

# Retrofitting Fume Hoods

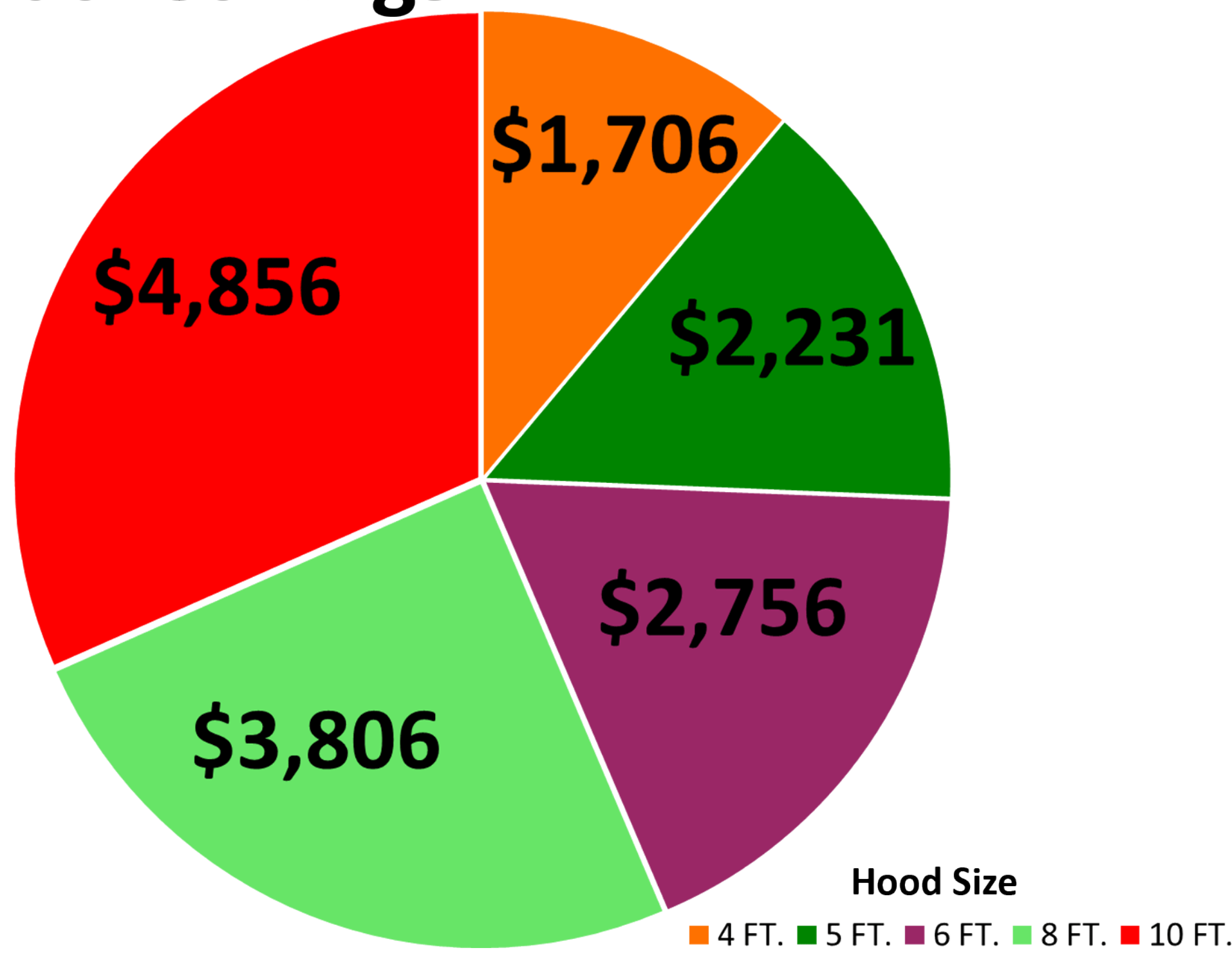
*Energy reduction through optimization*

**OPTIMIZE**



Exposure Control Technologies, Inc.  
 Thomas C. Smith, President  
 Robert Ludkens, Manager of Field Services

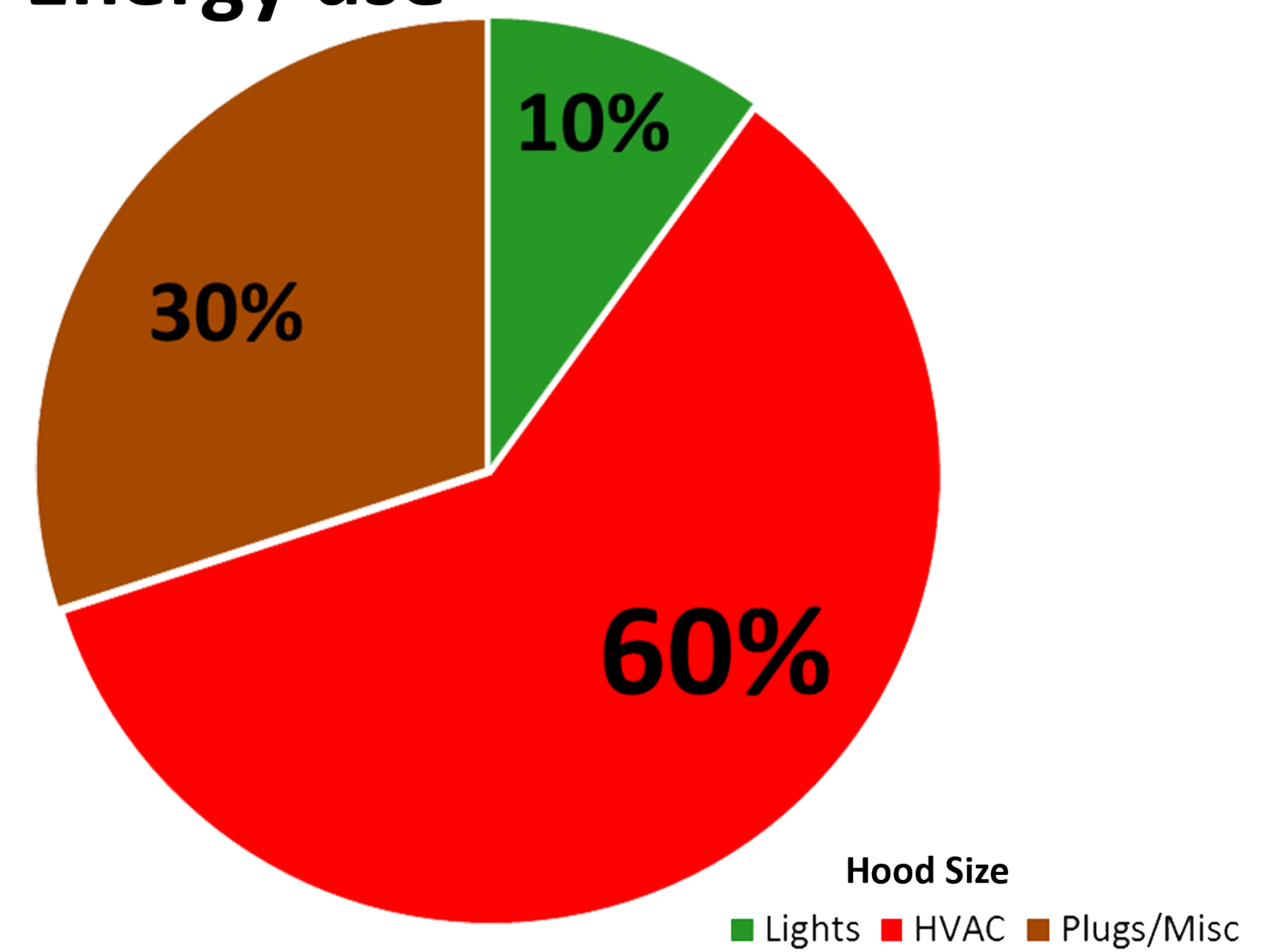
Annual Savings



Retrofit installation may cost as little as 1/4 the cost of replacing a standard fume hood with a new, high performance model.

**REDUCE**

Lab Energy use



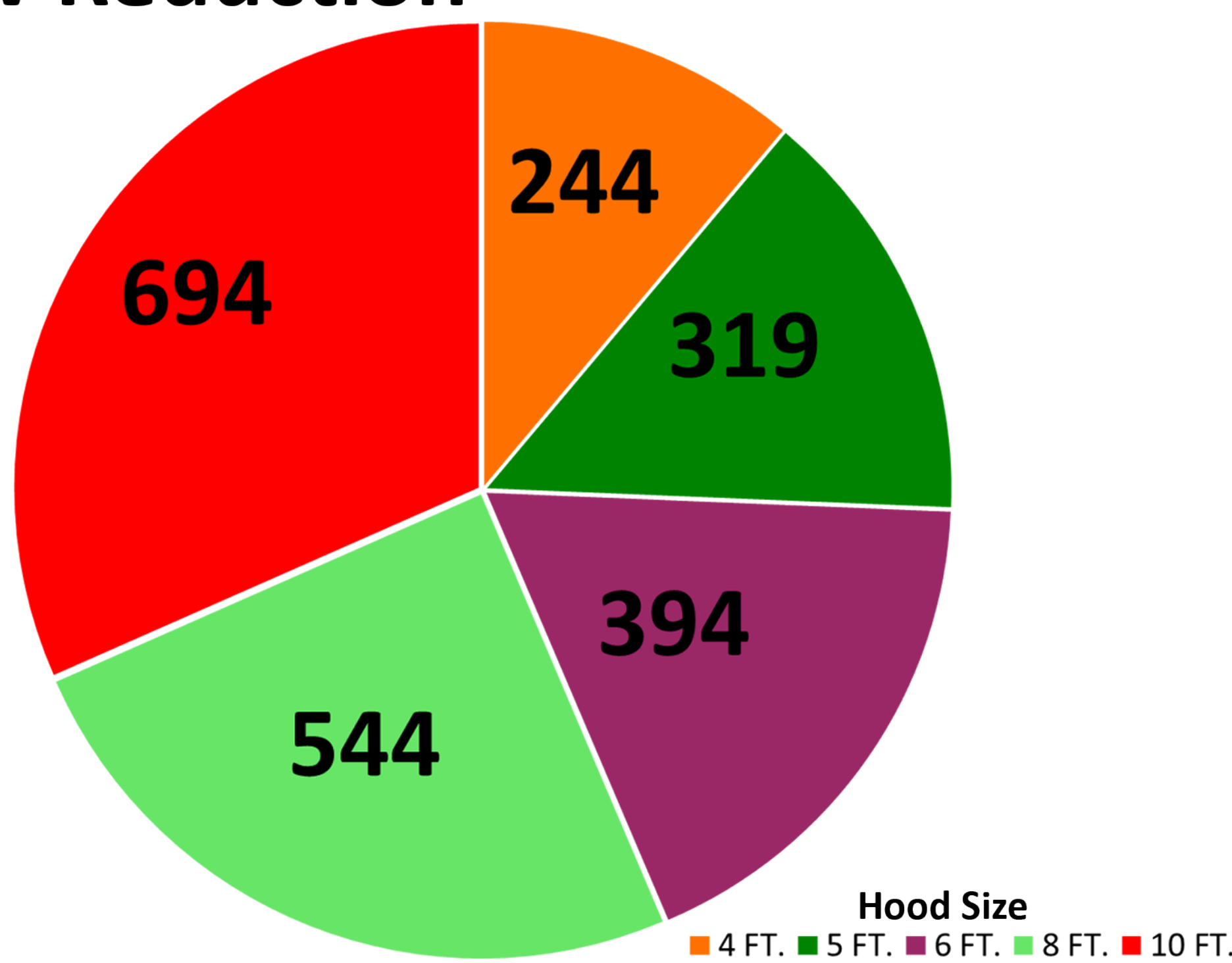
One 6-ft. CAV Fume Hood uses equivalent of:

- Three 2,500-sq-ft homes
- 1500 gallons of gasoline
- 80 tons CO<sup>2</sup> emissions

**Possible energy savings for the more than 750,000 hoods across the United States is \$1.39 billion annually,**

**ENHANCE**

Flow Reduction



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## How Retrofit Works

- Aerodynamic Sash Pull - Displaces and dilutes vortex
- Aerodynamic Airfoil Sill - Improves flow over work surface
- Enhanced Baffle – Directs flow through opening and promotes effective capture

## Advantages of Retrofit vs. Replacement

- Retrofitting a standard fume hood with high performance components provides the ability to reduce air flow through the hood resulting in opportunities to reduce energy consumption and costs by as much as 30-40%
- Installation of the retrofit increases the aerodynamic properties of the hood, thereby improving its performance and containment abilities and increasing operator safety
- Retrofit installation may cost as little as ¼ the cost of replacing a standard fume hood with a new, high performance model
- Limited laboratory disruption. Retrofit installation takes hours instead of the days or weeks it takes to replace a fume hood
- Customizable parts – adaptable to most hood configurations
- Many models contain no moving parts or electronic components and do not change the size of the fume hood opening. No changes to operator procedures when using the hood

