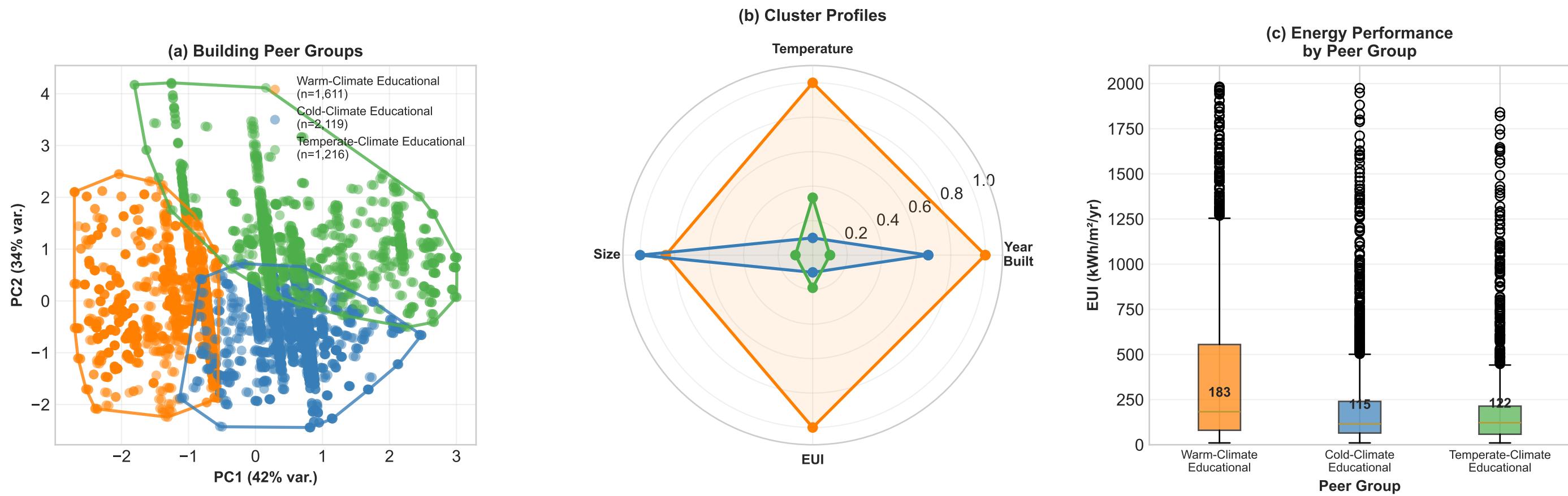


Building Energy Peer Group Analysis: Executive Summary



(d) Peer Group Summary

KEY METRICS DASHBOARD						
<ul style="list-style-type: none"> DATASET Total Buildings Analyzed: 4,946 Peer Groups Identified: 3 Analysis Period: 2016-2017 						
<ul style="list-style-type: none"> CLUSTER QUALITY Silhouette Score: 0.339 (Good) Algorithm Agreement: 51.3% Hopkins Statistic: 0.948 (Strong tendency) 						
<ul style="list-style-type: none"> EFFICIENCY INSIGHTS Underperformers Identified: 912 (18.4%) (Buildings >1σ above peer median EUI) 						
<ul style="list-style-type: none"> PRIMARY CLUSTERING DRIVERS <ol style="list-style-type: none"> Climate (Temperature) Building Size Building Type 						

Peer Group	Buildings	Avg Temp	Avg Year	Avg Size	Median EUI	Underperformers
Warm-Climate Educational	1,611 (33%)	22.6°C	1981	10,577 m ²	183 kWh/m ² /yr	21%
Cold-Climate Educational	2,119 (43%)	11.2°C	1969	12,148 m ²	115 kWh/m ² /yr	19%
Temperate-Climate Educational	1,216 (25%)	14.1°C	1950	2,627 m ²	122 kWh/m ² /yr	14%

KEY FINDINGS & RECOMMENDATIONS

- FINDING 1:** Climate is the primary driver of building energy peer groups
 - Warm-climate and cold-climate buildings have distinct energy profiles
 - Recommendation: Develop climate-specific efficiency standards and intervention programs
- FINDING 2:** The Cold-Climate Educational shows the lowest median EUI despite containing older buildings
 - Demonstrates that building age is NOT a barrier to energy efficiency
 - Recommendation: Study best practices in this peer group for replication elsewhere
- FINDING 3:** The Warm-Climate Educational presents the greatest improvement opportunity
 - Contains 21% of buildings with above-median energy consumption
 - Recommendation: Prioritize targeted interventions (cooling efficiency, solar shading) for this group

ACTIONABLE INSIGHTS:

FOR POLICYMAKERS: Use peer-group-specific benchmarks instead of one-size-fits-all standards
 FOR BUILDING OWNERS: Compare your building's EUI to your peer group median (see column 6 above)
 FOR ENERGY MANAGERS: Focus on the 912 identified underperformers for maximum impact