

Animal Dissection vs. Non-Animal Alternatives A Cost Comparison

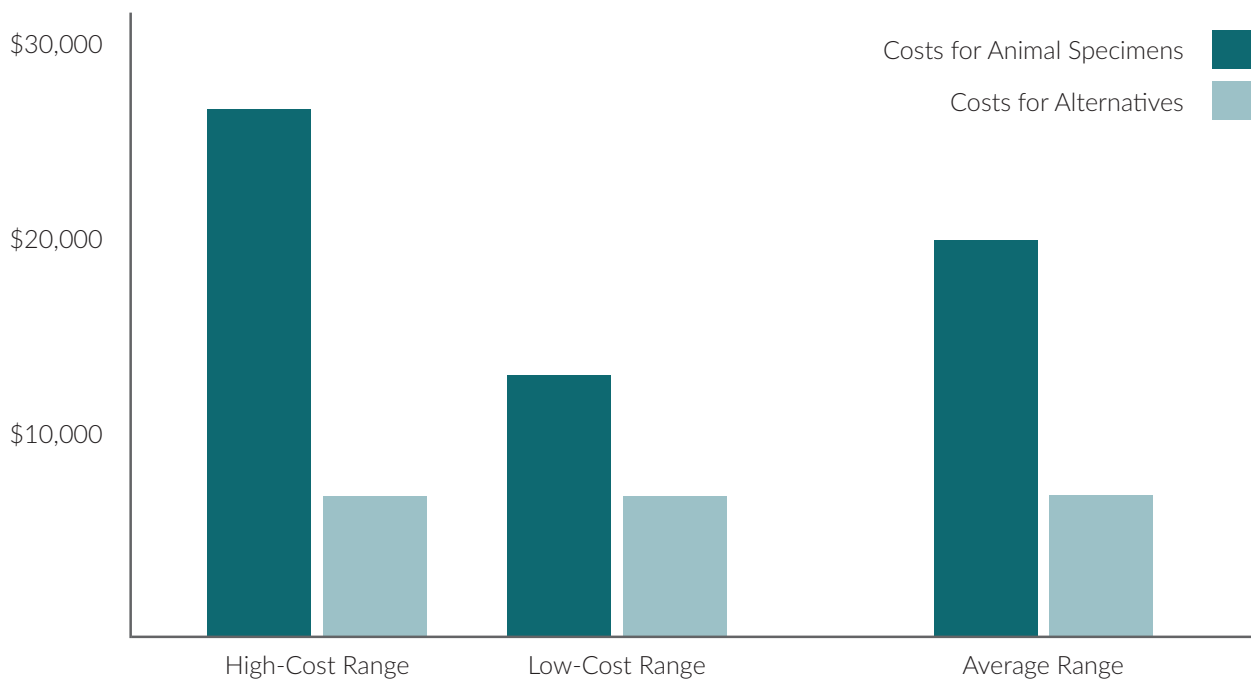
Non-animal methods of teaching anatomy and physiology have many benefits, including a reduction in costs. As this chart outlines, alternatives cost less than animal dissections and can oftentimes be used for a substantially longer period of time, once the initial purchase has been made. The following analysis is based on the needs of a typical biology department over a three-year period. Four of the most commonly dissected species – the cat, fetal pig, dogfish shark, and frog – are given as examples. For this chart, we assume a school has three biology classes comprising of 30 students each or 90 students total.



If the school chooses to use animal specimens to teach anatomy/physiology, we assume that a pair of students will dissect the specimen. So, there would be: 45 cats, 45 fetal pigs, 45 dogfish, and 45 frogs needed annually, or 135 (45x3) of each over a three-year period. If the school chooses to use alternative methods to teach anatomy/physiology, we assume that a pair of students will perform a virtual dissection or 45 students/year. The alternative methods used would be software and a model.

Learn more about the benefits of humane science education at Animalearn.org/Hello

Summary of Financial Costs Over a Three-Year Period



The low and high prices of the specimens were obtained from the Carolina Biological Supply Company catalog (2015). Supplies (dissecting pan, scissors, forceps, scalpels, pins, droppers) are considered a one-time purchase during this three-year period.

The alternative prices were selected from the following alternative companies (2015):

- McGraw Hill's Anatomy Revealed: Cat can be obtained from McGraw Hill at <http://shop.mcgraw-hill.com/mhshop/productDetails?isbn=0073525758>
- Froguts can be obtained at www.froguts.com
- BioLab Fish can be obtained at www.carolina.com
- Digital Frog can be obtained at www.digitalfrog.com
- Models can be obtained from Ward's Science at www.wardsci.com



Cost Comparison by Type of Animal Studied

Cat

High-Cost Specimens	14,715.00
Supplies	778.50
High-Cost Total	15,493.50

Low-Cost Specimens	7,123.50
Supplies	778.50
Low-Cost Total	7,123.50

Average Total 11,308.50

McGraw Hill's Anatomy Revealed: Cat	2,249.55
Ward's Cat Model	570.00
Total	2,819.55

High-Cost Difference	12,673.95
Low-Cost Difference	4,303.95
Average Difference	8,488.95

Dogfish

High-Cost Specimens	2,423.25
Supplies	778.50
High-Cost Total	2,661.75

Low-Cost Specimens	1,059.75
Supplies	778.50
Low-Cost Total	1,838.25

Average Total 2,250.00

BioLab Fish Suite (Website License)	1,101.95
Ward's Shark Model	385.00
Total	1,486.95

High-Cost Difference	1,174.80
Low-Cost Difference	351.30
Average Difference	763.05

Fetal Pig

High-Cost Specimens	3,813.75
Supplies	778.50
High-Cost Total	4,592.25

Low-Cost Specimens	1,755.00
Supplies	778.50
Low-Cost Total	2,533.50

Average Total 3,562.88

Froguts Suite (Including Fetal Pig & Other Animals)	897.00
Ward's Pig Model	485.00
Total	1,382.00

High-Cost Difference	3,210.25
Low-Cost Difference	1,151.50
Average Difference	2,180.88

Frog

High-Cost Specimens	1,883.25
Supplies	778.50
High-Cost Total	2,661.75

Low-Cost Specimens	344.25
Supplies	778.50
Low-Cost Total	1,122.75

Average Total 1,892.25

Froguts Suite (Including Fetal Pig & Other Animals)	897.00
Ward's Pig Model	485.00
Total	1,076.50

High-Cost Difference	1,585.25
Low-Cost Difference	46.25
Average Difference	815.75

Total Amount Saved in a Three-Year Period by Using Alternatives

\$5,853.00 - \$19,184.25