

SMALL BUSINESS MARKET INSIGHTS ON FINANCING ENERGY EFFICIENCY

ACEEE Finance Forum

May 22, 2018



About Opinion Dynamics

- Focus on energy consulting and evaluation of energy efficiency programs
- Industry leader in energy market research, baseline studies, and market characterization
- 30 years in business
- ~50 consultants
- Offices in Massachusetts and California

Small Business Are Hard to Serve Through Financing

- To better serve them, we need to understand their characteristics and needs

Characteristics of Small
Businesses

Small Business Financing
Opportunities

Barriers to Financing

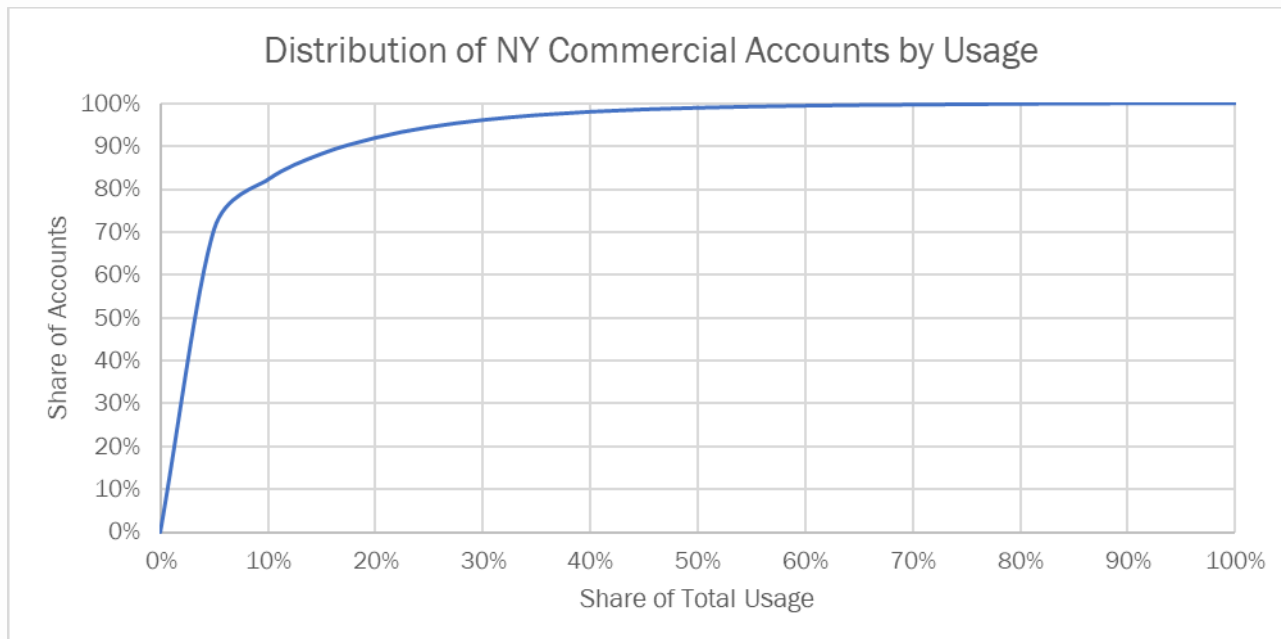


Sources of Information

- This presentation pulls from past and ongoing research conducted by Opinion Dynamics
 - California Energy Efficiency Financing Small Business Market Baseline Study
 - Completed December 2017
 - NYSERDA Statewide Commercial Baseline Study
 - Ongoing
 - Includes a customer decision-making study
 - Recent Opinion Dynamics commercial baseline and potential studies
 - PSEG Long Island (ongoing)
 - Eversource Massachusetts
- High level of consistency across studies

Definition of Small Business

- The definition of small business differs by utility and study
 - However most small businesses are very small and changing the exact cutoff does not significantly change the size of the market

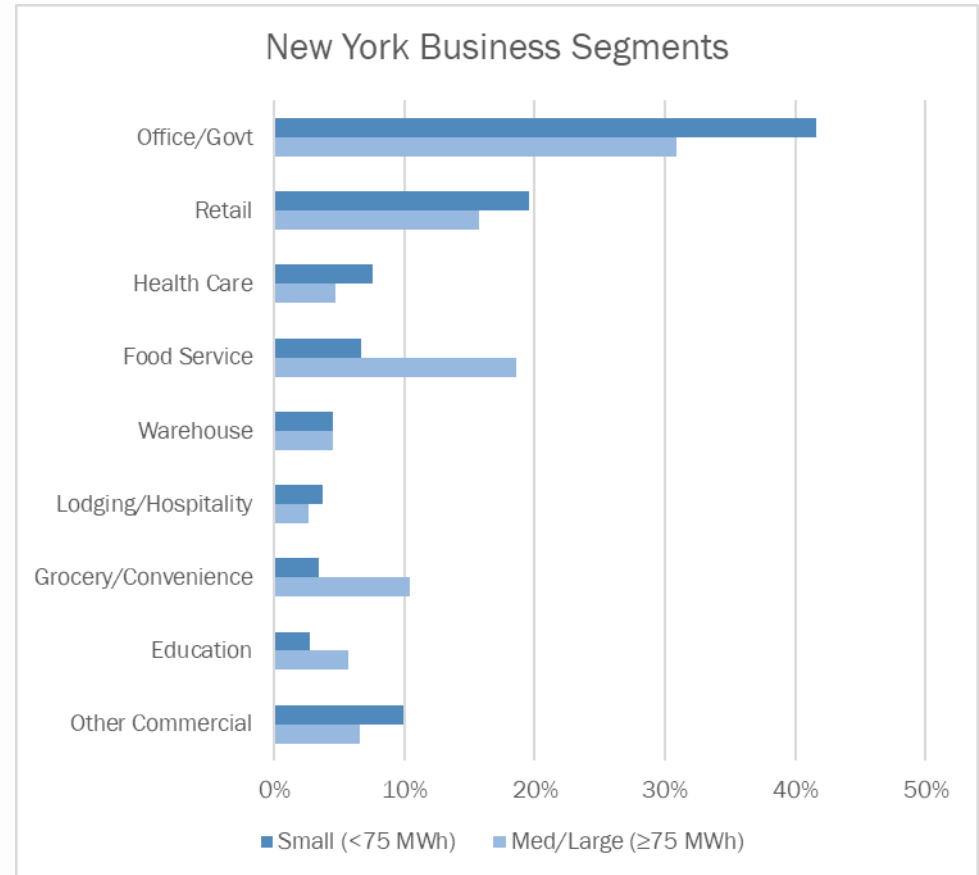


Characteristics of Small Businesses



Business Segments

- Nearly half of small businesses in New York are in the office/government segment
- Small businesses account for relatively higher shares of retail and health care segments
 - Relatively lower shares in food services and grocery/convenience segments



Based on electric accounts (n=617,140), does not include industrial or multifamily

Presence of Equipment in Small Businesses

- Small businesses have much lower penetration of non-lighting equipment than medium/large businesses
- Central AC
 - Small: ~60-65%
 - Medium/large: ~90-95%
- Refrigeration
 - Small: ~20-30%
 - Medium/large: ~40-60%

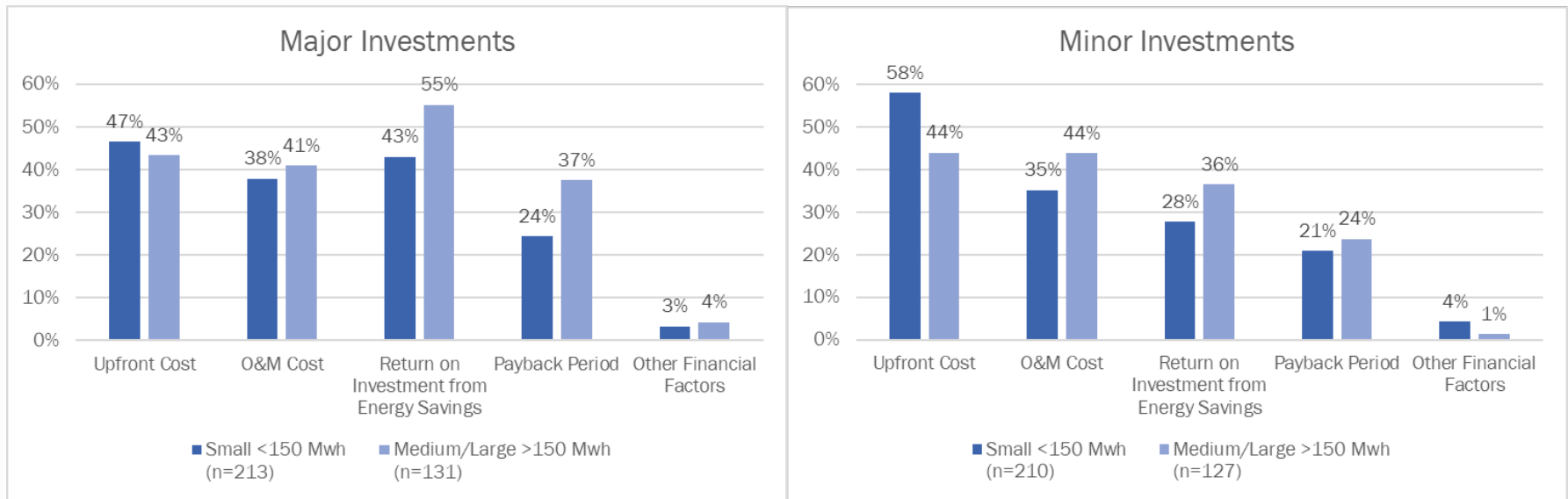
Decision-Making Authority

- Small businesses have less decision-making authority than large businesses
 - Across studies, about 2/3 of small businesses have authority compared to 80% of large businesses
- Decision-making authority varies by end use.
 - Small businesses have most authority for:
 - Lighting
 - Compressed air/motors
 - Least authority for:
 - Kitchen equipment
 - Refrigeration
 - Water heating



Financial Factors

- “When choosing to go ahead with an energy efficiency improvement, which of the following financial factors are most important to you?”
- Across studies, very similar threshold for major vs. minor investments
 - Small business: ~\$5,000
 - Medium/large business: ~\$10,000



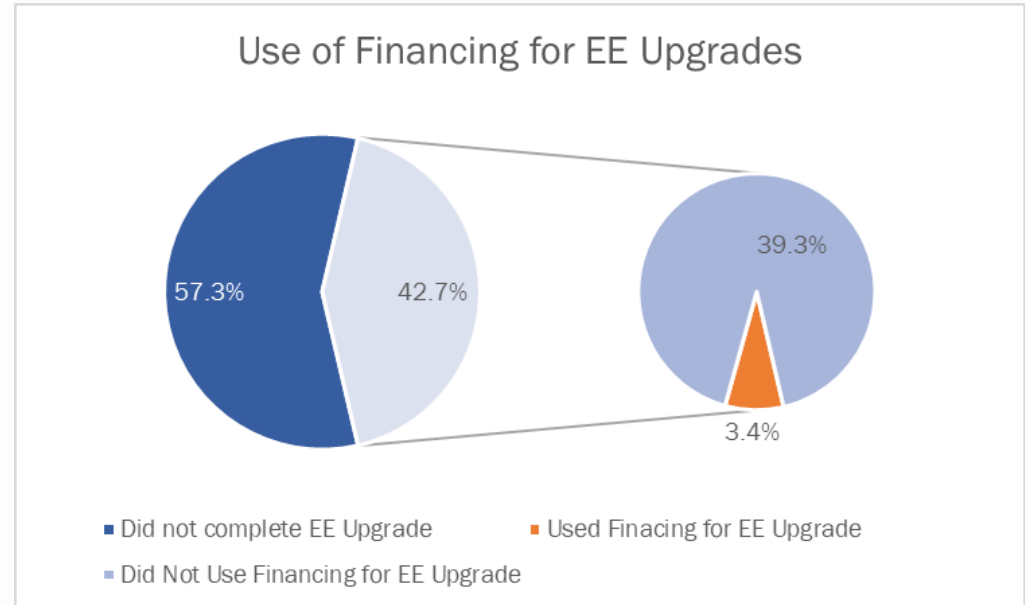
Source: PSEG Long Island Commercial Baseline Research

Small Business Financing Opportunities



Financed Projects

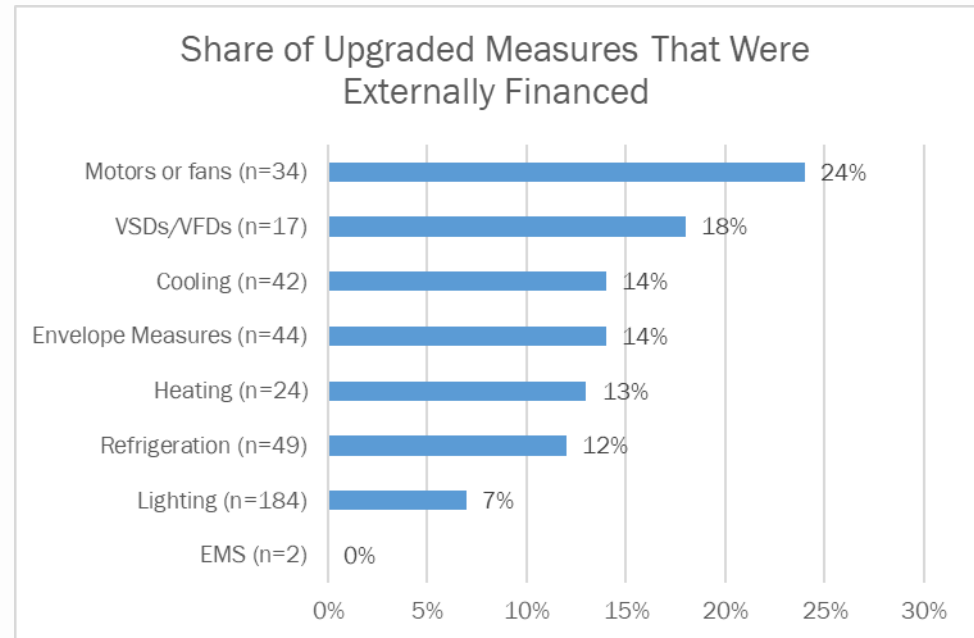
- 43% of small businesses upgraded energy-related equipment in the past two years
- Only 8% of small businesses that made EE upgrades in that period used financing
- This means that 3.4% of all small businesses used financing for EE upgrades



Source: California Energy Efficiency Financing Small Business Market Baseline Study

Externally Financed Measures

- Motors and VSDs/VFDs were the most commonly financed measures
- Conventional bank financing in term loans or revolving lines of credit were most common
 - Leases and credit card financing also reported



Source: California Energy Efficiency Financing Small Business Market Baseline Study

Self-Financed Project Costs by End Use

- More than half of all self-financed projects cost less than \$5,000
- Majority of are lighting projects below \$5,000

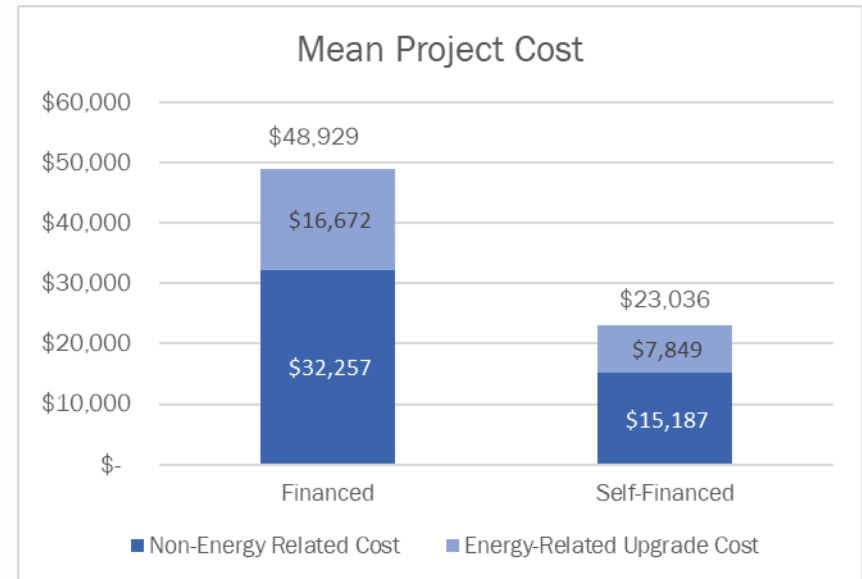
Project Cost	Lighting	Cooling	Heating	Refrigeration	Motors or Fans	VSDs/VFDs	Total Upgrade Project
	% (n=135)	% (n=33)	% (n=20)	% (n=42)	% (n=25)	% (n=14)	% (n=210)
\$1 - \$4,999	73%	30%	20%	60%	48%	36%	56%
\$5,000 - \$9,999	-	-	-	-	-	-	2%
\$10,000 - \$49,999	5%	30%	30%	17%	12%	21%	12%
\$50,000 - \$99,999	1%	9%	5%	2%	4%	-	2%
\$100,000 - \$249,999	-	-	-	-	-	7%	1%
\$250,000 - <\$1 million	-	-	-	-	-	-	<1%
Don't know/Refused	21%	30%	45%	21%	36%	36%	26%

Source: California Energy Efficiency Financing Small Business Market Baseline Study



Mean Project Costs

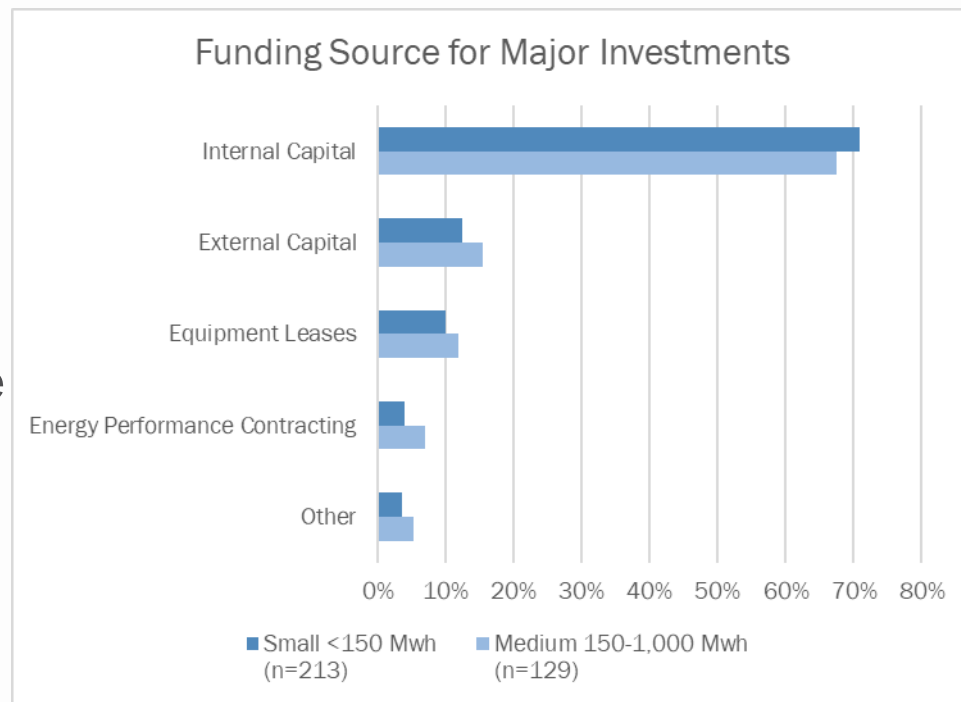
- Financed projects are two times the cost of self-financed projects
- Energy-related costs only account for approximately 1/3 of total project costs
 - Other costs include new walls, painting, and other construction as well as renewables



Source: California Energy Efficiency Financing Small Business Market Baseline Study

Typical Funding Sources – Small vs. Large Business

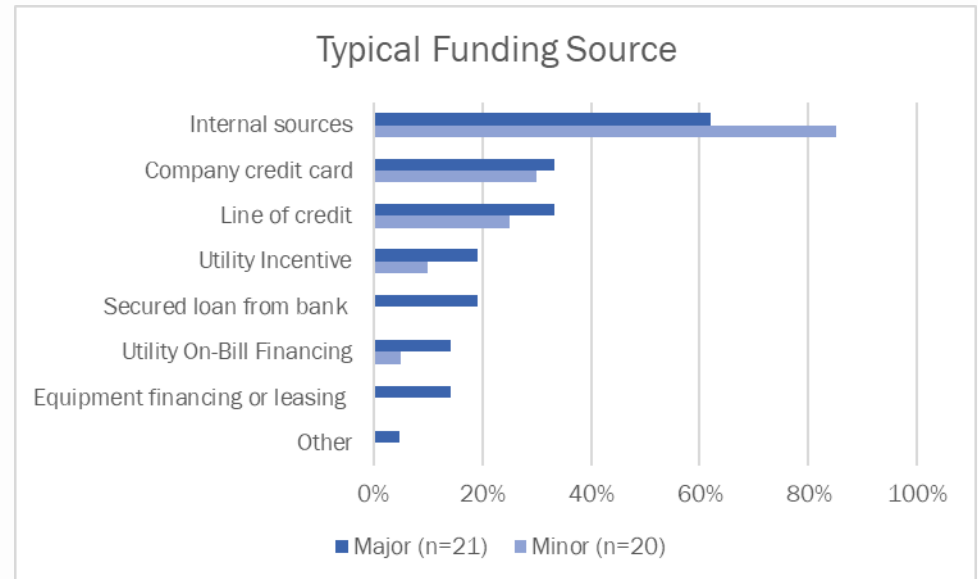
- Similar use of funding sources for major investments for both small and large businesses
- However, remember that the threshold of “major investment” for small and large businesses is different



Source: PSEG Long Island Commercial Baseline Research

Typical Funding Sources – Major vs. Minor Investments

- Small businesses most often use internal funding sources
 - Major investments: 62%
 - Minor investments 85%



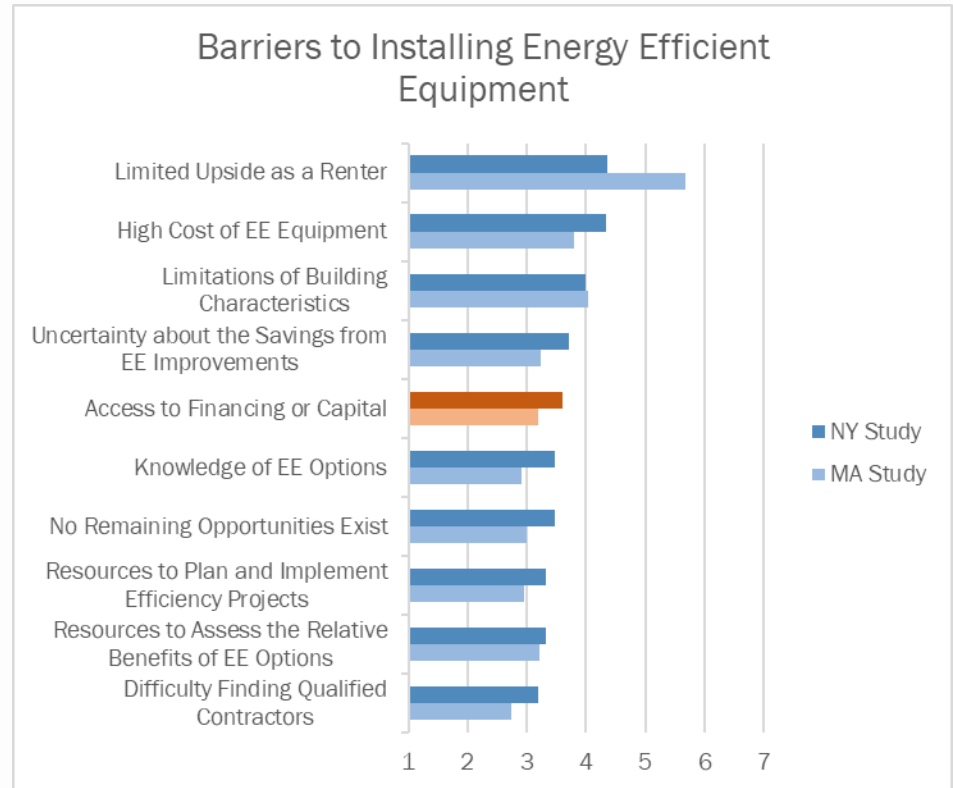
Source: NYSERDA Customer Decision Making Survey (Draft Results)

Barriers to Financing



Barriers to *Installing* Energy Efficient Equipment

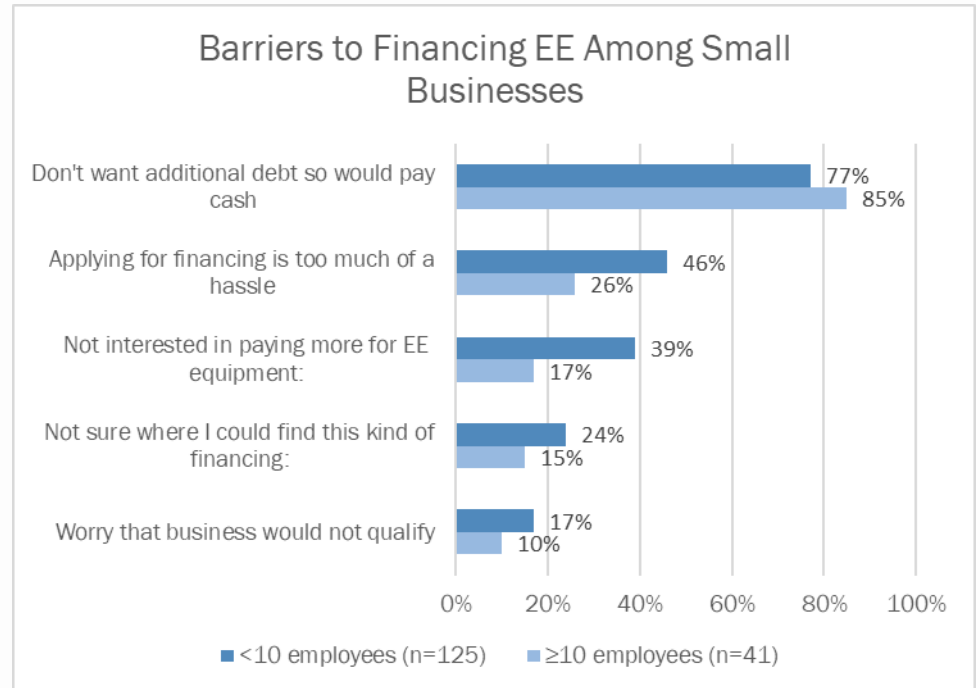
- Small businesses identify access to financing or capital as only a medium-level barrier
 - Similar results across states in the Northeast
 - Similar results between small and large businesses



(Scale of 1 to 7, with 1 = "Not at all a barrier" and 7 = "A major barrier")

Barriers to *Financing* Energy Efficient Equipment

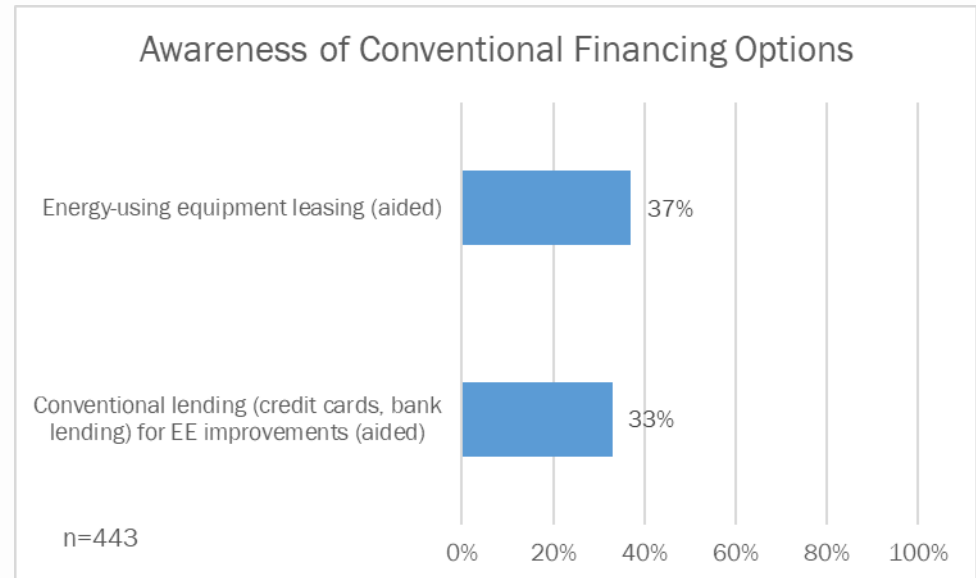
- Concern over additional debt is the primary barrier to financing EE equipment
- Very small firms (<10 employees) were most impacted by barriers
 - Likely related to staff resources
- Solutions include:
 - Reducing hassle associated with application
 - Cash-flow positive financing terms
 - Increasing awareness of financing
 - Expanding underwriting criteria



Source: California Energy Efficiency Financing Small Business Market Baseline Study

Awareness of Energy-Specific Financing Products

- Half of small businesses are aware of financing options that can be used to support energy-related upgrades
 - Unaided + aided responses
- Aided awareness of leasing and conventional lending is similar
 - Unaided awareness is significantly lower
- Only a small share are aware of EE-specific financing options like C-PACE and OBF
 - <1% aware of C-PACE and OBF unaided
 - Aided awareness of C-PACE is 17% and of OBF is 9%



Source: California Energy Efficiency Financing Small Business Market Baseline Study



Key Takeaways



Key Takeaways – Small Business Characteristics

- Most commonly in the office and retail segment
- Much lower penetration of non-lighting equipment than medium/large businesses
- Have less decision-making authority than medium/large businesses
- Have a much lower threshold for major vs. minor investments

Key Takeaways – Opportunities for Financing

- Only a small share of businesses use financing for energy efficiency improvements
- More expensive and complex measures are financed
 - Less expensive and simpler measures are often self-funded
- Funding sources for major investments were similar between small and medium/large businesses
 - But the threshold for major investments was very different

Key Takeaways – Barriers to Financing

- Access to financing is not perceived as a high barrier for small businesses
- Financing-specific barriers affect the smallest businesses the most
- Awareness of financing products is low

Thank You!

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