of new government office space¹

One Time Costs	Per Establishment	Total
Additional Space ²	\$900	\$13,500
Furnishing	\$200	\$3,000
Reaccuring Costs		
Annual Heating and Cooling	\$480	\$7,200
Total One-Time Average Costs		\$16,500
Total Additional Recuring Costs		\$7,200
Annualized total Costs (7 percent over 10 years)		\$9,396
Annualized total Costs (3 percent over 10 years)		\$9,078

1- From the PRIA: The proposal requires provision of Government office space and some equipment in each of the approximately 23 catfish and catfish products processing establishments, and in each of the approximately 10 catfish and catfish products further processing establishments. FSIS assumes that it would occupy the existing 18 NMFS offices of the 23 establishments, leaving 15 plants that will incur additional costs.

2- From the PRIA: FSIS assumes that it would need a 150 square feet of securable office and projects that this space would cost \$6 per square foot.

Table A-15B. Additional domestic cost of pre-harvest actions

Additional Annual Costs	Per Establishment	No. of Establishments	Total
Recordkeeping (2 hours x \$34.41 per hour)	\$69	624	\$42,944
Additional Storage Space (3 square feet X \$9.63 per square foot)	\$29	624	\$18,027
Total Recurring Costs			\$60,971
Annualized total Costs (7 percent over 10 years)			\$60,971
Annualized total Costs (3 percent over 10 years)			\$60,971

harvest actions - for live-fish
loaders/haulers/wholesalers¹

Additional Annual Costs	Per Establishment	Total
Records		
Recordkeeping ²	\$69	\$757
Additional Storage Space ³	\$29	\$318
Total Recordkeeping Costs		\$1,075
Fleet		
Old Trucks ⁴	\$10,800	\$54,000
New New ⁵	\$5,400	\$32,400
Total Additional Equipment Costs		\$86,400
Old Trucks ⁴	\$2,160	\$10,800
New Trucks ⁵	\$1,080	\$6,480
Total Operating Costs		\$17,280
Total One-Time Costs		\$86,400
Total Additional Recuring Costs		\$18,355
Annualized Total Costs (7 percent over		\$29,851.46
Annualized Total Costs (3 percent over		\$28,188.51

1- From the PRIA - FSIS assumes 11 firms that conduct pre-harvest actions would incur additional costs.

2- 2 hours x \$34.41 per hour

3- 3 square feet X \$9.63 per square foot

4- 5 establishments will upgrade 6 old trucks each at a cost of \$1,800 per truck and with \$360 in operating costs.

5- 6 establishments will upgrade 6 trucks each at a cost of \$900 per truck and with \$180 in operating costs.

Table A-15D. Importers re-inspection costs

Additional Annual Costs	No. of Establishments	Cost Per Establishment	Cost
Records			
Re-inspection Recordkeeping ¹	165	\$138	\$22,711
Additional Storage Space ²	165	\$29	\$4,767
<i>Sub-Total Recurring Records Costs</i>			<i>\$27,477</i>
Re-inspection Space			
Additional Storage Space ³	165	\$54	\$8,910
<i>Sub-Total One Time Re-inspection Costs</i>			<i>\$8,910</i>
Annualized Total Costs (7 percent over 10 years)			\$28,663
Annualized Total Costs (3 percent over 10 years)			\$28,492

1- 4 hours x \$34.41 per hour

2- 3 square feet X \$ 9.63 per square foot

3- 9 square feet X \$6.00 per square foot

Table A-15E. Reduced payment fees for inspection and certifications - Additional reduced domestic cost^a for domestic industry¹

	Per Establishment	Total
Pounds of Product Currently Subject to USDC inspection (pound per establishment)	218,000	3,270,000
Cost Per Pound for FDA USDC Inspection	\$0.01	\$35,970
Annual Cost Savings From Reduced Fees		\$35,970
Annualized Total Costs (7 percent over 10 years)		\$35,970
Annualized Total Costs (3 percent over 10 years)		\$35,970

1- FSIS assumes 15 plants are currently inspected by FDA USDC

Table A-16 and A-17 - Exhibit A-A. Summary Table of FSIS and other Agencies Schedule of Costs

Year	Costs									Net PV		year	year
	S&B	Travel	Transport	Comms	Supplies	Equipment	Training	Testing	Annual Total	7 percent	3 percent		
	1	\$1,494,990	\$125,100	\$1,800	\$11,232	\$3,600	\$36,000	\$1,258,300	\$65,000	\$2,996,023	\$2,800,021		
2	\$1,816,929	\$277,605	\$2,100	\$14,904	\$4,200	\$10,000	\$558,000	\$65,000	\$2,748,740	\$2,400,856	\$2,590,951	0.873	0.943
3	\$1,816,929	\$232,500	\$2,100	\$14,904	\$4,200	\$0	\$640,500	\$65,000	\$2,776,136	\$2,266,154	\$2,540,558	0.816	0.915
4	\$1,816,929	\$382,500	\$2,100	\$14,904	\$4,200	\$36,000	\$156,600	\$65,000	\$2,478,237	\$1,890,635	\$2,201,882	0.763	0.888
5	\$1,816,929	\$382,500	\$2,100	\$14,904	\$4,200	\$10,000	\$156,600	\$65,000	\$2,452,238	\$1,748,412	\$2,115,322	0.713	0.863
6	\$1,816,929	\$382,500	\$2,100	\$14,904	\$4,200	\$0	\$156,600	\$65,000	\$2,442,239	\$1,627,367	\$2,045,337	0.666	0.837
7	\$1,816,929	\$382,500	\$2,100	\$14,904	\$4,200	\$36,000	\$156,600	\$65,000	\$2,478,240	\$1,543,323	\$2,015,036	0.623	0.813
8	\$1,816,929	\$382,500	\$2,100	\$14,904	\$4,200	\$10,000	\$156,600	\$65,000	\$2,452,241	\$1,427,227	\$1,935,822	0.582	0.789
9	\$1,816,929	\$382,500	\$2,100	\$14,904	\$4,200	\$0	\$156,600	\$65,000	\$2,442,242	\$1,328,418	\$1,871,775	0.544	0.766
10	\$1,816,929	\$382,500	\$2,100	\$14,904	\$4,200	\$36,000	\$156,600	\$65,000	\$2,478,243	\$1,259,813	\$1,844,046	0.508	0.744
Total Annual Costs									\$25,744,580				
10-year Present Value 7 percent									\$18,292,227				
10-year Present Value 3 percent									\$22,069,488				
Annualized Total 7 Percent									\$2,604,402				
Annualized Total 3 Percent									\$2,587,217				

Average annual costs \$2,574,458

Reduced Costs to Government (FDA and USDC)

Entity	Cost Savings (Annual)	Annualized Cost Savings (.07)	Annualized Cost Savings (.03)
FDA	\$150,000	\$150,000	\$150,000
USDC	\$1,340,000	\$1,340,000	\$1,340,000
Total	\$1,490,000	\$1,490,000	\$1,490,000

Costs Summary

New Measure	One-Time	Recurring (Savings)	Annualized Total Costs (Savings)	
			7 percent	3 percent
<i>Industry Costs</i>				
Sanitation SOPs	\$8,083	\$42,707	\$42,283	\$42,122
HACCP Plans - Validation	\$339,723	\$127,691	\$160,435	\$156,512
Pre-Harvest Actions - for Producers	\$0	\$60,971	\$60,971	\$60,971
Pre-Harvest Actions - for Haulers	\$86,400	\$18,355	\$29,851	\$28,189
Labels	\$131,670	\$13,398	\$30,918	\$28,384
Government Office Space and Equipment	\$16,500	\$7,200	\$9,396	\$9,078
Re-inspection at Import Establishments	\$8,910	\$27,477	\$28,663	\$28,492
Other - Reduced Payments	\$0	(\$35,970)	(\$35,970)	(\$35,970)
Sub-Total Industries Costs	\$591,286	\$261,829	\$326,548	\$317,777
<i>Agency Costs:</i>				
Additional Costs to FSIS Inspection		\$2,574,458	\$2,604,402	\$2,587,217
Reduced Costs to FDA		\$150,000	(\$150,000)	(\$150,000)
Reduced Costs to Commerce Dept NOAA NMFS		(\$1,340,000)	(\$1,340,000)	(\$1,340,000)
Sub-Total Agency Additional Costs	\$0	\$1,384,458	\$1,114,402	\$1,097,217
Total Net Costs			\$1,440,949	\$1,414,995

Table 1. Projected Summary Additional Annualized Average Net Direct Costs (Domestic) of the Final Rule

Affected Sectors of the domestic economy	Additional annualized cost, over 10 years,	
	7 percent	3 percent
Siluriformes Fish Industry	\$ 326.55	\$ 317.78
Federal Government Agencies	\$ 1,114.40	\$ 1,097.22
Total	\$ 1,440.95	\$ 1,414.99

Pounds Produced	388000000	388000000
Pounds Produced (thousands)	388000	388000
cost/pound (Industry)	\$ 0.0008	\$ 0.0008

Breakeven Analysis		
Salmonella COI	\$ 2,423.00	\$ 2,423.00
Salmonella COI (thousands)	\$ 2.42	\$ 2.42
Illnesses Averted	595	584

Table 4. Projected Summary Additional Annualized Average Net Direct Costs and Break-Even Assessment

Affected Sectors of the domestic economy	Additional annualized cost, over 10 years, discounted \$thousands		Assessment of Salmonellosis Illnesses Reduced Needed to Break Even on Annualized Costs,	
	7 percent	3 percent	7 percent	3 percent
Siluriformes Fish Industry	\$ 326.55	\$ 317.78	135	131
Federal Government Agencies	\$ 1,114.40	\$ 1,097.22	460	453
Total	\$ 1,440.95	\$ 1,414.99	595	584