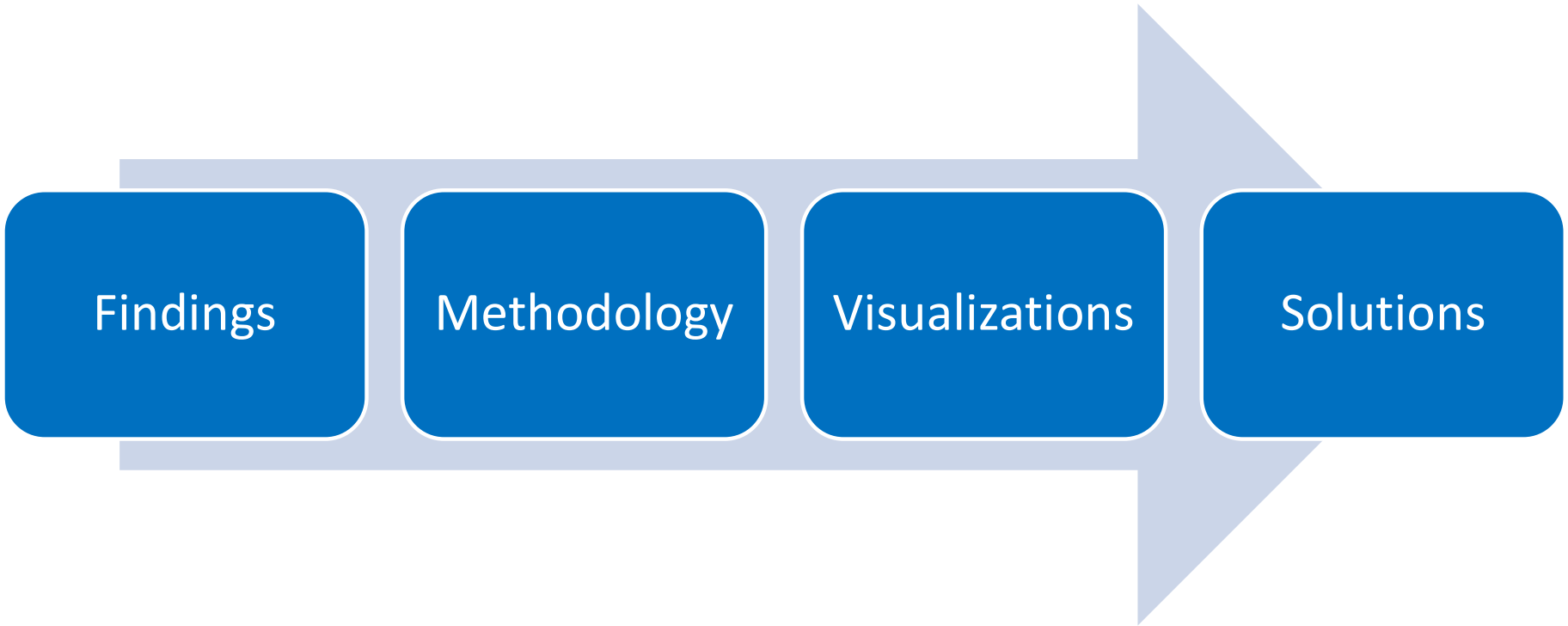
ENERGY STAR. The simple choice for energy efficiency.

Affordability of ENERGY STAR Appliances Research Findings

May 5, 2021

EPA

Overview



Background on ENERGY STAR and Appliance Affordability

Public discussions on ENERGY STAR affordability, especially clothes washers

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Investigation of these claims to better understand appliance affordability

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"Snapshot in time" research across appliance products portfolio based on limited data

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Identification of product categories with potential affordability issues to develop tailored solutions

Identified where ENERGY STAR is:

- More affordable
  - Ex: Large dehumidifiers
- Price competitive
  - Ex: Refrigerators
- Less affordable (focus areas)
  - Clothes washers, electric clothes dryers, air cleaners and small room air conditioners
- Assumed to have no issues
  - Dishwashers (>90% market share)

Findings

A key overall finding was that larger ENERGY STAR products are more likely to be price competitive, driven by 1) smaller models having more difficulty in meeting certification criteria, and 2) the incremental price of efficiency.

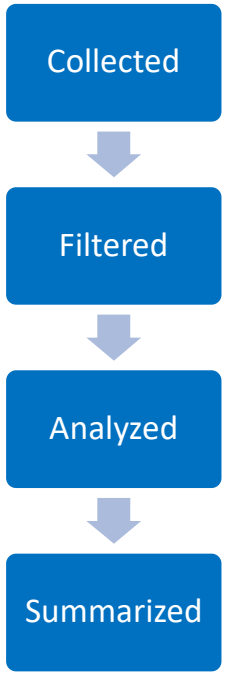
	Dehumidifiers	Refrigerators		Freezers		Clothes Washers	Clothes Dryers		Room Air Cleaners		Room Air Conditioners
	Portable	Top	Bottom	Chest	Upright	All	Electric	Gas	All	AHAM/ ES	All
Small & Compact									★	★	★
Medium or Regular						★	★				
Large & Extra-Large			☆		☆						

☆ Most Popular Focus Area

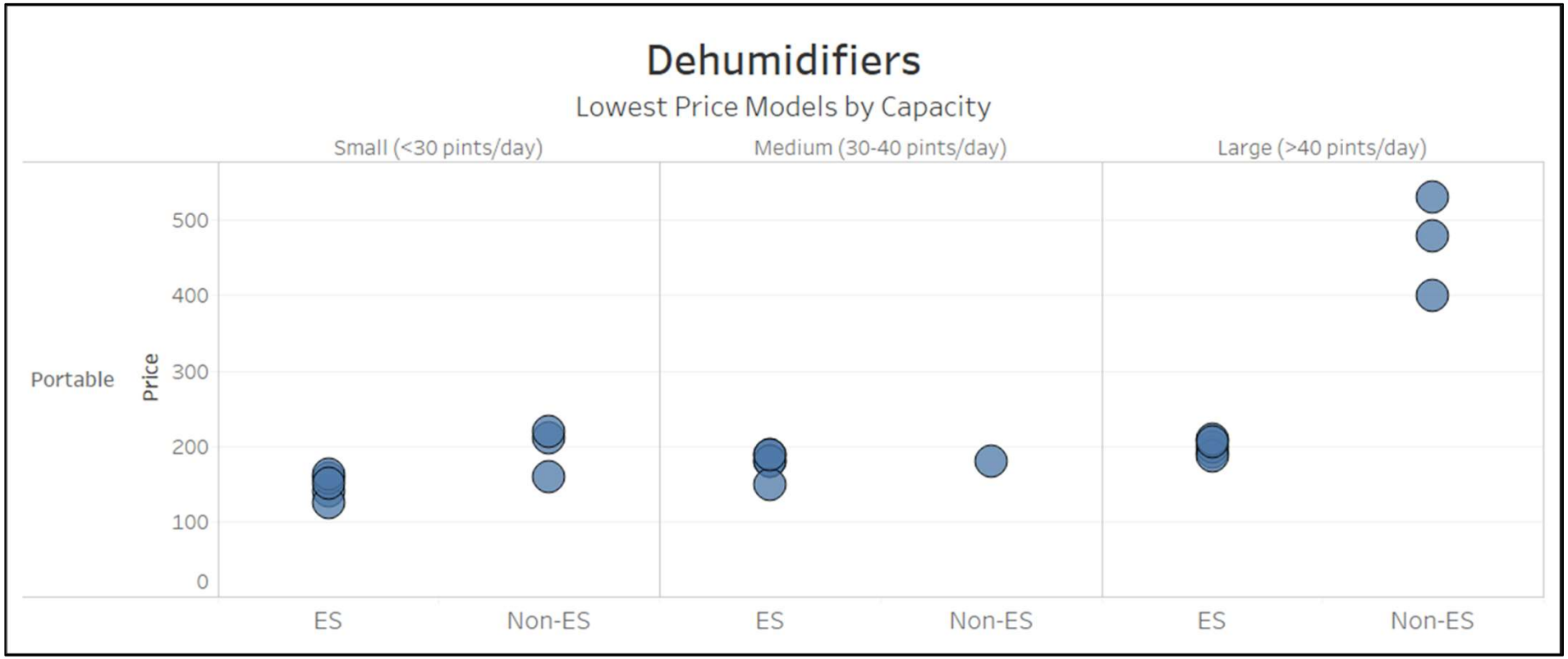
Methodology

- Collected data on prices, capacity, configuration, and popularity of models at lowest prices from online listings at The Home Depot, Lowe's, Best Buy, and Amazon and the ENERGY STAR Retail Products Platform
- Filtered data to include five lowest price models and excluded models with federal standards not in DOE's Compliance Certification Database
- Analyzed lowest price models in each category to determine ENERGY STAR affordability
- Summarized results in visualizations and insights

- **Limitations**
  - Snapshot of prices while prices are constantly changing
  - Analysis does not include regional or in-store prices or availability

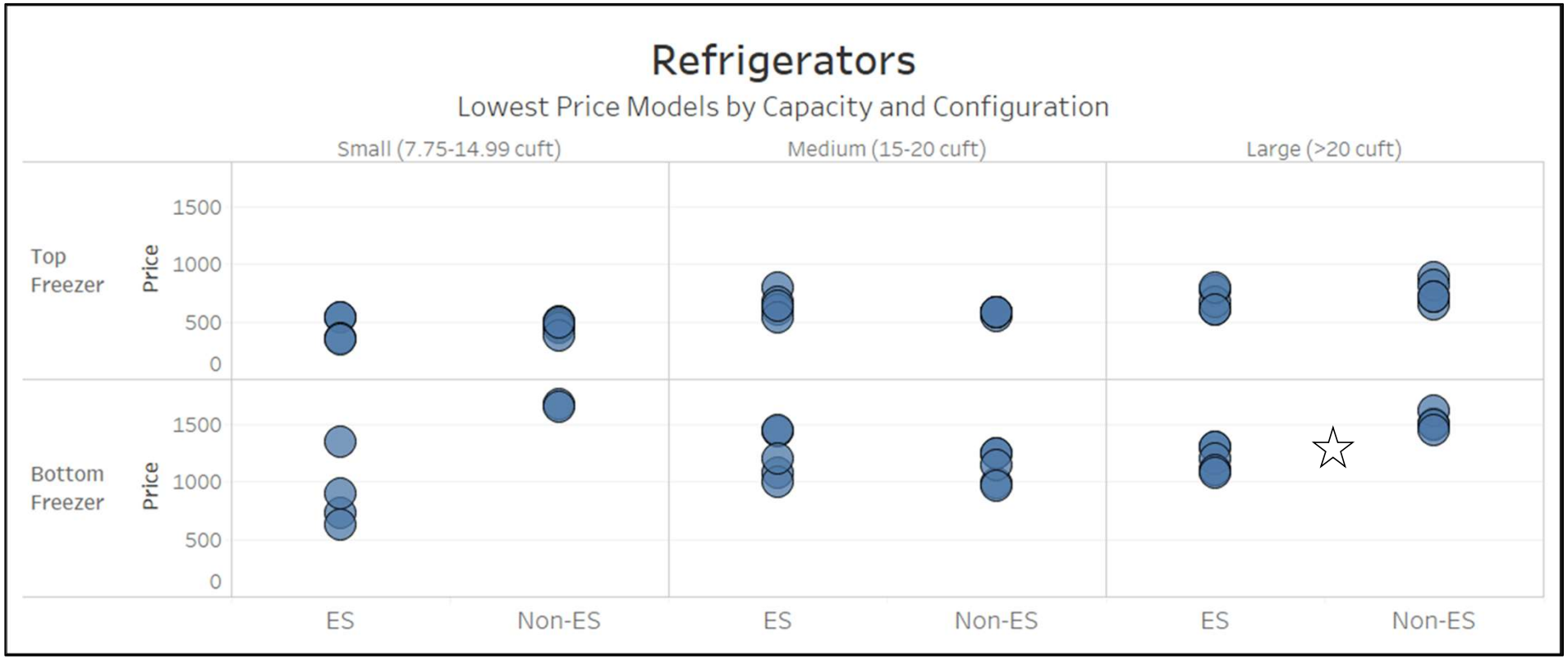


Detailed Results



☆ Most Popular

Focus Area



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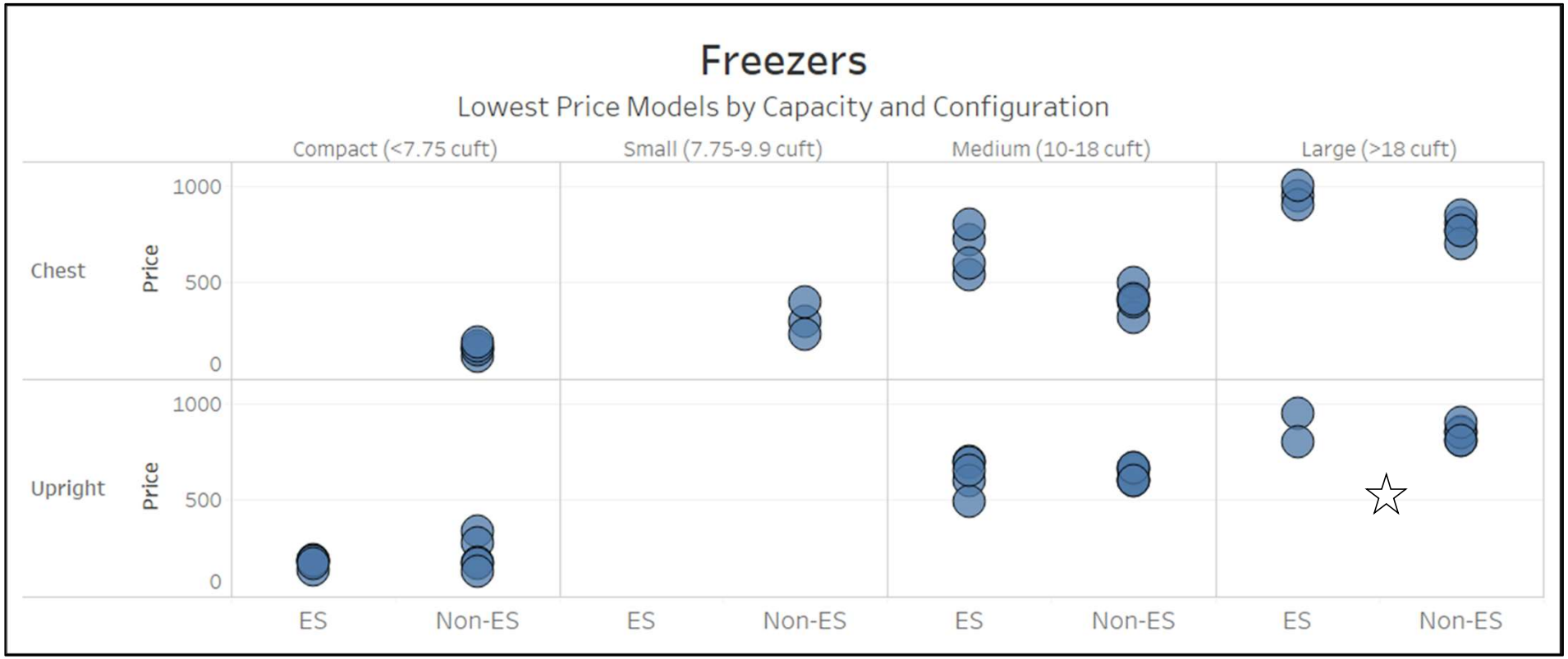

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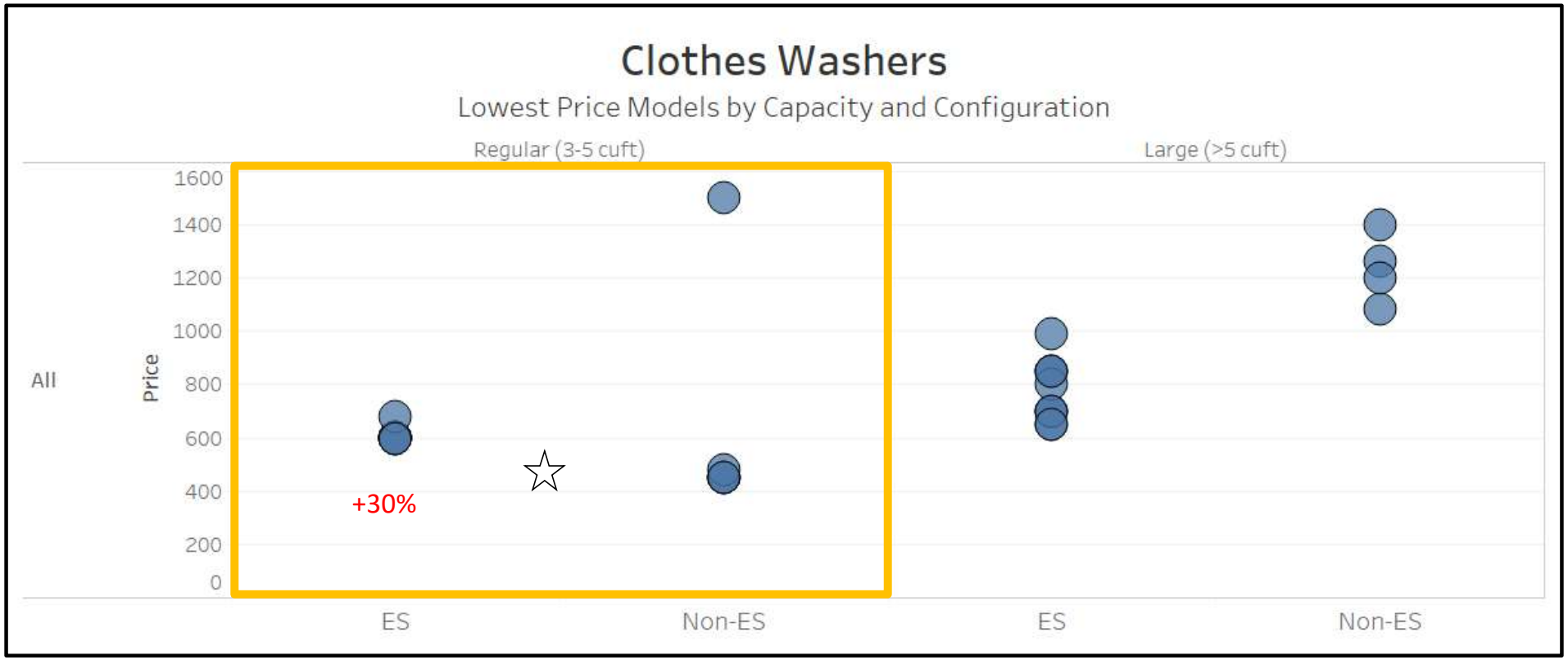

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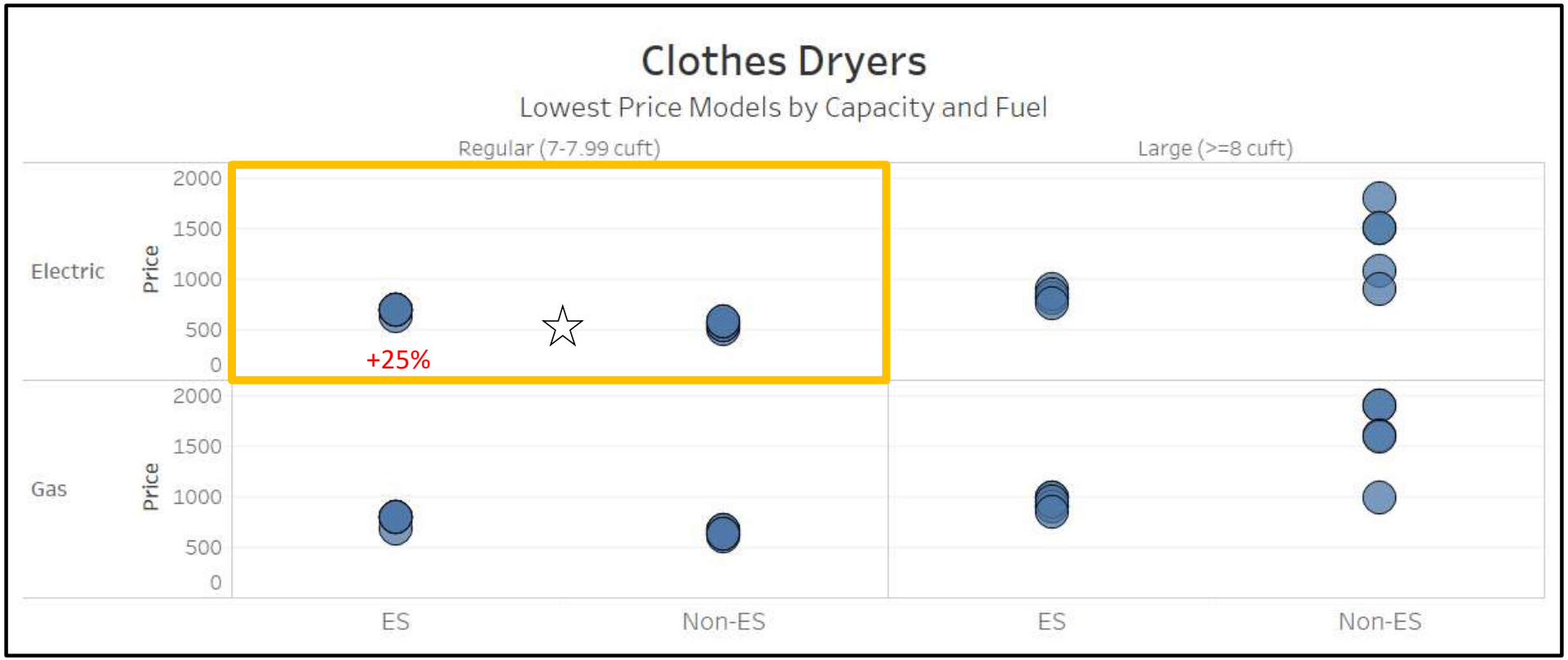

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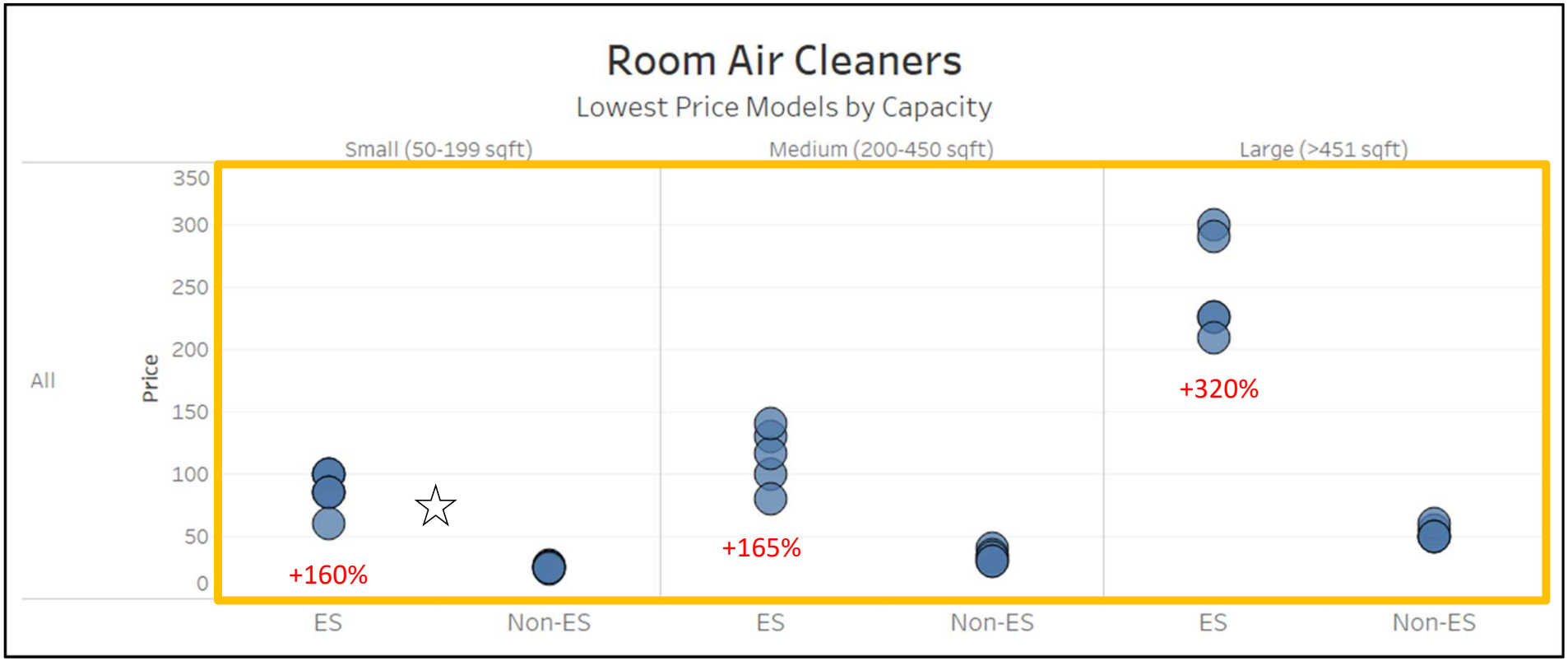

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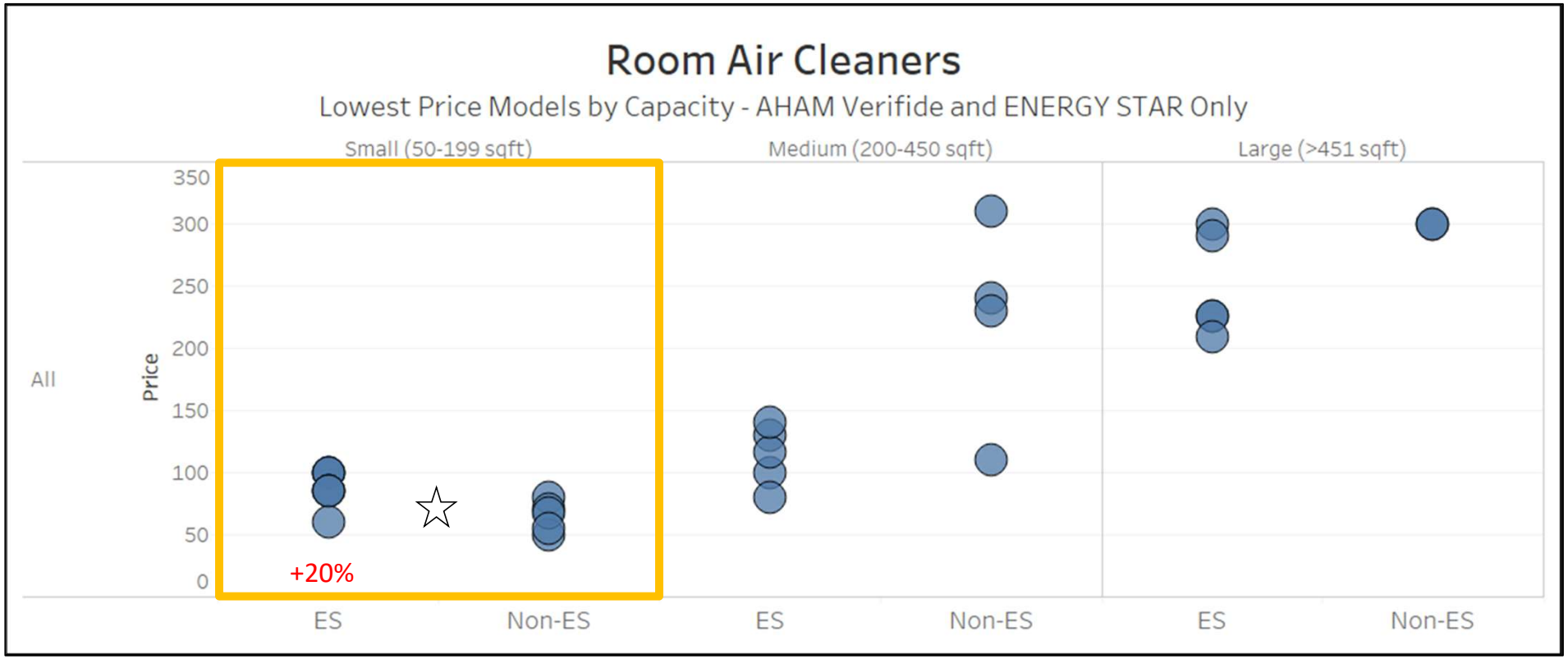

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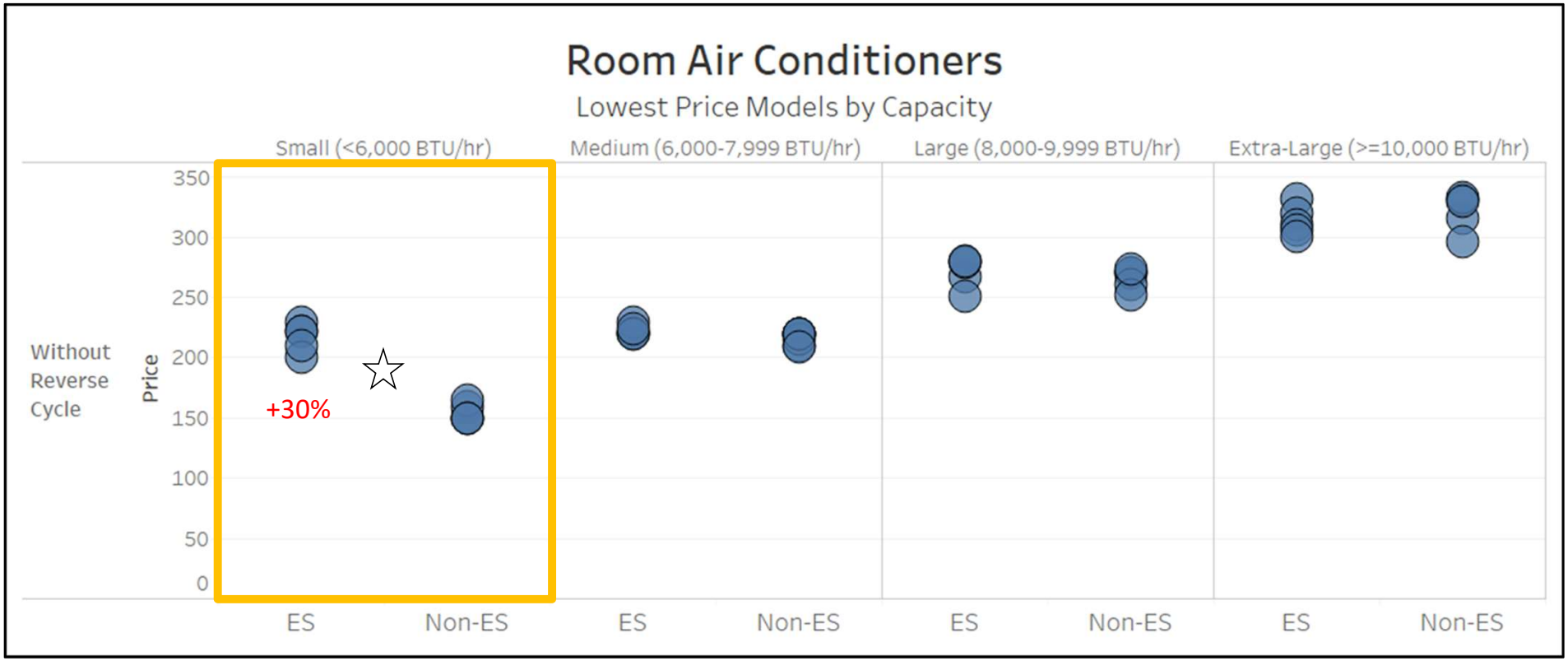

☆ Most Popular

Focus Area

Potential Price Drivers in Focus Areas

Product	Category	Importance	ES Characteristics	Non-ES Characteristics	Potential Price Drivers
Clothes Washers	Regular	Most Popular Size	• All digital display • Max spin speed of 750-800 RPM	• Mix of digital display and dial • Max spin speed of 680-700 RPM	• Control panel • Speed (motor)
Clothes Dryers	Electric Regular	Most Popular Size	• Mix of flat top (stackable) and back panel • Digital display • All sensor dry	• Back panel, dial (few w/small display) • Most sensor dry	• Control panel • Flat top (look and stackable)
Room Air Cleaners	All Sources All Sizes	Significantly More Expensive	• Almost all with HEPA filters	• Few listings with CADR; some "Odor Eliminator," "Air Freshener" • Some ozone and/or ion generator	• Technology type • Labeling and actual performance
Room Air Cleaners	ES or AHAM Small	More Expensive	• Most with HEPA filters	• All with HEPA filters	• No identifiable driver
Room Air Conditioners	Small	More Expensive, Most Popular Size	• Digital display, all w/ remote, all w/ timer	• Dial, only one with remote, only two with timer	• Digital vs mechanical control/panel • Remote, timer