Residential Customer Characteristics Survey 2009

Debra Tachibana
Planning, Research & Evaluation
Conservation Resources Division

2010

Seattle City Light

Residential Customer Characteristics Survey 2009: Tables

Seattle City Light

Project Director

DEBRA L. O. TACHIBANA
Planning, Research & Evaluation
Conservation Resources Division

Consultant

KAREN A. BRATTESANI, Research Innovations

February 2010

Copyright © 2010 (February) Seattle City Light

Prepared by the City of Seattle — Seattle City Light Department

Conservation Resources Division,
Planning, Research & Evaluation

700 Fifth Avenue, Suite 3300,
P.O. Box 34023, Seattle, Washington 98124-4023

Phone (206) 684-3763 — Fax (206) 684-3385

Web site: www.seattle.gov/light/conserve

Seattle City Light

Seattle City Light is a publicly owned utility dedicated to exceeding our customer expectations by producing and delivering low cost, reliable power in an environmentally responsible and safe way. We are committed to delivering the best customer service experience of any utility in the nation.

Conservation Resources

Bringing energy efficiency into every home and business in Seattle.

Table of Contents & Figures ▪

Major Findings ▪ 1

Housing Stock & Occupants *1*

Dwelling Characteristics **1**

Figure 1: Mailing and Respondents by Community Reporting Area (CRA neighborhood clusters) 1

Figure 2: Housing Building Type: Agreement between Survey Respondents, King County Property Assessment Records, and Seattle City Light Customer Information System 3

Figure 3: Housing Building Type: Comparison of Census Distribution with Random Sample, Mailed Sample, and Survey Respondents 7

Figure 4: Housing Building Type 10

Figure 5: Decade Building Constructed: Agreement of Survey Respondent Report with King County Property Assessment Records 11

Figure 6: Decade Building Constructed 12

Figure 7: Square Footage of Living Space in Home 13

Figure 8: Square Footage of Living Space in Home: Agreement of Survey Respondent Report with King County Property Assessment Records 14

Figure 9: Number of Rooms in Home 15

Figure 10: Square Feet of Living Space by Number of Rooms in Residence, for All Households 17

Figure 11: Square Feet of Living Space by Number of Rooms in Single-Family Home 19

Figure 12: Square Feet of Living Space by Number of Rooms in Midsize and Multifamily Home 20

Figure 13: Number of Rooms in Home: Kitchens 22

Figure 14: Number of Rooms in Home: Dining Rooms 22

Figure 15: Number of Rooms in Home: Living Rooms 23

Figure 16: Number of Rooms in Home: Family Rooms or Dens 23

Figure 17: Number of Rooms in Home: Offices or Studies 24
Figure 18: Number of Rooms in Home: Fully-enclosed Sunrooms 24
Figure 19: Number of Rooms in Home: Utility or Laundry Rooms 25
Figure 20: Number of Rooms in Home: Bath Rooms 26
Figure 21: Number of Rooms in Home: Bed Rooms 26
Figure 22: Number of Bedrooms in Home, per King County Property Assessment Records 27
Figure 23: Proportion of Single Family Homes with Accessory Dwelling 28

Occupancy 29

Figure 24: Number of Household Occupants 29
Figure 25: Ownership of Home 30
Figure 26: Ownership of Home, for Apartments and Condominiums 31
Figure 27: Annual Period of Home Occupancy 32
Figure 28: Business Operated from Home 32
Figure 29: Years City Light Customer at This Address 33
Figure 30: Years City Light Customer at Any Address 34
Figure 31: Household Total Gross Income in 2008 35
Figure 32: Respondent Households Eligible for Utility Rate Assistance or Project SHARE 36
Figure 33: Respondent Households Receiving Emergency Bill Payment Help from the City of Seattle in the Past 3 Years 37
Figure 34: Age of Survey Respondent 38
Figure 35: Number and Rate of Survey Responses: Trend over 3 Decades 39

Trends over Three Decades of Residential Customer Characteristics Surveys 39

Figure 36: Housing Building Type: Trends over 3 Decades 39
Figure 37: Housing Ownership: Trends over 3 Decades 40
Figure 38: Number of Household Occupants: Trends over 3 Decades 40

Figure 39: Decade Building Constructed: Trends over 3 Decades (stacked) 41
Figure 40: Number of Heated Rooms: Trends over 3 Decades (stacked) 42

Major Findings ▪ 2

Home Heating 43

Main Home Heating System 43
Figure 41: Main Home Heat Equipment 43
Figure 42: Main Home Heat Fuel 46
Figure 43: Main Home Heat System Age 47
Figure 44: Main Home Heat by Decade Building Constructed 48

Supplementary Home Heat 52
Figure 45: Additional Home Heat Equipment 52
Figure 46: Additional Home Heat Fuels 53
Figure 47: Additional Home Heat by Main Heat Fuel 54
Figure 48: Additional Home Heat by Ownership 56
Figure 49: Additional Home Heat by Number of Rooms in Residence 57
Figure 50: Additional Home Heat by Number of Household Occupants 60

Changes in Home Heat 62
Figure 51: Prior Main Home Heat System, in Homes that Changed Systems since January 2007 62
Figure 52: Main Heat Now, for Households with Change from Prior Main Home Heat System, before January 2007 64
Figure 53: Reasons for Change in Home Heat System since January 2007 (2 years ago) 65

Thermostat Control 66
Figure 54: Number of Thermostat Controls 66

Figure 55: Proportion of Thermostats that are Programmable 67
Figure 56: Time Settings Allowed by Programmable Thermostats 68
Figure 57: Thermostat Temperature Settings (by four daily time periods) 69
Figure 58: Thermostat Temperature Settings: Average (mean) by Period of Day 73
Figure 59: Thermostat Temperature Settings by Whether Business is Operated in Home 75
Figure 60: Thermostat Temperature Settings: Night-time Set Back in Single Family Homes 76

Trends over Three Decades of Residential Customer Characteristics Surveys 78
Figure 61: Main Home Heating Fuel: Trends over 3 Decades 78
Figure 62: Main Home Heating Fuel in Single Family Detached Homes: Trends over 3 Decades 78
Figure 63: Main Home Heating Fuel in Midsize Attached (multiplex) Homes: Trends over 3 Decades 79
Figure 64: Main Home Heating Fuel in Multifamily Homes: Trends over 3 Decades 79

Major Findings ▪ 3

Home Cooling 81

Fans for Summer Cooling 81
Figure 65: Use of Fans for Summer Cooling, Among All Survey Respondents 81

Air Conditioning Equipment & Use 82
Figure 66: Homes Having Air Conditioning 82
Figure 67: Type of AC Equipment in Homes Having Air Conditioning 83
Figure 68: Age of AC Equipment in Homes Having Air Conditioning 85
Figure 69: AC Usage in Homes Having Air Conditioning (days per year) 87
Figure 70: Turn-on Temperature for AC Equipment in Homes Having Air Conditioning 89
Figure 71: Importance of AC in Homes Having Air Conditioning 91

Figure 72: Plan to Buy New Air Conditioner, Among All Survey Respondents 93

Trends over Three Decades of Residential Customer Characteristics Surveys 93

Figure 73: Air Conditioner Saturation: Trends over 3 Decades 93

Major Findings ▪ 4

Water Heating 95

Main Water Heating System 95

Figure 74: Main Water Heat Equipment 95

Figure 75: Main Water Heat Fuel 96

Figure 76: Main Water Heat by Main Home Heat 97

Figure 77: Main Water Heat System Age 100

Figure 78: Main Water Heat Fuel by Decade Building Constructed 102

Supplementary Water Heat 106

Figure 79: Additional Water Heat Equipment 106

Figure 80: Additional Water Heat Fuels 107

Changes in Water Heat 108

Figure 81: Prior Main Water Heat System, in Single Family Homes that Changed Equipment since January 2007 108

Figure 82: Main Water Heat System Now, for Single Family Homes with Change from Water Heat Equipment before January 2007 109

Figure 83: Reasons for Change in Water Heat System since January 2007 (2 years ago) 110

Water Fixture Changes 111

Figure 84: New Showerheads Installed During Past Five Years 111

Figure 85: New Toilet Installed During Past Five Years 112

Figure 86: Main Water Heat Fuel: Trends over 3 Decades 113

Trends over Three Decades of Residential Customer Characteristics Surveys 113

Figure 87: Main Water Heater Location: Trends over 3 Decades 113

Major Findings ▪ 5

Major Appliances 115

Refrigerators 115

Figure 88: Refrigerators per Household 115

Figure 89: Refrigerators per Household & Those Plugged-in more than 3 Months of the Year 116

Figure 90: Location of Refrigerators in Heated vs. Unheated Areas 117

Figure 91: Age of Main Refrigerator 119

Freezers 121

Figure 92: Stand-alone Freezers per Household 121

Figure 93: Stand-alone Freezers per Household & Those Plugged-in more than 3 Months of the Year 122

Figure 94: Location of Stand-alone Freezers in Heated vs. Unheated Areas 123

Figure 95: Age of Main Freezer 125

Figure 96: Stand-alone Freezers per Household Those Plugged-in more than 3 Months Compared to Refrigerators Plugged in more than 3 Months of the Year 127

Clothes Washers & Dryers 128

Figure 97: Clothes Washers in Home per Household 128

Figure 98: Clothes Washers in Home per Household, by Type of Machine 129

Figure 99: Age of Clothes Washer 133

Figure 100: Clothes Dryers in Home per Household 135

Figure 101: Clothes Dryers in Home per Household, by Fuel Type 136

Other Appliances **138**

Figure 102: Saturation of Cooking Appliances in Home, by Type and Fuel of Main Home Heat 138

Figure 103: Saturation of Other Common Major Appliances in Home, by Type and Fuel of Main Home Heat 141

Familiarity with Energy Star Logo **143**

Figure 104: Familiarity with Logo by Age of Refrigerator 143

Figure 105: Familiarity with Logo by Age of Freezer 144

Figure 106: Familiarity with Logo by Age of Clothes Washer 145

Figure 107: Major Kitchen Appliance Saturations: Trends over 3 Decades 146

Trends over Three Decades of Residential Customer Characteristics Surveys **146**

Figure 108: Major Laundry Appliance Saturations: Trends over 3 Decades 146

Major Findings ▪ 6

Electronic Equipment ***147***

Rechargers **147**

Figure 109: Rechargers for Cell Phones, per Household 147

Figure 110: Rechargers for Bluetooth Devices, per Household 148

Figure 111: Rechargers for PDAs and Pocket PCs, per Household 149

Figure 112: Rechargers for iPod, Zune, MP3 Players, per Household 150

Figure 113: Rechargers for AA, C, and D Batteries, per Household 151

Figure 114: Rechargers for Camera Batteries, per Household 152

Computer Equipment **154**

Figure 115: Total Number of Computers per Household 154

Figure 116: Desktop Computer CPU Equipment, per Household 155

Figure 117: Laptop or Portable Computer Equipment, per Household 156
Figure 118: Standard Monitor/Display (CRT) Equipment, per Household 157
Figure 119: LCD Flat Screen Display Equipment, per Household 158
Figure 120: Print, Scan, Copy Fax Equipment, per Household 159
Figure 121: Modem (cable, DSL, wireless) Equipment, per Household 160
Figure 122: Home Network or LAN Equipment, per Household 161
Figure 123: Server CPU Equipment, per Household 162
Figure 124: Uninterruptible Power Supply Equipment, per Household 163

Televisions 165

Figure 125: Total Televisions per Household 165
Figure 126: Standard Televisions (CRT), 12-22 Inches, per Household 166
Figure 127: Standard Televisions (CRT), 23-38 Inches, per Household 167
Figure 128: Rear Projection Televisions (large screen), per Household 168
Figure 129: Televisions with Built-in DVD or VCR, per Household 169
Figure 130: LCD Flat Screen Televisions, Less than 45 Inches, per Household 170
Figure 131: LCD Flat Screen Televisions, 45 Inches or More, per Household 171
Figure 132: Plasma Flat Screen Televisions, Less than 45 Inches, per Household 172
Figure 133: Plasma Flat Screen Televisions, 45 Inches or More, per Household 173

Video Equipment 175

Figure 134: Digital Video Deck (DVD) Equipment, per Household 175
Figure 135: Video-cassette Deck (VCR) Equipment, per Household 176
Figure 136: VCR-DVD Combo Unit Equipment, per Household 177
Figure 137: Video Game Console Equipment, per Household 178
Figure 138: Digital to Analog TV Signal Converter Equipment, per Household 179

Figure 139: Set Top Boxes for Cable or Satellite TV Reception, per Household 180
Figure 140: Set Top Boxes for TiVo or Replay TV Reception, per Household 181
Figure 141: Computer Equipment to Run Media Center, per Household 182

Audio Equipment 184

Figure 142: Component Stereo System Equipment, per Household 184
Figure 143: Compact All-in-One Stereo Equipment, per Household 185
Figure 144: Portable Boom-Box Audio Equipment, per Household 186
Figure 145: Karaoke Audio System Equipment, per Household 187

Power Strips & Timers 189

Figure 146: Plug-in Power Strips Used, per Household 189
Figure 147: Types of Equipment Turned On-and-Off with Switches on Plug-in Power Strips 190
Figure 148: Types of Equipment Turned On-and-Off with Timers 190

Hours Plugged in to Live Electrical Outlet 191

Figure 149: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Re-chargers (for specified equipment) 191
Figure 150: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Computer Equipment 194
Figure 151: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Computer Support Equipment 197
Figure 152: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: CRT and Projection Televisions 199
Figure 153: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: LCD and Plasma Screen Televisions 201
Figure 154: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Video Equipment 203
Figure 155: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Video Support Equipment 205
Figure 156: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Audio Equipment 207

Major Findings ▪ 7

Selected Lighting Equipment *209*

Compact Fluorescent Lighting (CFL) Bulbs Installed & Stored **209**

Figure 157: CFL Bulbs Installed and Stored, by Housing Building Type 209

Figure 158: CFL Bulbs Installed and Stored, by Home Ownership 213

Figure 159: CFL Bulbs Installed and Stored, by Square Footage of Residence 217

Figure 160: CFL Bulbs Installed and Stored, by Number of Rooms in Residence 219

Figure 161: CFL Bulbs Installed and Stored, by Number of Home Occupants 221

Figure 162: CFL Bulbs Installed and Stored, by Decade Building Constructed 223

Figure 163: CFL Bulbs Installed and Stored, by Age of Respondent 225

Familiarity with Energy Star Logo **227**

Figure 164: Familiarity with Logo by Number of CFL Bulbs Installed in the Home and Stored for Future Use 227

Closest Exterior Light **229**

Figure 165: Closest Exterior Light Type by Housing Building Type 229

Figure 166: Bulb in Closest Exterior Fixture by Decade Building Constructed 232

Figure 167: Bulb in Closest Exterior Fixture by Age of Respondent 234

Halogen Lamps **236**

Figure 168: Halogen Lamp Use by Housing Building Type 236

Figure 169: Halogen Lamp Use by Decade Building Constructed 237

Figure 170: Halogen Lamp Use by Age of Respondent 238

Major Findings ▪ 8

Windows & Weather Sealing (thermal envelope, all building types) *239*

Windows **239**

Figure 171: Age of Most Windows 239
Figure 172: Type of Glazing in Most Windows 240
Figure 173: Type of Frame for Most Windows 240
Figure 174: Perceived Need for New Windows 241
Figure 175: Window Glazing by Housing Building Type 242
Figure 176: Window Frames by Housing Building Type 243
Figure 177: Window Glazing by Housing Building Type, for Homes with Electric Main Home Heat 244
Figure 178: Window Frames by Housing Building Type, for Homes with Electric Main Home Heat 245
Figure 179: Window Glazing by Main Home Heat Fuel 246
Figure 180: Window Frames by Main Home Heat Fuel 247
Figure 181: Window Glazing by Home Ownership 248
Figure 182: Window Frames by Home Ownership 249
Figure 183: Window Glazing by Decade Building Constructed 250
Figure 184: Window Frames by Decade Building Constructed 252

Window Preparations for Winter **254**

Figure 185: Preparation of Windows for Winter 254
Figure 186: Preparation of Windows for Winter by Housing Building Type 255
Figure 187: Preparation of Windows for Winter by Main Home Heat Fuel 256
Figure 188: Preparation of Windows for Winter by Decade Building Constructed 257

Weather Sealing: Stripping & Caulking **260**

Figure 189: Weather-Stripping Replaced Within the Past 2 Years 260

Figure 190: New Caulking Added Within the Past 2 Years 260

Figure 191: Weather Stripping Replaced, by Housing Building Type 261

Figure 192: New Caulking Added, by Housing Building Type 262

Figure 193: Weather Stripping Replaced, by Main Home Heat Fuel 263

Figure 194: New Caulking Added, by Main Home Heat Fuel 264

Figure 195: Weather Stripping Replaced, by Home Ownership 265

Figure 196: New Caulking Added, by Home Ownership 266

Figure 197: Weather Stripping Replaced, by Decade Building Constructed 267

Figure 198: New Caulking Added, by Decade Building Constructed 271

Major Findings ▪ 9

Insulation & Additional Features (thermal envelope, single family detached & midsize attached homes) ***277***

Walls **277**

Figure 199 Estimation of Wall Insulation 277

Figure 200: Estimation of Wall Insulation by Housing Building Type 277

Figure 201: Wall Insulation by Main Home Heat Fuel 278

Figure 202: Wall Insulation by Decade Building Constructed 279

Figure 203: Wall Insulation by Home Ownership 281

Figure 204: Wall Insulation by Household Income Level 282

Attics **283**

Figure 205: Type of Attic 283

Figure 206: Estimation of Attic Rafter Insulation 284

Figure 207: Estimation of Attic End-wall or Side-wall Insulation 285
Figure 208: Estimation of Attic Floor Insulation 286
Figure 209: Estimation of Attic End-wall or Side-wall Interior Finish 287
Figure 210: Attic Usually Heated in Winter 288
Figure 211: Estimation of Insulation in Non-Attic Ceiling 289
Figure 212: Type of Attic by Main Home Heat Fuel 291
Figure 213: Type of Attic by Decade Building Constructed 292
Figure 214: Type of Attic by Home Ownership 293
Figure 215: Type of Attic by Household Income Level 294

Basements & Crawl Spaces 295

Figure 216: Type of Foundation under Building 295
Figure 217: Type of Crawl Space or Basement (heated or unheated) 296
Figure 218: Estimation of Crawl Space or Basement Ceiling Insulation 297
Figure 219: Estimation of Crawl Space or Basement Walls Insulation 299
Figure 220: Estimation of Crawl Space or Basement Ceiling Interior Finish 301
Figure 221: Estimation of Crawl Space or Basement Walls Interior Finish 303
Figure 222: Crawl Space or Basement Ceiling Insulation by Main Home Heat Fuel 305
Figure 223: Crawl Space or Basement Wall Insulation by Main Home Heat Fuel 306
Figure 224: Crawl Space or Basement Ceiling Insulation by Decade Building Constructed 307
Figure 225: Crawl Space or Basement Wall Insulation by Decade Building Constructed 308
Figure 226: Crawl Space or Basement Ceiling Insulation by Home Ownership 309
Figure 227: Crawl Space or Basement Wall Insulation by Home Ownership 310
Figure 228: Crawl Space or Basement Ceiling Insulation by Household Income Level 311
Figure 229: Crawl Space or Basement Wall Insulation by Household Income Level 312

Garages **313**
Figure 230: Proportion of Homes with Garage 313
Figure 231: Location of Garage by Decade Building Constructed 315
Figure 232: Estimation of Garage Ceiling Insulation, by Location of Garage 316
Figure 233: Estimation of Garage Walls Insulation, by Location of Garage 317
Figure 234: Estimation of Garage Walls Interior Finish, by Location of Garage 318
Figure 235: Type of Space Heat in Garage 319
Figure 236: Source of Water Heat in Garage 320

Accessory Dwellings **321**
Figure 237: Proportion of Homes with Accessory Dwelling 321
Figure 238: Estimation of Accessory Dwelling Ceiling Insulation 322
Figure 239: Estimation of Accessory Dwelling Floor Insulation 322
Figure 240: Estimation of Accessory Dwelling Walls Insulation 323
Figure 241: Estimation of Accessory Dwelling Walls Interior Finish 323
Figure 242: Type of Space Heat in Accessory Dwelling 324
Figure 243: Source of Water Heat in Accessory Dwelling 324

Perceived Need for More Energy Efficiency **325**
Figure 244: Perception of Home Energy Efficiency 325
Figure 245: Perception that Home Needs New Windows 327
Figure 246: Perception that Walls Need More Insulation 328
Figure 247: Perception that Attic Needs More Insulation 329
Figure 248: Perception that Basement or Crawl Space Needs More Insulation 330
Figure 249: Perception that Garage Needs More Insulation 331
Figure 250: Perception that Accessory Dwelling Needs More Insulation 332

Figure 251: Estimation of Insulation of Various Building Surfaces 333

Trends over Three Decades of Residential Customer Characteristics Surveys 334

Figure 252: Building Envelope Insulation and Window Saturations: Trends over 3 Decades 334

Major Findings ▪ 10

Remodels Completed & Planned (single family detached & midsize attached homes) 335

Past Remodels 335

Figure 253: Home Remodeled, within Past 2 Years 335

Figure 254: Type of Remodel, within Past 2 Years 335

Figure 255: Amount of Newly Added-on Space (square feet) 336

Figure 256: Amount of Formerly Unused Space Now Occupied (square feet) 336

Figure 257: Added Space Heating for Remodeled or Added Space 337

Future Remodel Plans 337

Figure 258: Plans to Remodel or Renovate Occupied Space in Future, within Next 2 Years 337

Figure 259: Amount of Planned Major Remodel Space (square feet) 338

Figure 260: Amount of Planned Minor Remodel Space (square feet) 338

Figure 261: Plan to Add Space Heating for Future Remodeled or Added Space 339

Receptivity to Energy-saving Options (for planned remodels only) 340

Figure 262: Energy Saving Options to be Considered for Future Remodel or Renovation 340

Major Findings ▪ 11

Green Energy Housing Features & Household Products *341*

Housing Design (single family detached & midsize attached homes) **341**

Figure 263: Home Designed Now to Capture Passive Solar Heating 341

Figure 264: Home Designed Now to Capture Daylight 341

Awareness of & Receptivity to Recently Introduced Energy-saving Vehicles **342**

Figure 265: Number of Household Vehicles by Type 342

Figure 266: Likelihood in the Next 5 Years of Respondent or Household Members Buying Energy Efficient Vehicles 343

Awareness of & Receptivity to Recently Introduced Energy-saving Products **345**

Figure 267: Awareness of and Likelihood in the Next 5 Years of Respondent or Household Members Buying Solar Panels to Heat Water 345

Figure 268: Awareness of and Likelihood in the Next 5 Years of Respondent or Household Members Buying Photovoltaic Panels for Electricity 346

Figure 269: Likelihood in the Next 5 Years of Respondent or Household Members Buying Part of a Community Photovoltaic Project 347

Figure 270: Awareness of and Likelihood in the Next 5 Years of Respondent or Household Members Buying "Green" Renewable Wind Energy 348

Figure 271: Awareness of and Likelihood in the Next 5 Years of Respondent or Household Members Buying "Smart" Power Strips for Electronics 349

Figure 272: Awareness of Home Energy Monitoring Devices 350

Figure 273: Familiarity with and Likelihood in the Next 5 Years to Buy Various Energy Saving Products 351

Major Findings ▪ 12

Reaching SCL Customers *353*

Communication **353**

Figure 274: Preferred Method of Communications from Seattle City Light 353

Figure 275: Conservation Information Wanted from Seattle City Light 354

Figure 276: Respondent Access to Internet and Email 355

Figure 277: Respondent Access to Internet and Email, by Income Quartiles 358

Figure 278: Respondent Access to Internet and Email, by Home Ownership 359

Figure 279: Respondent Access to Internet and Email, by Decade Building Constructed 360

Bill-Pay Method **361**

Figure 280: How Natural Gas Utility Bills are Paid 361

Figure 281: How Water, Sewer, Garbage and Recycling Utility Bills are Paid 363

Home Energy Audits **364**

Figure 282: Household Ever Had an Energy Audit or Green Audit of the Home 364

Figure 283: Respondent Would like More Information about a City of Seattle Free Home Energy Audit Service, by Household Type 365

Figure 284: Respondent Would like More Information about a City of Seattle Free Home Energy Audit Service, by Ownership 366

Figure 285: Respondent Would like More Information about a City of Seattle Free Home Energy Audit Service, by Access to E mail and the Internet 367

Customers Talk Back: Summary of Open-ended Write-in Comments **368**

Figure 286: General Topics of Written Comments from Final Survey Page, by Housing Type 368

Customers Talk Back: Coding of Open-ended Write-in Comments **373**

Major Findings ▪ 13

Electricity Use per Household *377*

Variations by Dwelling & Occupant Characteristics **377**

Figure 287: Annual Household Electricity Use, by Building Type 378
Figure 288: Annual Household Electricity Use, by Ownership 380
Figure 289: Annual Household Electricity Use, by Whether Business is Operated in Home During the Day 382
Figure 290: Annual Household Electricity Use, by Decade Building Constructed 384
Figure 291: Annual Household Electricity Use, by Square Feet of Living Space 386
Figure 292: Annual Household Electricity Use, by Number of Rooms 388
Figure 293: Annual Household Electricity Use, by Number of Rooms that are Usually Heated 390
Figure 294: Annual Household Electricity Use, by Number of Occupants 392
Figure 295: Annual Household Electricity Use, by 2008 Gross Annual Income 394
Figure 296: Annual Household Electricity Use, by Number of Years a Seattle City Light Customer at This Address 396
Figure 297: Annual Household Electricity Use, by Number of Years a Seattle City Light Customer at Any Address 398
Figure 298: Annual Household Electricity Use, by Community Reporting Area within the Seattle City Light Service Area 400
Figure 299: Annual Household Electricity Use, for All Home Heat and All Water Heat Fuels 402
Figure 300: Annual Household Electricity Use, for Homes with Electric Home Heat (all water heat fuels) 406
Figure 301: Annual Household Electricity Use, for Homes with Gas or Oil Home Heat (all water heat fuels) 408
Figure 302: Annual Household Electricity Use, for Homes with Electric Water Heat (all home heat fuels) 410
Figure 303: Annual Household Electricity Use, for Homes with Natural Gas Water Heat (all home heat fuels) 412
Figure 304: Annual Household Electricity Use, for Homes with Electric Home Heat and Electric Water Heat (all-electric homes) 414
Figure 305: Annual Household Electricity Use, for Homes with Electric Home Heat and Natural Gas Water Heat (dual-fuel homes) 416
Figure 306: Annual Household Electricity Use, for Homes with Natural Gas or Oil Home Heat and Electric Water Heat (multi-fuel homes) 418

Figure 307: Annual Household Electricity Use, for Homes with Natural Gas or Oil Home Heat and Natural Gas Water Heat (nonelectric homes) 420

Variations by Programmable Thermostat, Air Conditioning, CFL Light Bulbs & Major Appliance Holdings 422

Figure 308: Annual Single-Family Household Electricity Use, by Presence of Programmable Thermostat 422

Figure 309: Annual Household Electricity Use, by Presence of Air Conditioning Now 424

Figure 310: Annual Household Electricity Use, by Type of Air Conditioning in Homes Having AC Now 426

Figure 311: Annual Household Electricity Use, by Number of CFL Bulbs Currently Installed 428

Figure 312: Annual Household Electricity Use, by Number of Electric Microwave Ovens 430

Figure 313: Annual Household Electricity Use, by Number of Electric Cooktops or Ranges Together with Oven 432

Figure 314: Annual Household Electricity Use, by Number of Electric Cooktops or Ranges (separate from oven) 434

Figure 315: Annual Household Electricity Use, by Number of Electric Ovens (separate from range) 436

Figure 316: Annual Household Electricity Use, by Number of Electric Dishwashers 438

Figure 317: Annual Household Electricity Use, by Number of Electric Clothes Dryers 440

Figure 318: Annual Household Electricity Use, by Number of Electric Clothes Washers: Top Loading, with Agitator 442

Figure 319: Annual Household Electricity Use, by Number of Electric Clothes Washers: Top Loading, no Agitator 444

Figure 320: Annual Household Electricity Use, by Number of Electric Clothes Washers: Front Loading 446

Figure 321: Annual Household Electricity Use, by Number of Refrigerators (plugged in more than three months of the year) 448

Figure 322: Annual Household Electricity Use, by Number of Stand-alone Freezers (plugged in more than three months of the year) 450

Figure 323: Annual Household Electricity Use, by Number of Jacuzzi Tubs with Electric Booster Heat 452

Figure 324: Annual Household Electricity Use, by Number of Hot Tubs with Electric Heater 454

Figure 325: Annual Household Electricity Use, by Number of Swimming Pools with Electric Heater or Pump 456

Figure 326: Annual Household Electricity Use, by Number of Electric Saunas (dry heat) 458

Figure 327: Annual Household Electricity Use, by Number of Electric Sump Pumps (for drainage, sewage) 460

Figure 328: Annual Household Electricity Use, by Number of Water Beds with Electric Heater 462

Figure 329: Annual Household Electricity Use, by Number of Fish Tanks with Electric Pump 464

Variations by Perceived Need for More Energy Efficiency 466

Figure 330: Annual Household Electricity Use, by Perception of Home Energy Efficiency 466

Figure 331: Annual Household Electricity Use, by Perception that Home Needs New Windows 468

Figure 332: Annual Household Electricity Use, by Perception that Walls Need More Insulation 470

Figure 333: Annual Household Electricity Use, by Perception that Attic Needs More Insulation 472

Figure 334: Annual Household Electricity Use, by Perception that Basement or Crawl Space Needs More Insulation 474

Figure 335: Annual Household Electricity Use, by Whether Home has had Professional Home Audit or Green Audit 476

Trends over Three Decades of Residential Customer Characteristics Surveys 478

Figure 336: Annual Household Electricity Use, by Housing Type: Trends over 3 Decades 478

Figure 337: Annual Household Electricity Use, by Housing Type and Space Heat Fuel: Trends over 3 Decades 478

Figure 338: Annual Household Electricity Use, by Water Heat in Electric Space Heat Homes: Trends over 3 Decades 479

Figure 339: Annual Household Electricity Use, by Water Heat in Non-electric Space Heat Homes: Trends over 3 Decades 479

Major Findings ▪ 1

Housing Stock & Occupants

Dwelling Characteristics

Figure 1: Mailing and Respondents by Community Reporting Area (CRA neighborhood clusters)

	MAILED SAMPLE			
Community Reporting Area	Frequency	Percent	Valid	Cumulative
Southwest	430	8.0%	8.0%	8.0%
Delridge Area	231	4.3%	4.3%	12.3%
Greater Duwamish	245	4.6%	4.6%	16.9%
Southeast	325	6.0%	6.0%	22.9%
Central	203	3.8%	3.8%	26.7%
East Hills	292	5.4%	5.4%	32.1%
Northeast	403	7.5%	7.5%	39.6%
North	298	5.5%	5.5%	45.2%
Northwest	544	10.1%	10.1%	55.3%
Ballard	376	7.0%	7.0%	62.3%
Lake Union	250	4.7%	4.7%	66.9%
Magnolia-Queen Anne	370	6.9%	6.9%	73.8%
Downtown	132	2.5%	2.5%	76.3%
North King County	503	9.4%	9.4%	85.6%
South King County	772	14.4%	14.4%	100.0%
№ Cases	5374	100.0%	100.0%	

SURVEY RESPONDENTS

Community Reporting Area	Frequency	Percent	Valid	Cumulative
Southwest	203	8.6%	8.6%	8.6%
Delridge Area	91	3.9%	3.9%	12.5%
Greater Duwamish	94	4.0%	4.0%	16.5%
Southeast	129	5.5%	5.5%	22.0%
Central	90	3.8%	3.8%	25.8%
East Hills	119	5.1%	5.1%	30.8%
Northeast	212	9.0%	9.0%	39.8%
North	124	5.3%	5.3%	45.1%
Northwest	278	11.8%	11.8%	56.9%
Ballard	200	8.5%	8.5%	65.4%
Lake Union	100	4.2%	4.2%	69.6%
Magnolia-Queen Anne	155	6.6%	6.6%	76.2%
Downtown	41	1.7%	1.7%	78.0%
North King County	245	10.4%	10.4%	88.4%
South King County	274	11.6%	11.6%	100.0%
№ Cases	2355	100.0%	100.0%	

Missing: 1 case

Figure 2: ***Housing Building Type: Agreement between Survey Respondents, King County Property Assessment Records, and Seattle City Light Customer Information System***

HOUSING BUILDING TYPE: AGREEMENT BETWEEN SOURCES

	Survey with King County	Survey with SCL-CIS	SCL-CIS with King County
Single Family	97.6%	97.6%	97.4%
Condominium	94.9%	98.7%	91.6%
Apartment	95.5%	95.8%	78.8%
Manufactured | Mobile	83.3%	50.0%	100.0%
Duplex	68.0%	40.0%	80.0%
Triplex	64.7%	5.9%	20.0%
Fourplex	64.7%	17.6%	75.0%
Row | Town Home	53.6%	10.7%	75.5%
Houseboat	20.0%	20.0%	100.0%

King County Land Use Decoded BY A2 Type of building your home is in

King Co. Land Use Decoded \ A2 Type of Building	Single-family home: detached house	Row- or town-home: with attached sidewall	Accessory dwelling: 'mother-in-law unit'	Manufactured home: or mobile home	Houseboat: or other boat	Duplex home: 2 units in building	Triplex home: 3 units in building	Fourplex home: 4 units in building	Apartment: 5+ units in building, rented	Condominium: 5+ units in building, owned	Total
(Blank)	2	0	0	1	1	0	0	0	0	3	7
Apartment	1	3	0	0	0	2	1	0	258	0	265
Apartment-Comm-Mixed Use	1	0	0	0	0	0	1	1	14	0	17
Apartment-Co-Op	0	0	0	0	0	0	0	0	0	4	4
Apartment-Subsidized	0	0	0	0	0	0	0	0	4	0	4
Condominium	0	5	0	0	0	1	2	2	6	128	144
Condominium-Comm-Mixed Use	0	0	0	0	0	0	0	0	0	22	22
Duplex	16	1	0	0	1	34	0	0	0	0	52
Fourplex	0	1	0	0	1	1	1	11	3	0	18
Hotel-Motel	0	0	0	0	0	0	0	0	1	0	1
Houseboat	0	0	0	0	1	0	0	0	0	0	1
Mobile Home	1	0	0	2	0	0	0	0	0	0	3
Mobile Home Park	0	0	0	3	0	0	0	0	0	0	3
Single Family Comm Zone	13	0	0	0	0	1	0	0	0	0	14
Single Family Residence	1695	3	6	0	1	9	1	0	3	0	1718
Townhouse Plat	5	15	0	0	0	2	0	1	0	1	24
Triplex	2	0	0	0	0	0	11	2	0	0	15
Total	1736	28	6	6	5	50	17	17	289	158	2312

SCL-CIS Dwelling Type BY A2 Type of building your home is in

SCL-CIS Dwelling Type \ A2 Type of Building	Single-family home: detached house	Row- or town-home: with attached sidewall	Accessory dwelling: 'mother-in-law unit'	Manufactured home: or mobile home	Houseboat: or other boat	Duplex home: 2 units in building	Triplex home: 3 units in building	Fourplex home: 4 units in building	Apartment: 5+ units in building, rented	Condominium: 5+ units in building, owned	Total
(Blank)	1	1	0	0	0	0	0	0	0	0	2
Apt	34	6	0	0	1	13	11	10	277	2	354
Commer	1	0	0	0	0	0	0	0	1	0	2
Condo	2	8	0	0	1	1	2	2	5	156	177
Duplex	3	0	0	0	1	20	0	0	0	0	24
Hsebt	0	0	0	0	1	0	0	0	0	0	1
Mobile	0	0	0	3	0	0	0	0	0	0	3
Quadpx	0	1	0	0	0	0	0	3	0	0	4
Sinfam	1694	8	6	3	1	13	3	2	6	0	1736
Triplx	1	1	0	0	0	2	1	0	0	0	5
Twnhs	0	3	0	0	0	1	0	0	0	0	4
Total	1736	28	6	6	5	50	17	17	289	158	2312

King County Land Use Decoded BY SCL-CIS Dwelling Type

King Co. Land Use Decoded \ SCL-CIS Dwelling Type	*(Blank)*	Apt	Commer	Condo	Duplex	Hsebt	Mobile	Quadpx	Sinfam	Triplx	Twnhs	Total
(Blank)	1	0	0	4	0	0	0	0	2	0	0	7
Apartment	0	269	1	1	0	0	0	0	5	0	0	276
Apartment-Comm-Mixed Use	0	16	0	0	0	0	0	0	1	0	0	17
Apartment-Co-Op	0	1	0	3	0	0	0	0	0	0	0	4
Apartment-Subsidized	0	3	0	0	0	0	0	0	1	0	0	4
Condominium	0	2	0	143	0	0	0	0	1	0	0	146
Condominium-Comm-Mixed Use	0	0	0	22	0	0	0	0	0	0	0	22
Duplex	0	13	0	0	20	0	0	0	20	1	0	54
Fourplex	0	14	0	0	0	0	0	3	1	0	0	18
Hotel-Motel	0	1	0	0	0	0	0	0	0	0	0	1
Houseboat	0	0	0	0	0	1	0	0	0	0	0	1
Mobile Home	0	0	0	0	0	0	0	0	3	0	0	3
Mobile Home Park	0	0	0	0	0	0	3	0	0	0	0	3
Single Family Comm Zone	0	1	0	0	1	0	0	0	12	0	0	14
Single Family Residence	0	33	1	1	4	0	0	0	1704	2	1	1746
Townhouse Plat	1	3	0	6	0	0	0	1	10	1	3	25
Triplex	0	11	0	0	0	0	0	0	3	1	0	15
Total	2	367	2	180	25	1	3	4	1763	5	4	2356

Figure 3: Housing Building Type: Comparison of Census Distribution with Random Sample, Mailed Sample, and Survey Respondents

HOUSING BUILDING TYPE: AGREEMENT BETWEEN SOURCES

	Census Records	Random Sample	Mailed Sample	Survey Respondents
Single Family	50.6%	58.1%	67.5%	74.9%
Midsize (multiplex)	11.4%	4.4%	5.9%	5.1%
Apartment	37.9%	27.0%	19.7%	12.8%
Condominium	0.0%	10.4%	6.9%	7.2%

2008 AMERICAN COMMUNITY SURVEY (U.S. CENSUS): UNIFIED SCHOOL DISTRICTS: SEATTLE + SHORELINE + HIGHLINE

Housing Units / **School District**	1 detached	1 attached	2 units	3-4 units	Mobile home	5-9 units	10-19 units	20-49 units	50+ units	Total
Seattle	30,497	1,294	949	1,771	1,636	4,394	3,419	3,935	3,497	51,392
Shoreline (north)	137,748	10,689	8,200	14,688	743	17958	23,502	36,886	41,553	291,967
Highline (south)	19,540	1,070	388	619	313	1,077	634	2,199	1,622	27,462
Total	187,785	13,053	9,537	17,078	2,692	23,429	27,555	43,020	46,672	370,821
Single Family:	187,785			**Midsize (multiplex):**	42,360			**Multifamily:**	140,676	

MAILED SAMPLE: KING COUNTY LAND USE DECODED

King Co. Land Use Decoded	Frequency	Percent	Valid	Cumulative
(Blank)	22	0.4%	0.4%	0.4%
Apartment-Co-Op	8	0.1%	0.1%	0.6%
Apartment-Comm-Mixed Use	96	1.8%	1.8%	2.3%
Apartment-Subsidized	12	0.2%	0.2%	2.6%
Apartment	940	17.5%	17.5%	20.1%
Condominium-Comm-Mixed Use	56	1.0%	1.0%	21.1%
Condominium	313	5.8%	5.8%	26.9%
Duplex	118	2.2%	2.2%	29.1%
Fourplex	53	1.0%	1.0%	30.1%
Group Home	2	0.0%	0.0%	30.1%
Hotel-Motel	1	0.0%	0.0%	30.2%
Houseboat	2	0.0%	0.0%	30.2%
Mobile Home	10	0.2%	0.2%	30.4%
Mobile Home Park	5	0.1%	0.1%	30.5%
Retirement Facility	1	0.0%	0.0%	30.5%
Rooming House	1	0.0%	0.0%	30.5%
Single Family Comm Zone	38	0.7%	0.7%	31.2%
Single Family Residence	3592	66.8%	66.8%	98.1%
Townhouse Plat	51	0.9%	0.9%	99.0%
Triplex	52	1.0%	1.0%	100.0%
Vacant-Commercial	1	0.0%	0.0%	100.0%
№ Cases	5374	100.0%	100.0%	0.0%

SURVEY RESPONDENTS: KING COUNTY LAND USE DECODED

King Co. Land Use Decoded	Frequency	Percent	Valid	Cumulative
(Blank)	7	0.3%	0.3%	0.3%
Apartment-Co-Op	4	0.2%	0.2%	0.5%
Apartment-Comm-Mixed Use	17	0.7%	0.7%	1.2%
Apartment-Subsidized	4	0.2%	0.2%	1.4%
Apartment	276	11.7%	11.7%	13.1%
Condominium-Comm-Mixed Use	22	0.9%	0.9%	14.0%
Condominium	146	6.2%	6.2%	20.2%
Duplex	54	2.3%	2.3%	22.5%
Fourplex	18	0.8%	0.8%	23.3%
Houseboat	1	0.0%	0.0%	23.3%
Hotel-Motel	1	0.0%	0.0%	23.3%
Mobile Home	3	0.1%	0.1%	23.5%
Mobile Home Park	3	0.1%	0.1%	23.6%
Single Family Comm Zone	14	0.6%	0.6%	24.2%
Single Family Residence	1746	74.1%	74.1%	98.3%
Townhouse Plat	25	1.1%	1.1%	99.4%
Triplex	15	0.6%	0.6%	100.0%
№ Cases	2356	100.0%	100.0%	0.0%

Figure 4: Housing Building Type

A2 Type of building your home is in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single-family home: a detached house	1736	73.7	75.1	75.1
	Row- or town-home: with attached sidewall	28	1.2	1.2	76.3
	Accessory dwelling : a 'mother-in-law unit'	6	.3	.3	76.6
	Manufactured home: or mobile home	6	.3	.3	76.8
	Houseboat: or other boat	5	.2	.2	77.0
	Duplex home: 2 units in building	50	2.1	2.2	79.2
	Triplex home: 3 units in building	17	.7	.7	79.9
	Fourplex home: 4 units in building	17	.7	.7	80.7
	Apartment: 5+ units in building, rented	289	12.3	12.5	93.2
	Condominium: 5+ units in building, owned	158	6.7	6.8	100.0
	Total	2312	98.1	100.0	
Missing	-9	44	1.9		
Total		2356	100.0		

Figure 5: Decade Building Constructed: Agreement of Survey Respondent Report with King County Property Assessment Records

DECADE BUILDING CONSTRUCTED: AGREEMENT BETWEEN SOURCES

Respondent States	1900-09	1910-19	1920-29	1930-39	1940-49	1950-59	1960-69	1970-79	1980-89	1990-99	2000-09	Total
Earlier Period	0%	0%	3%	2%	1%	1%	2%	2%	5%	3%	3%	2%
Prior Decade	0%	11%	5%	12%	4%	5%	7%	7%	6%	5%	2%	5%
Same Decade	72%	66%	79%	69%	74%	75%	67%	68%	70%	78%	92%	73%
Next Decade	11%	10%	5%	4%	11%	9%	7%	5%	4%	5%	0%	7%
Later Period	10%	9%	4%	11%	4%	3%	2%	0%	1%	0%	0%	4%
Don't know	7%	5%	5%	3%	5%	8%	15%	18%	14%	9%	3%	8%

Figure 6: Decade Building Constructed

A6 Decade in which your home was built BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1900-1909	8.0%	7.0%	4.3%	7.3%	132	7	14	153
1910-1919	8.6%	12.0%	3.7%	8.0%	142	12	12	166
1920-1929	14.5%	4.0%	5.9%	12.6%	240	4	19	263
1930-1939	6.3%	3.0%	1.5%	5.4%	104	3	5	112
1940-1949	17.4%	6.0%	3.4%	14.7%	289	6	11	306
1950-1959	20.6%	9.0%	4.9%	17.6%	342	9	16	367
1960-1969	9.1%	8.0%	20.4%	10.8%	151	8	66	225
1970-1979	4.0%	9.0%	13.6%	5.7%	66	9	44	119
1980-1989	3.3%	10.0%	18.8%	6.0%	55	10	61	126
1990-1999	4.5%	14.0%	15.4%	6.7%	75	14	50	139
2000-2009	3.8%	18.0%	8.0%	5.1%	63	18	26	107
Total	100.0%	100.0%	100.0%	100.0%	1659	100	324	2083

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	422.399[a]	20	.000
Continuity Correction			
Likelihood Ratio	393.094	20	.000
Linear-by-Linear Association	203.967	1	.000
N of Valid Cases	2083		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.14.

Figure 7: Square Footage of Living Space in Home

A7 Square feet of living space in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Less than 250	.4%	1.7%	1.7%	.7%	6	2	7	15
250-500	.9%	4.1%	11.2%	3.0%	15	5	45	65
501-750	2.9%	11.6%	30.5%	8.5%	47	14	123	184
751-1,000	11.4%	14.9%	27.3%	14.5%	187	18	110	315
1,001-1,250	11.7%	20.7%	16.6%	13.1%	193	25	67	285
1,251-1,500	13.6%	12.4%	6.2%	12.1%	223	15	25	263
1,501-2,000	23.9%	18.2%	4.0%	19.9%	393	22	16	431
2,001-2,500	18.1%	10.7%	1.7%	14.7%	298	13	7	318
2,501-3,000	9.9%	1.7%	.5%	7.7%	162	2	2	166
3,001-4,000	5.5%	2.5%		4.3%	91	3		94
4,001-5,000	1.2%	.8%		.9%	19	1		20
5,000 or more	.6%	.8%	.2%	.6%	10	1	1	12
Total	100.0%	100.0%	100.0%	100.0%	1644	121	403	2168

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	698.209[a]	22	.000
Continuity Correction			
Likelihood Ratio	683.997	22	.000
Linear-by-Linear Association	541.981	1	.000
N of Valid Cases	2168		

a. 7 cells (19.4%) have expected count less than 5. The minimum expected count is .67.

Figure 8: Square Footage of Living Space in Home: Agreement of Survey Respondent Report with King County Property Assessment Records

SQUARE FOOTAGE OF LIVING SPACE IN HOME: AGREEMENT BETWEEN SOURCES

Respondent States	<500	501-750	751-1000	1001-1250	1251-1500	1501-2000	2001-2500	2501-3000	3001-4000	4001-5000	>5000	Total
Much less than KC	0%	4%	10%	15%	19%	35%	23%	35%	31%	36%	35%	24%
Less than KC	7%	13%	23%	22%	20%	18%	34%	37%	35%	36%	30%	26%
Same as KC	71%	54%	51%	44%	41%	40%	37%	25%	32%	21%	35%	39%
More than KC	0%	25%	10%	10%	16%	6%	5%	4%	2%	6%	0%	8%
Much more than KC	21%	5%	7%	9%	4%	2%	1%	0%	0%	0%	0%	3%

Figure 9: Number of Rooms in Home

A9_01 Total number of rooms in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1		2.4%	6.0%	1.3%		3	26	29
2	.5%	7.1%	12.4%	3.2%	9	9	54	72
3	2.2%	11.1%	26.3%	7.4%	38	14	114	166
4	6.7%	15.1%	25.3%	10.8%	114	19	110	243
5	11.0%	19.0%	17.5%	12.7%	187	24	76	287
6	16.7%	10.3%	8.3%	14.7%	283	13	36	332
7	17.0%	8.7%	3.0%	13.8%	288	11	13	312
8	15.6%	11.1%	.9%	12.5%	265	14	4	283
9	12.3%	4.0%	.2%	9.5%	208	5	1	214
10	8.8%	4.8%		6.9%	149	6		155
11	4.3%	4.0%		3.5%	73	5		78
12 or more	4.9%	2.4%		3.8%	83	3		86
Total	100.0%	100.0%	100.0%	100.0%	1697	126	434	2257

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	928.269[a]	22	.000
Continuity Correction			
Likelihood Ratio	944.797	22	.000
Linear-by-Linear Association	696.622	1	.000
N of Valid Cases	2257		

a. 4 cells (11.1%) have expected count less than 5. The minimum expected count is 1.62.

A9_02 Number of rooms that are usually heated BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0			.3%	.0%			1	1
1	1.5%	8.9%	22.4%	5.8%	24	10	86	120
2	3.6%	20.5%	23.7%	8.3%	56	23	91	170
3	6.5%	10.7%	26.3%	10.4%	101	12	101	214
4	12.9%	11.6%	14.6%	13.1%	201	13	56	270
5	15.4%	17.0%	8.3%	14.2%	241	19	32	292
6	18.0%	10.7%	2.6%	14.8%	282	12	10	304
7	14.4%	10.7%	1.3%	11.8%	225	12	5	242
8	11.6%	2.7%	.5%	9.0%	181	3	2	186
9	6.6%	.9%		5.1%	103	1		104
10	5.2%	1.8%		4.1%	82	2		84
11	1.7%	3.6%		1.5%	26	4		30
12 or more	2.6%	.9%		2.0%	41	1		42
Total	100.0%	100.0%	100.0%	100.0%	1563	112	384	2059

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	755.124[a]	24	.000
Continuity Correction			
Likelihood Ratio	757.205	24	.000
Linear-by-Linear Association	547.090	1	.000
N of Valid Cases	2059		

a. 6 cells (15.4%) have expected count less than 5. The minimum expected count is .05.

A9_01 Total number of rooms in your home BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	7.38	5.73	3.79	6.59
Std Deviation	2.22	2.65	1.50	2.56
Valid N	1697	126	434	2257

A9_02 Number of rooms that are usually heated BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	6.20	4.50	2.78	5.47
Std Deviation	2.36	2.59	1.47	2.61
Valid N	1563	112	384	2059

Figure 10: Square Feet of Living Space by Number of Rooms in Residence, for All Households

A7 Square feet of living space in your home By A9_01 Number of rooms in residence

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
Less than 250	21.4%	3.4%	2.1%	.9%	.4%	.3%		.4%					.7%
250-500	42.9%	30.5%	13.2%	2.6%	1.8%	.3%	.3%		.5%	1.3%			3.0%
501-750	21.4%	37.3%	36.8%	24.7%	10.9%	2.9%	.3%	.8%		.7%			8.5%
751-1,000	7.1%	13.6%	18.1%	43.4%	31.5%	18.3%	5.4%	1.9%	.9%	2.0%	1.3%		14.5%
1,001-1,250	3.6%	1.7%	14.6%	15.7%	25.0%	23.1%	14.9%	6.4%	4.7%	.7%	5.1%		13.0%
1,251-1,500	3.6%	3.4%	5.6%	4.7%	16.7%	22.4%	19.7%	13.6%	9.0%	2.0%	5.1%	2.4%	12.2%
1,501-2,000		1.7%	6.3%	3.8%	8.7%	22.4%	36.3%	38.3%	27.0%	20.7%	14.1%	7.1%	19.9%
2,001-2,500		3.4%	1.4%	3.8%	4.0%	7.7%	16.9%	25.8%	32.7%	31.3%	24.4%	15.3%	14.7%
2,501-3,000		3.4%	.7%	.4%	.7%	1.6%	4.1%	8.3%	14.7%	26.0%	29.5%	31.8%	7.7%
3,001-4,000		1.7%	.7%		.4%	1.0%	2.0%	3.8%	8.5%	10.7%	16.7%	25.9%	4.3%
4,001-5,000								.8%	.9%	3.3%	2.6%	10.6%	.9%
5,000 or more			.7%						.9%	1.3%	1.3%	7.1%	.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

A7 Square feet of living space in your home By A9_01 Number of rooms in residence

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
Less than 250	6	2	3	2	1	1		1					16
250-500	12	18	19	6	5	1	1		1	2			65
501-750	6	22	53	58	30	9	1	2		1			182
751-1,000	2	8	26	102	87	57	16	5	2	3	1		309
1,001-1,250	1	1	21	37	69	72	44	17	10	1	4		277
1,251-1,500	1	2	8	11	46	70	58	36	19	3	4	2	260
1,501-2,000		1	9	9	24	70	107	101	57	31	11	6	426
2,001-2,500		2	2	9	11	24	50	68	69	47	19	13	314
2,501-3,000		2	1	1	2	5	12	22	31	39	23	27	165
3,001-4,000		1	1		1	3	6	10	18	16	13	22	91
4,001-5,000								2	2	5	2	9	20
5,000 or more			1						2	2	1	6	12
Total	28	59	144	235	276	312	295	264	211	150	78	85	2137

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2416.694[a]	121	.000
Continuity Correction			
Likelihood Ratio	1962.898	121	.000
Linear-by-Linear Association	1160.773	1	.000
N of Valid Cases	2137		

a. 53 cells (36.8%) have expected count less than 5. The minimum expected count is .16.

Figure 11: Square Feet of Living Space by Number of Rooms in Single-Family Home

A7 Square feet of living space in your home By A9_01 Number of Rooms in Single Family homes

	A9_01 Total number of rooms in your home											
	2	3	4	5	6	7	8	9	10	11	12 or more	Total
Less than 250		5.6%	1.8%	.6%			.4%					.4%
250-500	11.1%	8.3%	2.8%	1.7%	.4%	.4%		.5%	1.4%			.9%
501-750	22.2%	8.3%	19.3%	6.8%	2.3%		.8%					2.8%
751-1,000	11.1%	13.9%	43.1%	31.6%	18.2%	5.5%	1.6%	1.0%	2.1%	1.4%		11.3%
1,001-1,250		16.7%	15.6%	23.7%	20.8%	14.4%	5.7%	4.9%	.7%	5.5%		11.6%
1,251-1,500	11.1%	16.7%	4.6%	18.6%	22.3%	19.9%	14.2%	9.3%	2.1%	4.1%	2.4%	13.6%
1,501-2,000		22.2%	5.5%	11.9%	23.9%	36.2%	38.1%	26.8%	19.4%	13.7%	6.1%	24.0%
2,001-2,500	22.2%	5.6%	6.4%	3.4%	9.1%	17.0%	25.9%	32.7%	31.3%	24.7%	15.9%	18.2%
2,501-3,000	11.1%		.9%	1.1%	1.9%	4.4%	8.5%	14.6%	27.1%	31.5%	32.9%	10.0%
3,001-4,000	11.1%	2.8%		.6%	1.1%	2.2%	4.0%	8.8%	11.1%	15.1%	25.6%	5.4%
4,001-5,000							.8%	1.0%	3.5%	2.7%	9.8%	1.2%
5,000 or more								.5%	1.4%	1.4%	7.3%	.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

A7 Square feet of living space in your home By A9_01 Number of Rooms in Single Family homes

	A9_01 Total number of rooms in your home											
	2	3	4	5	6	7	8	9	10	11	12 or more	Total
Less than 250		2	2	1			1					6
250-500	1	3	3	3	1	1		1	2			15
501-750	2	3	21	12	6		2					46
751-1,000	1	5	47	56	48	15	4	2	3	1		182
1,001-1,250		6	17	42	55	39	14	10	1	4		188
1,251-1,500	1	6	5	33	59	54	35	19	3	3	2	220
1,501-2,000		8	6	21	63	98	94	55	28	10	5	388
2,001-2,500	2	2	7	6	24	46	64	67	45	18	13	294
2,501-3,000	1		1	2	5	12	21	30	39	23	27	161
3,001-4,000	1	1		1	3	6	10	18	16	11	21	88
4,001-5,000							2	2	5	2	8	19
5,000 or more								1	2	1	6	10
Total	9	36	109	177	264	271	247	205	144	73	82	1617

Figure 12: Square Feet of Living Space by Number of Rooms in Midsize and Multifamily Home

A7 Square feet of living space in your home By A9_01 Number of Rooms in Midsize and Multifamily homes

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
Less than 250	21.4%	4.0%	.9%										1.7%
250-500	42.9%	34.0%	14.8%	2.4%	2.0%								9.7%
501-750	21.4%	40.0%	46.3%	29.4%	18.4%	6.4%	4.2%			16.7%			26.3%
751-1,000	7.1%	14.0%	19.4%	43.7%	31.6%	19.1%	4.2%	5.9%					24.5%
1,001-1,250	3.6%	2.0%	13.9%	15.9%	26.5%	36.2%	20.8%	17.6%					17.0%
1,251-1,500	3.6%	2.0%	1.9%	4.8%	13.3%	23.4%	16.7%	5.9%			20.0%		7.7%
1,501-2,000		2.0%	.9%	2.4%	3.1%	14.9%	37.5%	41.2%	33.3%	50.0%	20.0%	33.3%	7.3%
2,001-2,500				1.6%	5.1%		16.7%	23.5%	33.3%	33.3%	20.0%		3.9%
2,501-3,000		2.0%	.9%					5.9%	16.7%				.8%
3,001-4,000											40.0%	33.3%	.6%
4,001-5,000												33.3%	.2%
5,000 or more			.9%						16.7%				.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

A7 Square feet of living space in your home By A9_01 Number of Rooms in Midsize and Multifamily homes

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
Less than 250	6	2	1										9
250-500	12	17	16	3	2								50
501-750	6	20	50	37	18	3	1			1			136
751-1,000	2	7	21	55	31	9	1	1					127
1,001-1,250	1	1	15	20	26	17	5	3					88
1,251-1,500	1	1	2	6	13	11	4	1			1		40
1,501-2,000		1	1	3	3	7	9	7	2	3	1	1	38
2,001-2,500				2	5		4	4	2	2	1		20
2,501-3,000		1	1					1	1				4
3,001-4,000											2	1	3
4,001-5,000												1	1
5,000 or more			1						1				2
Total	28	50	108	126	98	47	24	17	6	6	5	3	518

A7 Square feet of living space (Number of Respondents) By Number of Rooms in Midsize and Multifamily homes

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
Less than 250	6	2	1										9
250-500	12	17	16	3	2								50
501-750	6	20	50	37	18	3	1			1			136
751-1,000	2	7	21	55	31	9	1	1					127
1,001-1,250	1	1	15	20	26	17	5	3					88
1,251-1,500	1	1	2	6	13	11	4	1			1		40
1,501-2,000		1	1	3	3	7	9	7	2	3	1	1	38
2,001-2,500				2	5		4	4	2	2	1		20
2,501-3,000		1	1					1	1				4
3,001-4,000											2	1	3
4,001-5,000												1	1
5,000 or more			1						1				2
Total	28	50	108	126	98	47	24	17	6	6	5	3	518

Figure 13: Number of Rooms in Home: Kitchens

A8_01 Number of Kitchens BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
_A8_12	1.2%	2.3%	4.1%	1.8%	21	3	18	42
1	94.4%	85.9%	95.7%	94.2%	1630	110	422	2162
2	4.2%	10.2%		3.7%	73	13		86
3	.1%	1.6%	.2%	.2%	2	2	1	5
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 14: Number of Rooms in Home: Dining Rooms

A8_02 Number of Dining rooms BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	19.4%	39.1%	50.3%	26.4%	334	50	222	606
1	79.1%	56.3%	49.7%	72.2%	1365	72	219	1656
2	1.4%	3.9%		1.3%	25	5		30
3	.1%	.8%		.1%	2	1		3
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 15: Number of Rooms in Home: Living Rooms

A8_03 Number of Living rooms BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	3.0%	5.5%	10.0%	4.4%	51	7	44	102
1	93.8%	85.9%	89.8%	92.6%	1619	110	396	2125
2	3.2%	7.0%	.2%	2.8%	55	9	1	65
3	.1%	1.6%		.1%	1	2		3
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 16: Number of Rooms in Home: Family Rooms or Dens

A8_04 Number of Family rooms or dens BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	47.5%	80.5%	91.6%	57.8%	819	103	404	1326
1	47.0%	18.0%	8.4%	38.0%	811	23	37	871
2	5.4%	.8%		4.1%	94	1		95
3	.1%	.8%		.1%	2	1		3
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 17: Number of Rooms in Home: Offices or Studies

A8_05 Number of Offices or studies BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	58.0%	71.9%	88.7%	64.7%	1001	92	391	1484
1	38.1%	25.0%	10.7%	32.1%	657	32	47	736
2	3.7%	1.6%	.7%	3.0%	64	2	3	69
3	.2%	1.6%		.3%	4	2		6
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 18: Number of Rooms in Home: Fully-enclosed Sunrooms

A8_06 Number of Fully enclosed sunrooms BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	92.9%	96.9%	98.4%	94.2%	1603	124	434	2161
1	6.8%	2.3%	1.6%	5.5%	117	3	7	127
2	.3%			.2%	5			5
3	.1%	.8%		.1%	1	1		2
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 19: Number of Rooms in Home: Utility or Laundry Rooms

A8_07 Number of Utility or laundry rooms BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	32.3%	54.7%	77.3%	42.2%	557	70	341	968
1	63.9%	39.1%	20.2%	54.1%	1103	50	89	1242
2	2.2%	4.7%	2.3%	2.4%	38	6	10	54
3	1.6%	1.6%	.2%	1.4%	28	2	1	31
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

A8_09 Number of Other rooms BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	92.9%	95.3%	95.5%	93.6%	1604	122	421	2147
1	5.5%	3.9%	4.3%	5.2%	95	5	19	119
2	.8%		.2%	.7%	14		1	15
3	.5%	.8%		.4%	8	1		9
4	.2%			.1%	3			3
5+	.1%			.1%	2			2
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 20: Number of Rooms in Home: Bath Rooms

A8_10 Number of Bath rooms BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	7.2%	9.4%	7.3%	7.3%	124	12	32	168
1	29.3%	40.6%	65.1%	36.8%	506	52	287	845
2	38.9%	28.9%	25.9%	35.9%	672	37	114	823
3	19.3%	16.4%	1.8%	15.8%	333	21	8	362
4	4.6%	3.1%		3.7%	80	4		84
5+	.6%	1.6%		.6%	11	2		13
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 21: Number of Rooms in Home: Bed Rooms

A8_08 Number of Bed rooms BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	3.9%	5.5%	11.1%	5.4%	68	7	49	124
1	5.2%	20.3%	55.3%	15.6%	89	26	244	359
2	25.4%	43.8%	32.7%	27.8%	439	56	144	639
3	41.7%	18.0%	.9%	32.5%	720	23	4	747
4	19.0%	6.3%		14.6%	328	8		336
5+	4.8%	6.3%		3.9%	82	8		90
Total	100.0%	100.0%	100.0%	100.0%	1726	128	441	2295

Figure 22: Number of Bedrooms in Home, per King County Property Assessment Records

King County Number of Bedrooms BY A2 Type of building your home is in

		Percent			Count		
		A2 Housing Type			A2 Housing Type		
		Single Family	Condominium	Total	Single Family	Condominium	Total
King Co. Number of Bedrooms	1	2.0%	39.9%	5.0%	34	59	93
	2	23.5%	56.8%	26.2%	407	84	491
	3	43.7%	3.4%	40.5%	756	5	761
	4	23.4%	.0%	21.5%	404	0	404
	5	6.2%	.0%	5.8%	108	0	108
	6	1.0%	.0%	.9%	17	0	17
	7	.2%	.0%	.2%	3	0	3
Total		100.0%	100.0%	100.0%	1729	148	1877

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	552.978[a]	6	.000
Continuity Correction			
Likelihood Ratio	404.218	6	.000
Linear-by-Linear Association	296.911	1	.000
N of Valid Cases	1877		

a. 3 cells (21.4%) have expected count less than 5. The minimum expected count is .24.

Figure 23: Proportion of Single Family Homes with Accessory Dwelling

O1 Does your house have an accessory dwelling?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	122	5.2	6.9	6.9
	No	1645	69.8	93.1	100.0
	Total	1767	75.0	100.0	
Missing	-9	589	25.0		
Total		2356	100.0		

O2 Location of accessory dwelling

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Underneath or within the house	49	2.1	43.4	43.4
	Attached to a side of the house	8	.3	7.1	50.4
	Freestanding, not attached to the house	56	2.4	49.6	100.0
	Total	113	4.8	100.0	
Missing	-9	2243	95.2		
Total		2356	100.0		

Occupancy

Figure 24: Number of Household Occupants

A10 how many people, including you, lived in this household at least 6 months of 2008 BY A2 Housing Type

	% within A2 Housing Type				Count			
	A2 Housing Type				A2 Housing Type			
	Single Family	Midsize	Multifamily	Total	Single Family	Midsize	Multifamily	Total
1 resident	20.7%	30.5%	56.2%	28.1%	356	39	250	645
2 resident	42.9%	43.0%	38.0%	42.0%	738	55	169	962
3 residents	17.9%	9.4%	4.3%	14.8%	308	12	19	339
4 residents	12.5%	7.8%	1.3%	10.1%	215	10	6	231
5 residents	3.7%	4.7%	.0%	3.1%	64	6	0	70
6 residents	1.5%	.8%	.0%	1.2%	26	1	0	27
7 residents	.3%	2.3%	.0%	.3%	5	3	0	8
8 residents	.3%	.8%	.0%	.3%	5	1	0	6
9 residents or more	.2%	.8%	.2%	.2%	3	1	1	5
Total	100.0%	100.0%	100.0%	100.0%	1720	128	445	2293

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	297.197[a]	16	.000
Continuity Correction			
Likelihood Ratio	316.055	16	.000
Linear-by-Linear Association	185.598	1	.000
N of Valid Cases	2293		

a. 10 cells (37.0%) have expected count less than 5. The minimum expected count is .28.

A10 How many people, including you, lived in this household at least 6 months of 2008 BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	2.44	2.34	1.52	2.26
Std Deviation	1.24	1.55	.74	1.23
Valid N	1720	128	445	2293

Figure 25: . Ownership of Home

A3 How your home is owned BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Owned with a mortgage or loan	65.6%	34.1%	22.6%	55.6%	1130	44	99	1273
Owned free and clear	28.3%	16.3%	12.3%	24.5%	487	21	54	562
Rented from owner or manager	5.5%	48.8%	64.0%	19.1%	94	63	281	438
Occupied without payment of rent	.7%	.8%	1.1%	.8%	12	1	5	18
Total	100.0%	100.0%	100.0%	100.0%	1723	129	439	2291

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	859.493[a]	6	.000
Continuity Correction			
Likelihood Ratio	761.676	6	.000
Linear-by-Linear Association	466.356	1	.000
N of Valid Cases	2291		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 1.01.

Figure 26: Ownership of Home, for Apartments and Condominiums

A3 Ownership for apartments and condominiums BY A2 Housing Type

	A2 Type of building your home is in		Total	A2 type of building or structure your home is in		Total
	Apartment: 5+ units in building, rented	Condominium: 5+ units in building, owned		Apartment: 5+ units in building, rented	Condominium: 5+ units in building, owned	
	Percent	Percent	Percent	N	N	N
Owned with a mortgage or loan	.4%	62.0%	22.6%	1	98	99
Owned free and clear	1.4%	31.6%	12.3%	4	50	54
Rented from owner or manager	97.2%	5.1%	64.0%	273	8	281
Occupied without payment of rent	1.1%	1.3%	1.1%	3	2	5
Total	100.0%	100.0%	100.0%	281	158	439

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	379.680[a]	3	.000
Continuity Correction			
Likelihood Ratio	454.515	3	.000
Linear-by-Linear Association	329.677	1	.000
N of Valid Cases	439		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.80.

Figure 27: Annual Period of Home Occupancy

A4 How your home is occupied

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year-round, occupied full_time	2255	95.7	98.0	98.0
	Seasonal or part-time, > 6 months of the year	39	1.7	1.7	99.7
	Vacant more than 6 months of the year	8	.3	.3	100.0
	Total	2302	97.7	100.0	
Missing	-9	54	2.3		
Total		2356	100.0		

Figure 28: Business Operated from Home

A5 Do you operate a business in your home during the day?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	226	9.6	10.9	10.9
	No	1839	78.1	89.1	100.0
	Total	2065	87.6	100.0	
Missing	-9	291	12.4		
Total		2356	100.0		

Figure 29: Years City Light Customer at This Address

K1 How long you have been a Seattle City Light customer at this address BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in past year	.5%		1.9%	.7%	8		8	16
1-5 years	22.2%	47.6%	55.7%	30.0%	375	59	239	673
6-10 years	15.9%	17.7%	15.9%	16.0%	268	22	68	358
11-20 years	25.0%	20.2%	17.9%	23.3%	421	25	77	523
21-30 years	13.6%	9.7%	5.4%	11.8%	229	12	23	264
30 or more years	22.9%	4.8%	3.3%	18.1%	386	6	14	406
Total	100.0%	100.0%	100.0%	100.0%	1687	124	429	2240

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	264.746[a]	10	.000
Continuity Correction			
Likelihood Ratio	280.481	10	.000
Linear-by-Linear Association	239.533	1	.000
N of Valid Cases	2240		

a. 2 cells (11.1%) have expected count less than 5. The minimum expected count is .89.

Figure 30: Years City Light Customer at Any Address

K2 How long you have been a Seattle City Light customer at ANY location BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in past year	.3%	.8%	.7%	.4%	5	1	3	9
1-5 years	7.2%	28.0%	29.7%	12.7%	121	35	127	283
6-10 years	11.9%	15.2%	18.2%	13.3%	199	19	78	296
11-20 years	24.3%	22.4%	22.7%	23.9%	406	28	97	531
21-30 years	18.0%	16.8%	11.0%	16.6%	301	21	47	369
30 or more years	38.2%	16.8%	17.8%	33.1%	638	21	76	735
Total	100.0%	100.0%	100.0%	100.0%	1670	125	428	2223

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	235.631[a]	10	.000
Continuity Correction			
Likelihood Ratio	218.376	10	.000
Linear-by-Linear Association	192.313	1	.000
N of Valid Cases	2223		

a. 2 cells (11.1%) have expected count less than 5. The minimum expected count is .51.

Figure 31: Household Total Gross Income in 2008

K9 Total gross income for your household, from all sources, in 2008 BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
<$25K	9.1%	17.9%	26.2%	13.0%	141	22	108	271
$25-45K	17.6%	18.7%	27.9%	19.7%	273	23	115	411
$45-70K	20.9%	20.3%	20.6%	20.8%	325	25	85	435
$70-100K	21.2%	24.4%	13.6%	19.9%	330	30	56	416
>$100K	31.3%	18.7%	11.7%	26.7%	486	23	48	557
Total	100.0%	100.0%	100.0%	100.0%	1555	123	412	2090

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	155.051[a]	8	.000
Continuity Correction			
Likelihood Ratio	152.575	8	.000
Linear-by-Linear Association	145.767	1	.000
N of Valid Cases	2090		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.95.

Figure 32: Respondent Households Eligible for Utility Rate Assistance or Project SHARE

A10 Number of Residents in Household BY K9 Total Gross Income for Your Household from All Sources in 2008

	<$25,000	$25-30,000	$30-35,000	$35-40,000	$40-45,000	$45-50,000	$50-55,000	$55-60,000	$60-65,000	$65-70,000	$70-100,000	>$100,000	Total	Eligible
1 resident	**7.4%**	3.2%	1.6%	2.3%	1.8%	1.9%	1.5%	0.6%	1.0%	0.7%	4.1%	2.3%	28.5%	**7.4%**
2 residents	**3.4%**	**1.9%**	**2.0%**	1.9%	1.7%	1.1%	1.7%	1.9%	1.6%	3.3%	9.0%	12.0%	41.3%	**7.3%**
3 residents	**1.2%**	**0.3%**	**0.1%**	**0.4%**	**0.5%**	0.5%	0.5%	0.5%	0.6%	0.8%	3.2%	6.2%	14.7%	**2.5%**
4 residents	**0.7%**	**0.4%**	**0.3%**	**0.2%**	**0.3%**	**0.1%**	0.2%	0.1%	0.3%	0.8%	2.4%	4.5%	10.4%	**2.0%**
5 residents	**0.1%**	**0.0%**	**0.0%**	**0.1%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	0.1%	0.2%	1.1%	1.1%	3.2%	**0.6%**
6+ residents	**0.2%**	**0.0%**	**0.2%**	**0.0%**	**0.2%**	**0.1%**	**0.2%**	**0.0%**	**0.1%**	**0.1%**	0.2%	0.4%	1.9%	**1.3%**
Total	13.0%	5.9%	4.2%	5.0%	4.6%	3.8%	4.2%	3.2%	3.8%	5.9%	19.9%	26.6%	100.0%	
Eligible	**13.0%**	**2.6%**	**2.6%**	**0.7%**	**1.1%**	**0.3%**	**0.3%**	**0.0%**	**0.1%**	**0.1%**				**21.0%**

Figure 33: Respondent Households Receiving Emergency Bill Payment Help from the City of Seattle in the Past 3 Years

K10 In the past 3 years, has your household ever received emergency bill payment help from the City of Seattle? BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes	1.6%	1.6%	6.4%	2.6%	28	2	28	58
No	95.8%	94.4%	88.5%	94.3%	1633	117	385	2135
Not sure / don't know	2.6%	4.0%	5.1%	3.1%	44	5	22	71
Total	100.0%	100.0%	100.0%	100.0%	1705	124	435	2264

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	40.619[a]	4	.000
Continuity Correction			
Likelihood Ratio	33.203	4	.000
Linear-by-Linear Association	2.660	1	.103
N of Valid Cases	2264		

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is 3.18.

Figure 34: Age of Survey Respondent

A11 Age group of person filling out questionnaire BY A2Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
15_18 years	.2%	.8%		.2%
19_24 years	.4%	.8%	2.5%	.8%
25_34 years	7.0%	23.4%	22.2%	10.9%
35_44 years	19.7%	16.4%	16.3%	18.8%
45_54 years	23.2%	18.8%	15.8%	21.6%
55_64 years	25.9%	25.0%	19.0%	24.5%
65_74 years	12.2%	8.6%	11.1%	11.8%
75year or more	11.4%	6.3%	13.1%	11.4%
Total	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	140.212[a]	14	.000
Continuity Correction			
Likelihood Ratio	123.915	14	.000
Linear-by-Linear Association	25.126	1	.000
N of Valid Cases	2282		

a. 5 cells (20.8%) have expected count less than 5. The minimum expected count is .22.

Trends over Three Decades of Residential Customer Characteristics Surveys

Figure 35: Number and Rate of Survey Responses: Trend over 3 Decades

SURVEY MAILINGS & RESPONDENTS

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
№ Mailed	5,000	5,007	5,000	5,230	5,236	5,327	5,055					4,990				5,372
№ Respondents	2,500	2,748	3,774	3,332	3,385	3,046	3,299					2,625				2,356
Response Rate	50.4%	54.9%	75.5%	63.7%	64.6%	57.2%	65.3%					52.6%				43.9%
Avg. 1978-1990							*61.6%*									

Figure 36: Housing Building Type: Trends over 3 Decades

HOUSING BUILDING TYPE

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Single Family	61.7%	67.9%	68.2%	68.8%	67.5%	68.2%	65.0%					67.7%				75.1%
Midsize/Multiplex	7.0%	6.2%	7.8%	7.3%	7.0%	6.7%	7.9%					5.1%				2.9%
Multifamily	29.7%	24.7%	22.8%	23.1%	24.2%	24.0%	27.0%					27.2%				20.1%
Others	1.7%	1.2%	1.1%	0.7%	1.2%	1.0%	0.1%					0.0%				1.9%
№ Cases	2,418	2,730	3,747	3,305	3,299	2,965	3,203					2,411				2,312

Figure 37: Housing Ownership: Trends over 3 Decades

HOUSING OWNERSHIP STATUS

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Own or Buying	60.8%	66.5%	66.8%	66.6%	65.5%	61.6%	65.3%					68.5%				80.1%
Rent or Lease	39.2%	33.5%	33.2%	33.4%	33.7%	37.8%	33.0%					31.0%				19.9%
№ Cases	2,366	2,694	3,718	3,279	3,262	2,935	3,158					2,394				2,291

Figure 38: Number of Household Occupants: Trends over 3 Decades

NUMBER OF HOUSEHOLD OCCUPANTS

Occupants	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
All Households		2.31	2.33	2.22	2.28	2.18	2.18					2.29				2.27
Single Family		2.62	2.54	2.50	2.56	2.42	2.43					2.54				2.44
Midsize/Multiplex				2.06	2.13	2.00	2.13					2.21				2.63
Multifamily		1.60	1.52	1.42	1.52	1.48	1.55					1.63				1.52

Figure 39: Decade Building Constructed: Trends over 3 Decades (stacked)

DECADE BUILDING CONSTRUCTED

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	*2000 **	2002	2004	2006	2009
Pre - 1940			34.4%	33.6%	33.6%	31.7%	31.5%					*32.4%*				33.3%
1940 - 1949			17.7%	17.1%	17.0%	17.0%	16.1%					*15.4%*				14.7%
1950 - 1959			20.0%	19.7%	19.3%	18.2%	18.7%					*18.2%*				17.7%
1960 - 1969			15.8%	15.3%	14.0%	13.6%	14.3%					*12.6%*				10.8%
1970 - 1979			9.7%	10.1%	9.4%	9.5%	8.0%					*6.9%*				5.7%
1980 - 1989			2.3%	4.3%	6.8%	10.1%	9.6%					*7.8%*				6.0%
1990 - 1999			0.0%	0.0%	0.0%	0.0%	1.6%					*4.2%*				6.7%
2000 - 2009			0.0%	0.0%	0.0%	0.0%	0.0%					*2.6%*				5.1%

** Avg. 1990-2009*

Figure 40: Number of Heated Rooms: Trends over 3 Decades (stacked)

NUMBER OF HEATED ROOMS

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	*2000 **	2002	2004	2006	2009
1 Room	1.9%	2.2%	3.6%	3.3%	2.9%	3.5%	3.6%					*4.7%*				5.8%
2 Rooms	5.0%	8.8%	9.4%	9.6%	10.5%	11.6%	9.2%					*8.8%*				8.3%
3 Rooms	16.5%	15.2%	15.8%	14.5%	13.0%	14.4%	13.4%					*11.9%*				10.4%
4 Rooms	18.4%	16.6%	19.9%	17.4%	17.0%	18.7%	16.2%					*14.7%*				13.1%
5 Rooms	16.6%	16.8%	17.3%	18.6%	18.3%	15.2%	16.7%					*15.5%*				14.2%
6 Rooms	14.9%	15.6%	13.7%	13.1%	14.1%	13.4%	14.2%					*14.5%*				14.8%
7 Rooms	12.0%	11.5%	9.1%	9.8%	10.7%	10.0%	11.1%					*11.5%*				11.8%
8 Rooms	7.3%	6.3%	5.5%	6.7%	7.0%	6.3%	7.0%					*8.0%*				9.0%
9+ Rooms	7.4%	7.1%	5.8%	7.1%	6.6%	7.1%	8.7%					*10.7%*				12.7%
Median № Rooms	*5.5*	*5.4*	*5.1*	*5.3*	*4.9*	*4.1*	*5.5*					*5.3*				*5.0*

** Avg. 1990-2009*

Major Findings ▪ 2

Home Heating

Main Home Heating System

Figure 41: Main Home Heat Equipment

B1_01 Main home heating equipment BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Forced air furnace	75.3%	37.5%	8.6%	60.7%	1270	45	36	1351
Baseboard w/ wall heater	9.3%	40.0%	65.8%	21.6%	156	48	277	481
Hydronic / radiant	5.3%	10.0%	8.8%	6.2%	90	12	37	139
Coil-cable / radiant	.8%		4.5%	1.4%	13		19	32
Heat pump	3.0%	.8%	1.9%	2.7%	51	1	8	60
Portable heater / radiator	1.5%	5.0%	5.0%	2.3%	25	6	21	52
Fireplace / stove	2.1%	1.7%	3.1%	2.2%	35	2	13	50
Cooking stove / oven	.1%	1.7%	.2%	.2%	1	2	1	4
Other equipment	2.4%	2.5%	1.4%	2.2%	41	3	6	50
Stated 'none'	.2%	.8%	.7%	.4%	4	1	3	8
Total	100.0%	100.0%	100.0%	100.0%	1686	120	421	2227

B1_1 Main heating equipment BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
B1_1 Main heating equipment	Forced air furnace	1270	45	36	1351
		89.1%	48.4%	11.5%	73.7%
	Baseboard w/ wall heater	156	48	277	481
		10.9%	51.6%	88.5%	26.3%
Total		1426	93	313	1832
		100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	829.936[a]	2	.000
Continuity Correction			
Likelihood Ratio	772.516	2	.000
Linear-by-Linear Association	829.325	1	.000
N of Valid Cases	1832		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.42.

B1_1 Main heating equipment BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
B1_1 Main heating equipment	Hydronic / radiant	90	12	37	139
		70.3%	66.7%	48.1%	62.3%
	Coil-cable / radiant	13		19	32
		10.2%		24.7%	14.3%
	Portable heater / radiator	25	6	21	52
		19.5%	33.3%	27.3%	23.3%
Total		128	18	77	223
		100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.832[a]	4	.003
Continuity Correction			
Likelihood Ratio	17.663	4	.001
Linear-by-Linear Association	4.602	1	.032
N of Valid Cases	223		

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is 2.58.

Figure 42: Main Home Heat Fuel

B1_01 Main home heating fuel BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	22.0%	54.2%	84.8%	35.6%	371	65	357	793
Natural gas	58.0%	41.7%	12.8%	48.6%	978	50	54	1082
Fuel oil / petrol	16.9%	.8%	1.2%	13.1%	285	1	5	291
Wood / pellets	1.0%			.8%	17			17
Solar energy			.2%	.0%			1	1
Other / multifuel	1.8%	2.5%	.2%	1.6%	31	3	1	35
Stated 'none'	.2%	.8%	.7%	.4%	4	1	3	8
Total	100.0%	100.0%	100.0%	100.0%	1686	120	421	2227

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	619.151[a]	10	.000
Continuity Correction			
Likelihood Ratio	639.309	10	.000
Linear-by-Linear Association	287.375	1	.000
N of Valid Cases	2227		

a. 5 cells (27.8%) have expected count less than 5. The minimum expected count is .43.

Figure 43: Main Home Heat System Age

B3 Age of your main home heating equipment that you use most now BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	1.6%	1.6%	.5%	1.4%	27	2	2	31
New in 2008	8.3%	4.7%	2.8%	7.1%	141	6	12	159
2- 10years	41.7%	29.1%	16.9%	36.3%	707	37	72	816
11- 20years	20.9%	18.1%	16.0%	19.8%	354	23	68	445
21-30 years	7.3%	7.9%	9.9%	7.8%	124	10	42	176
31or more years	11.5%	7.9%	9.9%	11.0%	195	10	42	247
Don't know	8.6%	30.7%	44.1%	16.6%	146	39	188	373
Total	100.0%	100.0%	100.0%	100.0%	1694	127	426	2247

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	362.490[a]	12	.000
Continuity Correction			
Likelihood Ratio	326.759	12	.000
Linear-by-Linear Association	273.923	1	.000
N of Valid Cases	2247		

a. 1 cells (4.8%) have expected count less than 5. The minimum expected count is 1.75.

Figure 44: Main Home Heat by Decade Building Constructed

B1_01 Main home heating fuel BY A6 Decade Building Constructed FOR Single Family Homes

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Electricity	11.6%	16.5%	15.5%	24.0%	26.9%	20.7%	17.1%	44.6%	61.8%	15.1%	5.0%	21.3%
Natural gas	71.3%	68.3%	63.5%	55.8%	50.9%	45.9%	65.8%	52.3%	36.4%	75.3%	91.7%	58.7%
Fuel oil / petrol	14.7%	12.2%	16.7%	19.2%	20.5%	30.1%	14.4%			4.1%		17.1%
Other	2.3%	2.9%	4.3%	1.0%	1.8%	3.3%	2.7%	3.1%	1.8%	5.5%	3.3%	2.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

B1_01 Main home heating fuel BY A6 Decade Building Constructed FOR Single Family Homes

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Electricity	15	23	36	25	76	68	25	29	34	11	3	345
Natural gas	92	95	148	58	144	151	96	34	20	55	55	948
Fuel oil / petrol	19	17	39	20	58	99	21			3		276
Other	3	4	10	1	5	11	4	2	1	4	2	47
Total	129	139	233	104	283	329	146	65	55	73	60	1616

B1_01 The main way you heat your home (recoded by fuel categories) BY A6 Decade Building Constructed FOR Single Family Homes in the last 3 decades

	A6 Decade in which your home was built			Total	A6 Decade in which your home was built			Total
	1980-1989	1990-1999	2000-2009		1980-1989	1990-1999	2000-2009	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	63.0%	16.7%	5.2%	27.0%	34	11	3	48
Gas	37.0%	83.3%	94.8%	73.0%	20	55	55	130
Total	100.0%	100.0%	100.0%	100.0%	54	66	58	178

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	53.071[a]	2	.000
Continuity Correction			
Likelihood Ratio	53.245	2	.000
Linear-by-Linear Association	46.427	1	.000
N of Valid Cases	178		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.56.

B1_01 Main home heating fuel BY A6 Decade Building Constructed FOR Multi family housing

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Electricity	78.6%	50.0%	47.4%	60.0%	42.9%	71.4%	93.8%	95.3%	91.5%	87.5%	69.2%	82 6%
Natural gas	21.4%	50.0%	42.1%	20.0%	57.1%	21.4%	6.3%	4.7%	6.8%	12.5%	30.8%	15 8%
Fuel oil / petrol			10.5%	20.0%					1.7%			1.3%
Other						7.1%						.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100 0%

B1_01 Main home heating fuel BY A6 Decade Building Constructed FOR Multi family housing

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Electricity	11	6	9	3	3	10	60	41	54	42	18	257
Natural gas	3	6	8	1	4	3	4	2	4	6	8	49
Fuel oil / petrol			2	1					1			4
Other						1						1
Total	14	12	19	5	7	14	64	43	59	48	26	311

B1_01 The main way you heat your home (recoded by fuel categories) BY A6 Decade Building Constructed FOR Multi Family Homes in the last 3 decades

	A6 Decade in which your home was built			Total	A6 Decade in which your home was built			Total
	1980-1989	1990-1999	2000-2009		1980-1989	1990-1999	2000-2009	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	93.1%	87.5%	69.2%	86.4%	54	42	18	114
Gas	6.9%	12.5%	30.8%	13.6%	4	6	8	18
Total	100.0%	100.0%	100.0%	100.0%	58	48	26	132

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.770[a]	2	.012
Continuity Correction			
Likelihood Ratio	7.776	2	.020
Linear-by-Linear Association	7.731	1	.005
N of Valid Cases	132		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.55.

Supplementary Home Heat

Figure 45: Additional Home Heat Equipment

B1_02 Additional home heating equipment BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Forced air furnace	5.6%	2.5%	.5%	4.4%	94	3	2	99
Baseboard w/ wall heater	10.5%	4.2%	9.0%	9.9%	178	5	38	221
Hydronic / radiant	1.9%	.8%	.2%	1.5%	32	1	1	34
Coil-cable / radiant	2.4%	1.7%	.7%	2.1%	41	2	3	46
Heat pump	.3%		.5%	.3%	5		2	7
Portable heater / radiator	20.3%	16.7%	10.2%	18.2%	343	20	43	406
Fireplace / stove	23.6%	17.5%	8.1%	20.4%	400	21	34	455
Cooking stove / oven	8.7%	13.3%	7.6%	8.7%	147	16	32	195
Other equipment	1.4%	2.5%	1.9%	1.5%	23	3	8	34
Stated 'none'	20.6%	30.8%	40.2%	24.9%	349	37	169	555
No reply	24.5%	22.5%	27.1%	24.9%	415	27	114	556
Total	100.0%	100.0%	100.0%	100.0%	1693	120	420	2233

Figure 46: Additional Home Heat Fuels

B1_02 Additional home heating fuel BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	38.3%	27.5%	26.7%	35.5%	648	33	112	793
Natural gas	20.2%	24.2%	7.1%	18.0%	342	29	30	401
Fuel oil / petrol	2.4%	.8%	.2%	1.9%	40	1	1	42
Wood / pellets	12.4%	4.2%	2.9%	10.2%	210	5	12	227
Solar energy	1.0%	1.7%	1.2%	1.1%	17	2	5	24
Other / multifuel	.4%	.8%	.7%	.4%	6	1	3	10
Stated 'none'	20.6%	30.8%	40.2%	24.9%	349	37	169	555
No reply	24.5%	22.5%	27.1%	24.9%	415	27	114	556
Total	100.0%	100.0%	100.0%	100.0%	1693	120	420	2233

Figure 47: Additional Home Heat by Main Heat Fuel

B1_2 Additional home heat by B1_1 Main home heat

	B1_1 Main heat fuel				
	Electricity	Natural gas	Fuel oil / petrol	Other	Total
None	30.2%	21.1%	21.9%	29.6%	24.7%
Electricity: Central forced-air furnace (with ducts)	1.5%	.5%			.8%
Electricity: Central heat pump (with ducts)	.4%		.3%	5.6%	.3%
Electricity: Baseboards or wall heaters	8.1%	10.9%	11.0%	14.8%	10.0%
Electricity: Radiant heat coils/cables (ceiling / floor)	1.4%	2.6%	2.1%	1.9%	2.0%
Electricity: Portable heaters or radiators	12.3%	17.3%	28.4%	9.3%	16.7%
Electricity: Plug_in fireplace	1.2%	1.0%	1.7%	1.9%	1.2%
Electricity: Cooking stove or oven	7.1%	3.1%	2.4%	7.4%	4.5%
Nat Gas: Central forced-air furnace (with ducts)	.9%	2.8%	.3%	3.7%	1.8%
Nat Gas: Radiators /bbrds/ in-floor piping	.2%	2.7%		5.6%	1.5%
Nat Gas: Gas fireplace	6.6%	15.1%	2.4%	11.1%	10.3%
Nat Gas: Cooking stove or oven	1.9%	6.6%	1.0%	7.4%	4.2%
Fuel Oil: Central forced-air furnace (with ducts)	1.6%	.6%	4.5%	5.6%	1.6%
Kerosene or oil space heater	.2%	.2%	.3%		.2%
Woodstove/ fireplace with stove insert	5.6%	4.4%	7.9%		5.2%
Fireplace alone, with air exchanger	1.6%	.7%	1.4%		1.1%
Fireplace alone, without air exchanger	2.1%	4.7%	5.5%	5.6%	3.9%
Active solar: w/ panel, pump and/or fans	.1%	.1%			.1%
Plasive solar: w/ collector windows / thermal mass	.5%	1.2%	.7%	5.6%	1.0%
OTHER	.7%	.3%	.3%		.4%
Skipped	19.2%	14.8%	13.0%		15.8%
No response	7.2%	10.0%	12.0%	13.0%	9.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

B1_2 Additional home heat by B1_1 Main home heat

	B1_1 Main heat fuel				
	Electricity	Natural gas	Fuel oil / petrol	Other	Total
None	244	230	64	16	554
Electricity: Central forced-air furnace (with ducts)	12	6			18
Electricity: Central heat pump (with ducts)	3		1	3	7
Electricity: Baseboards or wall heaters	65	119	32	8	224
Electricity: Radiant heat coils/cables (ceiling / floor)	11	28	6	1	46
Electricity: Portable heaters or radiators	99	189	83	5	376
Electricity: Plug_in fireplace	10	11	5	1	27
Electricity: Cooking stove or oven	57	34	7	4	102
Nat Gas: Central forced-air furnace (with ducts)	7	31	1	2	41
Nat Gas: Radiators /bbrds/ in-floor piping	2	29		3	34
Nat Gas: Gas fireplace	53	165	7	6	231
Nat Gas: Cooking stove or oven	15	72	3	4	94
Fuel Oil: Central forced-air furnace (with ducts)	13	7	13	3	36
Kerosene or oil space heater	2	2	1		5
Woodstove/ fireplace with stove insert	45	48	23		116
Fireplace alone, with air exchanger	13	8	4		25
Fireplace alone, without air exchanger	17	51	16	3	87
Active solar: w/ panel, pump and/or fans	1	1			2
Plasive solar: w/ collector windows / thermal mass	4	13	2	3	22
OTHER	6	3	1		10
Skipped	155	162	38		355
No response	58	109	35	7	209
Total	807	1092	292	54	2245

Figure 48: Additional Home Heat by Ownership

B1_02 Additional home heating BY A3 Ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
None	22.1%	21.5%	37.2%	10.5%	24.7%	277	117	156	2	552
Electricity: Central forced-air furnace (with ducts)	.9%	1.1%	.5%		.8%	11	6	2		19
Electricity: Central heat pump (with ducts)	.3%	.4%	.2%		.3%	4	2	1		7
Electricity: Baseboards or wall heaters	9.6%	11.2%	8.8%		9.8%	121	61	37		219
Electricity: Radiant heat coils/cables (ceiling / floor)	2.8%	1.1%	1.0%		2.0%	35	6	4		45
Electricity: Portable heaters or radiators	18.3%	14.3%	13.8%	10.5%	16.5%	230	78	58	2	368
Electricity: Plug_in fireplace	1.1%	1.5%	1.2%		1.2%	14	8	5		27
Electricity: Cooking stove or oven	2.9%	5.9%	6.4%	21.1%	4.4%	36	32	27	4	99
Nat Gas: Central forced-air furnace (with ducts)	2.3%	2.2%	.2%	5.3%	1.9%	29	12	1	1	43
Nat Gas: Radiators /bbrds/ in-floor piping	1.8%	1.5%	.2%	10.5%	1.5%	23	8	1	2	34
Nat Gas: Gas fireplace	13.6%	8.8%	2.1%		10.2%	171	48	9		228
Nat Gas: Cooking stove or oven	5.5%	3.3%	1.4%	5.3%	4.2%	69	18	6	1	94
Fuel Oil: Central forced-air furnace (with ducts)	1.7%	2.6%	.5%		1.7%	21	14	2		37
Kerosene or oil space heater	.2%	.2%	.2%		.2%	3	1	1		5
Woodstove/ fireplace with stove insert	6.0%	6.1%	1.0%	5.3%	5.1%	75	33	4	1	113
Fireplace alone, with air exchanger	1.2%	1.3%	.7%		1.1%	15	7	3		25
Fireplace alone, without air exchanger	5.0%	3.1%	1.4%		3.8%	63	17	6		86
Active solar: w/ panel, pump and/or fans	.1%	.2%			.1%	1	1			2
Plasive solar: w/ collector windows / thermal mass	.6%	2.0%	.7%		.9%	7	11	3		21
OTHER	.5%	.4%	.5%		.4%	6	2	2		10
Skipped	14.2%	15.8%	17.7%	26.3%	15.3%	178	86	74	5	343
No response	9.3%	14.0%	8.4%	10.5%	10.3%	117	76	35	2	230
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1255	544	419	19	2237

Figure 49: Additional Home Heat by Number of Rooms in Residence

B1_02 Additional home heating BY A9_01 Number of rooms in residence

	A9_01 Total number of rooms in your home												Total
	1	2	3	4	5	6	7	8	9	10	11	12 or more	
None	46.4%	28.4%	36.4%	32.5%	30.7%	25.6%	20.4%	20.1%	17.8%	17.8%	24.4%	15.3%	25.0%
Electricity: Central forced-air furnace (with ducts)	3.6%		1.2%		.4%	.9%	1.0%	1.1%	1.9%	1.3%			.9%
Electricity: Central heat pump (with ducts)					.4%		1.0%	.4%		.7%	1.3%		.3%
Electricity: Baseboards or wall heaters	3.6%	6.0%	6.2%	7.3%	7.1%	7.6%	10.0%	9.7%	13.1%	13.8%	20.5%	18.8%	9.8%
Electricity: Radiant heat coils/cables (ceiling / floor)		1.5%	1.2%	1.3%	.7%	2.4%	1.3%	1.4%	3.3%	2.6%	6.4%	5.9%	2.0%
Electricity: Portable heaters or radiators	7.1%	4.5%	7.4%	16.2%	13.9%	18.6%	18.1%	21.9%	19.2%	16.4%	19.2%	18.8%	16.7%
Electricity: Plug_in fireplace		1.5%	.6%	.9%	.7%	.9%	2.3%	2.5%	.9%	.7%		1.2%	1.2%
Electricity: Cooking stove or oven	10.7%	9.0%	7.4%	6.4%	4.3%	4.0%	4.5%	3.2%	.9%	2.0%		3.5%	4.2%
Nat Gas: Central forced-air furnace (with ducts)			.6%	3.0%	.4%	1.2%	2.3%	2.9%	2.8%	.7%	5.1%	4.7%	1.9%
Nat Gas: Radiators /bbrds/ in-floor piping			1.2%	.4%	1.8%	1.2%	1.3%	2.2%	1.4%	2.6%	1.3%	4.7%	1.5%
Nat Gas: Gas fireplace		1.5%	4.3%	6.0%	5.7%	9.1%	12.0%	13.7%	16.9%	16.4%	6.4%	18.8%	10.2%
Nat Gas: Cooking stove or oven		3.0%	2.5%	2.6%	4.3%	2.1%	5.2%	7.2%	6.1%	4.6%	2.6%	5.9%	4.2%
Fuel Oil: Central forced-air furnace (with ducts)	3.6%		.6%	2.6%	.7%	1.2%	3.6%	1.4%	1.4%	1.3%	2.6%		1.6%
Kerosene or oil space heater		1.5%				.3%	.3%	.4%	.5%				.2%
Woodstove/ fireplace with stove insert		1.5%	1.2%	3.4%	5.7%	4.6%	4.9%	5.8%	5.6%	6.6%	7.7%	11.8%	5.0%
Fireplace alone, with air exchanger		1.5%		.9%	.4%	1.5%	1.3%	1.8%	2.3%	.7%		1.2%	1.1%
Fireplace alone, without air exchanger			1.9%	.9%	4.3%	6.4%	3.6%	4.7%	5.6%	3.9%	5.1%	3.5%	3.9%
Active solar: w/ panel, pump and/or fans				.4%						.7%			.1%
Plasive solar: w/ collector windows / thermal mass	3.6%	1.5%	.6%	.9%	.4%	.6%	.3%	1.1%	1.4%	1.3%		2.4%	.9%
OTHER		1.5%	1.2%	.9%		.3%	.6%		.9%				.5%
Skipped	14.3%	28.4%	22.2%	15.4%	20.7%	15.5%	14.6%	10.1%	9.4%	16.4%	7.7%	8.2%	15.1%
No response	10.7%	14.9%	11.1%	9.0%	9.3%	9.1%	11.3%	10.1%	9.9%	11.8%	12.8%	8.2%	10.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

B1_02 Additional home heating BY A9_01 Number of rooms in residence

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
None	13	19	59	76	86	84	63	56	38	27	19	13	553
Electricity: Central forced-air furnace (with ducts)	1		2		1	3	3	3	4	2			19
Electricity: Central heat pump (with ducts)					1		3	1		1	1		7
Electricity: Baseboards or wall heaters	1	4	10	17	20	25	31	27	28	21	16	16	216
Electricity: Radiant heat coils/cables (ceiling / floor)		1	2	3	2	8	4	4	7	4	5	5	45
Electricity: Portable heaters or radiators	2	3	12	38	39	61	56	61	41	25	15	16	369
Electricity: Plug_in fireplace		1	1	2	2	3	7	7	2	1		1	27
Electricity: Cooking stove or oven	3	6	12	15	12	13	14	9	2	3		3	92
Nat Gas: Central forced-air furnace (with ducts)			1	7	1	4	7	8	6	1	4	4	43
Nat Gas: Radiators /bbrds/ in-floor piping			2	1	5	4	4	6	3	4	1	4	34
Nat Gas: Gas fireplace		1	7	14	16	30	37	38	36	25	5	16	225
Nat Gas: Cooking stove or oven		2	4	6	12	7	16	20	13	7	2	5	94
Fuel Oil: Central forced-air furnace (with ducts)	1		1	6	2	4	11	4	3	2	2		36
Kerosene or oil space heater		1				1	1	1	1				5
Woodstove/ fireplace with stove insert		1	2	8	16	15	15	16	12	10	6	10	111
Fireplace alone, with air exchanger		1		2	1	5	4	5	5	1		1	25
Fireplace alone, without air exchanger			3	2	12	21	11	13	12	6	4	3	87
Active solar: w/ panel, pump and/or fans				1						1			2
Plasive solar: w/ collector windows / thermal mass	1	1	1	2	1	2	1	3	3	2		2	19
OTHER		1	2	2		1	2		2				10
Skipped	4	19	36	36	58	51	45	28	20	25	6	7	335
No response	3	10	18	21	26	30	35	28	21	18	10	7	227
Total	28	67	162	234	280	328	309	278	213	152	78	85	2214

B1_02 Selected Additional Home Heating Equipment BY A9_01 Number of Rooms in Residence

№ Rooms:	1	2–3	4–6	7–9	10–12
Electricity: Portable heaters or radiators	7.4%	6.8%	16.4%	19.8%	18.1%
Natural Gas: Gas fireplace	0.0%	3.7%	7.1%	13.9%	14.8%
Electricity: Baseboards or wall heaters	3.7%	6.4%	7.4%	10.8%	17.1%
Woodstove/ fireplace with stove insert	0.0%	1.4%	4.6%	5.4%	8.4%
Natural Gas: Cooking stove or oven	0.0%	2.7%	3.0%	6.1%	4.5%
Electricity: Cooking stove or oven	11.1%	8.2%	4.8%	3.1%	1.9%
Fireplace alone, without air exchanger	0.0%	1.4%	4.2%	4.5%	4.2%

Figure 50: Additional Home Heat by Number of Household Occupants

B1_02 Additional home heating BY A10 Number of people living in household

	A10 People living in this household at least 6 months of 2008									
	1 resident	2 resident	3 residents	4 residents	5 residents	6 residents	7 residents	8 residents	9 residents or more	Total
None	29.4%	25.3%	18.7%	17.2%	30.4%	7.4%	14.3%		40.0%	24.5%
Electricity: Central forced-air furnace (with ducts)	.6%	.8%	1.2%	.9%	1.4%					.8%
Electricity: Central heat pump (with ducts)		.4%	.6%	.4%						.3%
Electricity: Baseboards or wall heaters	7.0%	10.5%	11.1%	12.3%	10.1%	14.8%	14.3%		20.0%	9.8%
Electricity: Radiant heat coils/cables (ceiling / floor)	.8%	1.9%	3.9%	1.8%	4.3%	7.4%			20.0%	2.0%
Electricity: Portable heaters or radiators	13.8%	14.7%	21.7%	22.9%	15.9%	29.6%	14.3%	40.0%	20.0%	16.6%
Electricity: Plug_in fireplace	1.4%	1.1%	.9%	1.8%				20.0%		1.2%
Electricity: Cooking stove or oven	6.5%	3.9%	3.3%	1.3%	5.8%	7.4%	14.3%			4.4%
Nat Gas: Central forced-air furnace (with ducts)	1.4%	2.1%	1.5%	3.1%	1.4%			20.0%		1.9%
Nat Gas: Radiators /bbrds/ in-floor piping	.8%	1.1%	2.1%	2.6%	7.2%	3.7%				1.5%
Nat Gas: Gas fireplace	6.5%	11.0%	13.0%	11.0%	13.0%	14.8%	14.3%		20.0%	10.1%
Nat Gas: Cooking stove or oven	3.2%	4.1%	4.2%	6.2%	5.8%	7.4%	14.3%	20.0%		4.2%
Fuel Oil: Central forced-air furnace (with ducts)	.8%	2.4%	1.2%	.9%	4.3%					1.6%
Kerosene or oil space heater		.2%	.6%			3.7%				.2%
Woodstove/ fireplace with stove insert	3.8%	6.3%	4.5%	4.0%	8.7%					5.1%
Fireplace alone, with air exchanger	1.6%	1.2%	.9%	.4%						1.1%
Fireplace alone, without air exchanger	3.0%	3.8%	5.7%	2.6%	8.7%	3.7%				3.9%
Active solar: w/ panel, pump and/or fans	.2%			.4%						.1%
Plasive solar: w/ collector windows / thermal mass	.5%	1.3%	.3%	1.8%	1.4%					.9%
OTHER	.5%	.5%	.3%	.4%						.4%
Skipped	18.9%	14.2%	13.9%	14.1%	10.1%	22.2%		40.0%		15.4%
No response	10.2%	11.0%	9.3%	11.9%	4.3%	3.7%	14.3%			10.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

B1_02 Additional home heating BY A10 Number of people living in household

	A10 People living in this household at least 6 months of 2008									
	1 resident	2 resident	3 residents	4 residents	5 residents	6 residents	7 residents	8 residents	9 residents or more	Total
None	185	239	62	39	21	2	1		2	551
Electricity: Central forced-air furnace (with ducts)	4	8	4	2	1					19
Electricity: Central heat pump (with ducts)		4	2	1						7
Electricity: Baseboards or wall heaters	44	99	37	28	7	4	1		1	221
Electricity: Radiant heat coils/cables (ceiling / floor)	5	18	13	4	3	2			1	46
Electricity: Portable heaters or radiators	87	139	72	52	11	8	1	2	1	373
Electricity: Plug_in fireplace	9	10	3	4				1		27
Electricity: Cooking stove or oven	41	37	11	3	4	2	1			99
Nat Gas: Central forced-air furnace (with ducts)	9	20	5	7	1			1		43
Nat Gas: Radiators /bbrds/ in-floor piping	5	10	7	6	5	1				34
Nat Gas: Gas fireplace	41	104	43	25	9	4	1		1	228
Nat Gas: Cooking stove or oven	20	39	14	14	4	2	1	1		95
Fuel Oil: Central forced-air furnace (with ducts)	5	23	4	2	3					37
Kerosene or oil space heater		2	2			1				5
Woodstove/ fireplace with stove insert	24	60	15	9	6					114
Fireplace alone, with air exchanger	10	11	3	1						25
Fireplace alone, without air exchanger	19	36	19	6	6	1				87
Active solar: w/ panel, pump and/or fans	1			1						2
Plasive solar: w/ collector windows / thermal mass	3	12	1	4	1					21
OTHER	3	5	1	1						10
Skipped	119	134	46	32	7	6		2		346
No response	64	104	31	27	3	1	1			231
Total	630	946	332	227	69	27	7	5	5	2248

Changes in Home Heat

Figure 51: Prior Main Home Heat System, in Homes that Changed Systems since January 2007

B1_1 / B1_3 Homes changing heating system by A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Changed	7.3%	3.2%	3.2%	6.4%	101	3	10	114
No change	92.7%	96.8%	96.8%	93.6%	1281	92	300	1673
Total	100.0%	100.0%	100.0%	100.0%	1382	95	310	1787

B1_1 / B1_3 Homes changing heating system by A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Changed	5.8%	2.3%	2.2%	4.9%	101	3	10	114
No change	73.8%	71.3%	67.1%	72.4%	1281	92	300	1673
Don't know	1.7%	3.9%	4.5%	2.4%	30	5	20	55
No response (-9)	18.7%	22.5%	26.2%	20.3%	324	29	117	470
Total	100.0%	100.0%	100.0%	100.0%	1736	129	447	2312

B1_3 Prior home heating system BY A2 Housing Type WHERE Homes changed heating systems

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity: Central forced-air furnace (with ducts)	15.8%	33.3%	20.0%	16.7%	16	1	2	19
Electricity: Central heat pump (with ducts)	3.0%			2.6%	3			3
Electricity: Baseboards or wall heaters	12.9%		30.0%	14.0%	13		3	16
Electricity: Radiant heat coils/cables (ceiling / floor)		33.3%	10.0%	1.8%		1	1	2
Electricity: Portable heaters or radiators	5.9%			5.3%	6			6
Nat Gas: Central forced-air furnace (with ducts)	11.9%	33.3%	20.0%	13.2%	12	1	2	15
Nat Gas: Radiators /bbrds/ in-floor piping			10.0%	.9%			1	1
Nat Gas: Gas fireplace	2.0%			1.8%	2			2
Nat Gas: Cooking stove or oven	1.0%			.9%	1			1
Fuel Oil: Central forced-air furnace (with ducts)	41.6%			36.8%	42			42
Woodstove/ fireplace with stove insert	3.0%			2.6%	3			3
Fireplace alone, with air exchanger			10.0%	.9%			1	1
OTHER	3.0%			2.6%	3			3
Total	100.0%	100.0%	100.0%	100.0%	101	3	10	114

Figure 52: Main Heat Now, for Households with Change from Prior Main Home Heat System, before January 2007

1_1 Main home heating system BY A2 Housing Type WHERE B1_3 Prior heat was oil forced air

	A2 Housing Type	Total	A2 Housing Type	Total
	Single Family		Single Family	
	Percent	Percent	N	N
Electricity: Central forced-air furnace (with ducts)	7.1%	7.1%	3	3
Electricity: Central heat pump (with ducts)	11.9%	11.9%	5	5
Electricity: Portable heaters or radiators	14.3%	14.3%	6	6
Nat Gas: Central forced-air furnace (with ducts)	52.4%	52.4%	22	22
Nat Gas: Radiators /bbrds/ in-floor piping	4.8%	4.8%	2	2
Woodstove/ fireplace with stove insert	7.1%	7.1%	3	3
Both electric and gas forced air furnace(s)	2.4%	2.4%	1	1
Total	100.0%	100.0%	42	42

B1_1 Main home heating system BY A2 Housing Type WHERE B1_3 Prior heat was electric forced air

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity: Central heat pump (with ducts)	25.0%			21.1%	4			4
Electricity: Baseboards or wall heaters	6.3%			5.3%	1			1
Electricity: Radiant heat coils/cables (ceiling / floor)	12.5%			10.5%	2			2
Electricity: Portable heaters or radiators			50.0%	5.3%			1	1
Electricity: Plug_in fireplace		100.0%		5.3%		1		1
Nat Gas: Central forced-air furnace (with ducts)	31.3%			26.3%	5			5
Nat Gas: Gas fireplace	6.3%		50.0%	10.5%	1		1	2
Fuel Oil: Central forced-air furnace (with ducts)	6.3%			5.3%	1			1
Woodstove/ fireplace with stove insert	6.3%			5.3%	1			1
Both electric and gas forced air furnace(s)	6.3%			5.3%	1			1
Total	100.0%	100.0%	100.0%	100.0%	16	1	2	19

Figure 53: Reasons for Change in Home Heat System since January 2007 (2 years ago)

B2 Reasons for making the change in your home heating BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Replace worn out equipment	43.2%	35.3%	24.5%	40.9%	178	6	13	197
Make my home safer	13.8%	5.9%	15.1%	13.7%	57	1	8	66
Make my home cleaner	21.6%	17.6%	7.5%	19.9%	89	3	4	96
Make my home more comfortable	35.9%	29.4%	28.3%	34.9%	148	5	15	168
Lower my energy bills	66.5%	41.2%	52.8%	64.1%	274	7	28	309
Save energy	50.5%	41.2%	41.5%	49.2%	208	7	22	237
Live more sustainably	14.8%	5.9%	13.2%	14.3%	61	1	7	69
Reduce my 'carbon footprint'	14.3%	5.9%	9.4%	13.5%	59	1	5	65
No more deliveries of oil or bottled fuel	10.2%		1.9%	8.9%	42		1	43
Total	100.0%	100.0%	100.0%	100.0%	412	17	53	482

Thermostat Control

Figure 54: Number of Thermostat Controls

B4 Number of thermostats that control your main or most-used home heating equipment BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	3.8%	8.8%	14.1%	6.0%	64	11	61	136
1 thermostat	81.9%	49.6%	30.6%	70.3%	1391	62	132	1585
2 thermostats	6.2%	12.0%	28.0%	10.7%	105	15	121	241
3 thermostats	2.9%	14.4%	20.8%	7.0%	50	18	90	158
4 thermostats	1.8%	8.0%	3.9%	2.5%	30	10	17	57
5 or more thermostats	3.5%	7.2%	2.5%	3.5%	59	9	11	79
Total	100.0%	100.0%	100.0%	100.0%	1699	125	432	2256

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	549.774[a]	10	.000
Continuity Correction			
Likelihood Ratio	493.510	10	.000
Linear-by-Linear Association	93.751	1	.000
N of Valid Cases	2256		

a. 2 cells (11.1%) have expected count less than 5. The minimum expected count is 3.16.

Figure 55: Proportion of Thermostats that are Programmable

B6 Do you have a programmable thermostat, with a clock that allows different settings for times of day? BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes	61.2%	27.8%	8.6%	49.2%	1028	35	37	1100
No	38.8%	72.2%	91.4%	50.8%	653	91	393	1137
Total	100.0%	100.0%	100.0%	100.0%	1681	126	430	2237

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	402.778[a]	2	.000
Continuity Correction			
Likelihood Ratio	453.406	2	.000
Linear-by-Linear Association	400.270	1	.000
N of Valid Cases	2237		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 61.96.

Figure 56: Time Settings Allowed by Programmable Thermostats

B7 Time settings that your programmable thermostat allows BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Seasons of the year (or, change for daylight savings time)	17.5%	21.9%	28.6%	17.9%	164	7	8	179
Day of the week (7 days, or weekday/weekend)	73.5%	84.4%	67.9%	73.6%	689	27	19	735
Morning, day, evening, and night (4 periods)	75.3%	68.8%	67.9%	74.8%	706	22	19	747
Day and night only (2 periods)	18.1%	25.0%	25.0%	18.5%	170	8	7	185
Total	100.0%	100.0%	100.0%	100.0%	938	32	28	998

Figure 57: Thermostat Temperature Settings (by four daily time periods)

B5_01 Thermostat winter-time temperature settings Morning: 6 AM-9 AM BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
OFF	3.7%	10.3%	19.9%	6.9%	61	12	75	148
55 or less	3.6%	7.7%	6.4%	4.3%	60	9	24	93
56-59	4.5%	7.7%	6.1%	4.9%	74	9	23	106
60-61	8.1%	9.4%	9.0%	8.3%	134	11	34	179
62-63	6.8%	6.0%	5.1%	6.5%	113	7	19	139
64-65	14.5%	12.8%	11.4%	13.8%	239	15	43	297
66-67	16.5%	12.0%	9.8%	15.1%	273	14	37	324
68-69	26.1%	21.4%	17.3%	24.3%	432	25	65	522
70-71	12.4%	10.3%	9.0%	11.7%	205	12	34	251
72-73	2.9%	.9%	3.2%	2.8%	48	1	12	61
74 or more	.8%	1.7%	2.7%	1.2%	14	2	10	26
Total	100.0%	100.0%	100.0%	100.0%	1653	117	376	2146

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	169.398[a]	20	.000
Continuity Correction			
Likelihood Ratio	142.585	20	.000
Linear-by-Linear Association	79.849	1	.000
N of Valid Cases	2146		

a. 3 cells (9.1%) have expected count less than 5. The minimum expected count is 1.42.

B5_02 Thermostat winter-time temperature settings Day: 9 AM-5 PM BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
OFF	5.9%	15.7%	27.0%	10.2%	97	18	101	216
55 or less	7.1%	8.7%	8.6%	7.4%	116	10	32	158
56-59	6.9%	7.8%	5.1%	6.6%	113	9	19	141
60-61	11.8%	10.4%	11.0%	11.6%	193	12	41	246
62-63	9.9%	7.0%	6.1%	9.1%	162	8	23	193
64-65	16.1%	16.5%	9.1%	14.9%	263	19	34	316
66-67	13.3%	8.7%	7.8%	12.1%	217	10	29	256
68-69	16.8%	16.5%	12.6%	16.1%	275	19	47	341
70-71	8.5%	6.1%	7.0%	8.1%	139	7	26	172
72-73	2.9%	.9%	3.5%	2.9%	48	1	13	62
74 or more	.7%	1.7%	2.4%	1.0%	11	2	9	22
Total	100.0%	100.0%	100.0%	100.0%	1634	115	374	2123

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	180.508[a]	20	.000
Continuity Correction			
Likelihood Ratio	154.345	20	.000
Linear-by-Linear Association	54.930	1	.000
N of Valid Cases	2123		

a. 3 cells (9.1%) have expected count less than 5. The minimum expected count is 1.19.

B5_03 Thermostat winter-time temperature settings Evening: 5 PM-10 PM BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
OFF	1.1%	4.3%	10.7%	3.0%	18	5	40	63
55 or less	1.0%	3.4%	3.5%	1.6%	17	4	13	34
56-59	1.8%	4.3%	4.8%	2.5%	30	5	18	53
60-61	3.9%	4.3%	7.2%	4.5%	63	5	27	95
62-63	4.2%	6.0%	5.9%	4.6%	69	7	22	98
64-65	13.4%	19.8%	15.5%	14.2%	220	23	58	301
66-67	16.9%	11.2%	9.6%	15.3%	277	13	36	326
68-69	34.2%	24.1%	20.8%	31.3%	560	28	78	666
70-71	17.8%	17.2%	13.6%	17.0%	291	20	51	362
72-73	4.6%	1.7%	5.1%	4.6%	76	2	19	97
74 or more	.9%	3.4%	3.5%	1.5%	15	4	13	32
Total	100.0%	100.0%	100.0%	100.0%	1636	116	375	2127

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	188.312[a]	20	.000
Continuity Correction			
Likelihood Ratio	159.740	20	.000
Linear-by-Linear Association	87.345	1	.000
N of Valid Cases	2127		

a. 4 cells (12.1%) have expected count less than 5. The minimum expected count is 1.75.

B5_04 Thermostat winter-time temperature settings Night: 10 PM-6 AM BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
OFF	8.2%	17.8%	24.5%	11.6%	134	21	92	247
55 or less	13.4%	9.3%	13.6%	13.2%	219	11	51	281
56-59	12.2%	12.7%	7.5%	11.4%	200	15	28	243
60-61	16.8%	14.4%	12.3%	15.9%	276	17	46	339
62-63	13.2%	5.9%	6.4%	11.6%	217	7	24	248
64-65	16.0%	7.6%	10.1%	14.5%	262	9	38	309
66-67	8.8%	11.9%	6.4%	8.5%	144	14	24	182
68-69	6.4%	12.7%	12.3%	7.8%	105	15	46	166
70-71	3.5%	5.1%	4.3%	3.8%	58	6	16	80
72-73	1.1%	.8%	1.6%	1.2%	18	1	6	25
74 or more	.3%	1.7%	1.1%	.5%	5	2	4	11
Total	100.0%	100.0%	100.0%	100.0%	1638	118	375	2131

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	143.032[a]	20	.000
Continuity Correction			
Likelihood Ratio	132.457	20	.000
Linear-by-Linear Association	5.885	1	.015
N of Valid Cases	2131		

a. 5 cells (15.2%) have expected count less than 5. The minimum expected count is .61.

Figure 58: Thermostat Temperature Settings: Average (mean) by Period of Day

B5 Thermostat winter time temperature settings

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
B5_1 Thermostat winter-time temperature settings: Morning 6 AM-9 AM"	Mean	65.30	63.22	62.10	64.62
	Std Deviation	5.14	6.57	7.66	5.88
	Valid N	1653	117	376	2146
B5_2 Thermostat winter-time temperature settings: Day 9 AM-5 PM"	Mean	63.57	61.77	60.48	62.93
	Std Deviation	5.73	6.89	7.95	6.35
	Valid N	1634	115	374	2123
B5_3 Thermostat winter-time temperature settings: Evening 5 PM-10 PM"	Mean	67.13	65.71	64.53	66.59
	Std Deviation	3.85	5.49	6.77	4.70
	Valid N	1636	116	375	2127
B5_4 Thermostat winter-time temperature settings: Night 10 PM-6 AM"	Mean	61.02	60.76	59.63	60.76
	Std Deviation	5.49	6.94	7.24	5.94
	Valid N	1638	118	375	2131

B5 Thermostat Winter-time Temperature Settings

Setting in °F	Single Family	Midsize	Multifamily
B5_1 Morning 6 AM – 9 AM			
Mean	65.30	63.46	61.97
Std. Deviation	5.13	6.51	7.72
№ of Cases: 2,029	1,560	113	356
B5_2 Day 9 AM – 5 AM			
Mean	63.55	61.91	60.34
Std. Deviation	5.73	6.85	7.93
№ of Cases: 2,029	1,560	113	356
B5_3 Evening 5 PM – 10 PM			
Mean	67.13	65.69	64.38
Std. Deviation	3.85	5.54	6.83
№ of Cases: 2,029	1,560	113	356
B5_4 Night 10 PM – 6 AM			
Mean	61.17	60.65	59.48
Std. Deviation	5.49	6.80	7.31
№ of Cases: 2,029	1,560	113	356

Figure 59: Thermostat Temperature Settings by Whether Business is Operated in Home

B5_02 Typical winter-time temperature settings of your main thermostat Day: 9 AM-5 PM BY Home business FOR Single family homes

	A5 Do you operate a business in your home during the day?		Total	A5 Do you operate a business in your home during the day?		Total
	Yes	No		Yes	No	
	Percent	Percent	Percent	N	N	N
OFF	2.2%	6.2%	5.7%	4	79	83
55 or less	2.2%	7.4%	6.8%	4	95	99
56-59	6.1%	7.2%	7.0%	11	92	103
60-61	13.4%	12.2%	12.4%	24	157	181
62-63	11.2%	10.2%	10.3%	20	131	151
64-65	16.2%	15.9%	15.9%	29	204	233
66-67	23.5%	12.2%	13.6%	42	156	198
68-69	17.3%	17.0%	17.0%	31	218	249
70-71	5.6%	8.2%	7.9%	10	105	115
72-73	2.2%	2.9%	2.8%	4	37	41
74 or more		.6%	.5%		8	8
Total	100.0%	100.0%	100.0%	179	1282	1461

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.532[a]	10	.001
Continuity Correction			
Likelihood Ratio	30.401	10	.001
Linear-by-Linear Association	4.035	1	.045
N of Valid Cases	1461		

a. 1 cells (4.5%) have expected count less than 5. The minimum expected count is .98.

Figure 60: Thermostat Temperature Settings: Night-time Set Back in Single Family Homes

B5 Thermostat temperature settings: night-time setback BY B6 Programmable thermostat FOR A2 Single Family Housing

	B6 Have prog. thermostat?		Total	B6 Have prog. thermostat?		Total
	Yes	No		Yes	No	
	Percent	Percent	Percent	N	N	N
0	12.9%	31.5%	19.9%	116	172	288
1-2	8.5%	7.0%	7.9%	77	38	115
3-4	17.9%	9.3%	14.7%	161	51	212
5-6	19.0%	12.3%	16.4%	171	67	238
7-8	16.4%	11.4%	14.5%	148	62	210
9-10	4.0%	4.2%	4.1%	36	23	59
11-12	10.9%	8.4%	10.0%	98	46	144
13-14	5.9%	6.4%	6.1%	53	35	88
15-20	3.8%	6.2%	4.7%	34	34	68
21+	.8%	3.3%	1.7%	7	18	25
Total	100.0%	100.0%	100.0%	901	546	1447

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	111.645[a]	9	.000
Continuity Correction			
Likelihood Ratio	110.527	9	.000
Linear-by-Linear Association	3.907	1	.048
N of Valid Cases	1447		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.43.

B5 Thermostat Winter-time Temperature Settings: Night-time Setback in Single Family Homes

Evening to Night-time Setback in °F	All Thermostats	Programmable Thermostats	Manual Thermostats
Increased °F	1.5%	1.0%	2.2%
0	19.8%	12.5%	31.5%
1 – 2	9.0%	10.1%	7.3%
3 – 4	15.5%	18.7%	10.3%
5 – 6	16.4%	19.6%	11.2%
7 – 8	12.3%	13.6%	10.5%
9 – 10	6.4%	6.5%	6.5%
11 – 12	6.8%	7.8%	5.2%
13 – 14	6.0%	5.7%	6.3%
15 – 20	6.2%	4.1%	9.1%
Average °F Setback	5.97	5.91	5.53
Std. Deviation	5.31	—	—
№ Cases	1,560	961	590

Trends over Three Decades of Residential Customer Characteristics Surveys

Figure 61: Main Home Heating Fuel: Trends over 3 Decades

MAIN HOME HEATING FUEL

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Electric	35.0%	34.2%	37.9%	40.0%	40.4%	45.8%	43.4%					39.7%				35.6%
Nonelectric	65.0%	65.8%	62.3%	59.9%	59.6%	54.2%	56.6%					60.3%				64.4%
№ Cases	2,385	2,689	3,743	3,296	3,203	2,921	3,192					2,439				2,227

Figure 62: Main Home Heating Fuel in Single Family Detached Homes: Trends over 3 Decades

MAIN HOME HEATING FUEL: Single Family Detached

Fuel	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Electric		19.6%	25.9%	23.2%	23.3%	22.9%	24.4%					20.4%				22.0%
Natural Gas		29.6%	28.9%	31.8%	33.6%	35.2%	36.4%					53.0%				58.0%
Oil		48.5%	37.6%	40.7%	37.9%	38.7%	35.6%					26.0%				16.9%
Others		2.3%	7.6%	4.1%	5.2%	3.2%	3.5%					0.6%				3.1%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%					100.0%				100.0%

Figure 63: Main Home Heating Fuel in Midsize Attached (multiplex) Homes: Trends over 3 Decades

MAIN HOME HEATING FUEL: Midsize Attached (multiplex)

Fuel	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Electric		57.7%		63.3%	58.4%	56.4%	58.8%					65.5%				54.2%
Natural Gas		22.4%		26.3%	25.6%	29.8%	24.5%					27.3%				41.7%
Oil		16.7%		7.9%	11.9%	13.3%	14.2%					6.1%				0.8%
Others		3.2%		2.5%	4.1%	0.5%	2.5%					1.2%				3.3%
		100.0%		100.0%	100.0%	100.0%	100.0%					100.0%				100.0%

Figure 64: Main Home Heating Fuel in Multifamily Homes: Trends over 3 Decades

MAIN HOME HEATING FUEL: Multifamily

Fuel	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Electric		68.5%	57.5%	82.7%	84.0%	90.4%	86.3%					92.1%				84.8%
Natural Gas		24.7%	33.4%	9.4%	6.8%	6.4%	7.1%					5.4%				12.8%
Oil		3.8%	6.0%	3.9%	3.6%	1.7%	2.0%					1.3%				1.2%
Others		3.0%	2.9%	3.9%	5.6%	1.5%	4.5%					1.1%				1.2%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%					100.0%				100.0%

Major Findings ▪ 3

Home Cooling

Fans for Summer Cooling

Figure 65: Use of Fans for Summer Cooling, Among All Survey Respondents

C1 Kinds of fans you use during the summer heat BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Portable fans	72.0%	72.0%	66.7%	70.9%	1218	90	294	1602
Ceiling fans	20.6%	15.2%	12.7%	18.8%	349	19	56	424
Bathroom/kitchen fans	11.1%	12.0%	9.3%	10.8%	188	15	41	244
Whole house fan	7.7%	4.0%	1.6%	6.3%	130	5	7	142
Attic fans	3.8%	.8%	.9%	3.1%	65	1	4	70
Window fan	9.0%	10.4%	6.6%	8.6%	153	13	29	195
None	15.7%	16.8%	24.3%	17.4%	265	21	107	393
Total	100.0%	100.0%	100.0%	100.0%	1692	125	441	2258

Air Conditioning Equipment & Use

Figure 66: Homes Having Air Conditioning

C3 Do you have air conditioning in your home now? BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes	14.3%	13.9%	12.7%	14.0%	238	17	54	309
No	85.7%	86.1%	87.3%	86.0%	1421	105	372	1898
Total	100.0%	100.0%	100.0%	100.0%	1659	122	426	2207

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.786[a]	2	.675
Continuity Correction			
Likelihood Ratio	.802	2	.670
Linear-by-Linear Association	.769	1	.381
N of Valid Cases	2207		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.08.

Figure 67: Type of AC Equipment in Homes Having Air Conditioning

C4 Type of air conditioning that you have BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Mid-size	Multifamily		Single Family	Mid-size	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Central heat pump (with ducts) that provides cooling	41.3%	25.0%	21.2%	36.8%	92	4	11	107
Another type of central air conditioning	9.9%		9.6%	9.3%	22		5	27
Window or wall air conditioners	30.0%	37.5%	46.2%	33.3%	67	6	24	97
Portable units	17.5%	37.5%	19.2%	18.9%	39	6	10	55
Evaporative unit ('swamp cooler')	1.3%		3.8%	1.7%	3		2	5
Total	100.0%	100.0%	100.0%	100.0%	223	16	52	291

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.209[a]	8	.055
Continuity Correction			
Likelihood Ratio	16.373	8	.037
Linear-by-Linear Association	7.796	1	.005
N of Valid Cases	291		

a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is .27.

C4 Type of air conditioning that you have BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Multifamily		Single Family	Multifamily	
	Percent	Percent	Percent	N	N	N
Central heat pump (with ducts) that provides cooling	41.3%	21.2%	37.5%	92	11	103
Another type of central air conditioning	9.9%	9.6%	9.8%	22	5	27
Window or wall air conditioners	30.0%	46.2%	33.1%	67	24	91
Portable units	17.5%	19.2%	17.8%	39	10	49
Evaporative unit ('swamp cooler')	1.3%	3.8%	1.8%	3	2	5
Total	100.0%	100.0%	100.0%	223	52	275

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.381[a]	4	.052
Continuity Correction			
Likelihood Ratio	9.510	4	.050
Linear-by-Linear Association	6.468	1	.011
N of Valid Cases	275		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is .95.

Figure 68: Age of AC Equipment in Homes Having Air Conditioning

C5 Age of your main air conditioner that you use most BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Mid-size	Multifamily		Single Family	Mid-size	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Don't know	5.4%	6.3%	3.8%	5.2%	12	1	2	15
New in 2009	.5%	6.3%	3.8%	1.4%	1	1	2	4
New in 2008	13.1%	18.8%	21.2%	14.8%	29	3	11	43
2- 3years	34.2%	31.3%	17.3%	31.0%	76	5	9	90
4- 5years	19.4%	25.0%	13.5%	18.6%	43	4	7	54
6-10 years	14.4%	6.3%	11.5%	13.4%	32	1	6	39
11-15 years	7.2%	6.3%	26.9%	10.7%	16	1	14	31
16-20 years	2.7%		1.9%	2.4%	6		1	7
21 years or more	3.2%			2.4%	7			7
Total	100.0%	100.0%	100.0%	100.0%	222	16	52	290

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.959[a]	16	.007
Continuity Correction			
Likelihood Ratio	30.581	16	.015
Linear-by-Linear Association	.179	1	.672
N of Valid Cases	290		

a. 14 cells (51.9%) have expected count less than 5. The minimum expected count is .22.

C5 Age of your main air conditioner that you use most BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Multifamily		Single Family	Multifamily	
	Percent	Percent	Percent	N	N	N
Don't know	5.4%	3.8%	5.1%	12	2	14
New in 2009	.5%	3.8%	1.1%	1	2	3
New in 2008	13.1%	21.2%	14.6%	29	11	40
2- 3years	34.2%	17.3%	31.0%	76	9	85
4- 5years	19.4%	13.5%	18.2%	43	7	50
6-10 years	14.4%	11.5%	13.9%	32	6	38
11-15 years	7.2%	26.9%	10.9%	16	14	30
16-20 years	2.7%	1.9%	2.6%	6	1	7
21 years or more	3.2%		2.6%	7		7
Total	100.0%	100.0%	100.0%	222	52	274

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.173[a]	8	.000
Continuity Correction			
Likelihood Ratio	25.649	8	.001
Linear-by-Linear Association	.484	1	.486
N of Valid Cases	274		

a. 5 cells (27.8%) have expected count less than 5. The minimum expected count is .57.

Figure 69: AC Usage in Homes Having Air Conditioning (days per year)

C7 How many days per year you use air conditioning BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Mid-size	Multifamily		Single Family	Mid-size	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-10 days	25.9%	33.3%	13.6%	24.4%	55	5	6	66
11-20 days	23.1%	20.0%	9.1%	20.7%	49	3	4	56
21-30 days	19.3%	13.3%	25.0%	19.9%	41	2	11	54
31-40 days	9.9%		22.7%	11.4%	21		10	31
41-50 days	3.8%		4.5%	3.7%	8		2	10
51-60 days	7.1%	13.3%	9.1%	7.7%	15	2	4	21
61-90 days	7.5%	13.3%	11.4%	8.5%	16	2	5	23
91 days or more	3.3%	6.7%	4.5%	3.7%	7	1	2	10
Total	100.0%	100.0%	100.0%	100.0%	212	15	44	271

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.321[a]	14	.239
Continuity Correction			
Likelihood Ratio	19.305	14	.154
Linear-by-Linear Association	5.448	1	.020
N of Valid Cases	271		

a. 12 cells (50.0%) have expected count less than 5. The minimum expected count is .55.

C7 How many days per year you use air conditioning BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Multifamily		Single Family	Multifamily	
	Percent	Percent	Percent	N	N	N
1-10 days	25.9%	13.6%	23.8%	55	6	61
11-20 days	23.1%	9.1%	20.7%	49	4	53
21-30 days	19.3%	25.0%	20.3%	41	11	52
31-40 days	9.9%	22.7%	12.1%	21	10	31
41-50 days	3.8%	4.5%	3.9%	8	2	10
51-60 days	7.1%	9.1%	7.4%	15	4	19
61-90 days	7.5%	11.4%	8.2%	16	5	21
91 days or more	3.3%	4.5%	3.5%	7	2	9
Total	100.0%	100.0%	100.0%	212	44	256

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.360[a]	7	.089
Continuity Correction			
Likelihood Ratio	12.548	7	.084
Linear-by-Linear Association	5.554	1	.018
N of Valid Cases	256		

a. 4 cells (25.0%) have expected count less than 5. The minimum expected count is 1.55.

Figure 70: Turn-on Temperature for AC Equipment in Homes Having Air Conditioning

C6 Indoor temperature at which you choose to turn on the air conditioning BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Mid-size	Multifamily		Single Family	Mid-size	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
70-73 F	14.4%	20.0%	16.7%	15.1%	30	3	8	41
74-77 F	31.3%	33.3%	31.3%	31.4%	65	5	15	85
78-81 F	24.5%	13.3%	27.1%	24.4%	51	2	13	66
82-85 F	15.9%	6.7%	16.7%	15.5%	33	1	8	42
86-89 F	8.2%	13.3%	6.3%	8.1%	17	2	3	22
90ø F or more	5.8%	13.3%	2.1%	5.5%	12	2	1	15
Total	100.0%	100.0%	100.0%	100.0%	208	15	48	271

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.522[a]	10	.854
Continuity Correction			
Likelihood Ratio	5.639	10	.845
Linear-by-Linear Association	.577	1	.448
N of Valid Cases	271		

a. 8 cells (44.4%) have expected count less than 5. The minimum expected count is .83.

C6 Indoor temperature at which you choose to turn on the air conditioning BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Multifamily		Single Family	Multifamily	
	Percent	Percent	Percent	N	N	N
70-73 F	14.4%	16.7%	14.8%	30	8	38
74-77 F	31.3%	31.3%	31.3%	65	15	80
78-81 F	24.5%	27.1%	25.0%	51	13	64
82-85 F	15.9%	16.7%	16.0%	33	8	41
86-89 F	8.2%	6.3%	7.8%	17	3	20
90ø F or more	5.8%	2.1%	5.1%	12	1	13
Total	100.0%	100.0%	100.0%	208	48	256

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.478[a]	5	.916
Continuity Correction			
Likelihood Ratio	1.720	5	.886
Linear-by-Linear Association	.739	1	.390
N of Valid Cases	256		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 2.44.

Figure 71: Importance of AC in Homes Having Air Conditioning

C8 How important your home air conditioning is to you BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Mid-size	Multifamily		Single Family	Mid-size	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
I wouldn't want to do without it in summer	31.7%	26.7%	32.0%	31.5%	70	4	16	90
I could do without it half of the summer	15.8%	13.3%	34.0%	18.9%	35	2	17	54
I could do without it most of the summer	36.7%	33.3%	22.0%	33.9%	81	5	11	97
I could get along fine without it	15.8%	26.7%	12.0%	15.7%	35	4	6	45
Total	100.0%	100.0%	100.0%	100.0%	221	15	50	286

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.666[a]	6	.070
Continuity Correction			
Likelihood Ratio	10.719	6	.097
Linear-by-Linear Association	1.295	1	.255
N of Valid Cases	286		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 2.36.

C8 How important your home air conditioning is to you BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Multifamily		Single Family	Multifamily	
	Percent	Percent	Percent	N	N	N
I wouldn't want to do without it in summer	31.7%	32.0%	31.7%	70	16	86
I could do without it half of the summer	15.8%	34.0%	19.2%	35	17	52
I could do without it most of the summer	36.7%	22.0%	33.9%	81	11	92
I could get along fine without it	15.8%	12.0%	15.1%	35	6	41
Total	100.0%	100.0%	100.0%	221	50	271

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.987[a]	3	.019
Continuity Correction			
Likelihood Ratio	9.305	3	.026
Linear-by-Linear Association	1.802	1	.179
N of Valid Cases	271		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.56.

Figure 72: Plan to Buy New Air Conditioner, Among All Survey Respondents

C2 Plans to buy a new air conditioner in the next 2 years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Will buy a central system	9	.4	.4	.4
	Will buy a window or wall unit	54	2.3	2.4	2.8
	Will buy a heat pump system	14	.6	.6	3.4
	Plan to buy, but don't know yet what kind	51	2.2	2.3	5.7
	No plans to buy	2129	90.4	94.3	100.0
	Total	2257	95.8	100.0	
Missing	-9	99	4.2		
Total		2356	100.0		

Trends over Three Decades of Residential Customer Characteristics Surveys

Figure 73: Air Conditioner Saturation: Trends over 3 Decades

AIR CONDITIONER SATURATION

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Air conditioner	4.6%	3.1%	2.9%	3.1%	3.8%	2.7%	3.4%					7.0%				14.0%

Major Findings ▪ 4

Water Heating

Main Water Heating System

Figure 74: Main Water Heat Equipment

E1_1 Main water heat equipment BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Tank in heated area	55.6%	37.7%	60.1%	55.5%	934	43	250	1227
Tank in unheated area	38.7%	50.9%	13.2%	34.5%	650	58	55	763
Tank-less, whole house or floor	3.5%	5.3%	.7%	3.0%	58	6	3	67
Tank-less, point of use	.2%	.9%	.2%	.2%	3	1	1	5
Central boiler system	1.5%	2.6%	24.3%	5.8%	25	3	101	129
Active solar	.3%			.2%	5			5
Other	.2%	1.8%	.5%	.4%	4	2	2	8
None	.1%	.9%	1.0%	.3%	2	1	4	7
Total	100.0%	100.0%	100.0%	100.0%	1681	114	416	2211

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	408.713[a]	14	.000
Continuity Correction			
Likelihood Ratio	339.491	14	.000
Linear-by-Linear Association	119.541	1	.000
N of Valid Cases	2211		

a. 11 cells (45.8%) have expected count less than 5. The minimum expected count is .26.

Figure 75: Main Water Heat Fuel

E1_1 Main water heat fuel BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	53.7%	59.6%	76.2%	58.3%	903	68	317	1288
Gas	45.6%	36.8%	9.1%	38.3%	767	42	38	847
Solar	.3%			.2%	5			5
Unknown fuel	.2%	2.6%	13.7%	2.9%	4	3	57	64
Stated none	.1%	.9%	1.0%	.3%	2	1	4	7
Total	100.0%	100.0%	100.0%	100.0%	1681	114	416	2211

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	364.092[a]	8	.000
Continuity Correction			
Likelihood Ratio	349.486	8	.000
Linear-by-Linear Association	3.051	1	.081
N of Valid Cases	2211		

a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is .26.

Figure 76: Main Water Heat by Main Home Heat

E1_01 Main water heat fuel BY B1_1 Main heat fuel BY A2 Housing Type

% of Total

A2 Housing Type			B1_1 Main heat fuel				
			Electricity	Natural gas	Fuel oil / petrol	Other	Total
Single Family	E1_01 Main water heat fuel	Electricity	19.0%	17.5%	15.8%	1.4%	53.6%
		Gas	2.6%	40.8%	1.0%	1.5%	45.7%
		Solar	.1%	.2%	.1%		.3%
		Unknown fuel	.1%	.1%	.1%		.2%
		Stated none			.1%		.1%
	Total		21.7%	58.5%	17.0%	2.9%	100.0%
Midsize	E1_01 Main water heat fuel	Electricity	47.8%	11.5%	.9%		60.2%
		Gas	2.7%	31.9%		2.7%	37.2%
		Solar					
		Unknown fuel	2.7%				2.7%
		Stated none					
	Total		53.1%	43.4%	.9%	2.7%	100.0%
Multifamily	E1_01 Main water heat fuel	Electricity	70.8%	5.0%	.7%	.2%	76.8%
		Gas	3.5%	5.5%		.2%	9.2%
		Solar					
		Unknown fuel	11.0%	2.0%	.2%		13.2%
		Stated none	.7%				.7%
	Total		86.0%	12.5%	1.0%	.5%	100.0%

E1_01 Main water heat fuel BY B1_1 Main heat fuel BY A2 Housing Type

Count

A2 Housing Type			B1_1 Main heat fuel				
			Electricity	Natural gas	Fuel oil / petrol	Other	Total
Single Family	E1_01 Main water heat fuel	Electricity	313	287	259	23	882
		Gas	42	670	16	24	752
		Solar	1	3	1		5
		Unknown fuel	1	1	2		4
		Stated none			1		1
	Total		357	961	279	47	1644
Midsize	E1_01 Main water heat fuel	Electricity	54	13	1		68
		Gas	3	36		3	42
		Solar					
		Unknown fuel	3				3
		Stated none					
	Total		60	49	1	3	113
Multifamily	E1_01 Main water heat fuel	Electricity	284	20	3	1	308
		Gas	14	22		1	37
		Solar					
		Unknown fuel	44	8	1		53
		Stated none	3				3
	Total		345	50	4	2	401

E1_01 Main water heat fuel BY B1_1 Main heat fuel BY A2 Housing Type

% within B1_1 Main heat fuel

A2 Housing Type			B1_1 Main heat fuel				Total
			Electricity	Natural gas	Fuel oil / petrol	Other	
Single Family	E1_01 Main water heat fuel	Electricity	87.7%	29.9%	92.8%	48.9%	53.6%
		Gas	11.8%	69.7%	5.7%	51.1%	45.7%
		Solar	.3%	.3%	.4%		.3%
		Unknown fuel	.3%	.1%	.7%		.2%
		Stated none			.4%		.1%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%
Midsize	E1_01 Main water heat fuel	Electricity	90.0%	26.5%	100.0%		60.2%
		Gas	5.0%	73.5%		100.0%	37.2%
		Solar					
		Unknown fuel	5.0%				2.7%
		Stated none					
	Total		100.0%	100.0%	100.0%	100.0%	100.0%
Multifamily	E1_01 Main water heat fuel	Electricity	82.3%	40.0%	75.0%	50.0%	76.8%
		Gas	4.1%	44.0%		50.0%	9.2%
		Solar					
		Unknown fuel	12.8%	16.0%	25.0%		13.2%
		Stated none	.9%				.7%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%

Figure 77: Main Water Heat System Age

E3 Age of your main water heat system BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	2.8%	2.4%	2.1%	2.7%	48	3	9	60
New in 2008	7.1%	3.2%	7.2%	6.9%	120	4	31	155
2- 5 years	28.6%	28.8%	16.0%	26.2%	487	36	69	592
6- 10 years	29.8%	16.0%	12.3%	25.7%	508	20	53	581
11-20 years	17.6%	12.8%	9.0%	15.7%	300	16	39	355
21 years or more	3.1%	.8%	4.9%	3.3%	53	1	21	75
Don't Know	10.9%	36.0%	48.6%	19.5%	186	45	210	441
Total	100.0%	100.0%	100.0%	100.0%	1702	125	432	2259

E3 Age of your main water heat system BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	3.2%	3.8%	4.1%	3.3%	48	3	9	60
New in 2008	7.9%	5.0%	14.0%	8.5%	120	4	31	155
2- 5 years	32.1%	45.0%	31.1%	32.6%	487	36	69	592
6- 10 years	33.5%	25.0%	23.9%	32.0%	508	20	53	581
11-20 years	19.8%	20.0%	17.6%	19.5%	300	16	39	355
21 years or more	3.5%	1.3%	9.5%	4.1%	53	1	21	75
Total	100.0%	100.0%	100.0%	100.0%	1516	80	222	1818

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.844[a]	10	.000
Continuity Correction			
Likelihood Ratio	35.463	10	.000
Linear-by-Linear Association	.515	1	.473
N of Valid Cases	1818		

a. 2 cells (11.1%) have expected count less than 5. The minimum expected count is 2.64.

Figure 78: Main Water Heat Fuel by Decade Building Constructed

Note: Categories in the main report chart have been collapsed for 1900-1919 and 1920-1939.

E1_1 Main water heat fuel BY A6 Decade your home was built FOR A2 Single Family Housing

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Electricity	38.2%	43.3%	48.1%	57.0%	61.7%	65.1%	58.1%	68.2%	68.5%	20.8%	10.0%	53.1%
Gas	61.1%	56.7%	51.9%	43.0%	37.6%	34.0%	41.2%	30.3%	31.5%	79.2%	90.0%	46.4%
Other	.8%				.7%	.9%	.7%	1.5%				.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

E1_1 Main water heat fuel BY A6 Decade your home was built FOR A2 Single Family Housing

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Electricity	50	58	112	57	174	218	86	45	37	15	6	858
Gas	80	76	121	43	106	114	61	20	17	57	54	749
Other	1				2	3	1	1				8
Total	131	134	233	100	282	335	148	66	54	72	60	1615

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.218[a]	2	.000
Continuity Correction			
Likelihood Ratio	50.873	2	.000
Linear-by-Linear Association	44.005	1	.000
N of Valid Cases	186		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.84.

E1_1 Main water heat fuel BY A6 80s 90s 00s decades FOR A2 Single Family Housing

	A6 Decade in which your home was built			Total	A6 Decade in which your home was built			Total
	1980-1989	1990-1999	2000-2009		1980-1989	1990-1999	2000-2009	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	68.5%	20.8%	10.0%	31.2%	37	15	6	58
Gas	31.5%	79.2%	90.0%	68.8%	17	57	54	128
Total	100.0%	100.0%	100.0%	100.0%	54	72	60	186

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	51.218[a]	2	.000
Continuity Correction			
Likelihood Ratio	50.873	2	.000
Linear-by-Linear Association	44.005	1	.000
N of Valid Cases	186		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.84.

E1_1 Main water heat fuel BY A6 Decade your home was built FOR A2 Multifamily Housing

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Electricity	75.0%	45.5%	42.1%	40.0%	33.3%	73.3%	80.6%	90.5%	88.1%	83.7%	62.5%	76.2%
Gas	8.3%	18.2%	31.6%	20.0%	11.1%	20.0%	11.3%	4.8%	6.8%	4.1%	20.8%	11.1%
Other	16.7%	36.4%	26.3%	40.0%	55.6%	6.7%	8.1%	4.8%	5.1%	12.2%	16.7%	12.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

E1_1 Main water heat fuel BY A6 Decade your home was built FOR A2 Multifamily Housing

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Electricity	9	5	8	2	3	11	50	38	52	41	15	234
Gas	1	2	6	1	1	3	7	2	4	2	5	34
Other	2	4	5	2	5	1	5	2	3	6	4	39
Total	12	11	19	5	9	15	62	42	59	49	24	307

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.915[a]	4	.042
Continuity Correction			
Likelihood Ratio	9.007	4	.061
Linear-by-Linear Association	5.541	1	.019
N of Valid Cases	132		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is 2.00.

E1_1 Main water heat fuel BY A6 80s 90s 00s decades FOR A2 Multifamily Housing

	A6 Decade in which your home was built			Total	A6 Decade in which your home was built			Total
	1980-1989	1990-1999	2000-2009		1980-1989	1990-1999	2000-2009	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	88.1%	83.7%	62.5%	81.8%	52	41	15	108
Gas	6.8%	4.1%	20.8%	8.3%	4	2	5	11
Other	5.1%	12.2%	16.7%	9.8%	3	6	4	13
Total	100.0%	100.0%	100.0%	100.0%	59	49	24	132

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.915[a]	4	.042
Continuity Correction			
Likelihood Ratio	9.007	4	.061
Linear-by-Linear Association	5.541	1	.019
N of Valid Cases	132		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is 2.00.

Supplementary Water Heat

Figure 79: Additional Water Heat Equipment

E1_2 Additional water heat equipment BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Tank in heated area	5.3%	5.2%	4.3%	5.1%	89	6	18	113
Tank in unheated area	2.8%	6.1%	2.2%	2.8%	47	7	9	63
Tank-less, whole house or floor	.4%	.9%	.5%	.5%	7	1	2	10
Tank-less, point of use	.5%		.2%	.5%	9		1	10
Central boiler system	.6%	.9%	4.3%	1.3%	10	1	18	29
Active solar	.3%			.2%	5			5
Other	.6%	.9%		.5%	10	1		11
Stated 'None'	44.2%	48.7%	43.9%	44.4%	746	56	183	985
Skiped question	45.7%	38.3%	45.1%	45.2%	770	44	188	1002
Total	100.0%	100.0%	100.0%	100.0%	1686	115	417	2218

Figure 80: Additional Water Heat Fuels

E1_2 Additional water heat fuel BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	6.5%	7.8%	7.4%	6.7%	109	9	31	149
Gas	3.1%	4.3%	1.0%	2.8%	52	5	4	61
Solar	.3%			.2%	5			5
Unknown fuel	.7%	1.7%	3.1%	1.2%	11	2	13	26
Stated none	44.2%	48.7%	43.9%	44.4%	746	56	183	985
No answer	45.7%	38.3%	45.1%	45.2%	770	44	188	1002
Total	100.0%	100.0%	100.0%	100.0%	1686	115	417	2218

Changes in Water Heat

Figure 81: Prior Main Water Heat System, in Single Family Homes that Changed Equipment since January 2007

E1_1 Main way you heat your water Now BY E1_3 Main way you heated 2 years ago

Count

E1_1 Main way you heat your water now	E1_3 Main way you heated 2 years ago								Total Changed	NO CHANGE
	Electric: tank located inside a heated area	Electric: tank located in an unheated area	Gas: tank located inside a heated area	Gas: tank located in an unheated area	Gas: tank-less, on-demand, whole house or floor	Active solar located in an unheated area	Unknown: central apartment or condominium system	Other		
None	0	0	0	0	0	0	0	0	0	1
Electric: tank located inside a heated area		2	3	1	0	0	0	0	6	384
Electric: tank located in an unheated area	3		1	1	0	0	0	0	5	280
Electric :tank-less, on-demand, whole house or floor	2	3	0	0	0	0	0	0	5	1
Electric: central boiler system	0	0	0	0	0	0	0	0	0	4
Gas: tank located inside a heated area	10	0		3	1	1	0	0	15	273
Gas: tank located in an unheated area	1	5	0		0	0	1	1	8	210
Gas: tank-less, on-demand, whole house or floor	8	3	6	2		0	0	0	19	20
Gas: tank-less, on-demand, point of use	0	1	0	1	0	0	0	0	2	0
Gas: central boiler system	1	1	2	1	0	0	0	1	6	9
Active solar located inside a heated area	0	1	1	0	0	0	0	0	2	0
Active solar located in an unheated area	0	1	0	0	0		0	0	1	1
Other	0	0	0	0	0	0	0	1	1	1
Total	25	17	13	9	1	1	1	3	70	1184

Figure 82: Main Water Heat System Now, for Single Family Homes with Change from Water Heat Equipment before January 2007

E1_1 Main way you heat water now FOR Homes that have changed from electric water heat BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Electricity	23.8%		50.0%	24.4%	10		1	11
Gas	71.4%	100.0%	50.0%	71.1%	30	1	1	32
Other	4.8%			4.4%	2			2
Total	100.0%	100.0%	100.0%	100.0%	42	1	2	45

E1_1 Main way you heat water now FOR Homes that have changed from gas water heat BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Multifamily		Single Family	Multifamily	
	Percent	Percent	Percent	N	N	N
Electricity	26.1%	100.0%	29.2%	6	1	7
Gas	69.6%		66.7%	16		16
Other	4.3%		4.2%	1		1
Total	100.0%	100.0%	100.0%	23	1	24

Figure 83: Reasons for Change in Water Heat System since January 2007 (2 years ago)

E2 Reasons for making the change in your water heating

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Replace worn out equipment	61.8%	50.0%	56.9%	60.8%	230	8	33	271
Make my home safer	10.2%	6.3%	6.9%	9.6%	38	1	4	43
Make my home cleaner	8.1%	6.3%	3.4%	7.4%	30	1	2	33
Have more hot water	15.3%	6.3%	8.6%	14.1%	57	1	5	63
Lower my energy bills	47.8%	25.0%	29.3%	44.6%	178	4	17	199
Save energy	45.2%	43.8%	31.0%	43.3%	168	7	18	193
Live more sustainably	16.4%	18.8%	6.9%	15.2%	61	3	4	68
Reduce my 'carbon footprint'	16.1%	6.3%	6.9%	14.6%	60	1	4	65
No more concern about water leaks	6.5%	18.8%	12.1%	7.6%	24	3	7	34
Total	100.0%	100.0%	100.0%	100.0%	372	16	58	446

Water Fixture Changes

Figure 84: New Showerheads Installed During Past Five Years

D1 New showerheads installed in the past 5 years BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes, a standard-flow model	14.2%	10.6%	9.8%	13.3%	232	11	36	279
Yes, an efficient-flow model (<= 2.0 gal/min)	41.7%	25.0%	24.0%	37.8%	679	26	88	793
Yes, a model with a rain-shower or multiple nozzles	12.1%	13.5%	12.3%	12.2%	198	14	45	257
No, have not installed any new ones	32.0%	51.0%	53.8%	36.7%	521	53	197	771
Total	100.0%	100.0%	100.0%	100.0%	1630	104	366	2100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	79.324[a]	6	.000
Continuity Correction			
Likelihood Ratio	78.923	6	.000
Linear-by-Linear Association	64.765	1	.000
N of Valid Cases	2100		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.73.

Figure 85: New Toilet Installed During Past Five Years

D2 New toilet installed in the past 5 years BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes, a standard-flush model	6.3%	4.8%	4.9%	6.0%	105	5	17	127
Yes, an efficient-flush model (1.6 gallon flush or less)	38.4%	26.7%	21.7%	35.1%	637	28	76	741
No, have not installed a new one	55.3%	68.6%	73.4%	58.9%	917	72	257	1246
Total	100.0%	100.0%	100.0%	100.0%	1659	105	350	2114

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.392[a]	4	.000
Continuity Correction			
Likelihood Ratio	46.393	4	.000
Linear-by-Linear Association	33.006	1	.000
N of Valid Cases	2114		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.31.

Trends over Three Decades of Residential Customer Characteristics Surveys

Figure 86: Main Water Heat Fuel: Trends over 3 Decades

MAIN WATER HEAT FUEL

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Electric	88.4%	88.0%	83.9%	84.5%	82.6%	81.5%	78.5%					67.7%				58.4%
Natural Gas	9.1%	10.5%	8.8%	10.0%	11.8%	13.4%	17.1%					26.8%				38.4%
Other	2.6%	1.5%	7.3%	5.5%	5.6%	5.0%	4.3%					5.5%				3.1%
№ Cases	2,366	2,694	3,718	3,279	3,262	2,935	3,158					2,394				2,211

Figure 87: Main Water Heater Location: Trends over 3 Decades

WATER HEATER LOCATION

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	*2000 **	2002	2004	2006	2009
Heated Area	54.2%	50.3%	49.5%	47.0%	47.2%	49.8%	51.4%					*55.3%*				59.2%
Unheated Area	45.8%	49.7%	50.5%	53.0%	52.8%	50.2%	48.6%					*44.7%*				40.8%

** Avg. 1990-2009*

Major Findings ▪ 5

Major Appliances

Refrigerators

Figure 88: Refrigerators per Household

F4_01 Total number of refrigerators BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0			.5%	.1%			2	2
1	68.2%	78.1%	96.8%	74.3%	1171	100	429	1700
2	28.8%	18.0%	2.3%	23.0%	494	23	10	527
3	3.0%	3.9%	.5%	2.6%	52	5	2	59
Total	100.0%	100.0%	100.0%	100.0%	1717	128	443	2288

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	166.451[a]	6	.000
Continuity Correction			
Likelihood Ratio	219.076	6	.000
Linear-by-Linear Association	140.223	1	.000
N of Valid Cases	2288		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .11.

F4_01 Total number of refrigerators BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	1.35	1.26	1.03	1.28
Std Deviation	.54	.52	.21	.51
Valid N	1717	128	443	2288

Figure 89: Refrigerators per Household & Those Plugged-in more than 3 Months of the Year

F4_02 Total number of refrigerators plugged in more than 3 months BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	2.8%	6.0%	8.4%	4.1%	41	7	32	80
1	66.9%	74.1%	88.8%	71.6%	971	86	340	1397
2	27.6%	16.4%	2.1%	21.9%	401	19	8	428
3	2.7%	3.4%	.8%	2.4%	39	4	3	46
Total	100.0%	100.0%	100.0%	100.0%	1452	116	383	1951

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	141.189[a]	6	.000
Continuity Correction			
Likelihood Ratio	182.273	6	.000
Linear-by-Linear Association	121.624	1	.000
N of Valid Cases	1951		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 2.74.

F4_02 Total number of refrigerators plugged in more than 3 months BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	1.30	1.17	.95	1.23
Std Deviation	.57	.58	.37	.55
Valid N	1452	116	383	1951

Figure 90: Location of Refrigerators in Heated vs. Unheated Areas

F4_03 Refrigerators located inside a HEATED area BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	2.3%	4.0%	10.8%	4.0%	35	4	41	80
1	79.3%	75.2%	87.3%	80.6%	1200	76	331	1607
2	17.4%	18.8%	1.6%	14.5%	264	19	6	289
3	1.0%	2.0%	.3%	.9%	15	2	1	18
Total	100.0%	100.0%	100.0%	100.0%	1514	101	379	1994

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	114.577[a]	6	.000
Continuity Correction			
Likelihood Ratio	129.870	6	.000
Linear-by-Linear Association	90.514	1	.000
N of Valid Cases	1994		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is .91.

F4_03 Refrigerators located inside a HEATED area BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	1.17	1.19	.91	1.12
Std Deviation	.46	.52	.36	.45
Valid N	1514	101	379	1994

F4_04 Refrigerators located in an UNHEATED area BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	.18	.12	.12	.16
Std Deviation	.42	.33	.35	.40
Valid N	1514	101	379	1994

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.955[a]	6	.090
Continuity Correction			
Likelihood Ratio	12.751	6	.047
Linear-by-Linear Association	8.255	1	.004
N of Valid Cases	1994		

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is .15.

Figure 91: Age of Main Refrigerator

F5 Age of your main refrigerator that you use most BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	1.8%		1.8%	1.7%	30		8	38
New in 2008	9.1%	5.5%	5.9%	8.3%	154	7	26	187
2 -10 years	53.4%	53.1%	38.4%	50.4%	907	68	168	1143
11-20 years	23.7%	16.4%	16.9%	22.0%	403	21	74	498
21 years or more	6.0%	3.1%	3.9%	5.4%	102	4	17	123
Don't Know	6.1%	21.9%	33.1%	12.2%	104	28	145	277
Total	100.0%	100.0%	100.0%	100.0%	1700	128	438	2266

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	254.703[a]	10	.000
Continuity Correction			
Likelihood Ratio	219.039	10	.000
Linear-by-Linear Association	142.963	1	.000
N of Valid Cases	2266		

a. 1 cells (5.6%) have expected count less than 5. The minimum expected count is 2.15.

F5 Age of your main refrigerator that you use most BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	1.9%		2.7%	1.9%	30		8	38
New in 2008	9.6%	7.0%	8.9%	9.4%	154	7	26	187
2 -10 years	56.8%	68.0%	57.3%	57.5%	907	68	168	1143
11-20 years	25.3%	21.0%	25.3%	25.0%	403	21	74	498
21 years or more	6.4%	4.0%	5.8%	6.2%	102	4	17	123
Total	100.0%	100.0%	100.0%	100.0%	1596	100	293	1989

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.435[a]	8	.491
Continuity Correction			
Likelihood Ratio	9.326	8	.316
Linear-by-Linear Association	.224	1	.636
N of Valid Cases	1989		

a. 1 cells (6.7%) have expected count less than 5. The minimum expected count is 1.91.

Freezers

Figure 92: Stand-alone Freezers per Household

F6_01 Total number of stand_alone freezers BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	59.1%	83.6%	90.9%	66.4%	987	102	380	1469
1	39.0%	15.6%	9.1%	32.0%	651	19	38	708
2	1.9%	.8%		1.5%	32	1		33
3	.1%			.0%	1			1
Total	100.0%	100.0%	100.0%	100.0%	1671	122	418	2211

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	169.742[a]	6	.000
Continuity Correction			
Likelihood Ratio	200.486	6	.000
Linear-by-Linear Association	159.840	1	.000
N of Valid Cases	2211		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .06.

F6_01 Total number of stand-alone freezers BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	.43	.17	.09	.35
Std Deviation	.54	.40	.29	.51
Valid N	1671	122	418	2211

Figure 93: Stand-alone Freezers per Household & Those Plugged-in more than 3 Months of the Year

F6_02 Total number of freezers plugged in more than 3 months of the year BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	66.1%	87.9%	96.7%	73.4%	1004	102	384	1490
1	32.1%	11.2%	3.3%	25.3%	487	13	13	513
2	1.7%	.9%		1.3%	26	1		27
3	.1%			.0%	1			1
Total	100.0%	100.0%	100.0%	100.0%	1518	116	397	2031

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	164.181[a]	6	.000
Continuity Correction			
Likelihood Ratio	212.696	6	.000
Linear-by-Linear Association	153.141	1	.000
N of Valid Cases	2031		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .06.

F6_02 Total number of freezers plugged in more than 3 months of the year BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	.36	.13	.03	.28
Std Deviation	.52	.36	.18	.48
Valid N	1518	116	397	2031

Figure 94: Location of Stand-alone Freezers in Heated vs. Unheated Areas

F6_03 Total number of freezers located inside a HEATED area BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	82.8%	97.4%	97.2%	86.3%	1302	112	387	1801
1	16.6%	2.6%	2.8%	13.2%	261	3	11	275
2	.6%			.5%	10			10
Total	100.0%	100.0%	100.0%	100.0%	1573	115	398	2086

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	69.080[a]	4	.000
Continuity Correction			
Likelihood Ratio	90.790	4	.000
Linear-by-Linear Association	62.831	1	.000
N of Valid Cases	2086		

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is .55.

F6_03 Total number of freezers located inside a HEATED area BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	.18	.03	.03	.14
Std Deviation	.40	.16	.16	.36
Valid N	1573	115	398	2086

F6_04 Total number of freezers located in an UNHEATED area BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Mean	.21	.10	.02	.17
Std Deviation	.42	.32	.13	.39
Valid N	1573	115	398	2086

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	89.251[a]	4	.000
Continuity Correction			
Likelihood Ratio	121.985	4	.000
Linear-by-Linear Association	84.571	1	.000
N of Valid Cases	2086		

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is .50.

Figure 95: Age of Main Freezer

F7 Age of your main stand-alone freezer that you use most BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	1.2%	5.0%		1.2%	8	1		9
New in 2008	4.2%	10.0%	2.7%	4.3%	28	2	1	31
2 -10 years	37.3%	25.0%	43.2%	37.3%	248	5	16	269
11-20 years	24.2%	20.0%	5.4%	23.2%	161	4	2	167
21 years or more	26.4%	15.0%	8.1%	25.1%	175	3	3	181
Don't Know	6.6%	25.0%	40.5%	8.9%	44	5	15	64
Total	100.0%	100.0%	100.0%	100.0%	664	20	37	721

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	68.012[a]	10	.000
Continuity Correction			
Likelihood Ratio	49.914	10	.000
Linear-by-Linear Association	7.120	1	.008
N of Valid Cases	721		

a. 7 cells (38.9%) have expected count less than 5. The minimum expected count is .25.

F7 Age of your main stand-alone freezer that you use most BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	1.3%	6.7%		1.4%	8	1		9
New in 2008	4.5%	13.3%	4.5%	4.7%	28	2	1	31
2 -10 years	40.0%	33.3%	72.7%	40.9%	248	5	16	269
11-20 years	26.0%	26.7%	9.1%	25.4%	161	4	2	167
21 years or more	28.2%	20.0%	13.6%	27.5%	175	3	3	181
Total	100.0%	100.0%	100.0%	100.0%	620	15	22	657

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.941[a]	8	.043
Continuity Correction			
Likelihood Ratio	14.098	8	.079
Linear-by-Linear Association	5.902	1	.015
N of Valid Cases	657		

a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is .21.

Figure 96: Stand-alone Freezers per Household Those Plugged-in more than 3 Months Compared to Refrigerators Plugged in more than 3 Months of the Year

F6_02 Total number of stand alone freezers plugged in 3+ months
BY F4_02 Total number of refrigerators plugged in 3+ months

	F4_02 Refrigerators Plugged in more than 3 months of the year				Total	F4_02 Refrigerators Plugged in more than 3 months of the year				Total
	0	1	2	3+		0	1	2	3+	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
0	96.5%	69.8%	52.2%	39.5%	66.0%	55	751	178	17	1001
1	3.5%	29.5%	43.1%	48.8%	32.1%	2	317	147	21	487
2		.7%	3.8%	7.0%	1.6%		8	13	3	24
3+			.9%	4.7%	.3%			3	2	5
Total	100.0%	100.0%	100.0%	100.0%	100.0%	57	1076	341	43	1517

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	113.807[a]	9	.000
Continuity Correction			
Likelihood Ratio	102.417	9	.000
Linear-by-Linear Association	92.243	1	.000
N of Valid Cases	1517		

a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is .14.

Clothes Washers & Dryers

Figure 97: Clothes Washers in Home per Household

F1 Total number of all clothes washer types (All respondents)

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	6.9%	25.2%	57.8%	17.7%	118	32	256	406
1	90.7%	70.9%	40.4%	79.9%	1558	90	179	1827
2	2.3%	3.1%	1.8%	2.3%	40	4	8	52
3	.1%			.1%	2			2
4		.8%		.0%		1		1
Total	100.0%	100.0%	100.0%	100.0%	1718	127	443	2288

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	650.226[a]	8	.000
Continuity Correction			
Likelihood Ratio	541.890	8	.000
Linear-by-Linear Association	503.794	1	.000
N of Valid Cases	2288		

a. 7 cells (46.7%) have expected count less than 5. The minimum expected count is .06.

Figure 98: Clothes Washers in Home per Household, by Type of Machine

F1 Number of clothes washers by type BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
F1_07 No. Electric Clothes washer . Top loading + agitator in home	Mean	.57	.46	.31	.51
	Std Deviation	.50	.55	.47	.51
	Valid N	1718	127	443	2288
F1_08 No. Electric Clothes washer . Top loading - agitator in home	Mean	.03	.03	.02	.03
	Std Deviation	.18	.18	.12	.17
	Valid N	1718	127	443	2288
F1_09 No. Electric Clothes washer . Front loading in home	Mean	.35	.31	.11	.30
	Std Deviation	.49	.48	.32	.47
	Valid N	1718	127	443	2288

F1_07 No. Electric Clothes washer . Top loading with agitator in home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	43.3%	55.9%	69.3%	49.0%	744	71	307	1122
1	56.3%	41.7%	30.2%	50.4%	967	53	134	1154
2	.4%	2.4%	.5%	.5%	7	3	2	12
Total	100.0%	100.0%	100.0%	100.0%	1718	127	443	2288

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	107.853[a]	4	.000
Continuity Correction			
Likelihood Ratio	105.985	4	.000
Linear-by-Linear Association	92.146	1	.000
N of Valid Cases	2288		

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is .67.

F1_08 No. Electric Clothes washer . Top loading, no agitator in home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	96.8%	96.9%	98.4%	97.1%	1663	123	436	2222
1	3.2%	3.1%	1.6%	2.9%	55	4	7	66
Total	100.0%	100.0%	100.0%	100.0%	1718	127	443	2288

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.338[a]	2	.188
Continuity Correction			
Likelihood Ratio	3.834	2	.147
Linear-by-Linear Association	3.097	1	.078
N of Valid Cases	2288		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.66.

F1_09 No. Electric Clothes washer . Front loading in home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	65.2%	70.1%	88.9%	70.1%	1120	89	394	1603
1	34.2%	29.1%	10.8%	29.4%	588	37	48	673
2	.6%	.8%	.2%	.5%	10	1	1	12
Total	100.0%	100.0%	100.0%	100.0%	1718	127	443	2288

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	94.889[a]	4	.000
Continuity Correction			
Likelihood Ratio	109.489	4	.000
Linear-by-Linear Association	89.151	1	.000
N of Valid Cases	2288		

a. 2 cells (22.2%) have expected count less than 5. The minimum expected count is .67.

Figure 99: Age of Clothes Washer

F8 Age of your main clothes washer (in your home or unit) that you use most BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	2.5%	1.6%	1.2%	2.2%	43	2	5	50
New in 2008	7.9%	6.6%	3.2%	6.9%	133	8	13	154
2 -10 years	58.1%	46.7%	24.6%	51.3%	984	57	101	1142
11-20 years	20.9%	12.3%	9.3%	18.2%	353	15	38	406
21 years or more	4.2%	2.5%	.5%	3.4%	71	3	2	76
31 years or more	1.2%			.9%	20			20
Don't Know	4.7%	16.4%	16.6%	7.5%	79	20	68	167
No clothes washer	.6%	13.9%	44.6%	9.4%	10	17	183	210
Total	100.0%	100.0%	100.0%	100.0%	1693	122	410	2225

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	889.796[a]	14	.000
Continuity Correction			
Likelihood Ratio	753.012	14	.000
Linear-by-Linear Association	656.735	1	.000
N of Valid Cases	2225		

a. 4 cells (16.7%) have expected count less than 5. The minimum expected count is 1.10.

F8 Age of your main clothes washer (in your home or unit) that you use most BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
New in 2009	2.7%	2.0%	1.5%	2.4%	43	2	5	50
New in 2008	8.2%	7.8%	3.8%	7.5%	133	8	13	154
2 -10 years	61.0%	55.9%	29.5%	55.5%	984	57	101	1142
11-20 years	21.9%	14.7%	11.1%	19.7%	353	15	38	406
21 years or more	4.4%	2.9%	.6%	3.7%	71	3	2	76
31 years or more	1.2%			1.0%	20			20
No clothes washer	.6%	16.7%	53.5%	10.2%	10	17	183	210
Total	100.0%	100.0%	100.0%	100.0%	1614	102	342	2058

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	872.198[a]	12	.000
Continuity Correction			
Likelihood Ratio	682.710	12	.000
Linear-by-Linear Association	643.814	1	.000
N of Valid Cases	2058		

a. 4 cells (19.0%) have expected count less than 5. The minimum expected count is .99.

Figure 100: Clothes Dryers in Home per Household

F1 Total number of all clothes driers (electric and gas) of in home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	3.7%	22.0%	57.6%	15.2%	64	28	255	347
1	93.4%	71.7%	41.1%	82.0%	1604	91	182	1877
2	2.9%	6.3%	1.4%	2.8%	49	8	6	63
4	.1%			.0%	1			1
Total	100.0%	100.0%	100.0%	100.0%	1718	127	443	2288

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	805.712[a]	6	.000
Continuity Correction			
Likelihood Ratio	668.813	6	.000
Linear-by-Linear Association	635.258	1	.000
N of Valid Cases	2288		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .06.

Figure 101: Clothes Dryers in Home per Household, by Fuel Type

F1_06 No. Electric clothes driers in home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	11.9%	26.0%	57.6%	21.5%	204	33	255	492
1	86.8%	71.7%	41.8%	77.3%	1492	91	185	1768
2	1.3%	2.4%	.7%	1.2%	22	3	3	28
Total	100.0%	100.0%	100.0%	100.0%	1718	127	443	2288

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	438.789[a]	4	.000
Continuity Correction			
Likelihood Ratio	381.822	4	.000
Linear-by-Linear Association	399.655	1	.000
N of Valid Cases	2288		

a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 1.55.

F2_04 No. Natural gas clothes driers in home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	90.2%	92.9%	99.3%	92.1%	1550	118	440	2108
1	9.7%	6.3%	.7%	7.7%	166	8	3	177
2	.1%	.8%		.1%	2	1		3
Total	100.0%	100.0%	100.0%	100.0%	1718	127	443	2288

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	45.070[a]	4	.000
Continuity Correction			
Likelihood Ratio	62.148	4	.000
Linear-by-Linear Association	38.231	1	.000
N of Valid Cases	2288		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .17.

F1 Number of clothers driers by type BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
F1_06 No. Electric Clothes dryer (electric heat) in home	Mean	.89	.76	.43	.80
	Std Deviation	.35	.48	.51	.43
	Valid N	1718	127	443	2288
F2_04 No. Nat. Gas Clothes dryer (gas heat) in home	Mean	.10	.08	.01	.08
	Std Deviation	.30	.30	.08	.28
	Valid N	1718	127	443	2288

Other Appliances

Figure 102: Saturation of Cooking Appliances in Home, by Type and Fuel of Main Home Heat

F1 Households with one or more electric appliances BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
F1_01 Electric cooktop/oven	63.4%	67.7%	84.0%	67.7%	1090	86	372	1548
F1_02 Electric separate cooktop	11.9%	9.4%	5.2%	10.4%	204	12	23	239
F1_03 Electric separate oven	22.8%	14.2%	10.6%	20.0%	392	18	47	457
F1_04 Electric microwave oven	87.9%	78.0%	81.7%	86.1%	1510	99	362	1971
F1_05 Electric dishwasher	79.5%	69.3%	64.8%	76.0%	1365	88	287	1740
F1_06 Electric clothes dryer	88.1%	74.0%	42.4%	78.5%	1514	94	188	1796
F1_07 Electric top loading washer/agitator	56.7%	44.1%	30.7%	51.0%	974	56	136	1166
F1_08 Electric top loading washer/no agitator	3.2%	3.1%	1.6%	2.9%	55	4	7	66
F1_09 Electric front loading washer	34.8%	29.9%	11.1%	29.9%	598	38	49	685
F1_10 Electric jacuzzi	4.0%	.8%	1.8%	3.4%	68	1	8	77
F1_11 Electric hot tub	6.8%	1.6%	.9%	5.4%	117	2	4	123
F1_12 Electric swimming pool	1.4%		.5%	1.1%	24		2	26
F1_13 Electric sauna	1.7%	.8%		1.3%	29	1		30
F1_14 Electric sump pump	9.3%	5.5%	.9%	7.4%	159	7	4	170
F1_15 Electric water bed	.8%			.6%	14			14
F1_16 Electric fish tank	5.0%	4.7%	2.0%	4.4%	86	6	9	101
F2_01 Natural gas cooktop/oven	23.1%	29.9%	10.4%	21.0%	397	38	46	481
F2_02 Natural gas separate cooktop	9.1%	3.1%	.9%	7.2%	156	4	4	164
F2_03 Natural gas separate oven	1.3%	1.6%	.2%	1.1%	22	2	1	25
F2_04 Natural gas clothes dryer	9.8%	7.1%	.7%	7.9%	168	9	3	180
F2_05 Natural gas indoor fireplace	19.4%	18.9%	9.7%	17.5%	333	24	43	400
F2_06 Natural gas outdoor fireplace	.2%		.2%	.2%	4		1	5
F2_07 Natural gas outdoor barbecue	5.6%	3.1%	1.6%	4.7%	96	4	7	107
F3_01 Bottled gas cooktop/oven	.8%	2.4%	1.1%	1.0%	14	3	5	22
F3_02 Bottled gas separate cooktop	.5%		.2%	.4%	8		1	9
F3_03 Bottled gas separate oven								
F3_04 Bottled gas outdoor cooktop	1.1%		.5%	.9%	19		2	21
F3_05 Bottled gas outdoor fireplace	.5%			.4%	9			9
F3_06 Bottled gas outdoor barbecue	31.7%	17.3%	9.0%	26.5%	544	22	40	606
F3_07 Bottled gas patio heater	2.6%			2.0%	45			45
No appliances	.6%	2.4%	1.4%	.9%	11	3	6	20
Total	100.0%	100.0%	100.0%	100.0%	1718	127	443	2288

F1 Households with one or more electric appliances BY A2 Housing Type FOR B1 Electric main home heat

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
F1_01 Electric cooktop/oven	82.0%	85.7%	88.5%	85.2%	300	54	315	669
F1_02 Electric separate cooktop	15.0%	7.9%	4.8%	9.8%	55	5	17	77
F1_03 Electric separate oven	17.5%	9.5%	9.6%	13.2%	64	6	34	104
F1_04 Electric microwave oven	86.3%	81.0%	84.0%	84.8%	316	51	299	666
F1_05 Electric dishwasher	73.2%	71.4%	66.6%	70.1%	268	45	237	550
F1_06 Electric clothes dryer	93.2%	77.8%	42.7%	69.0%	341	49	152	542
F1_07 Electric top loading washer/agitator	61.7%	49.2%	31.7%	47.1%	226	31	113	370
F1_08 Electric top loading washer/no agitator	4.9%	6.3%	1.4%	3.4%	18	4	5	27
F1_09 Electric front loading washer	27.3%	20.6%	10.1%	19.0%	100	13	36	149
F1_10 Electric jacuzzi	3.3%		1.7%	2.3%	12		6	18
F1_11 Electric hot tub	7.1%		.8%	3.7%	26		3	29
F1_12 Electric swimming pool	1.9%		.6%	1.1%	7		2	9
F1_13 Electric sauna	1.6%			.8%	6			6
F1_14 Electric sump pump	5.2%	3.2%	.8%	3.1%	19	2	3	24
F1_15 Electric water bed	.5%			.3%	2			2
F1_16 Electric fish tank	3.3%	3.2%	2.0%	2.7%	12	2	7	21
F2_01 Natural gas cooktop/oven	6.8%	11.1%	7.0%	7.3%	25	7	25	57
F2_02 Natural gas separate cooktop	1.9%		.6%	1.1%	7		2	9
F2_03 Natural gas separate oven	.8%		.3%	.5%	3		1	4
F2_04 Natural gas clothes dryer	2.2%		.6%	1.3%	8		2	10
F2_05 Natural gas indoor fireplace	8.5%	4.8%	7.0%	7.5%	31	3	25	59
F2_06 Natural gas outdoor fireplace			.3%	.1%			1	1
F2_07 Natural gas outdoor barbecue	2.7%	3.2%	.8%	1.9%	10	2	3	15
F3_01 Bottled gas cooktop/oven	.8%	4.8%	.3%	.9%	3	3	1	7
F3_02 Bottled gas separate cooktop	1.1%		.3%	.6%	4		1	5
F3_03 Bottled gas separate oven								
F3_04 Bottled gas outdoor cooktop	1.1%		.6%	.8%	4		2	6
F3_05 Bottled gas outdoor fireplace	.5%			.3%	2			2
F3_06 Bottled gas outdoor barbecue	24.9%	17.5%	7.9%	16.6%	91	11	28	130
F3_07 Bottled gas patio heater	1.6%			.8%	6			6
No appliances	1.1%		1.1%	1.0%	4		4	8
Total	100.0%	100.0%	100.0%	100.0%	366	63	356	785

F1 Households with one or more electric appliances BY A2 Housing Type FOR B1 Gas/Oil main home heat

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
F1_01 Electric cooktop/oven	57.7%	47.1%	61.0%	57.4%	725	24	36	785
F1_02 Electric separate cooktop	11.1%	7.8%	8.5%	10.9%	140	4	5	149
F1_03 Electric separate oven	24.3%	19.6%	16.9%	23.8%	305	10	10	325
F1_04 Electric microwave oven	88.4%	78.4%	74.6%	87.4%	1111	40	44	1195
F1_05 Electric dishwasher	81.9%	72.5%	55.9%	80.4%	1029	37	33	1099
F1_06 Electric clothes dryer	86.5%	78.4%	42.4%	84.3%	1087	40	25	1152
F1_07 Electric top loading washer/agitator	54.9%	41.2%	23.7%	53.0%	690	21	14	725
F1_08 Electric top loading washer/no agitator	2.7%		1.7%	2.6%	34		1	35
F1_09 Electric front loading washer	37.5%	43.1%	20.3%	36.9%	471	22	12	505
F1_10 Electric jacuzzi	4.4%		3.4%	4.2%	55		2	57
F1_11 Electric hot tub	6.6%	2.0%	1.7%	6.2%	83	1	1	85
F1_12 Electric swimming pool	1.3%			1.2%	16			16
F1_13 Electric sauna	1.7%			1.5%	21			21
F1_14 Electric sump pump	10.5%	7.8%		9.9%	132	4		136
F1_15 Electric water bed	1.0%			.9%	12			12
F1_16 Electric fish tank	5.6%	7.8%	1.7%	5.6%	71	4	1	76
F2_01 Natural gas cooktop/oven	27.7%	52.9%	32.2%	28.8%	348	27	19	394
F2_02 Natural gas separate cooktop	11.7%	5.9%	1.7%	11.0%	147	3	1	151
F2_03 Natural gas separate oven	1.4%			1.3%	18			18
F2_04 Natural gas clothes dryer	12.5%	11.8%		11.9%	157	6		163
F2_05 Natural gas indoor fireplace	23.0%	35.3%	25.4%	23.6%	289	18	15	322
F2_06 Natural gas outdoor fireplace	.3%			.3%	4			4
F2_07 Natural gas outdoor barbecue	6.4%	3.9%	5.1%	6.3%	81	2	3	86
F3_01 Bottled gas cooktop/oven	.7%		3.4%	.8%	9		2	11
F3_02 Bottled gas separate cooktop	.3%			.3%	4			4
F3_03 Bottled gas separate oven								
F3_04 Bottled gas outdoor cooktop	1.0%			1.0%	13			13
F3_05 Bottled gas outdoor fireplace	.6%			.5%	7			7
F3_06 Bottled gas outdoor barbecue	34.2%	19.6%	18.6%	33.0%	430	10	11	451
F3_07 Bottled gas patio heater	3.0%			2.8%	38			38
No appliances	.4%			.4%	5			5
Total	100.0%	100.0%	100.0%	100.0%	1257	51	59	1367

Figure 103: Saturation of Other Common Major Appliances in Home, by Type and Fuel of Main Home Heat

F2_05 Natural gas indoor fireplace BY B1_1 Main home heat fuel

% within B1_1 Main home heat fuel

		B1_1 Main home heat fuel		
		Electricity	Other	Total
F2_05 Natural gas indoor fireplace	None	92.5%	76.8%	82.4%
	1+	7.5%	23.2%	17.6%
Total		100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	87.003[b]	1	.000		
Continuity Correction[a]	85.924	1	.000		
Likelihood Ratio	97.125	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	86.964	1	.000		
N of Valid Cases	2231				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 140.39.

F3_06 Bottled gas outdoor barbecue BY A2 Housing Type

% within A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
F3_06 Bottled gas outdoor barbecue	None	68.3%	82.7%	91.0%	73.5%
	1+	31.7%	17.3%	9.0%	26.5%
Total		100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	98.473[a]	2	.000
Continuity Correction			
Likelihood Ratio	114.404	2	.000
Linear-by-Linear Association	97.883	1	.000
N of Valid Cases	2288		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.64.

Familiarity with Energy Star Logo

Figure 104: Familiarity with Logo by Age of Refrigerator

B8 Familiarity with 'Energy Star' logo BY F5 Age of refrigerator used most FOR A2 Single family housing

	F5 Age of your main refrigerator that you use most					
	New in 2008-09	2 -10 years	11-20 years	21 years or more	Don't Know	Total
Have heard about this	14.7%	18.4%	21.3%	18.6%	16.5%	18.5%
Have seen this on products in the stores	12.5%	17.7%	24.0%	28.8%	30.8%	20.7%
Have a product with this logo in my home	57.6%	50.4%	36.0%	32.2%	27.4%	44.2%
Not familiar with it / not sure	15.2%	13.5%	18.8%	20.3%	25.2%	16.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

B8 Familiarity with 'Energy Star' logo BY F5 Age of refrigerator used most FOR A2 Single family housing

	F5 Age of your main refrigerator that you use most					
	New in 2008-09	2 -10 years	11-20 years	21 years or more	Don't Know	Total
Have heard about this	33	204	103	22	44	406
Have seen this on products in the stores	28	196	116	34	82	456
Have a product with this logo in my home	129	558	174	38	73	972
Not familiar with it / not sure	34	149	91	24	67	365
Total	224	1107	484	118	266	2199

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	103.745[a]	12	.000
Continuity Correction			
Likelihood Ratio	104.104	12	.000
Linear-by-Linear Association	1.208	1	.272
N of Valid Cases	2199		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.59.

Figure 105: Familiarity with Logo by Age of Freezer

B8 Familiarity with 'Energy Star' logo BY F7 Age of stand-alone freezer used most

	F7 Age of your main stand-alone freezer that you use most						
	New in 2008-09	2 -10 years	11-20 years	21 years or more	Don't Know	No stand-alone freezer	Total
Have heard about this	10.3%	19.1%	15.4%	16.9%	19.4%	19.2%	18.5%
Have seen this on products in the stores	10.3%	17.9%	20.4%	19.2%	14.5%	22.2%	20.8%
Have a product with this logo in my home	66.7%	47.7%	44.4%	40.7%	24.2%	44.8%	44.6%
Not familiar with it / not sure	12.8%	15.3%	19.8%	23.2%	41.9%	13.8%	16.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

B8 Familiarity with 'Energy Star' logo BY F7 Age of stand-alone freezer used most

	F7 Age of your main stand-alone freezer that you use most						
	New in 2008-09	2 -10 years	11-20 years	21 years or more	Don't Know	No stand-alone freezer	Total
Have heard about this	4	50	25	30	12	273	394
Have seen this on products in the stores	4	47	33	34	9	316	443
Have a product with this logo in my home	26	125	72	72	15	638	948
Not familiar with it / not sure	5	40	32	41	26	197	341
Total	39	262	162	177	62	1424	2126

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	57.560[a]	15	.000
Continuity Correction			
Likelihood Ratio	50.556	15	.000
Linear-by-Linear Association	5.835	1	.016
N of Valid Cases	2126		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.26.

Figure 106: Familiarity with Logo by Age of Clothes Washer

B8 Familiarity with 'Energy Star' logo BY F8 Age of main clothes washer used most

	F8 Age of your main clothes washer (in your home or unit) that you use most							
	New in 2008-09	2 -10 years	11-20 years	21-30 years	31 years or more	Don't Know	No clothes washer	Total
Have heard about this	16.1%	19.2%	20.6%	16.2%	10.0%	12.4%	18.3%	18.4%
Have seen this on products in the stores	12.6%	17.0%	23.1%	27.0%	50.0%	31.1%	32.2%	20.8%
Have a product with this logo in my home	60.3%	52.3%	36.0%	32.4%	20.0%	31.7%	21.8%	44.7%
Not familiar with it / not sure	11.1%	11.5%	20.3%	24.3%	20.0%	24.8%	27.7%	16.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

B8 Familiarity with 'Energy Star' logo BY F8 Age of main clothes washer used most

	F8 Age of your main clothes washer (in your home or unit) that you use most							
	New in 2008-09	2 -10 years	11-20 years	21-30 years	31 years or more	Don't Know	No clothes washer	Total
Have heard about this	32	213	81	12	2	20	37	397
Have seen this on products in the stores	25	188	91	20	10	50	65	449
Have a product with this logo in my home	120	580	142	24	4	51	44	965
Not familiar with it / not sure	22	128	80	18	4	40	56	348
Total	199	1109	394	74	20	161	202	2159

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	168.208[a]	18	.000
Continuity Correction			
Likelihood Ratio	168.010	18	.000
Linear-by-Linear Association	.393	1	.531
N of Valid Cases	2159		

a. 3 cells (10.7%) have expected count less than 5. The minimum expected count is 3.22.

Trends over Three Decades of Residential Customer Characteristics Surveys

Figure 107: Major Kitchen Appliance Saturations: Trends over 3 Decades

MAJOR KITCHEN APPLIANCE SATURATIONS

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Microwave Oven	9.6%	13.2%	23.9%	39.0%	54.0%	65.1%	70.3%					86.6%				86.6%
Dishwasher	46.1%	49.3%	50.4%	54.7%	54.5%	56.9%	55.2%					65.4%				76.7%
Separate Freezer	33.0%	33.9%	36.3%	38.3%	37.0%	32.0%	29.6%					27.1%				33.5%

Figure 108: Major Laundry Appliance Saturations: Trends over 3 Decades

MAJOR LAUNDRY APPLIANCE SATURATIONS

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Electric Washer	67.7%	70.1%	72.6%	73.3%	72.8%	68.8%	70.3%					81.1%				82.9%
Electric Dryer	59.8%	62.6%	66.8%	68.2%	70.8%	65.3%	67.1%					75.0%				77.7%
Gas Dryer	1.4%	2.2%	2.3%	2.0%	2.4%	1.7%						5.4%				7.8%

Major Findings ▪ 6

Electronic Equipment

Rechargers

Figure 109: Rechargers for Cell Phones, per Household

H1_01 Number of re-chargers for cell phones in home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	9.1%	7.9%	16.7%	10.4%	152	10	69	231
1	36.6%	37.3%	50.5%	39.2%	613	47	208	868
2	38.0%	38.9%	28.6%	36.3%	636	49	118	803
3	11.5%	7.1%	3.4%	9.7%	192	9	14	215
4	3.9%	7.9%	.7%	3.5%	65	10	3	78
5+	1.0%	.8%		.8%	17	1		18
Total	100.0%	100.0%	100.0%	100.0%	1675	126	412	2213

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	87.956[a]	10	.000
Continuity Correction			
Likelihood Ratio	96.536	10	.000
Linear-by-Linear Association	68.344	1	.000
N of Valid Cases	2213		

a. 3 cells (16.7%) have expected count less than 5. The minimum expected count is 1.02.

Figure 110: Rechargers for Bluetooth Devices, per Household

H1_02 Number of re-chargers for Bluetooth devices in home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	76.1%	77.8%	85.9%	78.0%	1275	98	354	1727
1	16.8%	17.5%	11.4%	15.8%	281	22	47	350
2	6.4%	2.4%	2.4%	5.4%	107	3	10	120
3	.6%	1.6%	.2%	.6%	10	2	1	13
4	.1%	.8%		.1%	1	1		2
5+	.1%			.0%	1			1
Total	100.0%	100.0%	100.0%	100.0%	1675	126	412	2213

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.917[a]	10	.000
Continuity Correction			
Likelihood Ratio	31.410	10	.001
Linear-by-Linear Association	18.860	1	.000
N of Valid Cases	2213		

a. 8 cells (44.4%) have expected count less than 5. The minimum expected count is .06.

Figure 111: Rechargers for PDAs and Pocket PCs, per Household

H1_03 Number of re-chargers for PDAs, Pocket PCs in home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	87.0%	91.3%	90.8%	87.9%	1457	115	374	1946
1	9.5%	5.6%	7.8%	8.9%	159	7	32	198
2	2.9%	3.2%	1.0%	2.6%	49	4	4	57
3	.5%		.5%	.5%	9		2	11
4	.1%			.0%	1			1
Total	100.0%	100.0%	100.0%	100.0%	1675	126	412	2213

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.621[a]	8	.293
Continuity Correction			
Likelihood Ratio	12.004	8	.151
Linear-by-Linear Association	6.109	1	.013
N of Valid Cases	2213		

a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is .06.

Figure 112: Rechargers for iPod, Zune, MP3 Players, per Household

H1_04 Number of re-chargers for iPOD, Zune, MP3 players in home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	57.7%	60.3%	64.1%	59.0%	966	76	264	1306
1	24.8%	26.2%	24.5%	24.9%	416	33	101	550
2	12.5%	8.7%	9.5%	11.7%	210	11	39	260
3	3.2%	4.0%	1.5%	2.9%	54	5	6	65
4	1.4%	.8%	.5%	1.2%	23	1	2	26
5+	.4%			.3%	6			6
Total	100.0%	100.0%	100.0%	100.0%	1675	126	412	2213

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.450[a]	10	.153
Continuity Correction			
Likelihood Ratio	17.144	10	.071
Linear-by-Linear Association	11.849	1	.001
N of Valid Cases	2213		

a. 6 cells (33.3%) have expected count less than 5. The minimum expected count is .34.

Figure 113: Rechargers for AA, C, and D Batteries, per Household

H1_05 Number of re-chargers for AA, C, D batteries in home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	72.9%	77.0%	75.7%	73.7%	1221	97	312	1630
1	19.2%	13.5%	18.0%	18.6%	321	17	74	412
2	4.7%	4.8%	2.4%	4.3%	79	6	10	95
3	1.1%	.8%	1.2%	1.1%	18	1	5	24
4	.7%	2.4%	1.0%	.8%	11	3	4	18
5+	1.5%	1.6%	1.7%	1.5%	25	2	7	34
Total	100.0%	100.0%	100.0%	100.0%	1675	126	412	2213

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.503[a]	10	.320
Continuity Correction			
Likelihood Ratio	11.013	10	.357
Linear-by-Linear Association	.339	1	.561
N of Valid Cases	2213		

a. 5 cells (27.8%) have expected count less than 5. The minimum expected count is 1.02.

Figure 114: Rechargers for Camera Batteries, per Household

H1_06 Number of re-chargers for camera batteries in home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	46.7%	46.0%	58.0%	48.8%	783	58	239	1080
1	36.8%	38.9%	31.8%	36.0%	616	49	131	796
2	13.1%	10.3%	8.5%	12.1%	219	13	35	267
3	2.4%	4.8%	1.0%	2.3%	41	6	4	51
4	.6%		.2%	.5%	10		1	11
5+	.4%		.5%	.4%	6		2	8
Total	100.0%	100.0%	100.0%	100.0%	1675	126	412	2213

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.249[a]	10	.003
Continuity Correction			
Likelihood Ratio	27.696	10	.002
Linear-by-Linear Association	16.092	1	.000
N of Valid Cases	2213		

a. 5 cells (27.8%) have expected count less than 5. The minimum expected count is .46.

H1 Number of each type of recharger used in your home BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
	Valid N	1675	126	412	2213
H1_01 Number of rechargers for cell phones in your home	Mean	1.68	1.72	1.21	1.59
	Std Deviation	0.99	1.04	0.78	0.98
H1_02 Number of rechargers for Bluetooth devices in your home	Mean	0.32	0.30	0.17	0.29
	Std Deviation	0.63	0.67	0.45	0.61
H1_03 Number of rechargers for PDAs, Pocket PCs in your home	Mean	0.17	0.12	0.11	0.16
	Std Deviation	0.49	0.41	0.38	0.47
H1_04 Number of rechargers for iPod, Zune, MP3 players in your home	Mean	0.67	0.59	0.50	0.63
	Std Deviation	0.95	0.87	0.77	0.92
H1_05 Number of rechargers for AA, C, D batteries in your home	Mean	0.42	0.43	0.39	0.41
	Std Deviation	0.88	1.00	0.90	0.89
H1_06 Number of rechargers for camera batteries in your home	Mean	0.74	0.74	0.55	0.71
	Std Deviation	0.86	0.83	0.78	0.85

Computer Equipment

Figure 115: Total Number of Computers per Household

H2 Total computers in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	10.2%	8.9%	17.8%	11.5%	169	11	74	254
1	36.3%	43.9%	47.6%	38.9%	604	54	198	856
2	29.6%	22.8%	25.2%	28.4%	492	28	105	625
3	15.3%	17.9%	7.5%	14.0%	255	22	31	308
4+	8.6%	6.5%	1.9%	7.2%	143	8	8	159
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	69.756[a]	8	.000
Continuity Correction			
Likelihood Ratio	76.479	8	.000
Linear-by-Linear Association	62.300	1	.000
N of Valid Cases	2202		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.88.

Figure 116: Desktop Computer CPU Equipment, per Household

H2_01 Number of desktop computer CPUs in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	30.7%	35.0%	50.0%	34.6%	510	43	208	761
1	52.7%	54.5%	43.3%	51.0%	877	67	180	1124
2	13.2%	7.3%	5.5%	11.4%	219	9	23	251
3+	3.4%	3.3%	1.2%	3.0%	57	4	5	66
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	66.607[a]	6	.000
Continuity Correction			
Likelihood Ratio	67.938	6	.000
Linear-by-Linear Association	59.532	1	.000
N of Valid Cases	2202		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 3.69.

Figure 117: Laptop or Portable Computer Equipment, per Household

H2_04 Number of laptop or portable computers in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	38.7%	37.4%	45.0%	39.8%	644	46	187	877
1	37.8%	37.4%	41.1%	38.4%	629	46	171	846
2	18.0%	17.9%	12.0%	16.9%	300	22	50	372
3+	5.4%	7.3%	1.9%	4.9%	90	9	8	107
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.571[a]	6	.001
Continuity Correction			
Likelihood Ratio	24.057	6	.001
Linear-by-Linear Association	14.515	1	.000
N of Valid Cases	2202		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.98.

Figure 118: Standard Monitor/Display (CRT) Equipment, per Household

H2_02 Number of standard monitor displays (CRT) in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	71.9%	78.0%	81.0%	73.9%	1195	96	337	1628
1	23.6%	17.9%	17.8%	22.2%	393	22	74	489
2	3.7%	4.1%	1.0%	3.2%	62	5	4	71
3+	.8%		.2%	.6%	13		1	14
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.827[a]	6	.002
Continuity Correction			
Likelihood Ratio	24.580	6	.000
Linear-by-Linear Association	18.680	1	.000
N of Valid Cases	2202		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is .78.

Figure 119: LCD Flat Screen Display Equipment, per Household

H2_03 Number of LCD flat screen displays in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	53.5%	60.2%	67.3%	56.4%	889	74	280	1243
1	35.2%	30.1%	26.9%	33.3%	585	37	112	734
2	8.1%	7.3%	4.8%	7.4%	135	9	20	164
3+	3.2%	2.4%	1.0%	2.8%	54	3	4	61
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.066[a]	6	.000
Continuity Correction			
Likelihood Ratio	32.082	6	.000
Linear-by-Linear Association	28.415	1	.000
N of Valid Cases	2202		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 3.41.

Figure 120: Print, Scan, Copy Fax Equipment, per Household

H2_05 Number of print, scan, copy, fax machines in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	25.1%	28.5%	46.4%	29.3%	417	35	193	645
1	56.6%	60.2%	48.3%	55.3%	942	74	201	1217
2	14.0%	8.1%	3.8%	11.7%	232	10	16	258
3+	4.3%	3.3%	1.4%	3.7%	72	4	6	82
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	94.358[a]	6	.000
Continuity Correction			
Likelihood Ratio	98.002	6	.000
Linear-by-Linear Association	83.112	1	.000
N of Valid Cases	2202		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 4.58.

Figure 121: Modem (cable, DSL, wireless) Equipment, per Household

H2_06 Number of modems: cable, DSL, or wireless in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	26.6%	26.8%	44.5%	30.0%	443	33	185	661
1	67.1%	61.8%	52.6%	64.1%	1116	76	219	1411
2	4.7%	10.6%	2.6%	4.6%	78	13	11	102
3+	1.6%	.8%	.2%	1.3%	26	1	1	28
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.379[a]	6	.000
Continuity Correction			
Likelihood Ratio	61.256	6	.000
Linear-by-Linear Association	43.647	1	.000
N of Valid Cases	2202		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 1.56.

Figure 122: Home Network or LAN Equipment, per Household

H2_07 Number of home networks or LANs in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	71.8%	78.0%	81.0%	73.9%	1194	96	337	1627
1	26.3%	18.7%	18.5%	24.4%	438	23	77	538
2	1.4%	2.4%	.5%	1.3%	23	3	2	28
3+	.5%	.8%		.4%	8	1		9
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.158[a]	6	.003
Continuity Correction			
Likelihood Ratio	22.645	6	.001
Linear-by-Linear Association	16.365	1	.000
N of Valid Cases	2202		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is .50.

Figure 123: Server CPU Equipment, per Household

H2_08 Number of server CPUs in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	94.3%	95.1%	96.4%	94.8%	1569	117	401	2087
1	4.9%	4.1%	3.4%	4.6%	82	5	14	101
2	.6%	.8%	.2%	.5%	10	1	1	12
3+	.1%			.1%	2			2
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.619[a]	6	.728
Continuity Correction			
Likelihood Ratio	4.390	6	.624
Linear-by-Linear Association	3.196	1	.074
N of Valid Cases	2202		

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is .11.

Figure 124: Uninterruptible Power Supply Equipment, per Household

H2_09 Number of uninterruptible power supplies in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	85.5%	88.6%	89.9%	86.5%	1422	109	374	1905
1	11.0%	8.1%	8.2%	10.3%	183	10	34	227
2	2.2%	1.6%	1.4%	2.0%	36	2	6	44
3+	1.3%	1.6%	.5%	1.2%	22	2	2	26
Total	100.0%	100.0%	100.0%	100.0%	1663	123	416	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.174[a]	6	.305
Continuity Correction			
Likelihood Ratio	7.877	6	.247
Linear-by-Linear Association	6.101	1	.014
N of Valid Cases	2202		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.45.

H2 Number of each type of computer equipment used in your home BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
	Valid N	1663	123	416	2202
H2 Total number of computers in your home	Mean	1.79	1.74	1.29	1.70
	Std Deviation	1.10	1.07	0.91	1.08
H2_01 Number of desktop computer CPUs in your home	Mean	0.89	0.79	0.58	0.83
	Std Deviation	0.75	0.72	0.65	0.74
H2_02 Number of standard monitor displays (CRT) in your home	Mean	0.33	0.26	0.20	0.31
	Std Deviation	0.59	0.53	0.44	0.56
H2_03 Number of LCD flat screen displays in your home	Mean	0.61	0.52	0.39	0.57
	Std Deviation	0.77	0.74	0.63	0.75
H2_04 Number of laptop or portable computers in your home	Mean	0.90	0.95	0.71	0.87
	Std Deviation	0.88	0.92	0.75	0.86
H2_05 Number of print, scan, copy, fax machines in your home	Mean	0.98	0.86	0.60	0.90
	Std Deviation	0.75	0.69	0.64	0.74
H2_06 Number of modems: cable, DSL, or wireless in your home	Mean	0.81	0.85	0.59	0.77
	Std Deviation	0.58	0.62	0.56	0.59
H2_07 Number of home networks or LANs in your home	Mean	0.31	0.26	0.19	0.28
	Std Deviation	0.52	0.54	0.41	0.50
H2_08 Number of server CPUs in your home	Mean	0.06	0.06	0.04	0.06
	Std Deviation	0.28	0.27	0.20	0.27
H2_09 Number of uninterruptible power supplies in your home	Mean	0.19	0.16	0.13	0.18
	Std Deviation	0.53	0.52	0.41	0.51

Televisions

Figure 125: Total Televisions per Household

H3 Total televisions in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	2.4%	3.9%	7.4%	3.4%	41	5	32	78
1	32.5%	40.2%	59.4%	38.1%	553	51	258	862
2	31.2%	24.4%	23.5%	29.3%	531	31	102	664
3	20.1%	18.9%	5.8%	17.3%	342	24	25	391
4+	13.9%	12.6%	3.9%	11.9%	237	16	17	270
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	169.549[a]	8	.000
Continuity Correction			
Likelihood Ratio	178.086	8	.000
Linear-by-Linear Association	145.955	1	.000
N of Valid Cases	2265		

a. 1 cells (6.7%) have expected count less than 5. The minimum expected count is 4.37.

Figure 126: Standard Televisions (CRT), 12-22 Inches, per Household

H3_01 No. of Standard televisions (CRT), 12-22 inches in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	52.2%	43.3%	63.1%	53.8%	890	55	274	1219
1	33.7%	41.7%	31.8%	33.8%	574	53	138	765
2	10.7%	10.2%	3.9%	9.4%	182	13	17	212
3+	3.4%	4.7%	1.2%	3.0%	58	6	5	69
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	37.308[a]	6	.000
Continuity Correction			
Likelihood Ratio	42.132	6	.000
Linear-by-Linear Association	23.391	1	.000
N of Valid Cases	2265		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 3.87.

Figure 127: Standard Televisions (CRT), 23-38 Inches, per Household

H3_02 No. of Standard televisions (CRT), 23-38 inches in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	51.5%	58.3%	63.4%	54.2%	878	74	275	1227
1	34.5%	33.1%	31.3%	33.8%	588	42	136	766
2	11.1%	7.9%	5.1%	9.8%	189	10	22	221
3+	2.9%	.8%	.2%	2.3%	49	1	1	51
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.792[a]	6	.000
Continuity Correction			
Likelihood Ratio	42.768	6	.000
Linear-by-Linear Association	34.245	1	.000
N of Valid Cases	2265		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 2.86.

Figure 128: Rear Projection Televisions (large screen), per Household

H3_03 No. of Rear projection TVs (large screen) in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	93.4%	96.1%	97.2%	94.3%	1592	122	422	2136
1	6.3%	3.1%	2.8%	5.4%	107	4	12	123
2	.3%	.8%		.3%	5	1		6
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.243[a]	4	.016
Continuity Correction			
Likelihood Ratio	14.297	4	.006
Linear-by-Linear Association	9.813	1	.002
N of Valid Cases	2265		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .34.

Figure 129: Televisions with Built-in DVD or VCR, per Household

H3_04 No. of TV with built-in DVDs or VCRs in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	86.7%	85.0%	91.0%	87.5%	1478	108	395	1981
1	10.6%	11.8%	6.9%	10.0%	181	15	30	226
2	2.0%	1.6%	1.6%	1.9%	34	2	7	43
3+	.6%	1.6%	.5%	.7%	11	2	2	15
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.248[a]	6	.220
Continuity Correction			
Likelihood Ratio	8.295	6	.217
Linear-by-Linear Association	3.374	1	.066
N of Valid Cases	2265		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is .84.

Figure 130: LCD Flat Screen Televisions, Less than 45 Inches, per Household

H3_05 No. of LCD flat screen TVs, less than 45 inches in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	65.5%	67.7%	71.4%	66.8%	1116	86	310	1512
1	26.9%	26.8%	23.7%	26.3%	459	34	103	596
2	5.9%	2.4%	4.1%	5.4%	101	3	18	122
3+	1.6%	3.1%	.7%	1.5%	28	4	3	35
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.792[a]	6	.067
Continuity Correction			
Likelihood Ratio	12.498	6	.052
Linear-by-Linear Association	7.122	1	.008
N of Valid Cases	2265		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 1.96.

Figure 131: LCD Flat Screen Televisions, 45 Inches or More, per Household

H3_06 No. of LCD flat screen TVs, 45 inches or more in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	91.3%	89.8%	94.5%	91.8%	1556	114	410	2080
1	8.0%	9.4%	5.5%	7.6%	136	12	24	172
2	.6%	.8%		.5%	11	1		12
3+	.1%			.0%	1			1
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.003[a]	6	.321
Continuity Correction			
Likelihood Ratio	9.699	6	.138
Linear-by-Linear Association	4.850	1	.028
N of Valid Cases	2265		

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is .06.

Figure 132: Plasma Flat Screen Televisions, Less than 45 Inches, per Household

H3_07 No. of Plasma screen TVs, less than 45 inches in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	94.3%	96.1%	96.8%	94.9%	1607	122	420	2149
1	5.3%	3.9%	3.2%	4.9%	91	5	14	110
2	.2%			.2%	4			4
3+	.1%			.1%	2			2
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.636[a]	6	.465
Continuity Correction			
Likelihood Ratio	7.387	6	.287
Linear-by-Linear Association	5.335	1	.021
N of Valid Cases	2265		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .11.

Figure 133: Plasma Flat Screen Televisions, 45 Inches or More, per Household

H3_08 No. of Plasma screen TVs, 45 inches or more in your home BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	94.5%	96.9%	98.2%	95.3%	1610	123	426	2159
1	5.2%	3.1%	1.8%	4.4%	88	4	8	100
2	.4%			.3%	6			6
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.627[a]	4	.020
Continuity Correction			
Likelihood Ratio	14.848	4	.005
Linear-by-Linear Association	11.429	1	.001
N of Valid Cases	2265		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .34.

H3 Number of each type of television used in your home BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
	Valid N	1704	127	434	2265
H3 Total number of televisions in your home	Mean	2.19	2.11	1.44	2.04
	Std Deviation	1.08	1.12	0.86	1.08
H3_01 Number of Standard televisions (CRT), 12-22 inches in your home	Mean	0.65	0.76	0.43	0.62
	Std Deviation	0.80	0.82	0.63	0.78
H3_02 Number of Standard televisions (CRT), 23-38 inches in your home	Mean	0.65	0.51	0.42	0.60
	Std Deviation	0.79	0.68	0.60	0.76
H3_03 Number of Rear projection TVs (large screen) in your home	Mean	0.07	0.05	0.03	0.06
	Std Deviation	0.26	0.25	0.16	0.25
H3_04 Number of TVs with built-in DVD or VCR in your home	Mean	0.17	0.20	0.12	0.16
	Std Deviation	0.47	0.54	0.40	0.46
H3_05 Number of LCD flat screen TVs, less than 45 inches in your home	Mean	0.44	0.41	0.34	0.42
	Std Deviation	0.68	0.69	0.59	0.67
H3_06 Number of LCD flat screen TVs, 45 inches or more in your home	Mean	0.09	0.11	0.06	0.09
	Std Deviation	0.32	0.34	0.23	0.31
H3_07 Number of Plasma screen TVs, less than 45 inches in your home	Mean	0.06	0.04	0.03	0.05
	Std Deviation	0.26	0.20	0.18	0.25
H3_08 Number of Plasma screen TVs, 45 inches or more in your home	Mean	0.06	0.03	0.02	0.05
	Std Deviation	0.25	0.18	0.13	0.23

Video Equipment

Figure 134: Digital Video Deck (DVD) Equipment, per Household

H4_01 Number of DVD: digital video decks in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	36.6%	40.2%	47.0%	38.8%	624	51	204	879
1	46.5%	44.1%	46.1%	46.3%	792	56	200	1048
2	13.5%	13.4%	6.9%	12.2%	230	17	30	277
3+	3.4%	2.4%		2.7%	58	3		61
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	37.172[a]	6	.000
Continuity Correction			
Likelihood Ratio	49.986	6	.000
Linear-by-Linear Association	33.352	1	.000
N of Valid Cases	2265		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 3.42.

Figure 135: Video-cassette Deck (VCR) Equipment, per Household

H4_02 Number of VCR: videocassette decks in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	60.8%	63.0%	69.4%	62.6%	1036	80	301	1417
1	32.6%	32.3%	28.1%	31.7%	555	41	122	718
2	5.9%	4.7%	2.3%	5.1%	100	6	10	116
3+	.8%		.2%	.6%	13		1	14
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.278[a]	6	.008
Continuity Correction			
Likelihood Ratio	19.994	6	.003
Linear-by-Linear Association	15.646	1	.000
N of Valid Cases	2265		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is .78.

Figure 136: VCR-DVD Combo Unit Equipment, per Household

H4_03 Number of VCR / DVD combo units in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	68.6%	75.6%	78.3%	70.9%	1169	96	340	1605
1	26.6%	19.7%	19.6%	24.9%	453	25	85	563
2	3.8%	3.1%	1.8%	3.4%	65	4	8	77
3+	1.0%	1.6%	.2%	.9%	17	2	1	20
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.332[a]	6	.002
Continuity Correction			
Likelihood Ratio	22.000	6	.001
Linear-by-Linear Association	18.011	1	.000
N of Valid Cases	2265		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.12.

Figure 137: Video Game Console Equipment, per Household

H4_04 Number of video game consoles in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	77.7%	79.5%	84.3%	79.1%	1324	101	366	1791
1	16.9%	13.4%	12.0%	15.8%	288	17	52	357
2	4.0%	2.4%	2.5%	3.6%	68	3	11	82
3+	1.4%	4.7%	1.2%	1.5%	24	6	5	35
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.283[a]	6	.004
Continuity Correction			
Likelihood Ratio	16.906	6	.010
Linear-by-Linear Association	6.020	1	.014
N of Valid Cases	2265		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 1.96.

Figure 138: Digital to Analog TV Signal Converter Equipment, per Household

H4_05 Number of digital to analog converters in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	86.1%	86.6%	88.5%	86.6%	1467	110	384	1961
1	8.9%	11.8%	10.8%	9.4%	151	15	47	213
2	3.8%	1.6%	.7%	3.1%	65	2	3	70
3+	1.2%			.9%	21			21
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.313[a]	6	.002
Continuity Correction			
Likelihood Ratio	30.021	6	.000
Linear-by-Linear Association	8.743	1	.003
N of Valid Cases	2265		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.18.

Figure 139: Set Top Boxes for Cable or Satellite TV Reception, per Household

H4_06 Number of set top boxes for cable, satellite in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	61.3%	58.3%	72.8%	63.3%	1044	74	316	1434
1	25.3%	27.6%	24.4%	25.3%	431	35	106	572
2	8.4%	11.0%	2.5%	7.4%	143	14	11	168
3+	5.0%	3.1%	.2%	4.0%	86	4	1	91
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.793[a]	6	.000
Continuity Correction			
Likelihood Ratio	62.291	6	.000
Linear-by-Linear Association	36.263	1	.000
N of Valid Cases	2265		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.10.

Figure 140: Set Top Boxes for TiVo or Replay TV Reception, per Household

H4_07 Number of set top boxes for Tivo, Replay TV in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	89.0%	91.3%	93.1%	89.9%	1517	116	404	2037
1	9.2%	8.7%	6.2%	8.6%	157	11	27	195
2	1.6%		.5%	1.3%	27		2	29
3+	.2%		.2%	.2%	3		1	4
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.692[a]	6	.138
Continuity Correction			
Likelihood Ratio	12.486	6	.052
Linear-by-Linear Association	7.033	1	.008
N of Valid Cases	2265		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is .22.

Figure 141: Computer Equipment to Run Media Center, per Household

H4_08 Number of computers to run media center in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	96.7%	95.3%	96.3%	96.5%	1647	121	418	2186
1	3.1%	4.7%	3.7%	3.3%	52	6	16	74
2	.2%			.2%	4			4
3+	.1%			.0%	1			1
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.973[a]	6	.812
Continuity Correction			
Likelihood Ratio	4.068	6	.667
Linear-by-Linear Association	.007	1	.932
N of Valid Cases	2265		

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .06.

H4 Number of each type of video equipment used in your home BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
	Valid N	1704	127	434	2265
H4_01 Number of DVD: digital video decks in your home	Mean	0.84	0.78	0.60	0.79
	Std Deviation	0.78	0.77	0.62	0.76
H4_02 Number of VCR: videocassette decks in your home	Mean	0.47	0.42	0.33	0.44
	Std Deviation	0.64	0.58	0.53	0.62
H4_03 Number of VCR / DVD combo units in your home	Mean	0.37	0.31	0.24	0.34
	Std Deviation	0.61	0.61	0.48	0.59
H4_04 Number of video game consoles in your home	Mean	0.29	0.32	0.21	0.28
	Std Deviation	0.61	0.74	0.53	0.60
H4_05 Number of digital-to-analog converters in your home	Mean	0.20	0.15	0.12	0.18
	Std Deviation	0.56	0.40	0.35	0.52
H4_06 Number of set top boxes for cable, satellite TV in your home	Mean	0.57	0.59	0.30	0.52
	Std Deviation	0.85	0.81	0.53	0.80
H4_07 Number of set top boxes for TiVo, Replay TV in your home	Mean	0.13	0.09	0.08	0.12
	Std Deviation	0.39	0.28	0.31	0.37
H4_08 Number of comptuers to run media center in your home	Mean	0.04	0.05	0.04	0.04
	Std Deviation	0.21	0.21	0.19	0.21

Audio Equipment

Figure 142: Component Stereo System Equipment, per Household

H5_01 Number of component stereo systems in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	41.0%	46.5%	63.4%	45.6%	699	59	275	1033
1	50.8%	48.0%	33.9%	47.4%	866	61	147	1074
2	6.5%	4.7%	2.1%	5.6%	111	6	9	126
3+	1.6%	.8%	.7%	1.4%	28	1	3	32
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	73.875[a]	6	.000
Continuity Correction			
Likelihood Ratio	75.954	6	.000
Linear-by-Linear Association	65.698	1	.000
N of Valid Cases	2265		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 1.79.

Figure 143: Compact All-in-One Stereo Equipment, per Household

H5_02 Number of compact all-in-one stereos in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	71.8%	75.6%	76.0%	72.8%	1223	96	330	1649
1	23.4%	19.7%	22.4%	23.0%	398	25	97	520
2	4.2%	4.7%	1.4%	3.7%	71	6	6	83
3+	.7%		.2%	.6%	12		1	13
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.643[a]	6	.070
Continuity Correction			
Likelihood Ratio	14.482	6	.025
Linear-by-Linear Association	7.120	1	.008
N of Valid Cases	2265		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is .73.

Figure 144: Portable Boom-Box Audio Equipment, per Household

H5_03 Number of portable boom-boxs in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	73.3%	79.5%	80.2%	75.0%	1249	101	348	1698
1	21.5%	15.0%	18.4%	20.6%	367	19	80	466
2	4.5%	3.9%	1.4%	3.9%	77	5	6	88
3+	.6%	1.6%		.6%	11	2		13
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.860[a]	6	.003
Continuity Correction			
Likelihood Ratio	24.054	6	.001
Linear-by-Linear Association	13.971	1	.000
N of Valid Cases	2265		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is .73.

Figure 145: Karaoke Audio System Equipment, per Household

H5_04 Number of Karaoke machines in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	97.7%	97.6%	99.5%	98.0%	1664	124	432	2220
1	2.3%	2.4%	.5%	1.9%	39	3	2	44
2	.1%			.0%	1			1
Total	100.0%	100.0%	100.0%	100.0%	1704	127	434	2265

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.528[a]	4	.163
Continuity Correction			
Likelihood Ratio	8.904	4	.064
Linear-by-Linear Association	5.885	1	.015
N of Valid Cases	2265		

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is .06.

H5 Number of each type of audio equipment used in your home BY A2 Housing Type

		A2 Housing Type			
		Single Family	Midsize	Multifamily	Total
	Valid N	1704	127	434	2265
H5_01 Number of component stereo systems in your home	Mean	0.69	0.60	0.40	0.63
	Std Deviation	0.67	0.62	0.57	0.66
H5_02 Number of compact all-in-one stereos in your home	Mean	0.34	0.29	0.26	0.32
	Std Deviation	0.59	0.55	0.48	0.57
H5_03 Number of portable boom-boxes in your home	Mean	0.33	0.28	0.21	0.30
	Std Deviation	0.59	0.61	0.44	0.57
H5_04 Number of Karaoke machines in your home	Mean	0.02	0.02	0.00	0.02
	Std Deviation	0.16	0.15	0.07	0.14

Power Strips & Timers

Figure 146: Plug-in Power Strips Used, per Household

H6 Number of plug-in power strips in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0 strips	5.5%	4.8%	10.8%	6.5%	91	6	45	142
1 strip	15.9%	14.3%	21.8%	16.9%	263	18	91	372
2 strips	25.3%	30.2%	33.3%	27.1%	418	38	139	595
3 strips	20.1%	22.2%	18.9%	20.0%	333	28	79	440
4 strips	14.9%	12.7%	7.9%	13.5%	247	16	33	296
5 strips	7.9%	7.9%	4.3%	7.2%	130	10	18	158
6 strips	4.8%	4.0%	1.0%	4.1%	80	5	4	89
7 strips	1.8%	.8%	.7%	1.5%	30	1	3	34
8 or more strips	3.7%	3.2%	1.2%	3.2%	62	4	5	71
Total	100.0%	100.0%	100.0%	100.0%	1654	126	417	2197

Figure 147: Types of Equipment Turned On-and-Off with Switches on Plug-in Power Strips

H7 Equipment you usually turn on-and-off with the switches on plug-in power strips

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Re-chargers	9.5%	9.2%	10.6%	9.7%	155	11	43	209
Computer equipment	31.6%	33.6%	25.3%	30.5%	514	40	103	657
Televisions	21.6%	26.9%	25.3%	22.6%	352	32	103	487
Video equipment (VCR, DVD, or game console)	15.4%	17.6%	19.9%	16.4%	251	21	81	353
Audio equipment (sound system)	11.5%	12.6%	12.3%	11.7%	187	15	50	252
None of these	56.4%	55.5%	59.0%	56.8%	919	66	240	1225
Total	100.0%	100.0%	100.0%	100.0%	1629	119	407	2155

Figure 148: Types of Equipment Turned On-and-Off with Timers

H8 Equipment you turn on-and-off with timers

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Small appliances in the kitchen	5.3%	3.4%	6.7%	5.4%	86	4	27	117
Lighting	27.0%	16.4%	9.6%	23.1%	439	19	39	497
Electronic equipment (of any kind)	3.6%	2.6%	2.7%	3.4%	58	3	11	72
None of these	68.1%	79.3%	84.5%	71.8%	1108	92	343	1543
Total	100.0%	100.0%	100.0%	100.0%	1626	116	406	2148

Hours Plugged in to Live Electrical Outlet

Figure 149: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Re-chargers (for specified equipment)

H1_07 Hours most used cell phone re-charger is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	22.1%	14.3%	16.7%	20.7%	318	16	54	388
2-6 per week	29.2%	34.8%	29.6%	29.6%	421	39	96	556
1-2 per day	8.7%	9.8%	11.7%	9.3%	126	11	38	175
3-5 per day	7.4%	5.4%	4.6%	6.8%	106	6	15	127
6-12 per day	13.7%	18.8%	16.4%	14.5%	198	21	53	272
24 per day	18.9%	17.0%	21.0%	19.1%	272	19	68	359
Total	100.0%	100.0%	100.0%	100.0%	1441	112	324	1877

H1_08 Hours most used Bluetooth re-charger is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	.3%			.2%	1			1
1-4 per month	50.4%	54.2%	55.9%	51.3%	188	13	33	234
2-6 per week	20.1%	12.5%	13.6%	18.9%	75	3	8	86
1-2 per day	4.0%	20.8%	10.2%	5.7%	15	5	6	26
3-5 per day	4.3%	4.2%	5.1%	4.4%	16	1	3	20
6-12 per day	7.5%	4.2%	3.4%	6.8%	28	1	2	31
24 per day	13.4%	4.2%	11.9%	12.7%	50	1	7	58
Total	100.0%	100.0%	100.0%	100.0%	373	24	59	456

H1_09 Hours most used PDAs, Pocket PC re-charger is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	34.5%	28.6%	26.1%	32.9%	76	4	12	92
2-6 per week	23.2%	35.7%	19.6%	23.2%	51	5	9	65
1-2 per day	10.0%	21.4%	10.9%	10.7%	22	3	5	30
3-5 per day	7.3%		13.0%	7.9%	16		6	22
6-12 per day	9.1%	7.1%	13.0%	9.6%	20	1	6	27
24 per day	15.9%	7.1%	17.4%	15.7%	35	1	8	44
Total	100.0%	100.0%	100.0%	100.0%	220	14	46	280

H1_10 Hours most used iPOD, Zune, MP3 player re-charger is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	48.4%	45.0%	37.0%	46.3%	308	18	50	376
2-6 per week	28.1%	25.0%	30.4%	28.3%	179	10	41	230
1-2 per day	6.4%	15.0%	7.4%	7.0%	41	6	10	57
3-5 per day	3.9%		6.7%	4.2%	25		9	34
6-12 per day	4.1%	2.5%	3.7%	3.9%	26	1	5	32
24 per day	9.1%	12.5%	14.8%	10.2%	58	5	20	83
Total	100.0%	100.0%	100.0%	100.0%	637	40	135	812

H1_11 Hours most used AA, C, D batteries re-charger is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	71.9%	76.0%	78.5%	73.3%	279	19	73	371
2-6 per week	13.4%	16.0%	9.7%	12.8%	52	4	9	65
1-2 per day	2.3%		2.2%	2.2%	9		2	11
3-5 per day	1.3%		1.1%	1.2%	5		1	6
6-12 per day	1.0%	4.0%		1.0%	4	1		5
24 per day	10.1%	4.0%	8.6%	9.5%	39	1	8	48
Total	100.0%	100.0%	100.0%	100.0%	388	25	93	506

H1_12 Hours most used Camera battery re-charger is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	85.6%	76.8%	86.4%	85.2%	659	43	133	835
2-6 per week	8.6%	17.9%	5.8%	8.7%	66	10	9	85
1-2 per day	.8%		2.6%	1.0%	6		4	10
3-5 per day	.9%	1.8%	.6%	.9%	7	1	1	9
6-12 per day	.9%	3.6%	.6%	1.0%	7	2	1	10
24 per day	3.2%		3.9%	3.2%	25		6	31
Total	100.0%	100.0%	100.0%	100.0%	770	56	154	980

Figure 150: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Computer Equipment

H2_10 Hours most used desktop computer CPU is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0	.2%			.1%	2			2
1-4 per month	3.1%	2.8%	6.9%	3.7%	34	2	14	50
2-6 per week	4.8%	4.2%	4.5%	4.7%	52	3	9	64
1-2 per day	4.7%	5.6%	4.0%	4.6%	51	4	8	63
3-5 per day	5.4%	7.0%	5.9%	5.6%	59	5	12	76
6-12 per day	6.8%	8.5%	8.9%	7.2%	74	6	18	98
24 per day	74.9%	71.8%	69.8%	74.0%	811	51	141	1003
Total	100.0%	100.0%	100.0%	100.0%	1083	71	202	1356

H2_11 Hours most used standard monitor display (CRT) is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	5.4%	5.3%	9.6%	5.9%	25	1	7	33
2-6 per week	7.5%	10.5%	5.5%	7.3%	35	2	4	41
1-2 per day	4.5%	10.5%	2.7%	4.5%	21	2	2	25
3-5 per day	5.6%	10.5%	8.2%	6.1%	26	2	6	34
6-12 per day	7.3%	10.5%	8.2%	7.5%	34	2	6	42
24 per day	69.7%	52.6%	65.8%	68.6%	325	10	48	383
Total	100.0%	100.0%	100.0%	100.0%	466	19	73	558

H2_12 Hours most used LCD flat screen display is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	2.8%		2.4%	2.6%	20		3	23
2-6 per week	3.4%	2.3%	7.3%	3.9%	24	1	9	34
1-2 per day	4.4%	2.3%	1.6%	3.9%	31	1	2	34
3-5 per day	6.2%	9.1%	5.6%	6.3%	44	4	7	55
6-12 per day	8.2%	6.8%	12.1%	8.7%	58	3	15	76
24 per day	75.0%	79.5%	71.0%	74.7%	531	35	88	654
Total	100.0%	100.0%	100.0%	100.0%	708	44	124	876

H2_13 Hours most used laptop or portable computer is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	7.8%	1.5%	5.9%	7.1%	73	1	13	87
2-6 per week	11.3%	7.4%	11.9%	11.2%	105	5	26	136
1-2 per day	9.5%	17.6%	9.1%	9.9%	89	12	20	121
3-5 per day	12.8%	14.7%	10.5%	12.5%	119	10	23	152
6-12 per day	19.4%	19.1%	15.1%	18.6%	181	13	33	227
24 per day	39.2%	39.7%	47.5%	40.7%	365	27	104	496
Total	100.0%	100.0%	100.0%	100.0%	932	68	219	1219

H2_14 Hours most used print, scan, copy, fax machine is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	9.2%	11.3%	12.4%	9.8%	101	8	26	135
2-6 per week	6.5%	5.6%	9.0%	6.8%	71	4	19	94
1-2 per day	4.0%	2.8%	3.8%	3.9%	44	2	8	54
3-5 per day	2.6%	4.2%	2.4%	2.6%	28	3	5	36
6-12 per day	3.0%	1.4%	4.8%	3.2%	33	1	10	44
24 per day	74.7%	74.6%	67.6%	73.6%	819	53	142	1014
Total	100.0%	100.0%	100.0%	100.0%	1096	71	210	1377

Figure 151: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Computer Support Equipment

H2_15 Hours most used modem is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	1.1%	1.3%	.5%	1.0%	12	1	1	14
2-6 per week	1.5%	2.7%	2.8%	1.8%	16	2	6	24
1-2 per day	3.1%	5.3%	2.3%	3.1%	33	4	5	42
3-5 per day	2.4%	4.0%	2.8%	2.6%	26	3	6	35
6-12 per day	2.7%	2.7%	5.6%	3.1%	29	2	12	43
24 per day	89.3%	84.0%	85.9%	88.5%	965	63	183	1211
Total	100.0%	100.0%	100.0%	100.0%	1081	75	213	1369

H2_16 Hours most used home network or LAN is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	3.2%			2.6%	14			14
2-6 per week	1.4%	4.8%	2.7%	1.7%	6	1	2	9
1-2 per day	2.1%		2.7%	2.1%	9		2	11
3-5 per day	2.1%		1.3%	1.9%	9		1	10
6-12 per day	1.8%		2.7%	1.9%	8		2	10
24 per day	89.4%	95.2%	90.7%	89.8%	389	20	68	477
Total	100.0%	100.0%	100.0%	100.0%	435	21	75	531

H2_17 Hours most used hours server CPU is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	11.6%		6.3%	10.4%	13		1	14
2-6 per week	5.4%			4.5%	6			6
1-2 per day	3.6%			3.0%	4			4
3-5 per day	2.7%		12.5%	3.7%	3		2	5
6-12 per day	4.5%	16.7%		4.5%	5	1		6
24 per day	72.3%	83.3%	81.3%	73.9%	81	5	13	99
Total	100.0%	100.0%	100.0%	100.0%	112	6	16	134

H2_18 Hours uuinterruptible power supply is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	4.0%		2.6%	3.6%	9		1	10
2-6 per week	.9%	8.3%		1.1%	2	1		3
1-2 per day	2.2%			1.8%	5			5
3-5 per day	.9%		10.5%	2.2%	2		4	6
6-12 per day	1.8%		2.6%	1.8%	4		1	5
24 per day	90.2%	91.7%	84.2%	89.5%	203	11	32	246
Total	100.0%	100.0%	100.0%	100.0%	225	12	38	275

Figure 152: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: CRT and Projection Televisions

H3_09 Hours most used Standard television (CRT), 12-22 inches is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	5.2%	8.7%	3.3%	5.1%	40	6	5	51
2-6 per week	5.2%	1.4%	6.6%	5.1%	40	1	10	51
1-2 per day	5.6%	4.3%	4.6%	5.3%	43	3	7	53
3-5 per day	5.6%	11.6%	6.6%	6.2%	43	8	10	61
6-12 per day	4.5%	4.3%	4.6%	4.5%	35	3	7	45
24 per day	73.9%	69.6%	74.2%	73.7%	570	48	112	730
Total	100.0%	100.0%	100.0%	100.0%	771	69	151	991

H3_10 Hours most used Standard television (CRT), 23-38 inches is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	2.6%		1.4%	2.3%	20		2	22
2-6 per week	2.8%	2.1%	3.5%	2.9%	22	1	5	28
1-2 per day	4.3%	4.3%	1.4%	3.8%	33	2	2	37
3-5 per day	7.2%		6.9%	6.8%	56		10	66
6-12 per day	3.8%	6.4%	6.9%	4.4%	29	3	10	42
24 per day	79.3%	87.2%	79.9%	79.8%	613	41	115	769
Total	100.0%	100.0%	100.0%	100.0%	773	47	144	964

H3_11 Hours most used Rear projection TV (large screen) is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	7.9%			7.2%	9			9
2-6 per week	1.8%		14.3%	2.4%	2		1	3
1-2 per day	2.6%			2.4%	3			3
3-5 per day	8.8%	25.0%		8.8%	10	1		11
6-12 per day	5.3%		28.6%	6.4%	6		2	8
24 per day	73.7%	75.0%	57.1%	72.8%	84	3	4	91
Total	100.0%	100.0%	100.0%	100.0%	114	4	7	125

H3_12 Hours most used TV with built-in DVD or VCR is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	9.6%	13.3%	2.8%	8.8%	20	2	1	23
2-6 per week	4.3%	6.7%	13.9%	5.8%	9	1	5	15
1-2 per day	5.3%		5.6%	5.0%	11		2	13
3-5 per day	3.8%		8.3%	4.2%	8		3	11
6-12 per day	1.9%		13.9%	3.5%	4		5	9
24 per day	75.1%	80.0%	55.6%	72.7%	157	12	20	189
Total	100.0%	100.0%	100.0%	100.0%	209	15	36	260

Figure 153: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: LCD and Plasma Screen Televisions

H3_13 Hours most used LCD flat screen TV, less than 45 inches is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	3.9%	2.8%	4.3%	3.9%	22	1	5	28
2-6 per week	2.5%	2.8%	5.2%	2.9%	14	1	6	21
1-2 per day	4.6%	2.8%	2.6%	4.2%	26	1	3	30
3-5 per day	6.7%	11.1%	6.9%	6.9%	38	4	8	50
6-12 per day	2.5%		8.6%	3.3%	14		10	24
24 per day	80.0%	80.6%	72.4%	78.8%	455	29	84	568
Total	100.0%	100.0%	100.0%	100.0%	569	36	116	721

H3_14 Hours most used LCD flat screen TV, 45 inches or more is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	4.7%			3.9%	7			7
2-6 per week			12.5%	1.1%			2	2
1-2 per day	6.7%			5.6%	10			10
3-5 per day	7.3%	25.0%		7.9%	11	3		14
6-12 per day	4.7%		6.3%	4.5%	7		1	8
24 per day	76.7%	75.0%	81.3%	77.0%	115	9	13	137
Total	100.0%	100.0%	100.0%	100.0%	150	12	16	178

H3_15 Hours most used Plasma screen TV, less than 45 inches is plugged into a live electric outlet

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	9.3%		10.0%	9.1%	10		1	11
2-6 per week	1.9%			1.7%	2			2
3-5 per day	3.7%	25.0%	10.0%	5.0%	4	1	1	6
6-12 per day	6.5%			5.8%	7			7
24 per day	78.5%	75.0%	80.0%	78.5%	84	3	8	95
Total	100.0%	100.0%	100.0%	100.0%	107	4	10	121

H3_16 Hours most used Plasma screen TV, 45 inches or more is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	8.0%			7.5%	8			8
2-6 per week	1.0%		20.0%	1.9%	1		1	2
1-2 per day	3.0%	50.0%		3.7%	3	1		4
3-5 per day	6.0%			5.6%	6			6
6-12 per day	5.0%		20.0%	5.6%	5		1	6
24 per day	77.0%	50.0%	60.0%	75.7%	77	1	3	81
Total	100.0%	100.0%	100.0%	100.0%	100	2	5	107

Figure 154: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Video Equipment

H4_09 Hours most used DVD: digital video deck is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	9.3%	5.6%	12.6%	9.6%	98	4	27	129
2-6 per week	6.2%	4.2%	7.4%	6.3%	65	3	16	84
1-2 per day	2.5%	2.8%	3.3%	2.6%	26	2	7	35
3-5 per day	2.1%	5.6%	2.8%	2.4%	22	4	6	32
6-12 per day	.9%	2.8%	3.3%	1.3%	9	2	7	18
24 per day	79.1%	79.2%	70.7%	77.7%	831	57	152	1040
Total	100.0%	100.0%	100.0%	100.0%	1051	72	215	1338

H4_10 Hours most used VCR: video cassette deck is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	16.2%	21.7%	16.5%	16.5%	101	10	19	130
2-6 per week	3.5%	4.3%	5.2%	3.8%	22	2	6	30
1-2 per day	2.9%	2.2%	1.7%	2.7%	18	1	2	21
3-5 per day	1.1%	2.2%	2.6%	1.4%	7	1	3	11
6-12 per day	.3%		1.7%	.5%	2		2	4
24 per day	76.0%	69.6%	72.2%	75.1%	475	32	83	590
Total	100.0%	100.0%	100.0%	100.0%	625	46	115	786

H4_11 Hours most used VCR DVD combo unit is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	10.0%	14.8%	6.6%	9.7%	50	4	6	60
2-6 per week	5.4%		5.5%	5.2%	27		5	32
1-2 per day	2.4%	3.7%	2.2%	2.4%	12	1	2	15
3-5 per day	1.0%		3.3%	1.3%	5		3	8
6-12 per day	.8%		2.2%	1.0%	4		2	6
24 per day	80.4%	81.5%	80.2%	80.5%	403	22	73	498
Total	100.0%	100.0%	100.0%	100.0%	501	27	91	619

H4_12 Hours most used video game console is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	15.1%	4.0%	16.2%	14.6%	54	1	11	66
2-6 per week	9.2%	8.0%	5.9%	8.6%	33	2	4	39
1-2 per day	3.4%	8.0%	2.9%	3.5%	12	2	2	16
3-5 per day	2.2%	4.0%	1.5%	2.2%	8	1	1	10
6-12 per day	1.7%	4.0%	2.9%	2.0%	6	1	2	9
24 per day	68.4%	72.0%	70.6%	69.0%	245	18	48	311
Total	100.0%	100.0%	100.0%	100.0%	358	25	68	451

Figure 155: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Video Support Equipment

H4_13 Hours most used digital to analog converter is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	8.0%	6.7%	5.9%	7.5%	18	1	3	22
2-6 per week	4.0%		2.0%	3.4%	9		1	10
1-2 per day	1.8%		3.9%	2.1%	4		2	6
3-5 per day	3.5%		7.8%	4.1%	8		4	12
6-12 per day	1.3%	6.7%	5.9%	2.4%	3	1	3	7
24 per day	81.4%	86.7%	74.5%	80.5%	184	13	38	235
Total	100.0%	100.0%	100.0%	100.0%	226	15	51	292

H4_14 Hours most used set top box for cable, satellite is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	2.1%	4.0%	3.8%	2.4%	13	2	4	19
2-6 per week	1.9%		.9%	1.7%	12		1	13
1-2 per day	2.2%	2.0%	1.9%	2.2%	14	1	2	17
3-5 per day	2.6%	4.0%	2.8%	2.7%	16	2	3	21
6-12 per day	1.9%	2.0%	1.9%	1.9%	12	1	2	15
24 per day	89.3%	88.0%	88.7%	89.1%	560	44	94	698
Total	100.0%	100.0%	100.0%	100.0%	627	50	106	783

H4_15 Hours most used set top box for Tivo, Replay TV is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	6.0%	11.1%	9.4%	6.7%	11	1	3	15
2-6 per week	.5%			.4%	1			1
1-2 per day	3.3%			2.7%	6			6
3-5 per day	1.6%			1.3%	3			3
6-12 per day	1.6%			1.3%	3			3
24 per day	86.9%	88.9%	90.6%	87.5%	159	8	29	196
Total	100.0%	100.0%	100.0%	100.0%	183	9	32	224

H4_16 Hours most used computer to run media cemter is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	13.4%		16.7%	13.2%	9		3	12
2-6 per week	4.5%			3.3%	3			3
1-2 per day	1.5%		5.6%	2.2%	1		1	2
3-5 per day	3.0%	16.7%		3.3%	2	1		3
6-12 per day	4.5%		5.6%	4.4%	3		1	4
24 per day	73.1%	83.3%	72.2%	73.6%	49	5	13	67
Total	100.0%	100.0%	100.0%	100.0%	67	6	18	91

Figure 156: Hours that the Most Frequently Used Unit is Plugged in to a Live Electric Outlet: Audio Equipment

H5_05 Hours most used component stereo system is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	7.9%	4.7%	9.4%	7.9%	79	3	15	97
2-6 per week	6.1%	7.8%	9.4%	6.6%	61	5	15	81
1-2 per day	4.6%	1.6%	3.8%	4.3%	46	1	6	53
3-5 per day	2.1%	3.1%	5.0%	2.5%	21	2	8	31
6-12 per day	1.5%	1.6%	1.3%	1.5%	15	1	2	18
24 per day	77.7%	81.3%	71.3%	77.1%	775	52	114	941
Total	100.0%	100.0%	100.0%	100.0%	997	64	160	1221

H5_06 Hours most used compact all-in-one stereo is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	10.4%	3.3%	9.9%	9.9%	49	1	10	60
2-6 per week	6.3%	20.0%	9.9%	7.6%	30	6	10	46
1-2 per day	3.8%	3.3%	4.0%	3.8%	18	1	4	23
3-5 per day	1.9%		1.0%	1.7%	9		1	10
6-12 per day	1.5%	3.3%	4.0%	2.0%	7	1	4	12
24 per day	76.1%	70.0%	71.3%	75.0%	360	21	72	453
Total	100.0%	100.0%	100.0%	100.0%	473	30	101	604

H5_07 Hours most used portable boom-box is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	28.3%	12.5%	28.8%	27.7%	122	3	23	148
2-6 per week	9.5%	20.8%	7.5%	9.7%	41	5	6	52
1-2 per day	5.3%	4.2%	3.8%	5.0%	23	1	3	27
3-5 per day	3.0%	8.3%	3.8%	3.4%	13	2	3	18
6-12 per day	2.8%	4.2%	2.5%	2.8%	12	1	2	15
24 per day	51.0%	50.0%	53.8%	51.4%	220	12	43	275
Total	100.0%	100.0%	100.0%	100.0%	431	24	80	535

H5_08 Hours most used Karaoke machine is plugged into a live electric outlet BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-4 per month	59.1%	50.0%	50.0%	58.0%	26	1	2	29
2-6 per week	6.8%			6.0%	3			3
1-2 per day	2.3%		25.0%	4.0%	1		1	2
3-5 per day		50.0%		2.0%		1		1
24 per day	31.8%		25.0%	30.0%	14		1	15
Total	100.0%	100.0%	100.0%	100.0%	44	2	4	50

Major Findings ▪ 7

Selected Lighting Equipment

Compact Fluorescent Lighting (CFL) Bulbs Installed & Stored

Figure 157: CFL Bulbs Installed and Stored, by Housing Building Type

G1 No. of CFLs installed right now in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-2 bulbs	13.4%	17.6%	22.5%	15.4%	225	22	98	345
3-5 bulbs	21.8%	19.2%	23.2%	22.0%	366	24	101	491
6-10 bulbs	28.3%	29.6%	22.8%	27.3%	475	37	99	611
11-20 bulbs	19.0%	13.6%	7.1%	16.4%	318	17	31	366
21 bulbs or more	7.3%	8.8%	.7%	6.1%	122	11	3	136
None at all	10.1%	11.2%	23.7%	12.8%	170	14	103	287
Total	100.0%	100.0%	100.0%	100.0%	1676	125	435	2236

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	129.971[a]	10	.000
Continuity Correction			
Likelihood Ratio	139.773	10	.000
Linear-by-Linear Association	.275	1	.600
N of Valid Cases	2236		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.60.

G1 No. of CFLs installed right now in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
None	10.1%	11.2%	23.7%	12.8%	170	14	103	287
One or more	89.9%	88.8%	76.3%	87.2%	1506	111	332	1949
Total	100.0%	100.0%	100.0%	100.0%	1676	125	435	2236

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	56.867[a]	2	.000
Continuity Correction			
Likelihood Ratio	49.833	2	.000
Linear-by-Linear Association	53.502	1	.000
N of Valid Cases	2236		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.04.

G1 No. of CFLs installed right now in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
0-10	73.7%	77.6%	92.2%	77.5%	1236	97	401	1734
11 or more	26.3%	22.4%	7.8%	22.5%	440	28	34	502
Total	100.0%	100.0%	100.0%	100.0%	1676	125	435	2236

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	67.428[a]	2	.000
Continuity Correction			
Likelihood Ratio	80.301	2	.000
Linear-by-Linear Association	65.504	1	.000
N of Valid Cases	2236		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.06.

G2 No. of CFLs stored for future use, right now in your home
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
1-2 bulbs	19.4%	24.0%	25.3%	20.8%	324	30	110	464
3-5 bulbs	30.0%	31.2%	23.5%	28.8%	501	39	102	642
6-10 bulbs	22.4%	18.4%	11.1%	20.0%	375	23	48	446
11-20 bulbs	7.2%	4.0%	2.3%	6.1%	121	5	10	136
21 bulbs or more	2.3%	1.6%		1.8%	38	2		40
None at all	18.7%	20.8%	37.8%	22.5%	313	26	164	503
Total	100.0%	100.0%	100.0%	100.0%	1672	125	434	2231

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	114.672[a]	10	.000
Continuity Correction			
Likelihood Ratio	121.652	10	.000
Linear-by-Linear Association	16.735	1	.000
N of Valid Cases	2231		

a. 1 cells (5.6%) have expected count less than 5. The minimum expected count is 2.24.

Figure 158: CFL Bulbs Installed and Stored, by Home Ownership

G1 No. of CFLs installed right now in your home BY A3 Home ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
1-2 bulbs	13.0%	14.7%	22.4%	33.3%	15.4%	163	78	94	6	341
3-5 bulbs	20.9%	22.6%	23.8%	16.7%	21.8%	262	120	100	3	485
6-10 bulbs	28.9%	27.2%	23.1%	16.7%	27.3%	362	144	97	3	606
11-20 bulbs	19.7%	15.7%	7.6%	11.1%	16.4%	247	83	32	2	364
21 bulbs or more	7.3%	7.0%	1.4%	5.6%	6.1%	92	37	6	1	136
None at all	10.1%	12.8%	21.7%	16.7%	13.0%	126	68	91	3	288
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1252	530	420	18	2220

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	108.488[a]	15	.000
Continuity Correction			
Likelihood Ratio	113.988	15	.000
Linear-by-Linear Association	1.685	1	.194
N of Valid Cases	2220		

a. 6 cells (25.0%) have expected count less than 5. The minimum expected count is 1.10.

G1 No. of CFLs installed right now in your home
BY A3 Home ownership

	A3 How your home is owned		Total	A3 How your home is owned		Total
	Owned with mortgage/loan OR free-and-clear	Rented from owner or manager		Owned with mortgage/loan OR free-and-clear	Rented from owner or manager	
	Percent	Percent	Percent	N	N	N
1-2 bulbs	13.5%	22.4%	15.2%	241	94	335
3-5 bulbs	21.4%	23.8%	21.9%	382	100	482
6-10 bulbs	28.4%	23.1%	27.4%	506	97	603
11-20 bulbs	18.5%	7.6%	16.4%	330	32	362
21 bulbs or more	7.2%	1.4%	6.1%	129	6	135
None at all	10.9%	21.7%	12.9%	194	91	285
Total	100.0%	100.0%	100.0%	1782	420	2202

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	108.488[a]	15	.000
Continuity Correction			
Likelihood Ratio	113.988	15	.000
Linear-by-Linear Association	1.685	1	.194
N of Valid Cases	2220		

a. 6 cells (25.0%) have expected count less than 5. The minimum expected count is 1.10.

G2 No. of CFLs stored for future use, right now in your home BY A3 Home ownership"

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
1-2 bulbs	19.1%	18.9%	27.5%	12.5%	20.6%	239	99	116	2	456
3-5 bulbs	30.4%	29.9%	22.0%	43.8%	28.8%	380	157	93	7	637
6-10 bulbs	23.0%	21.9%	9.5%	12.5%	20.1%	287	115	40	2	444
11-20 bulbs	7.9%	6.1%	.7%		6.1%	99	32	3		134
21 bulbs or more	2.1%	2.5%	.2%		1.8%	26	13	1		40
None at all	17.5%	20.8%	40.0%	31.3%	22.7%	219	109	169	5	502
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1250	525	422	16	2213

G2 No. of CFLs stored for future use, right now in your home
BY A3 Home ownership"

	A3 How your home is owned		Total	A3 How your home is owned		Total
	Owned with mortgage/loan OR free-and-clear	Rented from owner or manager		Owned with mortgage/loan OR free-and-clear	Rented from owner or manager	
	Percent	Percent	Percent	N	N	N
1-2 bulbs	19.0%	27.5%	20.7%	338	116	454
3-5 bulbs	30.3%	22.0%	28.7%	537	93	630
6-10 bulbs	22.6%	9.5%	20.1%	402	40	442
11-20 bulbs	7.4%	.7%	6.1%	131	3	134
21 bulbs or more	2.2%	.2%	1.8%	39	1	40
None at all	18.5%	40.0%	22.6%	328	169	497
Total	100.0%	100.0%	100.0%	1775	422	2197

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	159.814[a]	15	.000
Continuity Correction			
Likelihood Ratio	171.971	15	.000
Linear-by-Linear Association	19.746	1	.000
N of Valid Cases	2213		

a. 6 cells (25.0%) have expected count less than 5. The minimum expected count is .29.

Figure 159: CFL Bulbs Installed and Stored, by Square Footage of Residence

G1 No. of CFLs installed right now in your home
BY A7 Square feet of living space

	A7 Square feet of living space in your home												
	Less than 250	250-500	501-750	751-1,000	1,001-1,250	1,251-1,500	1,501-2,000	2,001-2,500	2,501-3,000	3,001-4,000	4,001-5,000	5,000 or more	Total
1-2 bulbs	14.3%	25.0%	25.0%	17.4%	18.9%	14.7%	11.1%	12.7%	9.8%	14.3%	15.0%		15.3%
3-5 bulbs	7.1%	25.0%	27.2%	26.0%	22.1%	20.1%	22.5%	18.0%	19.6%	16.5%	15.0%	16.7%	21.8%
6-10 bulbs	35.7%	20.3%	22.2%	28.6%	24.9%	30.1%	28.4%	29.1%	31.9%	26.4%	15.0%	16.7%	27.5%
11-20 bulbs		7.8%	6.7%	8.7%	15.3%	17.0%	20.8%	22.5%	19.6%	17.6%	35.0%	25.0%	16.3%
21 bulbs or more	7.1%		.6%	1.6%	4.3%	5.8%	7.8%	9.2%	11.0%	17.6%	15.0%	33.3%	6.4%
None at all	35.7%	21.9%	18.3%	17.7%	14.6%	12.4%	9.5%	8.5%	8.0%	7.7%	5.0%	8.3%	12.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G1 No. of CFLs installed right now in your home
BY A7 Square feet of living space

	A7 Square feet of living space in your home												
	Less than 250	250-500	501-750	751-1,000	1,001-1,250	1,251-1,500	1,501-2,000	2,001-2,500	2,501-3,000	3,001-4,000	4,001-5,000	5,000 or more	Total
1-2 bulbs	2	16	45	54	53	38	47	39	16	13	3		326
3-5 bulbs	1	16	49	81	62	52	95	55	32	15	3	2	463
6-10 bulbs	5	13	40	89	70	78	120	89	52	24	3	2	585
11-20 bulbs		5	12	27	43	44	88	69	32	16	7	3	346
21 bulbs or more	1		1	5	12	15	33	28	18	16	3	4	136
None at all	5	14	33	55	41	32	40	26	13	7	1	1	268
Total	14	64	180	311	281	259	423	306	163	91	20	12	2124

G2 No. of CFLs stored for future use, right now in your home
BY A7 Square feet of living space

	A7 Square feet of living space in your home												
	Less than 250	250-500	501-750	751-1,000	1,001-1,250	1,251-1,500	1,501-2,000	2,001-2,500	2,501-3,000	3,001-4,000	4,001-5,000	5,000 or more	Total
1-2 bulbs	20.0%	34.4%	31.9%	26.0%	20.4%	20.4%	18.7%	16.7%	16.1%	7.8%	15.0%		20.7%
3-5 bulbs	26.7%	17.2%	23.1%	28.9%	34.1%	30.4%	31.8%	28.2%	23.6%	33.3%	15.0%	50.0%	29.1%
6-10 bulbs		7.8%	10.4%	12.7%	14.7%	17.7%	24.4%	27.9%	35.4%	26.7%	40.0%	8.3%	20.2%
11-20 bulbs		3.1%	1.1%	2.9%	4.7%	6.9%	6.2%	10.5%	9.9%	8.9%	5.0%	16.7%	6.1%
21 bulbs or more	6.7%			.6%	.4%	2.7%	1.7%	2.6%	.6%	8.9%	15.0%	16.7%	1.9%
None at all	46.7%	37.5%	33.5%	28.9%	25.8%	21.9%	17.3%	14.1%	14.3%	14.4%	10.0%	8.3%	22.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G2 No. of CFLs stored for future use, right now in your home
BY A7 Square feet of living space

	A7 Square feet of living space in your home												
	Less than 250	250-500	501-750	751-1,000	1,001-1,250	1,251-1,500	1,501-2,000	2,001-2,500	2,501-3,000	3,001-4,000	4,001-5,000	5,000 or more	Total
1-2 bulbs	3	22	58	80	57	53	79	51	26	7	3		439
3-5 bulbs	4	11	42	89	95	79	134	86	38	30	3	6	617
6-10 bulbs		5	19	39	41	46	103	85	57	24	8	1	428
11-20 bulbs		2	2	9	13	18	26	32	16	8	1	2	129
21 bulbs or more	1			2	1	7	7	8	1	8	3	2	40
None at all	7	24	61	89	72	57	73	43	23	13	2	1	465
Total	15	64	182	308	279	260	422	305	161	90	20	12	2118

Figure 160: CFL Bulbs Installed and Stored, by Number of Rooms in Residence

G1 No. of CFLs installed right now in your home
BY A9 Number of rooms

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
1-2 bulbs	22.2%	18.8%	25.3%	19.1%	19.1%	13.7%	11.6%	12.4%	16.2%	11.2%	5.3%	10.6%	15.3%
3-5 bulbs	18.5%	21.7%	25.9%	23.4%	21.9%	23.4%	21.9%	23.6%	16.2%	19.7%	26.3%	12.9%	21.9%
6-10 bulbs	14.8%	34.8%	17.9%	27.2%	26.1%	29.8%	27.9%	26.2%	28.1%	35.5%	26.3%	28.2%	27.5%
11-20 bulbs	3.7%	7.2%	7.4%	9.8%	14.1%	17.0%	18.6%	23.6%	22.4%	14.5%	18.4%	24.7%	16.4%
21 bulbs or more			2.5%	3.4%	1.4%	5.2%	7.6%	6.9%	10.5%	10.5%	15.8%	11.8%	6.1%
None at all	40.7%	17.4%	21.0%	17.0%	17.3%	10.9%	12.3%	7.3%	6.7%	8.6%	7.9%	11.8%	12.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G1 No. of CFLs installed right now in your home
BY A9 Number of rooms

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
1-2 bulbs	6	13	41	45	54	45	35	34	34	17	4	9	337
3-5 bulbs	5	15	42	55	62	77	66	65	34	30	20	11	482
6-10 bulbs	4	24	29	64	74	98	84	72	59	54	20	24	606
11-20 bulbs	1	5	12	23	40	56	56	65	47	22	14	21	362
21 bulbs or more			4	8	4	17	23	19	22	16	12	10	135
None at all	11	12	34	40	49	36	37	20	14	13	6	10	282
Total	27	69	162	235	283	329	301	275	210	152	76	85	2204

G2 No. of CFLs stored for future use, right now in your home
BY A9 Number of rooms

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
1-2 bulbs	28.6%	28.8%	26.7%	30.4%	24.0%	22.7%	14.5%	20.4%	16.7%	13.8%	10.4%	15.3%	20.9%
3-5 bulbs	14.3%	30.3%	21.1%	23.6%	29.4%	32.8%	33.3%	29.6%	29.7%	29.6%	31.2%	20.0%	28.8%
6-10 bulbs	10.7%	9.1%	9.3%	12.7%	15.4%	17.5%	25.1%	24.1%	23.4%	23.7%	36.4%	34.1%	19.9%
11-20 bulbs			2.5%	3.8%	3.2%	6.1%	5.0%	7.7%	10.0%	11.8%	11.7%	8.2%	6.1%
21 bulbs or more			.6%	.4%	.4%	1.5%	2.3%	1.1%	4.3%	4.6%		7.1%	1.8%
None at all	46.4%	31.8%	39.8%	29.1%	27.6%	19.3%	19.8%	17.2%	15.8%	16.4%	10.4%	15.3%	22.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G1 No. of CFLs installed right now in your home
BY A9 Number of rooms

	A9_01 Total number of rooms in your home												
	1	2	3	4	5	6	7	8	9	10	11	12 or more	Total
1-2 bulbs	8	19	43	72	67	74	44	56	35	21	8	13	460
3-5 bulbs	4	20	34	56	82	107	101	81	62	45	24	17	633
6-10 bulbs	3	6	15	30	43	57	76	66	49	36	28	29	438
11-20 bulbs			4	9	9	20	15	21	21	18	9	7	133
21 bulbs or more			1	1	1	5	7	3	9	7		6	40
None at all	13	21	64	69	77	63	60	47	33	25	8	13	493
Total	28	66	161	237	279	326	303	274	209	152	77	85	2197

Figure 161: CFL Bulbs Installed and Stored, by Number of Home Occupants

G1 No. of CFLs installed right now in your home
BY A10 Number of occupants

	A10 People living in this household at least 6 months of 2008									
	1 resident	2 resident	3 residents	4 residents	5 residents	6 residents	7 residents	8 residents	9 residents or more	Total
1-2 bulbs	21.4%	14.8%	12.0%	12.1%	4.3%	3.7%		16.7%		15.4%
3-5 bulbs	25.9%	22.3%	20.5%	16.5%	12.9%	14.8%	42.9%			22.0%
6-10 bulbs	23.8%	28.3%	28.3%	29.9%	31.4%	33.3%		16.7%	60.0%	27.3%
11-20 bulbs	8.7%	16.5%	21.1%	22.3%	31.4%	29.6%	28.6%	33.3%	20.0%	16.3%
21 bulbs or more	1.9%	6.1%	9.6%	10.7%	8.6%	7.4%	28.6%	16.7%		6.1%
None at all	18.2%	12.1%	8.4%	8.5%	11.4%	11.1%		16.7%	20.0%	12.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G1 No. of CFLs installed right now in your home
BY A10 Number of occupants

	A10 People living in this household at least 6 months of 2008									
	1 resident	2 resident	3 residents	4 residents	5 residents	6 residents	7 residents	8 residents	9 residents or more	Total
1-2 bulbs	133	139	40	27	3	1		1		344
3-5 bulbs	161	210	68	37	9	4	3			492
6-10 bulbs	148	266	94	67	22	9		1	3	610
11-20 bulbs	54	155	70	50	22	8	2	2	1	364
21 bulbs or more	12	57	32	24	6	2	2	1		136
None at all	113	114	28	19	8	3		1	1	287
Total	621	941	332	224	70	27	7	6	5	2233

G2 No. of CFLs stored for future use, right now in your home
BY A10 Number of occupants

	A10 People living in this household at least 6 months of 2008									
	1 resident	2 resident	3 residents	4 residents	5 residents	6 residents	7 residents	8 residents	9 residents or more	Total
1-2 bulbs	26.7%	19.5%	20.8%	15.1%	10.1%	11.1%	14.3%	16.7%		20.8%
3-5 bulbs	26.5%	31.5%	27.4%	27.1%	24.6%	37.0%	14.3%	16.7%	20.0%	28.8%
6-10 bulbs	12.2%	21.1%	25.6%	26.2%	24.6%	18.5%	28.6%	33.3%	20.0%	19.9%
11-20 bulbs	2.9%	5.6%	7.2%	12.4%	13.0%	11.1%	14.3%			6.1%
21 bulbs or more	.3%	1.7%	1.8%	3.6%	4.3%	7.4%	14.3%	16.7%	20.0%	1.8%
None at all	31.4%	20.6%	17.2%	15.6%	23.2%	14.8%	14.3%	16.7%	40.0%	22.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G2 No. of CFLs stored for future use, right now in your home
BY A10 Number of occupants

	A10 People living in this household at least 6 months of 2008									
	1 resident	2 resident	3 residents	4 residents	5 residents	6 residents	7 residents	8 residents	9 residents or more	Total
1-2 bulbs	166	182	69	34	7	3	1	1		463
3-5 bulbs	165	294	91	61	17	10	1	1	1	641
6-10 bulbs	76	197	85	59	17	5	2	2	1	444
11-20 bulbs	18	52	24	28	9	3	1			135
21 bulbs or more	2	16	6	8	3	2	1	1	1	40
None at all	195	192	57	35	16	4	1	1	2	503
Total	622	933	332	225	69	27	7	6	5	2226

Figure 162: CFL Bulbs Installed and Stored, by Decade Building Constructed

G1 No. of CFLs installed right now in your home
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
1-2 bulbs	11.9%	10.1%	13.3%	11.8%	18.2%	16.3%	15.2%	12.7%	13.2%	15.2%	18.4%	14.7%
3-5 bulbs	19.2%	27.2%	21.9%	25.5%	19.5%	22.0%	21.5%	23.7%	24.0%	21.0%	14.6%	21.7%
6-10 bulbs	28.5%	22.8%	30.9%	27.3%	31.6%	27.3%	27.8%	31.4%	26.4%	23.9%	22.3%	27.9%
11-20 bulbs	24.5%	21.5%	19.1%	20.9%	15.2%	14.4%	22.0%	10.2%	16.5%	13.0%	13.6%	17.3%
21 bulbs or more	7.3%	6.3%	5.1%	6.4%	5.1%	5.6%	4.5%	5.1%	4.1%	11.6%	18.4%	6.5%
None at all	8.6%	12.0%	9.8%	8.2%	10.4%	14.4%	9.0%	16.9%	15.7%	15.2%	12.6%	11.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G1 No. of CFLs installed right now in your home
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
1-2 bulbs	18	16	34	13	54	58	34	15	16	21	19	298
3-5 bulbs	29	43	56	28	58	78	48	28	29	29	15	441
6-10 bulbs	43	36	79	30	94	97	62	37	32	33	23	566
11-20 bulbs	37	34	49	23	45	51	49	12	20	18	14	352
21 bulbs or more	11	10	13	7	15	20	10	6	5	16	19	132
None at all	13	19	25	9	31	51	20	20	19	21	13	241
Total	151	158	256	110	297	355	223	118	121	138	103	2030

G2 No. of CFLs stored for future use, right now in your home
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
1-2 bulbs	21.1%	19.5%	18.5%	25.2%	20.2%	21.2%	21.0%	20.3%	14.3%	18.2%	15.5%	19.8%
3-5 bulbs	34.2%	33.3%	31.7%	33.6%	28.3%	27.4%	31.1%	28.8%	28.6%	28.5%	25.2%	29.9%
6-10 bulbs	25.7%	22.0%	24.3%	22.4%	22.9%	17.8%	18.3%	19.5%	22.7%	16.1%	25.2%	21.2%
11-20 bulbs	5.3%	7.5%	5.0%	5.6%	6.1%	7.6%	6.4%	1.7%	6.7%	10.2%	9.7%	6.5%
21 bulbs or more	1.3%	1.3%	2.3%	.9%	1.3%	2.0%	2.3%	1.7%	1.7%	4.4%	2.9%	2.0%
None at all	12.5%	16.4%	18.1%	12.1%	21.2%	24.0%	21.0%	28.0%	26.1%	22.6%	21.4%	20.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G2 No. of CFLs stored for future use, right now in your home
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
1-2 bulbs	32	31	48	27	60	75	46	24	17	25	16	401
3-5 bulbs	52	53	82	36	84	97	68	34	34	39	26	605
6-10 bulbs	39	35	63	24	68	63	40	23	27	22	26	430
11-20 bulbs	8	12	13	6	18	27	14	2	8	14	10	132
21 bulbs or more	2	2	6	1	4	7	5	2	2	6	3	40
None at all	19	26	47	13	63	85	46	33	31	31	22	416
Total	152	159	259	107	297	354	219	118	119	137	103	2024

Figure 163: CFL Bulbs Installed and Stored, by Age of Respondent

G1 No. of CFLs installed right now in your home
BY A11 Your age

	A11 Your age group (person filling out booklet)								
	15_18 years	19_24 years	25_34 years	35_44 years	45_54 years	55_64 years	65_74 years	75year or more	Total
1-2 bulbs		10.5%	15.5%	13.4%	13.9%	17.3%	14.9%	18.6%	15.4%
3-5 bulbs	25.0%	36.8%	21.6%	23.1%	23.2%	19.0%	22.5%	22.5%	21.9%
6-10 bulbs	25.0%	21.1%	29.8%	25.2%	25.3%	28.1%	30.2%	29.2%	27.4%
11-20 bulbs	25.0%	5.3%	15.9%	19.8%	19.3%	16.1%	11.8%	11.4%	16.4%
21 bulbs or more	25.0%	5.3%	4.1%	6.6%	7.5%	6.9%	5.7%	3.0%	6.1%
None at all		21.1%	13.1%	12.0%	11.0%	12.6%	14.9%	15.3%	12.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G1 No. of CFLs installed right now in your home
BY A11 Your age

	A11 Your age group (person filling out booklet)								
	15_18 years	19_24 years	25_34 years	35_44 years	45_54 years	55_64 years	65_74 years	75year or more	Total
1-2 bulbs		2	38	57	67	95	39	44	342
3-5 bulbs	1	7	53	98	112	104	59	53	487
6-10 bulbs	1	4	73	107	122	154	79	69	609
11-20 bulbs	1	1	39	84	93	88	31	27	364
21 bulbs or more	1	1	10	28	36	38	15	7	136
None at all		4	32	51	53	69	39	36	284
Total	4	19	245	425	483	548	262	236	2222

G2 No. of CFLs stored for future use, right now in your home
BY A11 Your age

	A11 Your age group (person filling out booklet)								
	15_18 years	19_24 years	25_34 years	35_44 years	45_54 years	55_64 years	65_74 years	75year or more	Total
1-2 bulbs	25.0%	5.6%	30.8%	17.4%	20.4%	19.1%	21.6%	21.2%	20.8%
3-5 bulbs	25.0%	11.1%	26.3%	34.4%	28.0%	28.5%	26.7%	28.1%	28.9%
6-10 bulbs	25.0%	22.2%	14.2%	18.8%	20.8%	23.6%	21.6%	15.6%	19.9%
11-20 bulbs	25.0%		4.5%	7.1%	8.2%	5.6%	5.9%	3.0%	6.1%
21 bulbs or more			.4%	1.6%	2.7%	1.6%	2.4%	1.3%	1.8%
None at all		61.1%	23.9%	20.7%	20.0%	21.5%	22.0%	30.7%	22.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G2 No. of CFLs stored for future use, right now in your home
BY A11 Your age

	A11 Your age group (person filling out booklet)								
	15_18 years	19_24 years	25_34 years	35_44 years	45_54 years	55_64 years	65_74 years	75year or more	Total
1-2 bulbs	1	1	76	74	99	105	55	49	460
3-5 bulbs	1	2	65	146	136	157	68	65	640
6-10 bulbs	1	4	35	80	101	130	55	36	442
11-20 bulbs	1		11	30	40	31	15	7	135
21 bulbs or more			1	7	13	9	6	3	39
None at all		11	59	88	97	118	56	71	500
Total	4	18	247	425	486	550	255	231	2216

Familiarity with Energy Star Logo

Figure 164: Familiarity with Logo by Number of CFL Bulbs Installed in the Home and Stored for Future Use

B8 Familiarity with 'Energy Star' logo
BY G1 Number of CFLs installed right now in your home

	G1 No. of CFLs installed right now in your home						Total	G1 No. of CFLs installed right now in your home						Total
	1-2 bulbs	3-5 bulbs	6-10 bulbs	11-20 bulbs	21 bulbs or more	None at all		1-2 bulbs	3-5 bulbs	6-10 bulbs	11-20 bulbs	21 bulbs or more	None at all	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N	N	N
Have heard about this	18.2%	22.0%	17.5%	17.9%	16.5%	16.0%	18.4%	62	107	104	64	22	45	404
Have seen this on products in the stores	22.9%	24.5%	18.9%	16.8%	11.3%	26.3%	20.9%	78	119	112	60	15	74	458
Have a product with this logo in my home	36.2%	39.1%	47.5%	56.7%	63.9%	30.6%	44.2%	123	190	282	203	85	86	969
Not familiar with it / not sure	22.6%	14.4%	16.2%	8.7%	8.3%	27.0%	16.5%	77	70	96	31	11	76	361
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	340	486	594	358	133	281	2192

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	114.843[a]	15	.000
Continuity Correction			
Likelihood Ratio	115.156	15	.000
Linear-by-Linear Association	2.943	1	.086
N of Valid Cases	2192		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.90.

B8 Familiarity with 'Energy Star' logo
BY G2 Number of CFLs stored right now in your home

	G2 No. of CFLs stored for future use, right now in your home						Total	G2 No. of CFLs stored for future use, right now in your home						Total
	1-2 bulbs	3-5 bulbs	6-10 bulbs	11-20 bulbs	21 bulbs or more	None at all		1-2 bulbs	3-5 bulbs	6-10 bulbs	11-20 bulbs	21 bulbs or more	None at all	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N	N	N
Have heard about this	19.8%	17.6%	21.0%	17.2%	19.5%	16.4%	18.5%	90	111	91	23	8	80	403
Have seen this on products in the stores	25.3%	20.9%	15.9%	14.9%	14.6%	23.7%	21.0%	115	132	69	20	6	116	458
Have a product with this logo in my home	41.3%	48.7%	52.1%	59.7%	56.1%	30.1%	44.5%	188	307	226	80	23	147	971
Not familiar with it / not sure	13.6%	12.8%	11.1%	8.2%	9.8%	29.9%	16.1%	62	81	48	11	4	146	352
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	455	631	434	134	41	489	2184

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	114.843[a]	15	.000
Continuity Correction			
Likelihood Ratio	115.156	15	.000
Linear-by-Linear Association	2.943	1	.086
N of Valid Cases	2192		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.90.

Closest Exterior Light

Figure 165: Closest Exterior Light Type by Housing Building Type

G3 Kind of bulb in the closest light fixture outside your front door
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Standard-shape bulb(s): incandescent	37.3%	35.5%	25.7%	35.0%	617	43	107	767
Standard CFL bulb(s): compact fluorescent	45.3%	38.8%	26.7%	41.4%	749	47	111	907
Reflector-style bulb(s): incandescent	3.8%	6.6%	2.4%	3.7%	63	8	10	81
Reflector-style bulb(s): compact fluorescent	2.2%	1.7%	1.2%	2.0%	37	2	5	44
High intensity light (sodium vapor, metal halide HID)	1.1%		1.4%	1.1%	19		6	25
Landscape light system: low voltage	1.0%		1.2%	1.0%	17		5	22
Landscape light system: solar photovoltaic	1.0%			.8%	17			17
Mini-light strings	.5%			.4%	8			8
Not sure / don't know	5.5%	11.6%	31.3%	10.7%	91	14	130	235
None, there is no fixture nearby outside	2.2%	5.8%	10.1%	3.9%	37	7	42	86
Total	100.0%	100.0%	100.0%	100.0%	1655	121	416	2192

G3 Kind of bulb in the closest light fixture outside your front door
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Standard-shape bulb(s): incandescent	45.2%	47.8%	49.1%	45.8%	617	43	107	767
Standard CFL bulb(s): compact fluorescent	54.8%	52.2%	50.9%	54.2%	749	47	111	907
Total	100.0%	100.0%	100.0%	100.0%	1366	90	218	1674

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.307[a]	2	.520
Continuity Correction			
Likelihood Ratio	1.304	2	.521
Linear-by-Linear Association	1.293	1	.256
N of Valid Cases	1674		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 41.24.

G3 Kind of bulb in the closest light fixture outside your front door
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Reflector-style bulb(s): incandescent	63.0%	80.0%	66.7%	64.8%	63	8	10	81
Reflector-style bulb(s): compact fluorescent	37.0%	20.0%	33.3%	35.2%	37	2	5	44
Total	100.0%	100.0%	100.0%	100.0%	100	10	15	125

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.178[a]	2	.555
Continuity Correction			
Likelihood Ratio	1.274	2	.529
Linear-by-Linear Association	.329	1	.566
N of Valid Cases	125		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.52.

Figure 166: Bulb in Closest Exterior Fixture by Decade Building Constructed

G3 Kind of bulb in the closest light fixture outside your front door
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Standard-shape bulb(s): incandescent	34.9%	26.9%	33.7%	33.0%	40.5%	46.6%	31.2%	40.2%	32.5%	18.9%	34.0%	35.5%
Standard CFL bulb(s): compact fluorescent	48.6%	53.8%	49.2%	46.8%	44.0%	38.6%	42.8%	35.7%	35.8%	43.2%	31.1%	43.2%
Reflector-style bulb(s): incandescent		3.8%	2.8%	3.7%	2.1%	4.0%	2.8%	4.5%	1.7%	9.8%	10.7%	3.7%
Reflector-style bulb(s): compact fluorescent	2.1%	2.5%	1.2%	2.8%	1.0%	.9%	3.7%	1.8%	4.2%	3.0%	1.9%	2.0%
High intensity light (sodium vapor, metal halide HID)	.7%	1.3%	1.2%		1.4%	.9%	1.4%	.9%	2.5%	.8%	1.9%	1.2%
Landscape light system: low voltage	.7%	1.3%	.8%	.9%	1.0%	.9%	1.4%		1.7%	1.5%	1.9%	1.1%
Landscape light system: solar photovoltaic		1.3%	.4%		.7%	.6%	2.3%	1.8%		.8%	1.9%	.9%
Mini-light strings		1.3%	.8%	.9%	.7%		.5%					.4%
Not sure / don't know	9.6%	5.6%	7.1%	8.3%	6.5%	4.8%	13.0%	10.7%	14.2%	15.2%	11.7%	8.8%
None, there is no fixture nearby outside	3.4%	2.5%	2.8%	3.7%	2.1%	2.8%	.9%	4.5%	7.5%	6.8%	4.9%	3.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G3 Kind of bulb in the closest light fixture outside your front door
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
Standard-shape bulb(s): incandescent	51	43	85	36	118	164	67	45	39	25	35	708
Standard CFL bulb(s): compact fluorescent	71	86	124	51	128	136	92	40	43	57	32	860
Reflector-style bulb(s): incandescent		6	7	4	6	14	6	5	2	13	11	74
Reflector-style bulb(s): compact fluorescent	3	4	3	3	3	3	8	2	5	4	2	40
High intensity light (sodium vapor, metal halide HID)	1	2	3		4	3	3	1	3	1	2	23
Landscape light system: low voltage	1	2	2	1	3	3	3		2	2	2	21
Landscape light system: solar photovoltaic		2	1		2	2	5	2		1	2	17
Mini-light strings		2	2	1	2		1					8
Not sure / don't know	14	9	18	9	19	17	28	12	17	20	12	175
None, there is no fixture nearby outside	5	4	7	4	6	10	2	5	9	9	5	66
Total	146	160	252	109	291	352	215	112	120	132	103	1992

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	169.660[a]	90	.000
Continuity Correction			
Likelihood Ratio	171.381	90	.000
Linear-by-Linear Association	20.279	1	.000
N of Valid Cases	1992		

a. 63 cells (57.3%) have expected count less than 5. The minimum expected count is .41.

Figure 167: Bulb in Closest Exterior Fixture by Age of Respondent

G3 Kind of bulb in the closest light fixture outside your front door
BY A11 Your age

	A11 Your age group (person filling out booklet)								
	15_18 years	19_24 years	25_34 years	35_44 years	45_54 years	55_64 years	65_74 years	75year or more	Total
Standard-shape bulb(s): incandescent	25.0%	31.6%	30.3%	27.7%	35.0%	37.0%	40.0%	45.1%	35.1%
Standard CFL bulb(s): compact fluorescent	50.0%	15.8%	40.3%	47.5%	45.9%	43.3%	33.7%	28.3%	41.4%
Reflector-style bulb(s): incandescent			2.1%	5.7%	3.6%	3.0%	5.1%	2.2%	3.7%
Reflector-style bulb(s): compact fluorescent			1.7%	2.1%	2.8%	2.0%	2.0%	.9%	2.0%
High intensity light (sodium vapor, metal halide HID)			2.5%	.7%	.6%	1.1%	1.6%	.9%	1.1%
Landscape light system: low voltage			.4%	.7%	1.3%	1.3%	.4%	1.8%	1.0%
Landscape light system: solar photovoltaic			1.3%	.9%		.7%	2.0%	.4%	.8%
Mini-light strings			.4%	.2%	.6%		.8%	.4%	.4%
Not sure / don't know	25.0%	42.1%	17.2%	10.9%	7.4%	7.0%	10.6%	15.5%	10.6%
None, there is no fixture nearby outside		10.5%	3.8%	3.5%	2.8%	4.6%	3.9%	4.4%	3.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G3 Kind of bulb in the closest light fixture outside your front door
BY A11 Your age

	A11 Your age group (person filling out booklet)								
	15_18 years	19_24 years	25_34 years	35_44 years	45_54 years	55_64 years	65_74 years	75year or more	Total
Standard-shape bulb(s): incandescent	1	6	72	117	165	200	102	102	765
Standard CFL bulb(s): compact fluorescent	2	3	96	201	216	234	86	64	902
Reflector-style bulb(s): incandescent			5	24	17	16	13	5	80
Reflector-style bulb(s): compact fluorescent			4	9	13	11	5	2	44
High intensity light (sodium vapor, metal halide HID)			6	3	3	6	4	2	24
Landscape light system: low voltage			1	3	6	7	1	4	22
Landscape light system: solar photovoltaic			3	4		4	5	1	17
Mini-light strings			1	1	3		2	1	8
Not sure / don't know	1	8	41	46	35	38	27	35	231
None, there is no fixture nearby outside		2	9	15	13	25	10	10	84
Total	4	19	238	423	471	541	255	226	2177

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	128.348[a]	63	.000
Continuity Correction			
Likelihood Ratio	126.559	63	.000
Linear-by-Linear Association	3.343	1	.067
N of Valid Cases	2177		

a. 41 cells (51.3%) have expected count less than 5. The minimum expected count is .01.

Halogen Lamps

Figure 168: Halogen Lamp Use by Housing Building Type

G4 Any halogen lamps in your home now?
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes	40.8%	38.2%	26.7%	38.0%	678	47	113	838
No	54.0%	52.0%	67.1%	56.4%	898	64	284	1246
Not sure / don't know	5.2%	9.8%	6.1%	5.6%	86	12	26	124
Total	100.0%	100.0%	100.0%	100.0%	1662	123	423	2208

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.872[a]	4	.000
Continuity Correction			
Likelihood Ratio	33.292	4	.000
Linear-by-Linear Association	23.650	1	.000
N of Valid Cases	2208		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.91.

Figure 169: Halogen Lamp Use by Decade Building Constructed

G4 Any halogen lamps in your home now?
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	45.6%	38.4%	37.5%	32.7%	35.1%	40.3%	37.3%	43.6%	40.3%	45.5%	57.8%	40.1%
No	50.3%	57.9%	56.1%	60.9%	60.8%	56.6%	55.8%	53.8%	53.8%	46.2%	36.3%	54.9%
Not sure / don't know	4.0%	3.8%	6.3%	6.4%	4.1%	3.1%	6.9%	2.6%	5.9%	8.3%	5.9%	5.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G4 Any halogen lamps in your home now?
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	68	61	95	36	102	143	81	51	48	60	59	804
No	75	92	142	67	177	201	121	63	64	61	37	1100
Not sure / don't know	6	6	16	7	12	11	15	3	7	11	6	100
Total	149	159	253	110	291	355	217	117	119	132	102	2004

Figure 170: Halogen Lamp Use by Age of Respondent

G4 Any halogen lamps in your home now?
BY A11 Your age

	A11 Your age group (person filling out booklet)								
	15_18 years	19_24 years	25_34 years	35_44 years	45_54 years	55_64 years	65_74 years	75year or more	Total
Yes	50.0%	17.6%	24.6%	41.8%	42.9%	43.0%	37.8%	23.2%	37.9%
No	50.0%	70.6%	68.3%	53.4%	53.1%	51.3%	56.8%	69.1%	56.6%
Not sure / don't know		11.8%	7.1%	4.7%	4.0%	5.7%	5.4%	7.7%	5.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

G4 Any halogen lamps in your home now?
BY A11 Your age

	A11 Your age group (person filling out booklet)								
	15_18 years	19_24 years	25_34 years	35_44 years	45_54 years	55_64 years	65_74 years	75year or more	Total
Yes	2	3	59	177	203	235	98	54	831
No	2	12	164	226	251	280	147	161	1243
Not sure / don't know		2	17	20	19	31	14	18	121
Total	4	17	240	423	473	546	259	233	2195

Major Findings ▪ 8

Windows & Weather Sealing (thermal envelope, all building types)

Windows

Figure 171: Age of Most Windows

I2 Age of most of the windows

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	New in 2009	18	.8	.8	.8
	New in 2008	79	3.4	3.5	4.3
	2 -5 years	354	15.0	15.6	19.9
	6 -10 years	369	15.7	16.2	36.1
	11-20 years	426	18.1	18.8	54.9
	21-30 years	221	9.4	9.7	64.6
	31 years or more	470	19.9	20.7	85.3
	Don't Know	334	14.2	14.7	100.0
	Total	2271	96.4	100.0	
Missing	-9	85	3.6		
Total		2356	100.0		

Figure 172: Type of Glazing in Most Windows

I3 The one statement that best describes most of the glass in your windows

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All or most have single-pane glass (one layer)	611	25.9	27.1	27.1
	All or most have double-pane glass (two layers)	1366	58.0	60.6	87.7
	About 1/2 have single-pane and 1/2 have double-pane glass	232	9.8	10.3	98.0
	All or most have triple-pane glass	45	1.9	2.0	100.0
	Total	2254	95.7	100.0	
Missing	-9	102	4.3		
Total		2356	100.0		

Figure 173: Type of Frame for Most Windows

I4 One statement that best describes most of the frames on your windows

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All or most have wood frames	690	29.3	30.8	30.8
	All or most have aluminum frames	785	33.3	35.0	65.8
	All or most have vinyl frames	721	30.6	32.1	97.9
	All or most have fiberglass frames	47	2.0	2.1	100.0
	Total	2243	95.2	100.0	
Missing	-9	113	4.8		
Total		2356	100.0		

Figure 174: Perceived Need for New Windows

I1 Do you feel that your house or building needs new windows?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	737	31.3	32.8	32.8
	Maybe, not sure	351	14.9	15.6	48.5
	No	1156	49.1	51.5	100.0
	Total	2244	95.2	100.0	
Missing	-9	112	4.8		
Total		2356	100.0		

Figure 175: Window Glazing by Housing Building Type

I3 The one statement that best describes most of the glass in your windows BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
All or most have single-pane glass (one layer)	24.3%	38.5%	34.9%	27.1%	411	47	146	604
All or most have double-pane glass (two layers)	61.3%	51.6%	60.5%	60.7%	1036	63	253	1352
About 1/2 have single-pane and 1/2 have double-pane glass	12.0%	9.8%	3.6%	10.3%	202	12	15	229
All or most have triple-pane glass	2.4%		1.0%	2.0%	40		4	44
Total	100.0%	100.0%	100.0%	100.0%	1689	122	418	2229

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.673[a]	6	.000
Continuity Correction			
Likelihood Ratio	58.205	6	.000
Linear-by-Linear Association	41.212	1	.000
N of Valid Cases	2229		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 2.41.

Figure 176: Window Frames by Housing Building Type

I4 The one statement that best describes most of the frames on your windows BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
All or most have wood frames	35.1%	27.0%	14.5%	30.8%	590	33	60	683
All or most have aluminum frames	28.2%	41.0%	59.5%	34.8%	474	50	247	771
All or most have vinyl frames	34.6%	27.9%	24.3%	32.3%	581	34	101	716
All or most have fiberglass frames	2.1%	4.1%	1.7%	2.1%	35	5	7	47
Total	100.0%	100.0%	100.0%	100.0%	1680	122	415	2217

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	156.141[a]	6	.000
Continuity Correction			
Likelihood Ratio	153.328	6	.000
Linear-by-Linear Association	4.513	1	.034
N of Valid Cases	2217		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 2.59.

Figure 177: Window Glazing by Housing Building Type, for Homes with Electric Main Home Heat

I3 The one statement that best describes most of the glass in your windows BY A2 Housing Type FOR B1_1 Homes with electric main home heat

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
All or most have single-pane glass (one layer)	21.9%	41.9%	34.6%	29.2%	79	26	117	222
All or most have double-pane glass (two layers)	65.3%	45.2%	61.2%	61.8%	235	28	207	470
About 1/2 have single-pane and 1/2 have double-pane glass	9.4%	12.9%	3.3%	7.0%	34	8	11	53
All or most have triple-pane glass	3.3%		.9%	2.0%	12		3	15
Total	100.0%	100.0%	100.0%	100.0%	360	62	338	760

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.418[a]	6	.000
Continuity Correction			
Likelihood Ratio	38.599	6	.000
Linear-by-Linear Association	24.234	1	.000
N of Valid Cases	760		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 1.22.

Figure 178: Window Frames by Housing Building Type, for Homes with Electric Main Home Heat

I4 The one statement that best describes most of the frames on your windows BY A2 Housing Type FOR B1_1 Homes with electric main home heat

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
All or most have wood frames	24.4%	21.0%	11.0%	18.2%	88	13	37	138
All or most have aluminum frames	38.6%	56.5%	62.4%	50.6%	139	35	209	383
All or most have vinyl frames	35.0%	19.4%	25.1%	29.3%	126	12	84	222
All or most have fiberglass frames	1.9%	3.2%	1.5%	1.8%	7	2	5	14
Total	100.0%	100.0%	100.0%	100.0%	360	62	335	757

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.218[a]	6	.000
Continuity Correction			
Likelihood Ratio	47.359	6	.000
Linear-by-Linear Association	.206	1	.650
N of Valid Cases	757		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 1.15.

Figure 179: Window Glazing by Main Home Heat Fuel

I3 The one statement that best describes most of the glass in your windows
BY B1_1 Main home heat fuel

	B1_1 Main home heat fuel				Total	B1_1 Main home heat fuel				Total
	Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other		Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most have single-pane glass (one layer)	28.8%	25.6%	27.3%	26.4%	27.0%	223	274	78	14	589
All or most have double-pane glass (two layers)	62.1%	60.3%	58.0%	62.3%	60.7%	480	645	166	33	1324
About 1/2 have single-pane and 1/2 have double-pane glass	7.0%	12.3%	12.6%	7.5%	10.3%	54	131	36	4	225
All or most have triple-pane glass	2.1%	1.8%	2.1%	3.8%	2.0%	16	19	6	2	43
Total	100.0%	100.0%	100.0%	100.0%	100.0%	773	1069	286	53	2181

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.526[a]	9	.041
Continuity Correction			
Likelihood Ratio	18.138	9	.034
Linear-by-Linear Association	4.106	1	.043
N of Valid Cases	2181		

a. 1 cells (6.3%) have expected count less than 5. The minimum expected count is 1.04.

Figure 180: Window Frames by Main Home Heat Fuel

I4 The one statement that best describes most of the frames on your windows
BY B1_1 Main home heat fuel

	B1_1 Main home heat fuel				Total	B1_1 Main home heat fuel				Total
	Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other		Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most have wood frames	18.2%	38.8%	34.2%	35.8%	30.8%	140	412	97	19	668
All or most have aluminum frames	50.6%	24.6%	28.9%	30.2%	34.5%	390	261	82	16	749
All or most have vinyl frames	29.4%	34.6%	34.5%	32.1%	32.6%	226	367	98	17	708
All or most have fiberglass frames	1.8%	2.1%	2.5%	1.9%	2.0%	14	22	7	1	44
Total	100.0%	100.0%	100.0%	100.0%	100.0%	770	1062	284	53	2169

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	159.160[a]	9	.000
Continuity Correction			
Likelihood Ratio	160.638	9	.000
Linear-by-Linear Association	6.863	1	.009
N of Valid Cases	2169		

a. 1 cells (6.3%) have expected count less than 5. The minimum expected count is 1.08.

Figure 181: Window Glazing by Home Ownership

I3 The one statement that best describes most of the glass in your windows
BY A3 Home Ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most have single-pane glass (one layer)	22.6%	24.2%	44.6%	33.3%	27.2%	281	131	183	6	601
All or most have double-pane glass (two layers)	63.4%	62.4%	49.8%	61.1%	60.6%	787	338	204	11	1340
About 1/2 have single-pane and 1/2 have double-pane glass	12.3%	10.0%	4.9%	5.6%	10.3%	153	54	20	1	228
All or most have triple-pane glass	1.7%	3.5%	.7%		1.9%	21	19	3		43
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1242	542	410	18	2212

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	95.035[a]	9	.000
Continuity Correction			
Likelihood Ratio	91.292	9	.000
Linear-by-Linear Association	54.193	1	.000
N of Valid Cases	2212		

a. 3 cells (18.8%) have expected count less than 5. The minimum expected count is .35.

Figure 182: Window Frames by Home Ownership

I4 The one statement that best describes most of the frames on your windows BY A3 Home Ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most have wood frames	34.0%	30.7%	22.4%	22.2%	30.9%	421	165	91	4	681
All or most have aluminum frames	26.7%	40.4%	51.6%	50.0%	34.8%	331	217	210	9	767
All or most have vinyl frames	37.0%	27.6%	23.6%	27.8%	32.1%	458	148	96	5	707
All or most have fiberglass frames	2.3%	1.3%	2.5%		2.1%	29	7	10		46
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1239	537	407	18	2201

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	100.531[a]	9	.000
Continuity Correction			
Likelihood Ratio	100.248	9	.000
Linear-by-Linear Association	.630	1	.427
N of Valid Cases	2201		

a. 1 cells (6.3%) have expected count less than 5. The minimum expected count is .38.

Figure 183: Window Glazing by Decade Building Constructed

I3 The one statement that best describes most of the glass in your windows
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
All or most have single-pane glass (one layer)	36.4%	36.6%	38.1%	36.1%	20.1%	21.3%	28.3%	28.7%	20.5%	5.9%	3.1%	25.6%
All or most have double-pane glass (two layers)	44.4%	44.1%	45.8%	46.3%	69.1%	67.3%	56.6%	61.7%	73.0%	88.1%	92.9%	61.6%
About 1/2 have single-pane and 1/2 have double-pane glass	18.5%	18.6%	14.2%	13.0%	8.4%	9.7%	12.8%	6.1%	4.1%	4.4%	3.1%	10.7%
All or most have triple-pane glass	.7%	.6%	1.9%	4.6%	2.3%	1.7%	2.3%	3.5%	2.5%	1.5%	1.0%	2.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

I3 The one statement that best describes most of the glass in your windows
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
All or most have single-pane glass (one layer)	55	59	99	39	60	77	62	33	25	8	3	520
All or most have double-pane glass (two layers)	67	71	119	50	206	243	124	71	89	119	91	1250
About 1/2 have single-pane and 1/2 have double-pane glass	28	30	37	14	25	35	28	7	5	6	3	218
All or most have triple-pane glass	1	1	5	5	7	6	5	4	3	2	1	40
Total	151	161	260	108	298	361	219	115	122	135	98	2028

I3 The one statement that best describes most of the glass in your windows BY A6 Decade your home was built

	A6 Decade in which your home was built		Total	A6 Decade in which your home was built		Total
	1900-1939	1940-2009		1900-1939	1940-2009	
	Percent	Percent	Percent	N	N	N
All or most have single-pane glass (one layer)	37.7%	20.3%	26.2%	252	268	520
All or most have double-pane glass (two layers)	46.0%	71.4%	62.9%	307	943	1250
About 1/2 have single-pane and 1/2 have double-pane glass	16.3%	8.3%	11.0%	109	109	218
Total	100.0%	100.0%	100.0%	668	1320	1988

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	123.543[a]	2	.000
Continuity Correction			
Likelihood Ratio	121.893	2	.000
Linear-by-Linear Association	11.160	1	.001
N of Valid Cases	1988		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 73.25.

Figure 184: Window Frames by Decade Building Constructed

I4 The one statement that best describes most of the frames on your windows
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
All or most have wood frames	60.7%	61.9%	60.9%	48.6%	31.2%	18.7%	12.5%	7.0%	13.2%	10.4%	15.0%	31 6%
All or most have aluminum frames	14.7%	13.1%	12.0%	23.4%	22.8%	44.6%	50.5%	71.3%	69.4%	34.8%	28.0%	33 5%
All or most have vinyl frames	23.3%	21.3%	25.6%	26.2%	43.6%	34.5%	36.1%	21.7%	14.9%	54.1%	52.0%	32 8%
All or most have fiberglass frames	1.3%	3.8%	1.6%	1.9%	2.3%	2.2%	.9%		2.5%	.7%	5.0%	2.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100 0%

I4 The one statement that best describes most of the frames on your windows
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
All or most have wood frames	91	99	157	52	93	67	27	8	16	14	15	639
All or most have aluminum frames	22	21	31	25	68	160	109	82	84	47	28	677
All or most have vinyl frames	35	34	66	28	130	124	78	25	18	73	52	663
All or most have fiberglass frames	2	6	4	2	7	8	2		3	1	5	40
Total	150	160	258	107	298	359	216	115	121	135	100	2019

I4 The one statement that best describes most of the frames on your windows BY A6 Decade your home was built

	A6 Decade in which your home was built		Total	A6 Decade in which your home was built		Total
	1900-1939	1940-2009		1900-1939	1940-2009	
	Percent	Percent	Percent	N	N	N
All or most have wood frames	60.4%	18.2%	32.3%	399	240	639
All or most have aluminum frames	15.0%	43.9%	34.2%	99	578	677
All or most have vinyl frames	24.7%	37.9%	33.5%	163	500	663
Total	100.0%	100.0%	100.0%	661	1318	1979

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	372.733[a]	2	.000
Continuity Correction			
Likelihood Ratio	372.329	2	.000
Linear-by-Linear Association	205.532	1	.000
N of Valid Cases	1979		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 213.43.

Window Preparations for Winter

Figure 185: Preparation of Windows for Winter

I5 The one statement that best describes how you prepare windows for winter

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All or most get glass storm windows added on the outside	110	4.7	4.9	4.9
	All or most get plastic film added on the inside	59	2.5	2.6	7.5
	Do not make any changes to windows for winter	2080	88.3	92.5	100.0
	Total	2249	95.5	100.0	
Missing	-9	107	4.5		
Total		2356	100.0		

Figure 186: Preparation of Windows for Winter by Housing Building Type

I5 The one statement that best describes how you prepare windows for winter BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
All or most get glass storm windows added on the outside	6.1%	1.6%	1.2%	4.9%	102	2	5	109
All or most get plastic film added on the inside	2.6%	6.5%	1.6%	2.7%	44	8	7	59
Do not make any changes to windows for winter	91.3%	91.9%	97.2%	92.4%	1528	114	413	2055
Total	100.0%	100.0%	100.0%	100.0%	1674	124	425	2223

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.255[a]	4	.000
Continuity Correction			
Likelihood Ratio	33.542	4	.000
Linear-by-Linear Association	19.616	1	.000
N of Valid Cases	2223		

a. 1 cells (11.1%) have expected count less than 5. The minimum expected count is 3.29.

Figure 187: Preparation of Windows for Winter by Main Home Heat Fuel

I5 The one statement that best describes how you prepare windows for winter
BY B1_1 Main home heat fuel

	B1_1 Main home heat fuel				Total	B1_1 Main home heat fuel				Total
	Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other		Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most get glass storm windows added on the outside	3.1%	5.1%	8.5%	7.5%	4.9%	24	54	24	4	106
All or most get plastic film added on the inside	2.7%	2.3%	3.5%	1.9%	2.6%	21	25	10	1	57
Do not make any changes to windows for winter	94.2%	92.6%	88.0%	90.6%	92.5%	731	986	249	48	2014
Total	100.0%	100.0%	100.0%	100.0%	100.0%	776	1065	283	53	2177

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.702[a]	6	.015
Continuity Correction			
Likelihood Ratio	14.897	6	.021
Linear-by-Linear Association	12.148	1	.000
N of Valid Cases	2177		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 1.39.

Figure 188: Preparation of Windows for Winter by Decade Building Constructed

I5 The one statement that best describes how you prepare windows for winter
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
All or most get glass storm windows added on the outside	10.0%	10.5%	9.0%	9.1%	5.7%	3.7%	2.3%	1.8%				5.1%
All or most get plastic film added on the inside	3.3%	2.5%	2.0%	6.4%	3.0%	2.0%	2.8%	5.3%	.8%	2.2%		2.6%
Do not make any changes to windows for winter	86.7%	87.0%	89.1%	84.5%	91.3%	94.4%	94.9%	93.0%	99.2%	97.8%	100.0%	92.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

I5 The one statement that best describes how you prepare windows for winter
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
All or most get glass storm windows added on the outside	15	17	23	10	17	13	5	2				102
All or most get plastic film added on the inside	5	4	5	7	9	7	6	6	1	3		53
Do not make any changes to windows for winter	130	141	228	93	272	335	206	106	119	133	101	1864
Total	150	162	256	110	298	355	217	114	120	136	101	2019

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	72.177[a]	20	.000
Continuity Correction			
Likelihood Ratio	86.826	20	.000
Linear-by-Linear Association	53.724	1	.000
N of Valid Cases	2019		

a. 7 cells (21.2%) have expected count less than 5. The minimum expected count is 2.65.

I5 Add glass storm windows on outside in winter BY A6 Decade in which your home was built

% within A6 Decade in which your home was built

	A6 Decade in which your home was built											
	1 1900-1909	2 1910-1919	3 1920-1929	4 1930-1939	5 1940-1949	6 1950-1959	7 1960-1969	8 1970-1979	9 1980-1989	10 1990-1999	11 2000-2009	Total
1 Yes	10.0%	10.5%	9.0%	9.1%	5.7%	3.7%	2.3%	1.8%				5.1%
2 No	90.0%	89.5%	91.0%	90.9%	94.3%	96.3%	97.7%	98.2%	100.0%	100.0%	100.0%	94.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	56.341[a]	10	.000
Continuity Correction			
Likelihood Ratio	70.105	10	.000
Linear-by-Linear Association	52.750	1	.000
N of Valid Cases	2019		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.10.

I5 Add plastic film on inside in winter BY A6 Decade in which your home was built

% within A6 Decade in which your home was built

	A6 Decade in which your home was built											
	1 1900-1909	2 1910-1919	3 1920-1929	4 1930-1939	5 1940-1949	6 1950-1959	7 1960-1969	8 1970-1979	9 1980-1989	10 1990-1999	11 2000-2009	Total
1 Yes	3.3%	2.5%	2.0%	6.4%	3.0%	2.0%	2.8%	5.3%	.8%	2.2%		2.6%
2 No	96.7%	97.5%	98.0%	93.6%	97.0%	98.0%	97.2%	94.7%	99.2%	97.8%	100.0%	97.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.995[a]	10	.132
Continuity Correction			
Likelihood Ratio	15.884	10	.103
Linear-by-Linear Association	1.479	1	.224
N of Valid Cases	2019		

a. 7 cells (31.8%) have expected count less than 5. The minimum expected count is 2.65.

Weather Sealing: Stripping & Caulking

Figure 189: Weather-Stripping Replaced Within the Past 2 Years

I6 Within the past 2 years, has the weather stripping on your windows and doors been replaced?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All or most of windows got new weather stripping	122	5.2	5.4	5.4
	All or most of doors got new weather stripping	70	3.0	3.1	8.5
	A few windows or doors got new weather stripping	246	10.4	10.9	19.4
	Did not update weather stripping	1571	66.7	69.5	88.9
	Not sure / don't know	252	10.7	11.1	100.0
	Total	2261	96.0	100.0	
Missing	-9	95	4.0		
Total		2356	100.0		

Figure 190: New Caulking Added Within the Past 2 Years

I7 Within the past 2 years, has new caulking been added on the outside of the building?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All or most of the siding got new caulking	144	6.1	6.4	6.4
	All or most of window frames got new caulking	90	3.8	4.0	10.3
	All or most of door frames got new caulking	20	.8	.9	11.2
	A few windows or doors got new caulking	246	10.4	10.9	22.1
	Did not update caulking	1439	61.1	63.6	85.8
	Not sure / don't know	322	13.7	14.2	100.0
	Total	2261	96.0	100.0	
Missing	-9	95	4.0		
Total		2356	100.0		

Figure 191: Weather Stripping Replaced, by Housing Building Type

I6 Within the past 2 years, has the weather stripping on your windows and doors been replaced? BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
All or most of windows got new weather stripping	5.4%	3.2%	5.6%	5.3%	91	4	24	119
All or most of doors got new weather stripping	3.8%	3.2%	.7%	3.1%	63	4	3	70
A few windows or doors got new weather stripping	13.2%	6.4%	3.7%	11.0%	221	8	16	245
Did not update weather stripping	70.4%	72.0%	66.1%	69.7%	1182	90	285	1557
Not sure / don't know	7.2%	15.2%	23.9%	10.9%	121	19	103	243
Total	100.0%	100.0%	100.0%	100.0%	1678	125	431	2234

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	132.944[a]	8	.000
Continuity Correction			
Likelihood Ratio	129.298	8	.000
Linear-by-Linear Association	48.168	1	.000
N of Valid Cases	2234		

a. 1 cells (6.7%) have expected count less than 5. The minimum expected count is 3.92.

Figure 192: New Caulking Added, by Housing Building Type

I7 Within the past 2 years, has new caulking been added on the outside of the building?
BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
All or most of the siding got new caulking	7.0%	6.3%	3.7%	6.4%	118	8	16	142
All or most of window frames got new caulking	4.3%	2.4%	3.3%	4.0%	72	3	14	89
All or most of door frames got new caulking	1.0%	.8%	.5%	.9%	17	1	2	20
A few windows or doors got new caulking	13.6%	5.6%	2.6%	11.0%	228	7	11	246
Did not update caulking	67.7%	63.5%	48.6%	63.8%	1136	80	209	1425
Not sure / don't know	6.3%	21.4%	41.4%	13.9%	106	27	178	311
Total	100.0%	100.0%	100.0%	100.0%	1677	126	430	2233

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	132.944[a]	8	.000
Continuity Correction			
Likelihood Ratio	129.298	8	.000
Linear-by-Linear Association	48.168	1	.000
N of Valid Cases	2234		

a. 1 cells (6.7%) have expected count less than 5. The minimum expected count is 3.92.

Figure 193: Weather Stripping Replaced, by Main Home Heat Fuel

I6 Within the past 2 years, has the weather stripping on your windows and doors been replaced? BY B1_1 Main home heat fuel

	B1_1 Main home heat fuel				Total	B1_1 Main home heat fuel				Total
	Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other		Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most of windows got new weather stripping	6.0%	5.0%	4.9%	11.3%	5.5%	47	53	14	6	120
All or most of doors got new weather stripping	3.1%	3.0%	3.9%	3.8%	3.2%	24	32	11	2	69
A few windows or doors got new weather stripping	8.2%	12.7%	10.6%	13.2%	10.8%	64	136	30	7	237
Did not update weather stripping	66.5%	72.5%	74.6%	52.8%	70.2%	521	774	212	28	1535
Not sure / don't know	16.2%	6.7%	6.0%	18.9%	10.3%	127	72	17	10	226
Total	100.0%	100.0%	100.0%	100.0%	100.0%	783	1067	284	53	2187

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	67.855[a]	12	.000
Continuity Correction			
Likelihood Ratio	65.690	12	.000
Linear-by-Linear Association	6.888	1	.009
N of Valid Cases	2187		

a. 2 cells (10.0%) have expected count less than 5. The minimum expected count is 1.67.

Figure 194: New Caulking Added, by Main Home Heat Fuel

I7 Within the past 2 years, has new caulking been added on the outside of the building?
BY B1_1 Main home heat fuel

	B1_1 Main home heat fuel				Total	B1_1 Main home heat fuel				Total
	Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other		Electricity	Natural gas	Fuel oil | petrol	Wood, solar, other	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most of the siding got new caulking	4.7%	7.8%	6.7%	5.8%	6.5%	37	83	19	3	142
All or most of window frames got new caulking	3.9%	3.1%	6.4%	15.4%	4.1%	31	33	18	8	90
All or most of door frames got new caulking	.3%	1.2%	1.4%		.9%	2	13	4		19
A few windows or doors got new caulking	7.2%	13.6%	9.9%	11.5%	10.8%	57	145	28	6	236
Did not update caulking	59.3%	67.1%	69.9%	53.8%	64.3%	467	715	197	28	1407
Not sure / don't know	24.5%	7.2%	5.7%	13.5%	13.4%	193	77	16	7	293
Total	100.0%	100.0%	100.0%	100.0%	100.0%	787	1066	282	52	2187

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	174.730[a]	15	.000
Continuity Correction			
Likelihood Ratio	165.412	15	.000
Linear-by-Linear Association	36.652	1	.000
N of Valid Cases	2187		

a. 4 cells (16.7%) have expected count less than 5. The minimum expected count is .45.

Figure 195: Weather Stripping Replaced, by Home Ownership

I6 Within the past 2 years, has the weather stripping on your windows and doors been replaced?
BY A3 Home Ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most of windows got new weather stripping	6.0%	5.0%	4.0%		5.3%	74	27	17		118
All or most of doors got new weather stripping	3.5%	3.1%	1.7%	15.8%	3.2%	43	17	7	3	70
A few windows or doors got new weather stripping	14.1%	9.4%	4.3%	5.3%	11.0%	175	51	18	1	245
Did not update weather stripping	69.9%	74.6%	63.8%	63.2%	69.8%	866	403	268	12	1549
Not sure / don't know	6.5%	7.8%	26.2%	15.8%	10.6%	81	42	110	3	236
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1239	540	420	19	2218

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	169.933[a]	12	.000
Continuity Correction			
Likelihood Ratio	147.196	12	.000
Linear-by-Linear Association	52.852	1	.000
N of Valid Cases	2218		

a. 4 cells (20.0%) have expected count less than 5. The minimum expected count is .60.

Figure 196: New Caulking Added, by Home Ownership

I7 Within the past 2 years, has new caulking been added on the outside of the building?
BY A3 Home Ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
All or most of the siding got new caulking	8.2%	5.8%	1.7%		6.3%	101	31	7		139
All or most of window frames got new caulking	4.1%	5.6%	1.2%	17.6%	4.0%	51	30	5	3	89
All or most of door frames got new caulking	1.2%	.6%	.5%		.9%	15	3	2		20
A few windows or doors got new caulking	13.8%	12.4%	1.4%	5.9%	11.1%	171	67	6	1	245
Did not update caulking	65.8%	68.3%	54.0%	52.9%	64.1%	815	368	228	9	1420
Not sure / don't know	6.9%	7.4%	41.2%	23.5%	13.7%	85	40	174	4	303
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1238	539	422	17	2216

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	392.524[a]	15	.000
Continuity Correction			
Likelihood Ratio	349.136	15	.000
Linear-by-Linear Association	112.541	1	.000
N of Valid Cases	2216		

a. 7 cells (29.2%) have expected count less than 5. The minimum expected count is .15.

Figure 197: Weather Stripping Replaced, by Decade Building Constructed

I6 Within the past 2 years, has the weather stripping on your windows and doors been replaced?
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
All or most of windows got new weather stripping	5.3%	5.6%	5.0%	6.5%	4.3%	6.4%	3.2%	6.0%	2.5%	6.6%	11.1%	5.4%
All or most of doors got new weather stripping	1.3%	6.2%	3.1%	4.6%	5.3%	3.1%	2.3%	3.4%	1.7%	.7%	1.0%	3.2%
A few windows or doors got new weather stripping	17.1%	16.0%	14.3%	13.9%	11.0%	13.1%	8.8%	10.3%	8.3%	8.8%	4.0%	11 9%
Did not update weather stripping	69.1%	68.5%	70.9%	69.4%	72.7%	68.5%	75.0%	69.0%	75.0%	72.8%	77.8%	71 4%
Not sure / don't know	7.2%	3.7%	6.6%	5.6%	6.7%	8.9%	10.6%	11.2%	12.5%	11.0%	6.1%	8.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100 0%

I6 Within the past 2 years, has the weather stripping on your windows and doors been replaced?
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
All or most of windows got new weather stripping	8	9	13	7	13	23	7	7	3	9	11	110
All or most of doors got new weather stripping	2	10	8	5	16	11	5	4	2	1	1	65
A few windows or doors got new weather stripping	26	26	37	15	33	47	19	12	10	12	4	241
Did not update weather stripping	105	111	183	75	218	246	162	80	90	99	77	1446
Not sure / don't know	11	6	17	6	20	32	23	13	15	15	6	164
Total	152	162	258	108	300	359	216	116	120	136	99	2026

I6 All or most windows got new weatherstripping
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	5.7%	5.8%	5.4%	6.9%	4.6%	7.0%	3.6%	6.8%	2.9%	7.4%	11.8%	5.9%
No	94.3%	94.2%	94.6%	93.1%	95.4%	93.0%	96.4%	93.2%	97.1%	92.6%	88.2%	94.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.937[a]	10	.289
Continuity Correction			
Likelihood Ratio	11.326	10	.333
Linear-by-Linear Association	1.177	1	.278
N of Valid Cases	1862		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.49.

I6 All or most doors got new weatherstripping
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	1.4%	6.4%	3.3%	4.9%	5.7%	3.4%	2.6%	3.9%	1.9%	.8%	1.1%	3.5%
No	98.6%	93.6%	96.7%	95.1%	94.3%	96.6%	97.4%	96.1%	98.1%	99.2%	98.9%	96 5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100 0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.948[a]	10	.101
Continuity Correction			
Likelihood Ratio	16.865	10	.077
Linear-by-Linear Association	3.582	1	.058
N of Valid Cases	1862		

a. 6 cells (27.3%) have expected count less than 5. The minimum expected count is 3.25.

I6 A few windows or doors got new weatherstripping
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	18.4%	16.7%	15.4%	14.7%	11.8%	14.4%	9.8%	11.7%	9.5%	9.9%	4.3%	12.9%
No	81.6%	83.3%	84.6%	85.3%	88.2%	85.6%	90.2%	88.3%	90.5%	90.1%	95.7%	87.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.184[a]	10	.052
Continuity Correction			
Likelihood Ratio	19.762	10	.032
Linear-by-Linear Association	14.733	1	.000
N of Valid Cases	1862		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.04.

Figure 198: New Caulking Added, by Decade Building Constructed

I7 Within the past 2 years, has new caulking been added on the outside of the building?
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
All or most of the siding got new caulking	8.6%	6.9%	5.4%	2.8%	7.4%	7.5%	4.6%	4.3%	5.0%	10.4%	12.9%	6.8%
All or most of window frames got new caulking	3.3%	4.4%	5.4%	8.3%	4.4%	3.4%	3.7%	5.2%	3.3%	3.0%		4.1%
All or most of door frames got new caulking	1.3%	.6%	.4%		1.0%	1.4%	.9%			3.0%		.9%
A few windows or doors got new caulking	14.5%	15.6%	14.3%	16.5%	13.8%	10.6%	9.3%	10.3%	9.1%	11.2%	5.0%	12.1%
Did not update caulking	63.8%	66.9%	70.5%	66.1%	64.4%	69.0%	67.6%	63.8%	56.2%	59.0%	67.3%	65.8%
Not sure / don't know	8.6%	5.6%	3.9%	6.4%	9.1%	8.1%	13.9%	16.4%	26.4%	13.4%	14.9%	10.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

I7 Within the past 2 years, has new caulking been added on the outside of the building?
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
All or most of the siding got new caulking	13	11	14	3	22	27	10	5	6	14	13	138
All or most of window frames got new caulking	5	7	14	9	13	12	8	6	4	4		82
All or most of door frames got new caulking	2	1	1		3	5	2			4		18
A few windows or doors got new caulking	22	25	37	18	41	38	20	12	11	15	5	244
Did not update caulking	97	107	182	72	192	247	146	74	68	79	68	1332
Not sure / don't know	13	9	10	7	27	29	30	19	32	18	15	209
Total	152	160	258	109	298	358	216	116	121	134	101	2023

I7 All or most of the siding got new caulking
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	9.4%	7.3%	5.6%	2.9%	8.1%	8.2%	5.4%	5.2%	6.7%	12.1%	15.1%	7.6%
No	90.6%	92.7%	94.4%	97.1%	91.9%	91.8%	94.6%	94.8%	93.3%	87.9%	84.9%	92 4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100 0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.838[a]	10	.058
Continuity Correction			
Likelihood Ratio	17.172	10	.071
Linear-by-Linear Association	3.073	1	.080
N of Valid Cases	1814		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.54.

I7 All or most of window frames got new caulking
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
Yes	3.6%	4.6%	5.6%	8.8%	4.8%	3.6%	4.3%	6.2%	4.5%	3.4%		4.5%
No	96.4%	95.4%	94.4%	91.2%	95.2%	96.4%	95.7%	93.8%	95.5%	96.6%	100.0%	95 5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100 0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.036[a]	10	.355
Continuity Correction			
Likelihood Ratio	13.978	10	.174
Linear-by-Linear Association	1.941	1	.164
N of Valid Cases	1814		

a. 4 cells (18.2%) have expected count less than 5. The minimum expected count is 3.89.

I7 All or most of door frames got new caulking
BY A6 Decade your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	1.4%	.7%	.4%		1.1%	1.5%	1.1%			3.4%		1.0%
No	98.6%	99.3%	99.6%	100.0%	98.9%	98.5%	98.9%	100.0%	100.0%	96.6%	100.0%	99 0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100 0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.177[a]	10	.214
Continuity Correction			
Likelihood Ratio	14.214	10	.163
Linear-by-Linear Association	.441	1	.507
N of Valid Cases	1814		

a. 11 cells (50.0%) have expected count less than 5. The minimum expected count is .85.

I7 A few windows or doors got new caulking
BY A6 Decade your home was built

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
Yes	15.8%	16.6%	14.9%	17.6%	15.1%	11.6%	10.8%	12.4%	12.4%	12.9%	5.8%	13.5%
No	84.2%	83.4%	85.1%	82.4%	84.9%	88.4%	89.2%	87.6%	87.6%	87.1%	94.2%	86.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.291[a]	10	.335
Continuity Correction			
Likelihood Ratio	12.159	10	.275
Linear-by-Linear Association	6.876	1	.009
N of Valid Cases	1814		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.57.

Major Findings ▪ 9

Insulation & Additional Features (thermal envelope, single family detached & midsize attached homes)

Walls

Figure 199: Estimation of Wall Insulation

L1 Insulation of the walls of your house BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Fully insulated	38.0%	30.7%	37.6%	630	35	665
Partly insulated	27.2%	15.8%	26.5%	451	18	469
Not at all insulated	10.9%	5.3%	10.5%	180	6	186
Not sure / don't know	23.9%	48.2%	25.4%	395	55	450
Total	100.0%	100.0%	100.0%	1656	114	1770

Figure 200: Estimation of Wall Insulation by Housing Building Type

L1 Insulation of the walls of your house BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Fully insulated	50.0%	59.3%	50.4%	630	35	665
Partly insulated	35.8%	30.5%	35.5%	451	18	469
Not at all insulated	14.3%	10.2%	14.1%	180	6	186
Total	100.0%	100.0%	100.0%	1261	59	1320

Figure 201: Wall Insulation by Main Home Heat Fuel

L1 Insulation of the walls of your house BY B1 Fuel Type

	B1_1 Main home heat fuel			Total	B1_1 Main home heat fuel			Total
	Electricity	Natural gas	Fuel oil | petrol		Electricity	Natural gas	Fuel oil | petrol	
	Percent	Percent	Percent	Percent	N	N	N	N
Fully insulated	60.8%	50.8%	33.2%	50.5%	178	393	61	632
Partly insulated	26.6%	37.3%	44.0%	35.8%	78	289	81	448
Not at all insulated	12.6%	11.9%	22.8%	13.7%	37	92	42	171
Total	100.0%	100.0%	100.0%	100.0%	293	774	184	1251

Note: This table excludes 9 cases of homes with a fuel oil hot water boiler and hydronic radiators (8 have fully insulated walls and 1 partly insulated).

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	41.264[a]	4	.000
Continuity Correction			
Likelihood Ratio	41.038	4	.000
Linear-by-Linear Association	28.281	1	.000
N of Valid Cases	1251		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.15.

Figure 202: Wall Insulation by Decade Building Constructed

L1 Insulation of the walls of your house BY A6 Decade you home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Fully insulated	41.0%	34.5%	28.3%	33.8%	42.8%	49.2%	57.7%	80.0%	84.0%	98.6%	95.5%	50.7%
Partly insulated	44.8%	46.0%	50.3%	43.8%	41.3%	36.2%	31.7%	18.3%	14.0%	1.4%	3.0%	35.5%
Not at all insulated	14.3%	19.5%	21.5%	22.5%	15.9%	14.6%	10.6%	1.7%	2.0%		1.5%	13.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

L1 Insulation of the walls of your house BY A6 Decade you home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Fully insulated	43	39	54	27	86	121	60	48	42	69	63	652
Partly insulated	47	52	96	35	83	89	33	11	7	1	2	456
Not at all insulated	15	22	41	18	32	36	11	1	1		1	178
Total	105	113	191	80	201	246	104	60	50	70	66	1286

L1 Insulation of the walls of your house BY A6 Decade groups

	A6 Decade in which your home was built		Total	A6 Decade in which your home was built		Total
	1900-1959	1960-2009		1900-1959	1960-2009	
	Percent	Percent	Percent	N	N	N
Fully insulated	39.5%	80.6%	50.7%	370	282	652
Partly insulated	42.9%	15.4%	35.5%	402	54	456
Not at all insulated	17.5%	4.0%	13.8%	164	14	178
Total	100.0%	100.0%	100.0%	936	350	1286

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	172.692[a]	2	.000
Continuity Correction			
Likelihood Ratio	183.870	2	.000
Linear-by-Linear Association	148.719	1	.000
N of Valid Cases	1286		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 48.44.

Figure 203: Wall Insulation by Home Ownership

L1 Insulation of the walls of your house BY A3 Home ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Fully insulated	50.9%	50.9%	32.1%	60.0%	50.2%	439	197	17	6	659
Partly insulated	36.0%	35.1%	32.1%	30.0%	35.5%	310	136	17	3	466
Not at all insulated	13.1%	14.0%	35.8%	10.0%	14.3%	113	54	19	1	187
Total	100.0%	100.0%	100.0%	100.0%	100.0%	862	387	53	10	1312

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.398[a]	6	.001
Continuity Correction			
Likelihood Ratio	17.765	6	.007
Linear-by-Linear Association	4.706	1	.030
N of Valid Cases	1312		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 1.43.

Figure 204: Wall Insulation by Household Income Level

L1 Insulation of the walls of your house BY K9 Income categories

	K9CAT Gross Household Income (collapsed categories)				Total	K9CAT Gross Household Income (collapsed categories)				Total
	<= $35K	$35K - $65K	$65K-$100K	> $100K		<= $35K	$35K - $65K	$65K-$100K	> $100K	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Fully insulated	46.8%	48.9%	48.3%	53.4%	49.8%	95	128	170	213	606
Partly insulated	35.5%	36.3%	36.4%	35.3%	35.9%	72	95	128	141	436
Not at all insulated	17.7%	14.9%	15.3%	11.3%	14.3%	36	39	54	45	174
Total	100.0%	100.0%	100.0%	100.0%	100.0%	203	262	352	399	1216

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.226[a]	6	.398
Continuity Correction			
Likelihood Ratio	6.290	6	.392
Linear-by-Linear Association	4.390	1	.036
N of Valid Cases	1216		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 29.05.

Attics

Figure 205: Type of Attic

L3 Best description of the top layer of your house or building BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
There is NO attic space at all, above the top story ceiling	15.7%	45.4%	17.6%	256	49	305
There is an attic over ALL of the top story ceiling	59.5%	30.6%	57.7%	968	33	1001
There is an attic over PART of the top story ceiling	24.7%	24.1%	24.7%	402	26	428
Total	100.0%	100.0%	100.0%	1626	108	1734

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	65.283[a]	2	.000
Continuity Correction			
Likelihood Ratio	53.747	2	.000
Linear-by-Linear Association	22.211	1	.000
N of Valid Cases	1734		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.00.

Figure 206: Estimation of Attic Rafter Insulation

L5_01 Attic: The rafters above are insulated BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	28.2%	27.5%	28.2%	323	14	337
Partly	10.1%	3.9%	9.9%	116	2	118
Not at all	37.1%	13.7%	36.1%	425	7	432
Don't Know	24.5%	54.9%	25.8%	281	28	309
Total	100.0%	100.0%	100.0%	1145	51	1196

L5_01 Attic: The rafters above are insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Fully	37.4%	60.9%	38.0%	323	14	337
Partly	13.4%	8.7%	13.3%	116	2	118
Not at all	49.2%	30.4%	48.7%	425	7	432
Total	100.0%	100.0%	100.0%	864	23	887

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.247[a]	2	.073
Continuity Correction			
Likelihood Ratio	5.050	2	.080
Linear-by-Linear Association	4.667	1	.031
N of Valid Cases	887		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.06.

Figure 207: Estimation of Attic End-wall or Side-wall Insulation

L5_03 Attic: The end-walls or side-walls are insulated BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	20.2%	19.2%	20.2%	217	10	227
Partly	12.1%	9.6%	12.0%	130	5	135
Not at all	35.0%	11.5%	33.9%	376	6	382
Don't Know	32.7%	59.6%	33.9%	351	31	382
Total	100.0%	100.0%	100.0%	1074	52	1126

L5_03 Attic: The end-walls or side-walls are insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Fully	30.0%	47.6%	30.5%	217	10	227
Partly	18.0%	23.8%	18.1%	130	5	135
Not at all	52.0%	28.6%	51.3%	376	6	382
Total	100.0%	100.0%	100.0%	723	21	744

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.638[a]	2	.098
Continuity Correction			
Likelihood Ratio	4.717	2	.095
Linear-by-Linear Association	4.428	1	.035
N of Valid Cases	744		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.81.

Figure 208: Estimation of Attic Floor Insulation

L5_02 Attic: The floor is insulated BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	61.0%	37.5%	60.0%	768	21	789
Partly	14.8%	8.9%	14.5%	186	5	191
Not at all	8.6%	3.6%	8.4%	108	2	110
Don't Know	15.7%	50.0%	17.2%	198	28	226
Total	100.0%	100.0%	100.0%	1260	56	1316

L5_02 Attic: The floor is insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Fully	72.3%	75.0%	72.4%	768	21	789
Partly	17.5%	17.9%	17.5%	186	5	191
Not at all	10.2%	7.1%	10.1%	108	2	110
Total	100.0%	100.0%	100.0%	1062	28	1090

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.277[a]	2	.871
Continuity Correction			
Likelihood Ratio	.304	2	.859
Linear-by-Linear Association	.203	1	.652
N of Valid Cases	1090		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.83.

Figure 209: Estimation of Attic End-wall or Side-wall Interior Finish

L5_04 Attic: The walls are finished with wallboard or an interior finish BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	14.5%	17.0%	14.6%	150	8	158
Partly	5.7%	.0%	5.5%	59	0	59
Not at all	56.8%	27.7%	55.6%	587	13	600
Don't Know	22.9%	55.3%	24.4%	237	26	263
Total	100.0%	100.0%	100.0%	1033	47	1080

.5_04 Attic: The walls are finished with wallboard or an interior finish BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Fully	18.8%	38.1%	19.3%	150	8	158
Partly	7.4%		7.2%	59		59
Not at all	73.7%	61.9%	73.4%	587	13	600
Total	100.0%	100.0%	100.0%	796	21	817

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.868[a]	2	.053
Continuity Correction			
Likelihood Ratio	6.556	2	.038
Linear-by-Linear Association	3.110	1	.078
N of Valid Cases	817		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.52.

Figure 210: Attic Usually Heated in Winter

L4 Do you usually heat the attic in the winter? BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Yes	2.5%	3.3%	2.6%	35	2	37
No	97.5%	96.7%	97.4%	1351	58	1409
Total	100.0%	100.0%	100.0%	1386	60	1446

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.151[b]	1	.698		
Continuity Correction[a]	.000	1	1.000		
Likelihood Ratio	.138	1	.710		
Fisher's Exact Test				.664	.460
Linear-by-Linear Association	.151	1	.698		
N of Valid Cases	1446				

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.54.

Figure 211: Estimation of Insulation in Non-Attic Ceiling

L7 Ceiling insulation where there is no attic * A2 Housing Type Crosstabulation

		% within A2 Housing Type			Count		
		A2 Housing Type			A2 Housing Type		
		Single Family	Midsize	Total	Single Family	Midsize	Total
	N/A: house has a full attic	51.8%	29.1%	50.3%	767	30	797
	Fully insulated	19.2%	17.5%	19.1%	285	18	303
	Partly insulated	6.8%	5.8%	6.7%	100	6	106
	Not at all insulated	4.5%	1.0%	4.2%	66	1	67
	Not sure / don't know	17.8%	46.6%	19.6%	263	48	311
Total		100.0%	100.0%	100.0%	1481	103	1584

L7 Ceiling insulation where there is no attic * A2 Housing Type Crosstabulation

		% within A2 Housing Type			Count		
		A2 Housing Type			A2 Housing Type		
		Single Family	Midsize	Total	Single Family	Midsize	Total
L7 Ceiling insulation where there is no attic	Fully insulated	39.9%	24.7%	38.5%	285	18	303
	Partly insulated	14.0%	8.2%	13.5%	100	6	106
	Not at all insulated	9.2%	1.4%	8.5%	66	1	67
	Not sure / don't know	36.8%	65.8%	39.5%	263	48	311
Total		100.0%	100.0%	100.0%	714	73	787

L7 Ceiling insulation where there is no attic BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Fully insulated	63.2%	72.0%	63.7%	285	18	303
Partly insulated	22.2%	24.0%	22.3%	100	6	106
Not at all insulated	14.6%	4.0%	14.1%	66	1	67
Total	100.0%	100.0%	100.0%	451	25	476

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.227[a]	2	.328
Continuity Correction			
Likelihood Ratio	2.932	2	.231
Linear-by-Linear Association	1.681	1	.195
N of Valid Cases	476		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.52.

Figure 212: Type of Attic by Main Home Heat Fuel

L3 Best description of the top layer of your house or building BY B1_1 Main home heat fuel

	% within B1_1 Main home heat fuel				Count			
	B1_1 Main home heat fuel				B1_1 Main home heat fuel			
	Electricity	Natural gas	Fuel oil | petrol	Total	Electricity	Natural gas	Fuel oil | petrol	Total
There is NO attic space at all, above the top story ceiling	23.5%	17.0%	9.9%	17.5%	94	168	26	288
There is an attic over ALL of the top story ceiling	55.5%	55.4%	69.2%	57.6%	222	546	182	950
There is an attic over PART of the top story ceiling	21.0%	27.6%	20.9%	24.9%	84	272	55	411
Total	100.0%	100.0%	100.0%	100.0%	400	986	263	1649

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.365[a]	4	.000
Likelihood Ratio	31.952	4	.000
Linear-by-Linear Association	8.882	1	.003
N of Valid Cases	1649		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 45.93.

Figure 213: Type of Attic by Decade Building Constructed

L3 Best description of the top layer of your house or building BY A6 Decade in which your home was built

% within A6 Decade in which your home was built

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
There is NO attic space at all, above the top story ceiling	12.1%	12.3%	11.2%	11.9%	10.1%	15.4%	23.1%	28.2%	28.6%	36.5%	37.8%	16.9%
There is an attic over ALL of the top story ceiling	60.6%	55.5%	57.5%	59.4%	69.9%	63.7%	59.9%	52.1%	51.8%	35.3%	32.4%	58.5%
There is an attic over PART of the top story ceiling	27.3%	32.2%	31.3%	28.7%	19.9%	20.8%	17.0%	19.7%	19.6%	28.2%	29.7%	24.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

L3 Best description of the top layer of your house or building BY A6 Decade in which your home was built

Count

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
There is NO attic space at all, above the top story ceiling	16	18	26	12	28	51	34	20	16	31	28	280
There is an attic over ALL of the top story ceiling	80	81	134	60	193	211	88	37	29	30	24	967
There is an attic over PART of the top story ceiling	36	47	73	29	55	69	25	14	11	24	22	405
Total	132	146	233	101	276	331	147	71	56	85	74	1652

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	113.621[a]	20	.000
Likelihood Ratio	106.928	20	.000
Linear-by-Linear Association	36.637	1	.000
N of Valid Cases	1652		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.49.

Figure 214: Type of Attic by Home Ownership

L3 Best description of the top layer of your house or building BY A3 How your home is owned

	% within A3 How your home is owned					Count				
	A3 How your home is owned					A3 How your home is owned				
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	Total	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	Total
There is NO attic space at all, above the top story ceiling	15.9%	16.7%	33.6%	21.4%	17.6%	178	77	45	3	303
There is an attic over ALL of the top story ceiling	59.3%	59.3%	38.1%	71.4%	57.7%	662	273	51	10	996
There is an attic over PART of the top story ceiling	24.8%	23.9%	28.4%	7.1%	24.7%	277	110	38	1	426
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1117	460	134	14	1725

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.250[a]	6	.000
Likelihood Ratio	31.989	6	.000
Linear-by-Linear Association	5.401	1	.020
N of Valid Cases	1725		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 2.46.

Figure 215: Type of Attic by Household Income Level

L3 Best description of the top layer of your house or building BY K9 Household Income

	% within K9 Rec Income quartiles					Count				
	K9 Rec Income quartiles					K9 Rec Income quartiles				
	<= $35K	$35K - $65K	$65K-$100K	> $100K	Total	<= $35K	$35K - $65K	$65K-$100K	> $100K	Total
There is NO attic space at all, above the top story ceiling	24.6%	14.5%	15.1%	16.9%	17.6%	86	59	53	84	282
There is an attic over ALL of the top story ceiling	54.6%	61.6%	59.0%	56.1%	57.8%	191	250	207	279	927
There is an attic over PART of the top story ceiling	20.9%	23.9%	25.9%	27.0%	24.6%	73	97	91	134	395
Total	100.0%	100.0%	100.0%	100.0%	100.0%	350	406	351	497	1604

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.639[a]	6	.005
Likelihood Ratio	17.825	6	.007
Linear-by-Linear Association	7.570	1	.006
N of Valid Cases	1604		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 61.53.

Basements & Crawl Spaces

Figure 216: Type of Foundation under Building

M1 Kind of foundation that is under most of your house BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
Concrete, cement, or stone with space below the joists	58.0%	43.6%	57.2%	920	41	961
Wooden post-and-beam, on piers or pilings	8.1%	9.6%	8.2%	129	9	138
Concrete slab(s), poured on the ground	33.9%	46.8%	34.6%	538	44	582
Total	100.0%	100.0%	100.0%	1587	94	1681

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.695[a]	2	.021
Continuity Correction			
Likelihood Ratio	7.553	2	.023
Linear-by-Linear Association	7.602	1	.006
N of Valid Cases	1681		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.72.

Figure 217: Type of Crawl Space or Basement (heated or unheated)

M2 What lies under most of the bottom story of your house BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Mid-size		Single Family	Mid-size	
	Percent	Percent	Percent	N	N	N
An open or closed-in crawl space	40.9%	47.2%	41.2%	447	25	472
An unheated basement	19.5%	28.3%	19.9%	213	15	228
A heated basement	39.6%	24.5%	38.9%	433	13	446
Total	100.0%	100.0%	100.0%	1093	53	1146

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.414[a]	2	.067
Continuity Correction			
Likelihood Ratio	5.603	2	.061
Linear-by-Linear Association	2.879	1	.090
N of Valid Cases	1146		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.54.

Figure 218: Estimation of Crawl Space or Basement Ceiling Insulation

NOTE: The following tables select cases where ***most*** of the foundation is concrete slab.

M3_02 Basement or crawl space ceiling insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	26.2%	20.6%	25.9%	321	13	334
Partly	14.9%	6.3%	14.5%	183	4	187
Not at all	29.7%	14.3%	28.9%	364	9	373
Don't know	29.2%	58.7%	30.6%	358	37	395
Total	100.0%	100.0%	100.0%	1226	63	1289

M3_02 Basement or crawl space ceiling insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	39.8%	41.9%	39.9%	321	13	334
Partly	23.2%	32.3%	23.5%	183	4	187
Not at all	37.0%	25.8%	36.6%	364	9	373
Total	100.0%	100.0%	100.0%	909	31	940

NOTE: The following tables select only cases where ***some*** of the foundation is ***not*** concrete slab.

M3_02 Basement or crawl space: The ceiling is insulated BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	29.6%	27.7%	29.5%	279	13	292
Partly	17.2%	8.5%	16.8%	162	4	166
Not at all	34.0%	17.0%	33.2%	321	8	329
Don't Know	19.2%	46.8%	20.5%	181	22	203
Total	100.0%	100.0%	100.0%	943	47	990

M3_02 Basement or crawl space: The ceiling is insulated BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	36.6%	52.0%	37.1%	279	13	292
Partly	21.3%	16.0%	21.1%	162	4	166
Not at all	42.1%	32.0%	41.8%	321	8	329
Total	100.0%	100.0%	100.0%	762	25	787

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.456[a]	2	.293
Likelihood Ratio	2.367	2	.306
Linear-by-Linear Association	2.000	1	.157
N of Valid Cases	787		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.27.

Figure 219: Estimation of Crawl Space or Basement Walls Insulation

NOTE: The following tables select cases where ***most*** of the foundation is concrete slab.

M3_04 Basement or crawl space walls insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	15.8%	9.5%	15.5%	194	6	200
Partly	15.9%	6.3%	15.5%	196	4	200
Not at all	35.5%	15.9%	34.5%	437	10	447
Don't know	32.8%	68.3%	34.5%	404	43	447
Total	100.0%	100.0%	100.0%	1231	63	1294

M3_04 Basement or crawl space walls insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	39.8%	41.9%	39.9%	194	6	200
Partly	23.2%	32.3%	23.5%	196	4	200
Not at all	37.0%	25.8%	36.6%	437	10	447
Total	100.0%	100.0%	100.0%	909	31	940

NOTE: The following tables select only cases where ***some*** of the foundation is ***not*** concrete slab.

M3_04 Basement or crawl space: The walls are insulated BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	17.6%	12.2%	17.3%	158	5	163
Partly	18.2%	7.3%	17.8%	164	3	167
Not at all	43.9%	24.4%	43.1%	395	10	405
Don't Know	20.2%	56.1%	21.8%	182	23	205
Total	100.0%	100.0%	100.0%	899	41	940

M3_04 Basement or crawl space: The walls are insulated BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single	Midsize	Total
Fully	22.0%	27.8%	22.2%	158	5	163
Partly	22.9%	16.7%	22.7%	164	3	167
Not at all	55.1%	55.6%	55.1%	395	10	405
Total	100.0%	100.0%	100.0%	717	18	735

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.559[a]	2	.756
Likelihood Ratio	.570	2	.752
Linear-by-Linear Association	.073	1	.786
N of Valid Cases	735		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.99.

Figure 220: Estimation of Crawl Space or Basement Ceiling Interior Finish

NOTE: The following tables select cases where ***most*** of the foundation is concrete slab.

M3_01 Basement or crawl space ceiling finished BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	29.4%	21.0%	29.0%	362	13	375
Partly	17.2%	16.1%	17.1%	211	10	221
Not at all	27.3%	12.9%	26.6%	336	8	344
Don't know	26.1%	50.0%	27.2%	321	31	352
Total	100.0%	100.0%	100.0%	1230	62	1292

M3_01 Basement or crawl space ceiling finished BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	39.8%	41.9%	39.9%	362	13	375
Partly	23.2%	32.3%	23.5%	211	10	221
Not at all	37.0%	25.8%	36.6%	336	8	344
Total	100.0%	100.0%	100.0%	909	31	940

NOTE: The following tables select only cases where ***some*** of the foundation is ***not*** concrete slab.

M3_01 Basement or crawl space: The ceiling is finished with plywood or a ceiling material BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	33.2%	26.1%	32.8%	299	12	311
Partly	19.1%	19.6%	19.1%	172	9	181
Not at all	34.5%	15.2%	33.6%	311	7	318
Don't Know	13.2%	39.1%	14.5%	119	18	137
Total	100.0%	100.0%	100.0%	901	46	947

M3_01 Basement or crawl space: The ceiling is finished with plywood or a ceiling material BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	38.2%	42.9%	38.4%	299	12	311
Partly	22.0%	32.1%	22.3%	172	9	181
Not at all	39.8%	25.0%	39.3%	311	7	318
Total	100.0%	100.0%	100.0%	782	28	810

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.898[a]	2	.235
Likelihood Ratio	2.965	2	.227
Linear-by-Linear Association	1.308	1	.253
N of Valid Cases	810		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.26.

Figure 221: Estimation of Crawl Space or Basement Walls Interior Finish

NOTE: The following tables select cases where ***most*** of the foundation is concrete slab.

M3_03 Basement or crawl space walls finished BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	24.9%	21.9%	24.8%	309	14	323
Partly	21.0%	9.4%	20.5%	261	6	267
Not at all	29.0%	15.6%	28.4%	360	10	370
Don't know	25.0%	53.1%	26.4%	310	34	344
Total	100.0%	100.0%	100.0%	1240	64	1304

M3_03 Basement or crawl space walls finished BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	39.8%	41.9%	39.9%	309	14	323
Partly	23.2%	32.3%	23.5%	261	6	267
Not at all	37.0%	25.8%	36.6%	360	10	370
Total	100.0%	100.0%	100.0%	909	31	940

NOTE: The following tables select only cases where ***some*** of the foundation is ***not*** concrete slab.

M3_03 Basement or crawl space: The walls are finished with wallboard or an interior finish BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single Family	Midsize	Total
Fully	27.2%	27.3%	27.2%	246	12	258
Partly	23.9%	11.4%	23.3%	216	5	221
Not at all	36.8%	20.5%	36.0%	333	9	342
Don't Know	12.2%	40.9%	13.5%	110	18	128
Total	100.0%	100.0%	100.0%	905	44	949

M3_03 Basement or crawl space: The walls are finished with wallboard or an interior finish BY A2 Housing Type

	% within A2 Housing Type			Count		
	A2 Housing Type			A2 Housing Type		
	Single Family	Midsize	Total	Single	Midsize	Total
Fully	30.9%	46.2%	31.4%	246	12	258
Partly	27.2%	19.2%	26.9%	216	5	221
Not at all	41.9%	34.6%	41.7%	333	9	342
Total	100.0%	100.0%	100.0%	795	26	821

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.763[a]	2	.251
Likelihood Ratio	2.617	2	.270
Linear-by-Linear Association	1.764	1	.184
N of Valid Cases	821		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.00.

Figure 222: Crawl Space or Basement Ceiling Insulation by Main Home Heat Fuel

M3_02 Basement or crawl space ceiling insulation BY B1 Fuel Type

	B1_1 Main home heat fuel			Total	B1_1 Main home heat fuel			Total
	Electricity	Natural gas	Fuel oil | petrol		Electricity	Natural gas	Fuel oil | petrol	
	Percent	Percent	Percent	Percent	N	N	N	N
Fully	47.5%	35.7%	23.5%	36.5%	84	166	28	278
Partly	20.3%	23.2%	16.0%	21.4%	36	108	19	163
Not at all	32.2%	41.1%	60.5%	42.0%	57	191	72	320
Total	100.0%	100.0%	100.0%	100.0%	177	465	119	761

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.660[a]	4	.000
Continuity Correction			
Likelihood Ratio	27.303	4	.000
Linear-by-Linear Association	24.091	1	.000
N of Valid Cases	761		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.49.

Figure 223: Crawl Space or Basement Wall Insulation by Main Home Heat Fuel

M3_04 Basement or crawl space wall insulation BY B1 Fuel Type

	B1_1 Main home heat fuel			Total	B1_1 Main home heat fuel			Total
	Electricity	Natural gas	Fuel oil | petrol		Electricity	Natural gas	Fuel oil | petrol	
	Percent	Percent	Percent	Percent	N	N	N	N
Fully	20.9%	23.2%	13.9%	21.3%	32	104	15	151
Partly	17.6%	26.3%	17.6%	23.1%	27	118	19	164
Not at all	61.4%	50.6%	68.5%	55.6%	94	227	74	395
Total	100.0%	100.0%	100.0%	100.0%	153	449	108	710

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.116[a]	4	.004
Continuity Correction			
Likelihood Ratio	15.517	4	.004
Linear-by-Linear Association	.923	1	.337
N of Valid Cases	710		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.97.

Figure 224: Crawl Space or Basement Ceiling Insulation by Decade Building Constructed

M3_02 Basement or crawl space ceiling insulation BY A6 Decade Building Constructed

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Fully	20.8%	30.2%	25.7%	29.1%	37.0%	33.8%	40.8%	64.0%	65.0%	81.5%	84.0%	36.9%
Partly	27.8%	22.1%	18.3%	16.4%	23.3%	22.1%	26.5%	8.0%	20.0%	7.4%	8.0%	20.7%
Not at all	51.4%	47.7%	56.0%	54.5%	39.7%	44.1%	32.7%	28.0%	15.0%	11.1%	8.0%	42.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

M3_02 Basement or crawl space ceiling insulation BY A6 Decade Building Constructed

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Fully	15	26	28	16	54	49	20	16	13	22	21	280
Partly	20	19	20	9	34	32	13	2	4	2	2	157
Not at all	37	41	61	30	58	64	16	7	3	3	2	322
Total	72	86	109	55	146	145	49	25	20	27	25	759

Figure 225: Crawl Space or Basement Wall Insulation by Decade Building Constructed

M3_04 Basement or crawl space wall insulation BY A6 Decade Building Constructed

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Fully	12.7%	23.2%	23.5%	19.6%	18.5%	18.5%	22.0%	33.3%	25.0%	58.3%	68.8%	22.6%
Partly	31.0%	29.3%	32.2%	17.9%	16.2%	21.5%	24.0%	19.0%	18.8%	12.5%	6.3%	23.2%
Not at all	56.3%	47.6%	44.3%	62.5%	65.4%	60.0%	54.0%	47.6%	56.3%	29.2%	25.0%	54.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

M3_04 Basement or crawl space wall insulation BY A6 Decade Building Constructed

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Fully	9	19	27	11	24	24	11	7	4	14	11	161
Partly	22	24	37	10	21	28	12	4	3	3	1	165
Not at all	40	39	51	35	85	78	27	10	9	7	4	385
Total	71	82	115	56	130	130	50	21	16	24	16	711

Figure 226: Crawl Space or Basement Ceiling Insulation by Home Ownership

M3_02 Basement or crawl space ceiling insulation BY A3 Home ownership'

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Fully	37.7%	38.9%	18.8%	44.4%	36.9%	194	81	9	4	288
Partly	21.6%	18.8%	22.9%	44.4%	21.2%	111	39	11	4	165
Not at all	40.8%	42.3%	58.3%	11.1%	41.9%	210	88	28	1	327
Total	100.0%	100.0%	100.0%	100.0%	100.0%	515	208	48	9	780

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.014[a]	6	.043
Continuity Correction			
Likelihood Ratio	13.932	6	.030
Linear-by-Linear Association	1.412	1	.235
N of Valid Cases	780		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.90.

Figure 227: Crawl Space or Basement Wall Insulation by Home Ownership

M3_04 Basement or crawl space wall insulation BY A3 Home ownership'

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Fully	23.3%	21.3%	7.0%	60.0%	22.1%	115	40	3	3	161
Partly	22.9%	21.8%	25.6%	20.0%	22.8%	113	41	11	1	166
Not at all	53.8%	56.9%	67.4%	20.0%	55.1%	265	107	29	1	402
Total	100.0%	100.0%	100.0%	100.0%	100.0%	493	188	43	5	729

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.925[a]	6	.091
Continuity Correction			
Likelihood Ratio	11.789	6	.067
Linear-by-Linear Association	1.581	1	.209
N of Valid Cases	729		

a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.10.

Figure 228: Crawl Space or Basement Ceiling Insulation by Household Income Level

M3_02 Basement or crawl space ceiling insulation BY K9 Household income level'

	K9CAT Gross Household Income (collapsed categories)				Total	K9CAT Gross Household Income (collapsed categories)				Total
	<= $35K	$35K - $65K	$65K-$100K	> $100K		<= $35K	$35K - $65K	$65K-$100K	> $100K	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Fully	39.3%	27.9%	37.4%	41.7%	36.9%	46	46	86	93	271
Partly	24.8%	20.0%	22.6%	20.2%	21.6%	29	33	52	45	159
Not at all	35.9%	52.1%	40.0%	38.1%	41.5%	42	86	92	85	305
Total	100.0%	100.0%	100.0%	100.0%	100.0%	117	165	230	223	735

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.409[a]	6	.053
Continuity Correction			
Likelihood Ratio	12.388	6	.054
Linear-by-Linear Association	1.594	1	.207
N of Valid Cases	735		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.31.

Figure 229: Crawl Space or Basement Wall Insulation by Household Income Level

M3_04 Basement or crawl space wall insulation BY K9 Household income level'

	K9CAT Gross Household Income (collapsed categories)				Total	K9CAT Gross Household Income (collapsed categories)				Total
	<= $35K	$35K - $65K	$65K-$100K	> $100K		<= $35K	$35K - $65K	$65K-$100K	> $100K	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Fully	21.1%	15.7%	21.6%	25.6%	21.4%	20	25	46	57	148
Partly	17.9%	20.1%	18.8%	30.0%	22.6%	17	32	40	67	156
Not at all	61.1%	64.2%	59.6%	44.4%	55.9%	58	102	127	99	386
Total	100.0%	100.0%	100.0%	100.0%	100.0%	95	159	213	223	690

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.590[a]	6	.002
Continuity Correction			
Likelihood Ratio	20.695	6	.002
Linear-by-Linear Association	9.411	1	.002
N of Valid Cases	690		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.38.

Garages

Figure 230: Proportion of Homes with Garage

N1 Does your house have a garage? BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Yes	72.4%	57.4%	71.5%	1201	66	1267
No	27.6%	42.6%	28.5%	457	49	506
Total	100.0%	100.0%	100.0%	1658	115	1773

N1 Does your house have a garage? BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
No garage	21.8%	43.8%	28.8%	457	49	506
Underneath	26.2%	29.5%	26.5%	431	33	464
Attached	22.2%	9.8%	21.4%	364	11	375
Freestanding	23.8%	17.0%	23.3%	390	19	409
Total	100.0%	100.0%	100.0%	1642	112	1754

N2 Garage location BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Underneath	36.4%	52.4%	37.2%	431	33	464
Attached	30.7%	17.5%	30.0%	364	11	375
Freestanding	32.9%	30.2%	32.8%	390	19	409
Total	100.0%	100.0%	100.0%	1185	63	1248

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.761[a]	2	.021
Continuity Correction			
Likelihood Ratio	7.914	2	.019
Linear-by-Linear Association	3.016	1	.082
N of Valid Cases	1248		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.93.

Figure 231: Location of Garage by Decade Building Constructed

N2 Garage location BY A6 Decade Building Constructed

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
Underneath	23.9%	25.3%	38.5%	35.7%	29.7%	32.9%	45.2%	58.3%	40.7%	44.9%	63.4%	37.6%
Attached	14.1%	7.2%	6.5%	21.4%	27.2%	50.0%	41.7%	33.3%	48.1%	42.3%	33.8%	30.2%
Freestanding	62.0%	67.5%	55.0%	42.9%	43.1%	17.1%	13.0%	8.3%	11.1%	12.8%	2.8%	32.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

N2 Garage location BY A6 Decade Building Constructed

	A6 Decade in which your home was built											Total
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	
Underneath	17	21	65	25	60	77	52	35	22	35	45	454
Attached	10	6	11	15	55	117	48	20	26	33	24	365
Freestanding	44	56	93	30	87	40	15	5	6	10	2	388
Total	71	83	169	70	202	234	115	60	54	78	71	1207

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	298.859[a]	20	.000
Continuity Correction			
Likelihood Ratio	325.114	20	.000
Linear-by-Linear Association	127.317	1	.000
N of Valid Cases	1207		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.33.

Figure 232: Estimation of Garage Ceiling Insulation, by Location of Garage

N3_01 Garage: The ceiing is insulated BY N2 Location of garage

	% within N2 Location of garage				Count			
	N2 Location of garage				N2 Location of garage			
	Underneath	Attached	Freestanding	Total	Underneath	Attached	Freestanding	Total
Fully	44.8%	30.3%	9.3%	28.6%	197	107	37	341
Partly	12.7%	8.5%	5.0%	8.9%	56	30	20	106
Not at all	25.9%	48.2%	81.2%	51.0%	114	170	324	608
Don't Know	16.6%	13.0%	4.5%	11.5%	73	46	18	137
Total	100.0%	100.0%	100.0%	100.0%	440	353	399	1192

N3_01 Garage: The ceiling is insulated BY N2 Location of garage

	N2 garage location			Total	N2 garage location			Total
	Underneath	Attached	Freestanding		Underneath	Attached	Freestanding	
	Percent	Percent	Percent	Percent	N	N	N	N
Fully	53.7%	34.9%	9.7%	32.3%	197	107	37	341
Partly	15.3%	9.8%	5.2%	10.0%	56	30	20	106
Not at all	31.1%	55.4%	85.0%	57.6%	114	170	324	608
Total	100.0%	100.0%	100.0%	100.0%	367	307	381	1055

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	226.219[a]	4	.000
Continuity Correction			
Likelihood Ratio	243.798	4	.000
Linear-by-Linear Association	214.737	1	.000
N of Valid Cases	1055		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 30.85.

Figure 233: Estimation of Garage Walls Insulation, by Location of Garage

N3_02 Garage: The walls are insulated BY N2 Location of garage

	% within N2 Location of garage				Count			
	N2 Location of garage				N2 Location of garage			
	Underneath	Attached	Freestanding	Total	Underneath	Attached	Freestanding	Total
Fully	28.8%	22.9%	11.3%	21.1%	123	79	45	247
Partly	20.8%	19.7%	6.3%	15.6%	89	68	25	182
Not at all	36.3%	44.1%	77.3%	52.5%	155	152	307	614
Don't Know	14.1%	13.3%	5.0%	10.8%	60	46	20	126
Total	100.0%	100.0%	100.0%	100.0%	427	345	397	1169

N3_02 Garage: The walls are insulated BY N2 Location of garage

	N2 garage location			Total	N2 garage location			Total
	Underneath	Attached	Freestanding		Underneath	Attached	Freestanding	
	Percent	Percent	Percent	Percent	N	N	N	N
Fully	33.5%	26.4%	11.9%	23.7%	123	79	45	247
Partly	24.3%	22.7%	6.6%	17.4%	89	68	25	182
Not at all	42.2%	50.8%	81.4%	58.9%	155	152	307	614
Total	100.0%	100.0%	100.0%	100.0%	367	299	377	1043

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	130.840[a]	4	.000
Continuity Correction			
Likelihood Ratio	138.987	4	.000
Linear-by-Linear Association	98.171	1	.000
N of Valid Cases	1043		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 52.17.

Figure 234: Estimation of Garage Walls Interior Finish, by Location of Garage

N3_03 Garage: The walls are finished with wallboard or an interior finish BY N2 Location of garage

	% within N2 Location of garage				Count			
	N2 Location of garage				N2 Location of garage			
	Underneath	Attached	Freestanding	Total	Underneath	Attached	Freestanding	Total
Fully	44.0%	40.4%	15.3%	33.2%	184	141	60	385
Partly	28.0%	16.3%	8.2%	17.8%	117	57	32	206
Not at all	22.7%	36.7%	73.1%	44.0%	95	128	286	509
Don't Know	5.3%	6.6%	3.3%	5.0%	22	23	13	58
Total	100.0%	100.0%	100.0%	100.0%	418	349	391	1158

N3_03 Garage: The walls are finished with wallboard or an interior finish BY N2 Location of garage

	N2 garage location			Total	N2 garage location			Total
	Underneath	Attached	Freestanding		Underneath	Attached	Freestanding	
	Percent	Percent	Percent	Percent	N	N	N	N
Fully	46.5%	43.3%	15.9%	35.0%	184	141	60	385
Partly	29.5%	17.5%	8.5%	18.7%	117	57	32	206
Not at all	24.0%	39.3%	75.7%	46.3%	95	128	286	509
Total	100.0%	100.0%	100.0%	100.0%	396	326	378	1100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	223.503[a]	4	.000
Continuity Correction			
Likelihood Ratio	231.528	4	.000
Linear-by-Linear Association	162.228	1	.000
N of Valid Cases	1100		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 61.05.

Figure 235: Type of Space Heat in Garage

N5 type of heating in the garage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Electric baseboard or wall heater	38	1.6	3.1	3.1
	Portable electric heater or radiator	53	2.2	4.3	7.4
	Heat pump	7	.3	.6	8.0
	Kerosene space heater	8	.3	.7	8.7
	Plug-in fireplace	1	.0	.1	8.7
	Gas fireplace	6	.3	.5	9.2
	Wood or pellet stove	5	.2	.4	9.6
	No space heat	1106	46.9	90.4	100.0
	Total	1224	52.0	100.0	
Missing	-9	1132	48.0		
Total		2356	100.0		

N5 Type of heating in the garage BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Electric baseboard or wall heater	3.2%	1.7%	3.1%	37	1	38
Portable electric heater or radiator	4.2%	8.3%	4.4%	48	5	53
Heat pump	.6%		.6%	7		7
Kerosene space heater	.7%		.7%	8		8
Plug-in fireplace	.1%		.1%	1		1
Gas fireplace	.5%		.5%	6		6
Wood or pellet stove	.4%		.4%	5		5
No space heat	90.3%	90.0%	90.3%	1044	54	1098
Total	100.0%	100.0%	100.0%	1156	60	1216

Figure 236: Source of Water Heat in Garage

N6 Check what source of water heat the garage has

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Shares hot water from the house	117	5.0	9.4	9.4
	Has a separate water heater tank	18	.8	1.4	10.9
	Has an on-demand heater	7	.3	.6	11.4
	No water heat	1101	46.7	88.6	100.0
	Total	1243	52.8	100.0	
Missing	-9	1113	47.2		
Total		2356	100.0		

N6 Check what source of water heat the garage has BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Shares hot water from the house	9.4%	10.0%	9.4%	110	6	116
Has a separate water heater tank	1.5%		1.5%	18		18
Has an on-demand heater	.6%		.6%	7		7
No water heat	88.5%	90.0%	88.6%	1040	54	1094
Total	100.0%	100.0%	100.0%	1175	60	1235

Accessory Dwellings

Figure 237: Proportion of Homes with Accessory Dwelling

O1 Does your house have an accessory dwelling? BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Yes	6.9%	11.5%	7.2%	114	13	127
No	93.1%	88.5%	92.8%	1527	100	1627
Total	100.0%	100.0%	100.0%	1641	113	1754

O1 Does your house have an accessory dwelling BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
No dwelling	93.4%	90.1%	93.2%	1527	100	1627
Underneath	2.8%	6.3%	3.0%	45	7	52
Attached	0.6%	0.0%	0.5%	9	0	9
Freestanding	3.3%	3.6%	3.3%	54	4	58
Total	100.0%	100.0%	100.0%	1635	111	1746

O2 Location of accessory dwelling BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Underneath or within the house	41.7%	63.6%	43.7%	45	7	52
Attached to a side of the house	8.3%		7.6%	9		9
Freestanding, not attached to the house	50.0%	36.4%	48.7%	54	4	58
Total	100.0%	100.0%	100.0%	108	11	119

Figure 238: Estimation of Accessory Dwelling Ceiling Insulation

O3_01 Accessory dwelling: The ceiling is insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	51.9%	42.9%	50.8%	56	6	62
Partly	13.9%	14.3%	13.9%	15	2	17
Not at all	23.1%	21.4%	23.0%	25	3	28
Don't Know	11.1%	21.4%	12.3%	12	3	15
Total	100.0%	100.0%	100.0%	108	14	122

Figure 239: Estimation of Accessory Dwelling Floor Insulation

O3_02 Accessory dwelling: The floor is insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	33.3%	16.7%	31.6%	34	2	36
Partly	7.8%	16.7%	8.8%	8	2	10
Not at all	45.1%	50.0%	45.6%	46	6	52
Don't Know	13.7%	16.7%	14.0%	14	2	16
Total	100.0%	100.0%	100.0%	102	12	114

Figure 240: Estimation of Accessory Dwelling Walls Insulation

O3_03 Accessory dwelling: The walls are insulated BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	48.1%	33.3%	46.6%	51	4	55
Partly	16.0%	25.0%	16.9%	17	3	20
Not at all	22.6%	25.0%	22.9%	24	3	27
Don't Know	13.2%	16.7%	13.6%	14	2	16
Total	100.0%	100.0%	100.0%	106	12	118

Figure 241: Estimation of Accessory Dwelling Walls Interior Finish

O3_04 Accessory dwelling: The walls are finished with wallboard or an interior finish BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Fully	64.8%	61.5%	64.5%	70	8	78
Partly	7.4%		6.6%	8		8
Not at all	17.6%	30.8%	19.0%	19	4	23
Don't Know	10.2%	7.7%	9.9%	11	1	12
Total	100.0%	100.0%	100.0%	108	13	121

Figure 242: Type of Space Heat in Accessory Dwelling

O5 Type of heating the accessory dwelling has BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Electric baseboard or wall heater	33.7%	35.7%	33.9%	35	5	40
Portable electric heater or radiator	16.3%		14.4%	17		17
Heat pump	1.0%	7.1%	1.7%	1	1	2
Gas fireplace	2.9%	14.3%	4.2%	3	2	5
Wood or pellet stove	1.9%		1.7%	2		2
No space heat	26.9%	28.6%	27.1%	28	4	32
Electric forced-air furnace	1.0%		.8%	1		1
Gas forced-air furnace	11.5%	14.3%	11.9%	12	2	14
Oil forced-air furnace	1.0%		.8%	1		1
Gas or oil hydronic/radiant	3.8%		3.4%	4		4
Total	100.0%	100.0%	100.0%	104	14	118

Figure 243: Source of Water Heat in Accessory Dwelling

O6 Source of water heat the accessory dwelling has BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Shares hot water from the house	36.7%	38.5%	36.9%	40	5	45
Has separate water heater tank	22.9%	38.5%	24.6%	25	5	30
Has an on-demand heater	1.8%		1.6%	2		2
No water heat	38.5%	23.1%	36.9%	42	3	45
Total	100.0%	100.0%	100.0%	109	13	122

Perceived Need for More Energy Efficiency

Figure 244: Perception of Home Energy Efficiency

A1 How would you rate the energy efficiency of your home overall? BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Very efficient	11.8%	12.6%	19.0%	13.2%	200	16	82	298
Somewhat efficient	58.5%	48.8%	51.7%	56.6%	994	62	223	1279
Not very efficient	24.8%	33.1%	18.6%	24.1%	422	42	80	544
I'm not sure right now	4.9%	5.5%	10.7%	6.1%	84	7	46	137
Total	100.0%	100.0%	100.0%	100.0%	1700	127	431	2258

A1 How would you rate the energy efficiency of your home overall? BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Very efficient	12.4%	13.3%	21.3%	14.0%	200	16	82	298
Somewhat efficient	61.5%	51.7%	57.9%	60.3%	994	62	223	1279
Not very efficient	26.1%	35.0%	20.8%	25.6%	422	42	80	544
Total	100.0%	100.0%	100.0%	100.0%	1616	120	385	2121

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.688[a]	4	.000
Continuity Correction			
Likelihood Ratio	25.744	4	.000
Linear-by-Linear Association	13.364	1	.000
N of Valid Cases	2121		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.86.

Figure 245: Perception that Home Needs New Windows

I1 Do you feel that your house or building needs new windows? BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes	33.7%	31.5%	30.8%	33.0%	560	40	132	732
Maybe, not sure	13.1%	23.6%	22.9%	15.6%	217	30	98	345
No	53.2%	44.9%	46.3%	51.4%	885	57	198	1140
Total	100.0%	100.0%	100.0%	100.0%	1662	127	428	2217

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.090[a]	4	.000
Continuity Correction			
Likelihood Ratio	29.979	4	.000
Linear-by-Linear Association	.895	1	.344
N of Valid Cases	2217		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.76.

Figure 246: Perception that Walls Need More Insulation

L2 Do you feel that the walls need more insulation? BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Yes	29.8%	26.3%	29.5%	490	30	520
Maybe, not sure	37.6%	36.8%	37.5%	619	42	661
No	32.7%	36.8%	32.9%	538	42	580
Total	100.0%	100.0%	100.0%	1647	114	1761

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.006[a]	2	.605
Continuity Correction			
Likelihood Ratio	1.002	2	.606
Linear-by-Linear Association	.990	1	.320
N of Valid Cases	1761		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.66.

Figure 247: Perception that Attic Needs More Insulation

L6 Do you feel that any part of the attic needs more insulation? BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Yes	24.9%	22.6%	24.8%	346	14	360
Maybe, not sure	43.7%	46.8%	43.9%	607	29	636
No	31.3%	30.6%	31.3%	435	19	454
Total	100.0%	100.0%	100.0%	1388	62	1450

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.266[a]	2	.875
Continuity Correction			
Likelihood Ratio	.268	2	.875
Linear-by-Linear Association	.029	1	.865
N of Valid Cases	1450		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.39.

Figure 248: Perception that Basement or Crawl Space Needs More Insulation

M4 Do you feel that the basement or crawl space needs more insulation? BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Yes	28.6%	20.7%	28.2%	310	12	322
Maybe, not sure	36.5%	46.6%	37.0%	396	27	423
No	34.9%	32.8%	34.8%	379	19	398
Total	100.0%	100.0%	100.0%	1085	58	1143

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.793[a]	2	.248
Continuity Correction			
Likelihood Ratio	2.803	2	.246
Linear-by-Linear Association	.287	1	.592
N of Valid Cases	1143		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.34.

Figure 249: Perception that Garage Needs More Insulation

N4 Do you feel that the garage needs more insulation? BY A2 Housing Type?

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Yes	20.6%	8.1%	20.0%	243	5	248
Maybe, not sure	25.7%	35.5%	26.2%	304	22	326
No	53.7%	56.5%	53.8%	634	35	669
Total	100.0%	100.0%	100.0%	1181	62	1243

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.838[a]	2	.033
Continuity Correction			
Likelihood Ratio	7.922	2	.019
Linear-by-Linear Association	2.206	1	.138
N of Valid Cases	1243		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.37.

Figure 250: Perception that Accessory Dwelling Needs More Insulation

O4 Do you feel that the accessory dwelling needs more insulation? BY A2 Housing Type

	A2 Housing Type		Total	A2 Housing Type		Total
	Single Family	Midsize		Single Family	Midsize	
	Percent	Percent	Percent	N	N	N
Yes	16.7%	21.4%	17.2%	19	3	22
Maybe, not sure	22.8%	35.7%	24.2%	26	5	31
No	60.5%	42.9%	58.6%	69	6	75
Total	100.0%	100.0%	100.0%	114	14	128

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.687[a]	2	.430
Likelihood Ratio	1.640	2	.440
Linear-by-Linear Association	1.062	1	.303
N of Valid Cases	128		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.41.

Figure 251: Estimation of Insulation of Various Building Surfaces

Insulation level:	Fully	Partly	None	Don't know
House walls	38%	26%	11%	25%
Attic rafters	23%	8%	29%	39%
Attic end-/side-walls	16%	9%	26%	49%
Attic floors	54%	13%	8%	25%
Non-attic ceilings	35%	12%	8%	45%
Basement ceiling	25%	15%	29%	31%
Basement walls	15%	15%	35%	35%
Garage ceiling	29%	9%	50%	12%
Garage walls	21%	16%	52%	11%
Accessory Dwelling ceiling	51%	14%	23%	12%
Accessory Dwelling walls	47%	17%	23%	14%
Accessory Dwelling floor	32%	9%	46%	14%

Trends over Three Decades of Residential Customer Characteristics Surveys

Figure 252: Building Envelope Insulation and Window Saturations: Trends over 3 Decades

BUILDING ENVELOPE AND WINDOW SATURATIONS

Households	1978	1979	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Attic/ceiling insul.	74.8%	75.7%	67.4%	76.4%	74.9%	76.1%	76.8%									72.2%
Wall insulation	43.6%	35.7%	38.3%	43.0%	44.9%	41.5%	44.0%									50.4%
Floor Insulation	22.8%	21.4%	20.6%	22.6%	25.6%	23.3%	25.9%									36.9%
Windows *	41.0%	36.6%	41.7%	62.3%	64.7%	71.1%	72.8%									70.1%

** Double-/triple-pane windows, storms, or plastic covering*

Major Findings ▪ 10

Remodels Completed & Planned (single family detached & midsize attached homes)

Past Remodels

Figure 253: Home Remodeled, within Past 2 Years

P3 Has your home been remodeled in the past 2 years, since January 2007?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	268	11.4	14.9	14.9
	No	1528	64.9	85.1	100.0
	Total	1796	76.2	100.0	
Missing	-9	560	23.8		
Total		2356	100.0		

Figure 254: Type of Remodel, within Past 2 Years

P4 What type of remodel was done?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Finished unused basement/attic space, now occupied	63	2.7	23.7	23.7
	Re-built most of the home on the existing footprint	27	1.1	10.2	33.8
	Built a new addition that added square footage to home	26	1.1	9.8	43.6
	Remodeled the kitchen or a bath room	110	4.7	41.4	85.0
	Remodeled another living space	40	1.7	15.0	100.0
	Total	266	11.3	100.0	
Missing	-9	2090	88.7		
Total		2356	100.0		

Figure 255: Amount of Newly Added-on Space (square feet)

P6 Remodel - space newly added on

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 sf	134	5.7	76.6	76.6
	1 - 100 sf	11	.5	6.3	82.9
	101 - 200 sf	7	.3	4.0	86.9
	201 - 300 sf	5	.2	2.9	89.7
	301 - 600 sf	8	.3	4.6	94.3
	601 - 1000 sf	5	.2	2.9	97.1
	1001 - 2000 sf	5	.2	2.9	100.0
	Total	175	7.4	100.0	
Missing	System	2181	92.6		
Total		2356	100.0		

Figure 256: Amount of Formerly Unused Space Now Occupied (square feet)

P5 Remodel - formerly unused space that is now occupied space

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 sf	99	4.2	57.2	57.2
	1 - 100 sf	10	.4	5.8	63.0
	101 - 200 sf	12	.5	6.9	69.9
	201 - 300 sf	8	.3	4.6	74.6
	301 - 600 sf	19	.8	11.0	85.5
	601 - 1000 sf	21	.9	12.1	97.7
	1001 - 2000 sf	3	.1	1.7	99.4
	2001 or more sf	1	.0	.6	100.0
	Total	173	7.3	100.0	
Missing	System	2183	92.7		
Total		2356	100.0		

Figure 257: Added Space Heating for Remodeled or Added Space

P7 Did you add new space heating for the remodeled or added space?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	79	3.4	32.2	32.2
	No	166	7.0	67.8	100.0
	Total	245	10.4	100.0	
Missing	-9	2111	89.6		
Total		2356	100.0		

Future Remodel Plans

Figure 258: Plans to Remodel or Renovate Occupied Space in Future, within Next 2 Years

P8_01 Within the next 2 years, do you have plans to remodel or renovate any occupied space in your home?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, major remodel: affecting	69	2.9	4.1	4.1
	Yes, minor remodel,: affecting	189	8.0	11.1	15.2
	No	1444	61.3	84.8	100.0
	Total	1702	72.2	100.0	
Missing	-9	654	27.8		
Total		2356	100.0		

Figure 259: Amount of Planned Major Remodel Space (square feet)

P8 Planned remodel - major

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 sf	1	.0	1.2	1.2
	1 - 100 sf	12	.5	14.8	16.0
	101 - 200 sf	8	.3	9.9	25.9
	201 - 300 sf	4	.2	4.9	30.9
	301 - 600 sf	19	.8	23.5	54.3
	601 - 1000 sf	26	1.1	32.1	86.4
	1001 - 2000 sf	10	.4	12.3	98.8
	2001 or more sf	1	.0	1.2	100.0
	Total	81	3.4	100.0	
Missing	System	2275	96.6		
Total		2356	100.0		

Figure 260: Amount of Planned Minor Remodel Space (square feet)

P8 Planned remodel - minor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 sf	1	.0	.5	.5
	1 - 100 sf	45	1.9	24.5	25.0
	101 - 200 sf	47	2.0	25.5	50.5
	201 - 300 sf	23	1.0	12.5	63.0
	301 - 600 sf	44	1.9	23.9	87.0
	601 - 1000 sf	16	.7	8.7	95.7
	1001 - 2000 sf	6	.3	3.3	98.9
	2001 or more sf	2	.1	1.1	100.0
	Total	184	7.8	100.0	
Missing	System	2172	92.2		
Total		2356	100.0		

Figure 261: Plan to Add Space Heating for Future Remodeled or Added Space

P9 Will you add heat for this space?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	97	4.1	34.3	34.3
	No	186	7.9	65.7	100.0
	Total	283	12.0	100.0	
Missing	-9	2073	88.0		
Total		2356	100.0		

Receptivity to Energy-saving Options (for planned remodels only)

Figure 262: Energy Saving Options to be Considered for Future Remodel or Renovation

P10 Energy-saving options you will consider when you remodel or renovate (percent of all responses)

	N	Percent
Lighting: CFL fixtures	108	21.1%
Lighting: Daylighting design	82	16.0%
None of these	73	14.3%
Lighting: LED fixtures	55	10.8%
Other	45	8.8%
Electricity: PV/Photovoltaic panels	44	8.6%
Hot water: Solar heat panels	40	7.8%
Space heat/cooling: Ground-source heat pump	21	4.1%
Space heat/cooling: Air-source heat pump	18	3.5%
Electricity: Windmill on-site	14	2.7%
Hot water: Air-source heat pump	11	2.2%
Total	246	48.1%

P10 Energy-saving options you will consider when you remodel or renovate (percent of respondents answering)

	N	Percent
Lighting: CFL fixtures	108	43.9%
Lighting: Daylighting design	82	33.3%
None of these	73	29.7%
Lighting: LED fixtures	55	22.4%
Other	45	18.3%
Electricity: PV/Photovoltaic panels	44	17.9%
Hot water: Solar heat panels	40	16.3%
Space heat/cooling: Ground-source heat pump	21	8.5%
Space heat/cooling: Air-source heat pump	18	7.3%
Electricity: Windmill on-site	14	5.7%
Hot water: Air-source heat pump	11	4.5%
Total	246	100.0%

Major Findings ▪ 11

Green Energy Housing Features & Household Products

Housing Design (single family detached & midsize attached homes)

Figure 263: Home Designed Now to Capture Passive Solar Heating

P1 As it is now, is your home designed to capture passive solar heat during the winter?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, large south-facing windows	359	15.2	20.2	20.2
	Yes, masonry thermal mass (on inside floor or wall)	24	1.0	1.4	21.6
	No, not designed this way	1392	59.1	78.4	100.0
	Total	1775	75.3	100.0	
Missing	-9	581	24.7		
Total		2356	100.0		

Figure 264: Home Designed Now to Capture Daylight

P2 As it is now, is your home designed to capture daylight other than by windows in the wall?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, skylights in roof	375	15.9	21.1	21.1
	Yes, sun-tube(s) in roof	30	1.3	1.7	22.8
	Yes, "daylight shelves" on windows	20	.8	1.1	23.9
	No, not designed this way	1351	57.3	76.1	100.0
	Total	1776	75.4	100.0	
Missing	-9	580	24.6		
Total		2356	100.0		

Awareness of & Receptivity to Recently Introduced Energy-saving Vehicles

Figure 265: Number of Household Vehicles by Type

J1_01 No. of gasoline powered vehicles

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	183	7.8	8.2	8.2
	1	863	36.6	38.5	46.6
	2	872	37.0	38.9	85.5
	3	225	9.6	10.0	95.5
	4	100	4.2	4.5	100.0
	Total	2243	95.2	100.0	
Missing	-9	113	4.8		
Total		2356	100.0		

J1_02 No. of gas-electric hybrid-no plug

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	900	38.2	88.7	88.7
	1	104	4.4	10.2	98.9
	2	10	.4	1.0	99.9
	4	1	.0	.1	100.0
	Total	1015	43.1	100.0	
Missing	-9	1341	56.9		
Total		2356	100.0		

J1_02 No. of gas-electric hybrid-no plug

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2142	90.9	94.9	94.9
	1	104	4.4	4.6	99.5
	2	10	.4	.4	100.0
	4	1	.0	.0	100.0
	Total	2257	95.8	100.0	
Missing	System	99	4.2		
Total		2356	100.0		

J1_03 No. of gas-electric hybrid-with plug in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	931	39.5	99.4	99.4
	1	5	.2	.5	99.9
	4	1	.0	.1	100.0
	Total	937	39.8	100.0	
Missing	-9	1419	60.2		
Total		2356	100.0		

J1_03 No. of gas-electric hybrid-with plug in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2239	95.0	99.7	99.7
	1	5	.2	.2	100.0
	4	1	.0	.0	100.0
	Total	2245	95.3	100.0	
Missing	System	111	4.7		
Total		2356	100.0		

J1_04 No. of all-electric vehicle with plug-in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	930	39.5	99.4	99.4
	1	6	.3	.6	100.0
	Total	936	39.7	100.0	
Missing	-9	1420	60.3		
Total		2356	100.0		

J1_04 No. of all electric vehicle-with plug in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2238	95.0	99.7	99.7
	1	6	.3	.3	100.0
	Total	2244	95.2	100.0	
Missing	System	112	4.8		
Total		2356	100.0		

Figure 266: Likelihood in the Next 5 Years of Respondent or Household Members Buying Energy Efficient Vehicles

J7_01 Likelihood to buy in 5 years: Gas-electric hybrid vehicle-no plug

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very likely	136	5.8	6.4	6.4
	Somewhat likely	430	18.3	20.1	26.4
	Not very likely	386	16.4	18.0	44.5
	Not at all likely	785	33.3	36.7	81.1
	Don't know	404	17.1	18.9	100.0
	Total	2141	90.9	100.0	
Missing	-9	215	9.1		
Total		2356	100.0		

J7_02 Likelihood to buy in 5 years: Gas-electric hybrid vehicle-with plug in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very likely	60	2.5	2.9	2.9
	Somewhat likely	292	12.4	13.9	16.8
	Not very likely	430	18.3	20.5	37.3
	Not at all likely	892	37.9	42.5	79.8
	Don't know	425	18.0	20.2	100.0
	Total	2099	89.1	100.0	
Missing	-9	257	10.9		
Total		2356	100.0		

J7_03 Likelihood to buy in 5 years: All-electric vehicle-with plug in

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very likely	63	2.7	3.0	3.0
	Somewhat likely	183	7.8	8.7	11.7
	Not very likely	436	18.5	20.8	32.5
	Not at all likely	978	41.5	46.6	79.2
	Don't know	437	18.5	20.8	100.0
	Total	2097	89.0	100.0	
Missing	-9	259	11.0		
Total		2356	100.0		

Awareness of & Receptivity to Recently Introduced Energy-saving Products

Figure 267: Awareness of and Likelihood in the Next 5 Years of Respondent or Household Members Buying Solar Panels to Heat Water

J2 Are you familiar with solar panels (with pump or fan) that can heat the water for your home?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, have heard about this	1302	55.3	57.5	57.5
	Yes, have seen one working, or on display, or on TV	422	17.9	18.6	76.1
	Yes, use this in my home	18	.8	.8	76.9
	No, not familiar with this	524	22.2	23.1	100.0
	Total	2266	96.2	100.0	
Missing	-9	90	3.8		
Total		2356	100.0		

J7_04 Likelihood to buy in 5 years: Solar panels to heat your water

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very likely	72	3.1	3.3	3.3
	Somewhat likely	218	9.3	10.1	13.5
	Not very likely	532	22.6	24.7	38.2
	Not at all likely	850	36.1	39.5	77.6
	Don't know	482	20.5	22.4	100.0
	Total	2154	91.4	100.0	
Missing	-9	202	8.6		
Total		2356	100.0		

Figure 268: Awareness of and Likelihood in the Next 5 Years of Respondent or Household Members Buying Photovoltaic Panels for Electricity

J3 Are you familiar with photovoltaics (PV panels) that can create electricity for your home?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, have heard about this	791	33.6	34.8	34.8
	Yes, have seen one working, or on display, or on TV	236	10.0	10.4	45.2
	Yes, use this in my home	5	.2	.2	45.4
	No, not familiar with this	1239	52.6	54.6	100.0
	Total	2271	96.4	100.0	
Missing	-9	85	3.6		
Total		2356	100.0		

J7_05 Likelihood to buy in 5 years: Photovoltaic panels to produce electricity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very likely	58	2.5	2.7	2.7
	Somewhat likely	188	8.0	8.8	11.5
	Not very likely	525	22.3	24.6	36.1
	Not at all likely	825	35.0	38.7	74.8
	Don't know	537	22.8	25.2	100.0
	Total	2133	90.5	100.0	
Missing	-9	223	9.5		
Total		2356	100.0		

Figure 269: Likelihood in the Next 5 Years of Respondent or Household Members Buying Part of a Community Photovoltaic Project

J7_06 Likelihood to buy in 5 years: Part of a community photovoltaic project

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very likely	48	2.0	2.3	2.3
	Somewhat likely	168	7.1	8.0	10.2
	Not very likely	477	20.2	22.6	32.8
	Not at all likely	792	33.6	37.5	70.4
	Don't know	625	26.5	29.6	100.0
	Total	2110	89.6	100.0	
Missing	-9	246	10.4		
Total		2356	100.0		

Figure 270: Awareness of and Likelihood in the Next 5 Years of Respondent or Household Members Buying "Green" Renewable Wind Energy

J6 Have you heard that you can buy 'green' wind energy for your household through Seattle City Light's 'Green Up' program?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, have heard about this	735	31.2	32.4	32.4
	Yes, my household buys from the program	118	5.0	5.2	37.5
	No, not familiar with this	1419	60.2	62.5	100.0
	Total	2272	96.4	100.0	
Missing	-9	84	3.6		
Total		2356	100.0		

J7_08 Likelihood to buy in 5 years: 'Green' wind energy for your home

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very likely	200	8.5	9.2	9.2
	Somewhat likely	409	17.4	18.9	28.1
	Not very likely	361	15.3	16.7	44.8
	Not at all likely	604	25.6	27.9	72.7
	Don't know	592	25.1	27.3	100.0
	Total	2166	91.9	100.0	
Missing	-9	190	8.1		
Total		2356	100.0		

Figure 271: Awareness of and Likelihood in the Next 5 Years of Respondent or Household Members Buying "Smart" Power Strips for Electronics

J4 Are you familiar with 'smart' power strips that turn off electronics after a period of inactivity?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, have heard about this	453	19.2	19.9	19.9
	Yes, have seen one working, or on display, or on TV	54	2.3	2.4	22.3
	Yes, use this in my home	32	1.4	1.4	23.7
	No, not familiar with this	1732	73.5	76.3	100.0
	Total	2271	96.4	100.0	
Missing	-9	85	3.6		
Total		2356	100.0		

J7_07 Likelihood to buy in 5 years: 'Smart' power strips for your electronics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very likely	353	15.0	16.1	16.1
	Somewhat likely	775	32.9	35.3	51.4
	Not very likely	202	8.6	9.2	60.6
	Not at all likely	421	17.9	19.2	79.8
	Don't know	442	18.8	20.2	100.0
	Total	2193	93.1	100.0	
Missing	-9	163	6.9		
Total		2356	100.0		

Figure 272: Awareness of Home Energy Monitoring Devices

J5 Are you familiar with home energy monitoring devices that have a display screen?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, have heard about this	496	21.1	21.8	21.8
	Yes, have seen one working, or on display, or on TV	90	3.8	4.0	25.8
	Yes, use this in my home	21	.9	.9	26.7
	No, not familiar with this	1667	70.8	73.3	100.0
	Total	2274	96.5	100.0	
Missing	-9	82	3.5		
Total		2356	100.0		

Figure 273: Familiarity with and Likelihood in the Next 5 Years to Buy Various Energy Saving Products

J2-7 Familiarity with and likelihood of buying various energy saving devices

		Percent	Count
J2 Familiar with hot water solar panels	Yes	76.9%	1742
	No	23.1%	524
J7_4 Likely to buy hot water solar panels	Likely to buy	13.5%	290
	Not likely	86.5%	1864
J3 Familiar with PV panels	Yes	45.4%	1032
	No	54.6%	1239
J7_5 Likely to buy PV panels	Likely to buy	11.5%	246
	Not likely	88.5%	1887
J7_6 Likely to buy community PV project	Likely to buy	10.2%	216
	Not likely	89.8%	1894
J4 Familiar with 'smart' power strips	Yes	23.7%	539
	No	76.3%	1732
J7_7 Likely to buy 'smart' power strips	Likely to buy	51.4%	1128
	Not likely	48.6%	1065
J5 Familiar with home energy monitoring devices	Yes	26.7%	607
	No	73.3%	1667
J6 Familiar with 'green' wind energy	Yes	37.5%	853
	No	62.5%	1419
J7_8 Likely to buy 'green' wind energy	Likely to buy	28.1%	609
	Not likely	71.9%	1557

Summary of Familiarity with and Likelihood to Buy in Next 5 Years

Households	Familiar	Open to Buy
Hot Water Solar	78%	31%
Photovoltaic (PV) Panels	45%	12%
Community Photovoltaics	—	10%
Green Wind Energy	37%	28%
Smart Power Strips	23%	51%
Monitoring Devices	27%	—

Major Findings ▪ 12

Reaching SCL Customers

Communication

Figure 274: Preferred Method of Communications from Seattle City Light

K5 Preferred methods for communicating with Seattle City Light (percentage of respondents)

	N	Percent
Bill inserts	1290	59.2%
E-mail	665	30.5%
Separate mailings	612	28.1%
Brochures	452	20.8%
City Web sites	411	18.9%
Newspaper articles	257	11.8%
Television	251	11.5%
Radio	172	7.9%
Other	34	1.6%
Total	2178	100.0%

Figure 275: Conservation Information Wanted from Seattle City Light

K4 Type of conservation information that you would like Seattle City Light to provide (percentage of respondents)

	N	Percent
Information on changes that are free	1242	66.5%
How to conserve and reduce energy costs	1099	58.9%
Information on rebates or discount programs	1064	57.0%
Instructions for do-it-yourself improvements	925	49.5%
Find out if I'm saving or wasting energy	895	47.9%
Find out what uses the most energy in my home	864	46.3%
How to find energy saving products	797	42.7%
Cost estimates for repairs or upgrades	579	31.0%
How to locate conservation contractors	406	21.7%
How to manage payments on energy bills	200	10.7%
Other	92	4.9%
New technologies	22	1.2%
Apartment issues	16	.9%
Specific info request	16	.9%
Total	1867	100.0%

Figure 276: Respondent Access to Internet and Email

K6 Internet access BY A2 Housing Type

	A2 Housing Type						Total	
	Single Family		Midsize		Multifamily			
	N	Percent	N	Percent	N	Percent	N	Percent
Have access for E-mail	1311	78.7%	92	74.2%	285	67.1%	1688	76.2%
Have access to Web sites	1271	76.3%	95	76.6%	308	72.5%	1674	75.6%
Have no access	205	12.3%	17	13.7%	90	21.2%	312	14.1%
Total	1666	100.0%	124	100.0%	425	100.0%	2215	100.0%

K6 Have e-mail access on a regular basis BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Yes	1311	92	285	1688
No	355	32	140	527
Total	1666	124	425	2215

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.565[a]	2	.000
Continuity Correction			
Likelihood Ratio	24.288	2	.000
Linear-by-Linear Association	25.445	1	.000
N of Valid Cases	2215		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 29.50.

K6 Have web access on a regular basis BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Yes	1271	95	308	1674
No	395	29	117	541
Total	1666	124	425	2215

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.753[a]	2	.252
Continuity Correction			
Likelihood Ratio	2.698	2	.260
Linear-by-Linear Association	2.446	1	.118
N of Valid Cases	2215		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 30.29.

K6 Have neither e-mail nor web access on a regular basis BY A2 Housing Type

	A2 Housing Type			
	Single Family	Midsize	Multifamily	Total
Yes	205	17	90	312
No	1461	107	335	1903
Total	1666	124	425	2215

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.038[a]	2	.000
Continuity Correction			
Likelihood Ratio	20.223	2	.000
Linear-by-Linear Association	21.166	1	.000
N of Valid Cases	2215		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.47.

Figure 277: Respondent Access to Internet and Email, by Income Quartiles

K6 Have email and/or web access? BY K9 Income quartiles

	K9CAT Gross Household Income (collapsed categories)				Total	K9CAT Gross Household Income (collapsed categories)				Total
	<= $35K	$35K - $65K	$65K-$100K	> $100K		<= $35K	$35K - $65K	$65K-$100K	> $100K	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Yes	59.9%	87.5%	95.2%	98.9%	86.4%	278	441	512	548	1779
No	40.1%	12.5%	4.8%	1.1%	13.6%	186	63	26	6	281
Total	100.0%	100.0%	100.0%	100.0%	100.0%	464	504	538	554	2060

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	385.620[a]	3	.000
Continuity Correction			
Likelihood Ratio	362.189	3	.000
Linear-by-Linear Association	319.462	1	.000
N of Valid Cases	2060		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 63.29.

Figure 278: Respondent Access to Internet and Email, by Home Ownership

K6 Email and/or web access BY A3 Home ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Yes	93.2%	75.5%	79.8%	50.0%	86.1%	1161	395	331	8	1895
No	6.8%	24.5%	20.2%	50.0%	13.9%	85	128	84	8	305
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1246	523	415	16	2200

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	132.677[a]	3	.000
Continuity Correction			
Likelihood Ratio	128.036	3	.000
Linear-by-Linear Association	92.278	1	.000
N of Valid Cases	2200		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 2.22.

Figure 279: Respondent Access to Internet and Email, by Decade Building Constructed

K6 Email and/or web access BY A6 Decade Building Constructed FOR Single Family Homes

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	94.6%	93.8%	90.7%	90.6%	83.4%	84.7%	79.6%	90.5%	86.6%	91.0%	94.2%	87.9%
No	5.4%	6.3%	9.3%	9.4%	16.6%	15.3%	20.4%	9.5%	13.4%	9.0%	5.8%	12.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

K6 Email and/or web access BY A6 Decade Building Constructed FOR Single Family Homes

	A6 Decade in which your home was built											
	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	Total
Yes	140	150	234	96	246	300	172	105	103	122	98	1766
No	8	10	24	10	49	54	44	11	16	12	6	244
Total	148	160	258	106	295	354	216	116	119	134	104	2010

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	42.828[a]	10	.000
Continuity Correction			
Likelihood Ratio	43.737	10	.000
Linear-by-Linear Association	2.809	1	.094
N of Valid Cases	2010		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.62.

Bill-Pay Method

Figure 280: How Natural Gas Utility Bills are Paid

K3_01 How you pay your Natural Gas Bill BY A2 Housing type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Natural Gas: Pay to Puget Sound Energy	72.5%	56.5%	9.9%	59.9%	1072	61	36	1169
Natural Gas: Included in my rent or condo fee		1.9%	21.2%	4.1%		2	77	79
Natural Gas: Pay billing service / third-party provider	1.1%	2.8%	2.2%	1.4%	17	3	8	28
Natural Gas: Dont have natural gas	26.4%	38.9%	66.7%	34.6%	390	42	242	674
Total	100.0%	100.0%	100.0%	100.0%	1479	108	363	1950

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	656.860[a]	6	.000
Continuity Correction			
Likelihood Ratio	642.031	6	.000
Linear-by-Linear Association	301.928	1	.000
N of Valid Cases	1950		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 1.55.

K3_01 How you pay your Natural Gas Bill BY A2 Housing type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Natural Gas: Pay to Puget Sound Energy	98.4%	92.4%	29.8%	91.6%	1072	61	36	1169
Natural Gas: Included in my rent or condo fee		3.0%	63.6%	6.2%		2	77	79
Natural Gas: Pay billing service / third-party provider	1.6%	4.5%	6.6%	2.2%	17	3	8	28
Total	100.0%	100.0%	100.0%	100.0%	1089	66	121	1276

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	783.919[a]	4	.000
Continuity Correction			
Likelihood Ratio	440.546	4	.000
Linear-by-Linear Association	395.203	1	.000
N of Valid Cases	1276		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 1.45.

K3_01 How you pay your Natural Gas Bill BY A2 Housing Type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Natural Gas: Pay to Puget Sound Energy	68.5%	53.0%	9.4%	56.7%	1072	61	36	1169
Natural Gas: Included in my rent or condo fee	0.0%	1.7%	20.1%	3.8%	0	2	77	79
Natural Gas: Pay billing service / third-party provider	1.1%	2.6%	2.1%	1.4%	17	3	8	28
Natural Gas: Dont have natural gas	30.4%	42.6%	68.4%	38.1%	475	49	262	786
Total	100.0%	100.0%	100.0%	100.0%	1564	115	383	2062

* Group "Dont have natural gas" also includes 112 cases where Natural Gas is not indicated by B1, B2, E1, E2, or F2_01 - F2_07

Figure 281: How Water, Sewer, Garbage and Recycling Utility Bills are Paid

K3_02 How you pay your Water, Sewer, Garbage & Utility Bills BY A2 Housing type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Pay to Seattle Public Utilities	85.3%	50.0%	8.8%	69.2%	1399	60	35	1494
Included in my rent or condo fee	.7%	40.8%	80.8%	17.7%	11	49	323	383
Pay to billing service or third-party provider	2.7%	2.5%	9.3%	3.9%	44	3	37	84
Pay to another public utility	11.3%	6.7%	1.3%	9.2%	186	8	5	199
Total	100.0%	100.0%	100.0%	100.0%	1640	120	400	2160

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1553.165[a]	6	.000
Continuity Correction			
Likelihood Ratio	1473.138	6	.000
Linear-by-Linear Association	146.677	1	.000
N of Valid Cases	2160		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 4.67.

Home Energy Audits

Figure 282: Household Ever Had an Energy Audit or Green Audit of the Home

K7 Ever had a professional energy audit or green audit of your home? BY A2 Housing type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes	4.8%		2.6%	4.1%	81		11	92
No	89.6%	88.7%	83.2%	88.3%	1509	110	357	1976
Not sure / don't know	5.6%	11.3%	14.2%	7.6%	95	14	61	170
Total	100.0%	100.0%	100.0%	100.0%	1685	124	429	2238

K7 Ever had a professional energy audit or green audit of your home? BY A2 Housing type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes	4.8%		2.6%	4.1%	81		11	92
Other	95.2%	100.0%	97.4%	95.9%	1604	124	418	2146
Total	100.0%	100.0%	100.0%	100.0%	1685	124	429	2238

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.992[a]	2	.007
Continuity Correction			
Likelihood Ratio	15.372	2	.000
Linear-by-Linear Association	6.071	1	.014
N of Valid Cases	2238		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.10.

Figure 283: Respondent Would like More Information about a City of Seattle Free Home Energy Audit Service, by Household Type

K8 Want to be contacted about a free home energy audit service? BY A2 Housing type

	A2 Housing Type			Total	A2 Housing Type			Total
	Single Family	Midsize	Multifamily		Single Family	Midsize	Multifamily	
	Percent	Percent	Percent	Percent	N	N	N	N
Yes, I am interested	42.0%	30.5%	19.1%	36.9%	660	36	78	774
No, do not contact me	58.0%	69.5%	80.9%	63.1%	910	82	331	1323
Total	100.0%	100.0%	100.0%	100.0%	1570	118	409	2097

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	75.701[a]	2	.000
Continuity Correction			
Likelihood Ratio	81.401	2	.000
Linear-by-Linear Association	75.665	1	.000
N of Valid Cases	2097		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 43.55.

Figure 284: Respondent Would like More Information about a City of Seattle Free Home Energy Audit Service, by Ownership

K8 Want to be contacted about a free home energy audit service? BY A3 Home ownership

	A3 How your home is owned				Total	A3 How your home is owned				Total
	Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent		Owned with a mortgage or loan	Owned free and clear	Rented from owner or manager	Occupied without payment of rent	
	Percent	Percent	Percent	Percent	Percent	N	N	N	N	N
Yes, I am interested	46.6%	31.9%	15.6%	25.0%	37.1%	553	154	62	4	773
No, do not contact me	53.4%	68.1%	84.4%	75.0%	62.9%	634	329	336	12	1311
Total	100.0%	100.0%	100.0%	100.0%	100.0%	1187	483	398	16	2084

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	131.437[a]	3	.000
Continuity Correction			
Likelihood Ratio	141.508	3	.000
Linear-by-Linear Association	127.475	1	.000
N of Valid Cases	2084		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.93.

Figure 285: Respondent Would like More Information about a City of Seattle Free Home Energy Audit Service, by Access to E-mail and the Internet

K8 Want to be contacted about a free home energy audit service?
BY Internet access

	Internet Access			Internet Access		
	Have access for E-mail	Have access to Web sites	Have no access	Have access for E-mail	Have access to Web sites	Have no access
	Percent	Percent	Percent	N	N	N
Yes, I am interested	41.1%	40.1%	17.2%	658	639	47
No, do not contact me	58.9%	59.9%	82.8%	943	954	226
Total	100.0%	100.0%	100.0%	1601	1593	273

Customers Talk Back: Summary of Open-ended Write-in Comments

Figure 286: General Topics of Written Comments from Final Survey Page, by Housing Type

Comments BY A2 Housing type

	A2 Housing type		Total	A2 Housing type		Total
	1 Single family	2 Other		1 Single family	2 Other	
	Percent	Percent	Percent	N	N	N
101.00 Compliments survey	5.7%	3.4%	4.9%	14	4	18
102.00 Compliments SCL (or city)	2.0%	2.6%	2.2%	5	3	8
103.00 Thanks for&/appreciate&/Well wishes	15.4%	18.8%	16.5%	38	22	60
104.00 Pro-conservation, environment concerns, survey findings	7.3%	2.6%	5.8%	18	3	21
105.00 Apology	2.0%	3.4%	2.5%	5	4	9
106.00 Educational/interesting	4.5%	2.6%	3.8%	11	3	14
110.00 General Reactions to survey - Negative	6.5%	6.0%	6.3%	16	7	23
111.00 Costly	.8%	.9%	.8%	2	1	3
112.00 Waste of resources/ environmentally unsound	4.5%	.9%	3.3%	11	1	12
113.00 Confusing	2.4%	1.7%	2.2%	6	2	8
114.00 Prefer monetary incentive		.9%	.3%		1	1
115.00 Too many surveys	.8%	.9%	.8%	2	1	3
116.00 Prefer online survey	3.6%	3.4%	3.6%	9	4	13
117.00 Do not want survey/invasive	4.0%	3.4%	3.8%	10	4	14
118.00 Pen	3.2%		2.2%	8		8
119.00 Missed asking important question/option	6.1%	2.6%	4.9%	15	3	18
120.00 Other negative - survey-related	2.8%	2.6%	2.7%	7	3	10
121.00 Other negative toward SCL or city - non-survey-related	1.2%	.9%	1.1%	3	1	4
200.00 Renter specific/Apartment specific	2.8%	34.2%	12.9%	7	40	47
201.00 Survey not applicable/Can't respond	.4%	5.1%	1.9%	1	6	7
202.00 Some or specific items not applicable	1.2%	12.8%	4.9%	3	15	18
203.00 Rarely need to turn on heat; don't use much energy		5.1%	1.6%		6	6
204.00 Manager/owner doesn't care	.4%	4.3%	1.6%	1	5	6
205.00 Must contact manager/owner, concern re how to influence; no	.8%	15.4%	5.5%	2	18	20
206.00 Specific feature of apartment		.9%	.3%		1	1
Total	100.0%	100.0%	100.0%	247	117	364

Comments BY A2 Housing type

	A2 Housing type		Total	A2 Housing type		Total
	1 Single family	2 Other		1 Single family	2 Other	
	Percent	Percent	Percent	N	N	N
300.00 Want specific product/service	.8%	.9%	.8%	2	1	3
301.00 Incentives, loans, rebate	4.5%	1.7%	3.6%	11	2	13
302.00 Multi-family program		2.6%	.8%		3	3
303.00 Solar (or information)	5.7%	.9%	4.1%	14	1	15
304.00 Power reliability		.9%	.3%		1	1
305.00 More power sources		.9%	.3%		1	1
306.00 Tankless water heater/ on demand heater	.4%	.9%	.5%	1	1	2
307.00 Power strips	.8%	1.7%	1.1%	2	2	4
308.00 Heat pumps/heating	1.6%		1.1%	4		4
309.00 Shouldn't give away products/should charge for them		.9%	.3%		1	1
310.00 Better home audit	.4%		.3%	1		1
311.00 Help with remodel	.4%		.3%	1		1
312.00 Windows	5.3%	.9%	3.8%	13	1	14
313.00 Insulation	3.6%	.9%	2.7%	9	1	10
314.00 Toilets	.8%		.5%	2		2
315.00 Home energy monitor device	.8%		.5%	2		2
Total	100.0%	100.0%	100.0%	247	117	364

Comments BY A2 Housing type

	A2 Housing type		Total	A2 Housing type		Total
	1 Single family	2 Other		1 Single family	2 Other	
	Percent	Percent	Percent	N	N	N
400.00 Want INFO re specific product/service/ program/for remodel	2.8%	.9%	2.2%	7	1	8
401.00 How to throw away product (CFL)		1.7%	.5%		2	2
402.00 Phantom load/ electricity use due to plug ins	.8%	.9%	.8%	2	1	3
403.00 Wind power	1.6%	.9%	1.4%	4	1	5
404.00 Smart power strips	.8%	1.7%	1.1%	2	2	4
405.00 Education directed at teens	.4%		.3%	1		1
406.00 Full spectrum CFLs	.4%		.3%	1		1
407.00 Showerhead info	.4%		.3%	1		1
500.00 Questionning		.9%	.3%		1	1
501.00 Correct energy use procedure; efficacy of energy-saving prod	1.6%	1.7%	1.6%	4	2	6
502.00 Asked for help with specific issue or building; efficacy of	.8%	1.7%	1.1%	2	2	4
503.00 Asked for help with bill payment, costs or problem getting a	1.2%	5.1%	2.5%	3	6	9
601.00 Energy is costly	1.2%	7.7%	3.3%	3	9	12
602.00 Some utility suggestion not helpful/ product not useful	1.2%		.8%	3		3
603.00 Want paperless/electronic statements	.4%		.3%	1		1
604.00 Remember ventilation along with insulation	.4%		.3%	1		1
609.00 Generally negative toward SCL/City	.4%	1.7%	.8%	1	2	3
Total	100.0%	100.0%	100.0%	247	117	364

Comments BY A2 Housing type

	A2 Housing type		Total	A2 Housing type		Total
	1 Single family	2 Other		1 Single family	2 Other	
	Percent	Percent	Percent	N	N	N
700.00 Mentioned energy-saving activity		.9%	.3%		1	1
701.00 Planning one or changing something (current)	6.5%	1.7%	4.9%	16	2	18
702.00 Completed a project (in past)	7.7%	4.3%	6.6%	19	5	24
703.00 Energy-saving habit described	4.5%	6.8%	5.2%	11	8	19
704.00 Planning on or want home audit	.8%	.9%	.8%	2	1	3
705.00 Effort/ Trying to save energy		1.7%	.5%		2	2
706.00 Effort/ Want to save money		1.7%	.5%		2	2
707.00 Change in household/habit in Rx to survey	1.6%	.9%	1.4%	4	1	5
801.00 Physical limitations (e.g., changing bulbs), health issues	1.6%	2.6%	1.9%	4	3	7
802.00 Concern with CFL disposal		.9%	.3%		1	1
804.00 Non-English speaker		.9%	.3%		1	1
805.00 Efforts to conserve not fruitful (e.g., no $ savings)		.9%	.3%		1	1
806.00 Product not available		.9%	.3%		1	1
807.00 Limited income/poor/costly to change	11.3%	2.6%	8.5%	28	3	31
808.00 Elderly/not much time in home	2.4%	2.6%	2.5%	6	3	9
809.00 Old home/tear-down	1.2%		.8%	3		3
810.00 Don't like CFLs - light color, amt. of light	1.2%		.8%	3		3
811.00 CFLs don't work in particular application (fixture, dimmer)	.8%		.5%	2		2
812.00 Not practical (solar w/trees, moving)	2.4%		1.6%	6		6
901.00 Recycling/trash	.4%	1.7%	.8%	1	2	3
902.00 Gas, want gas	.8%		.5%	2		2
903.00 Environmental impact on home energy use (nearby bldg/factory	1.2%		.8%	3		3
904.00 Old house/inefficient house	6.9%	11.1%	8.2%	17	13	30
905.00 Efficient house, general	2.8%	3.4%	3.0%	7	4	11
910.00 Other	8.1%	6.0%	7.4%	20	7	27
Total	100.0%	100.0%	100.0%	247	117	364

Comment groups BY A2 Housing type

	A2 Housing type		Total	A2 Housing type		Total
	1 Single family	2 Other		1 Single family	2 Other	
	Percent	Percent	Percent	N	N	N
100 General Reactions to survey - Positive	29.6%	24.8%	28.0%	73	29	102
110 General Reactions to survey - Negative	29.1%	17.9%	25.5%	72	21	93
200 Renter specific/Apartment specific	4.0%	46.2%	17.6%	10	54	64
300 Want specific product/service	18.6%	8.5%	15.4%	46	10	56
400 Want INFO re specific product/service/ program/for remodel	6.1%	6.0%	6.0%	15	7	22
500 Questionning	3.6%	8.5%	5.2%	9	10	19
600 Reaction to utility / electricity	3.6%	7.7%	4.9%	9	9	18
700 Mentioned energy-saving activity	17.8%	15.4%	17.0%	44	18	62
800 Other barriers to making changes/conserving	18.2%	9.4%	15.4%	45	11	56
900 Miscellaneous	12.6%	16.2%	13.7%	31	19	50
910 Other	8.1%	6.0%	7.4%	20	7	27
Total	100.0%	100.0%	100.0%	247	117	364

Comment groups (sorted) BY A2 Housing type

	A2 Housing type		Total	A2 Housing type		Total
	1 Single family	2 Other		1 Single family	2 Other	
	Percent	Percent	Percent	N	N	N
100 General Reactions to survey - Positive	29.6%	24.8%	28.0%	73	29	102
110 General Reactions to survey - Negative	29.1%	17.9%	25.5%	72	21	93
200 Renter specific/Apartment specific	4.0%	46.2%	17.6%	10	54	64
700 Mentioned energy-saving activity	17.8%	15.4%	17.0%	44	18	62
300 Want specific product/service	18.6%	8.5%	15.4%	46	10	56
800 Other barriers to making changes/conserving	18.2%	9.4%	15.4%	45	11	56
900 Miscellaneous	12.6%	16.2%	13.7%	31	19	50
910 Other	8.1%	6.0%	7.4%	20	7	27
400 Want INFO re specific product/service/ program/for remodel	6.1%	6.0%	6.0%	15	7	22
500 Questionning	3.6%	8.5%	5.2%	9	10	19
600 Reaction to utility / electricity	3.6%	7.7%	4.9%	9	9	18
Total	100.0%	100.0%	100.0%	247	117	364

Customers Talk Back: Coding of Open-ended Write-in Comments

General Reactions to survey

Positive

101 Compliments survey

102 Compliments Seattle City Light (or City of Seattle)

103 Thanks for… / appreciate… / Well wishes

104 Pro-conservation, environment concerns, survey findings

105 Apology

106 Educational/interesting

Negative

110 Length of Survey

111 Costly

112 Waste of resources / environmentally unsound

113 Confusing

114 Prefer monetary incentive

115 Too many surveys

116 Prefer online survey

117 Do not want survey / invasive

118 Pen

119 Missed asking important question / option

120 Other negative – survey-related

121 Other negative toward Seattle City Light of City of Seattle – non-survey-related

130 Descriptive only

Renter-specific/Apartment Specific

200 Mentioned “apartment” or “condo” or “renting/renter” or “multi-unit”
201 Survey not applicable / Can’t respond
202 Some or specific items not applicable
203 Rarely need to turn on heat; don’t use much energy
204 Manager / owner doesn’t care
205 Must contact manager / owner, concern regarding how to influence; no personal control
206 Specific feature of apartment

Want Specific Product/service/program (300) – might also ask for info

301 Incentives, loans, rebate
302 Multifamily program
303 Solar (or information)
304 Power reliability
305 More power sources
306 Tankless water heater / on demand heater
307 Power strips
308 Heat pumps / heating
309 Shouldn’t give away products / should charge for them
310 Better home audit
311 Help with remodel
312 Windows
313 Insulation
314 Toilets
315 Home energy monitor device

Want INFO re specific product/service/ program/for remodel (400)

401 How to throw away product (CFL bulb)
402 Phantom load / electricity use due to plug-ins
403 Wind power
404 Smart power strips
405 Education directed at teens
406 Full spectrum compact fluorescent lighting (CFL bulbs)
407 Showerhead information

Questioning (500)

501 Correct energy use procedure; efficacy of energy-saving product / measure
502 Asked for help with specific issue or building; efficacy of energy-saving product / measure
503 Asked for help with bill payment, costs or problem getting assistance

Reaction to utility/ Electricity (600)

601 Energy is costly
602 Some utility suggestion not helpful / product not useful
603 Want paperless / electronic statements
604 Remember ventilation along with insulation
609 Generally negative toward Seattle City Light / City of Seattle

Mentioned energy-saving activity (700)

701 Planning one or changing something (current)
702 Completed a project (in past)
703 Energy-saving habit described
704 Planning on or want home audit

705 Effort / Trying to save energy

706 Effort / Want to save money

707 Change in household / habit in response to survey

Other Barriers to Making changes/Conserving (800)

801 Physical limitations (e.g., changing bulbs), health issues

802 Concern with CFL disposal

803 --

804 Non-English speaker

805 Efforts to conserve not fruitful (e.g., no $ savings)

806 Product not available

807 Limited income / poor / costly to change

808 Elderly / not much time in home

809 Old home / tear-down

810 Don't like CFLs – light color, amount of light

811 CFLs don't work in particular application (fixture, dimmer)

812 Not practical (solar with trees, moving)

Miscellaneous

901 Recycling / trash

902 Gas, want gas

903 Environmental impact on home energy use (nearby building / factory, zoning)

904 Old house / inefficient house

905 Efficient house, general

Major Findings ▪ 13

Electricity Use per Household

Note that this section of the appendix reports on analyses of raw kilowatt-hour (kWh) data. These data are non-normal and violate assumptions of analysis of variance; they cannot be used directly in regression analysis.

The following tables nonetheless present ANOVA and Eta statistics on the non-normalized data. This is simply as a guide to further analysis. For the report body, tests were conducted on logarithms of electricity usage for technical reasons and used to guide interpretation of the data. All information reported in the text was based on untransformed data for the sake of clarity.

A proper analysis of electricity usage would transform the raw kWh data to logarithms, in order to test differences between groups. The results of the log analyses (means, confidence intervals, standard deviations) could be converted back into kWh for reporting. However, in general, the means of the anti-logs (the log-kWh converted back into kWh), would not be the same as the means, and so forth, of the raw kWh data.

Preparation of survey data for regression analysis would also require recoding of many variables. Ratio data can be used in the original format, as can "no/yes" items recoded as "dummy variables" (0/1). Interval data may need reconfiguration to represent equal intervals. Ordinal and nominal data require conversion to dummy variables. When all desired items have been prepared in this way, regression should be conducted against the logarithm of annual electricity use (kWh), or of energy use intensity (EUI, the annual kWh divided by home square footage).

Variations by Dwelling & Occupant Characteristics

Figure 287: Annual Household Electricity Use, by Building Type

Annual Energy Use

A2 Type of building or structure your home is in	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Single-family home: a detached house	9519.00	11055.62	152.258	6342.058	1735	75.1%	81.8%
Row- or town-home: with attached sidewall	6118.00	7815.54	814.720	4311.091	28	1.2%	.9%
Accessory dwelling : a 'mother-in-law unit'	10093.50	11733.83	2781.472	6813.188	6	.3%	.3%
Manufactured home: or mobile home	10568.50	10275.17	2764.008	6770.410	6	.3%	.3%
Houseboat: or other boat	9396.00	11130.80	1512.665	3382.422	5	.2%	.2%
Duplex home: 2 units in building	9780.00	10540.36	863.591	6106.507	50	2.2%	2.2%
Triplex home: 3 units in building	9564.00	9735.71	1153.483	4755.931	17	.7%	.7%
Fourplex home: 4 units in building	5864.00	7615.82	1125.361	4639.983	17	.7%	.6%
Apartment: 5+ units in building, rented	6168.00	6290.64	190.508	3238.628	289	12.5%	7.8%
Condominium: 5+ units in building, owned	7366.00	7758.89	319.961	4021.848	158	6.8%	5.2%
Total	8844.00	10148.82	126.754	6093.436	2311	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A2 Type of building or structure your home is in	Between Groups	(Combined)	6.92E+09	9	769233388.2	22.449	.000
	Within Groups		7.88E+10	2301	34266451.28		
	Total		8.58E+10	2310			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A2 Type of building or structure your home is in	.284	.081

Annual Energy Use per Square Foot

A2 Type of building or structure your home is in	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Single-family home: a detached house	4.493	5.822	4.2602	1731	75.8%	71.0%	.1024
Row- or town-home: with attached sidewall	4.173	5.032	2.9346	28	1.2%	1.0%	.5546
Accessory dwelling : a 'mother-in-law unit'	4.936	9.699	10.3924	6	.3%	.4%	4.2427
Houseboat: or other boat	9.902	9.676	3.4669	3	.1%	.2%	2.0016
Duplex home: 2 units in building	6.994	8.186	5.3695	50	2.2%	2.9%	.7594
Triplex home: 3 units in building	8.191	9.289	4.9096	17	.7%	1.1%	1.1907
Fourplex home: 4 units in building	6.019	8.885	8.5296	16	.7%	1.0%	2.1324
Apartment: 5+ units in building, rented	6.411	7.026	3.8773	279	12.2%	13.8%	.2321
Condominium: 5+ units in building, owned	7.638	7.877	3.8607	155	6.8%	8.6%	.3101
Total	4.911	6.213	4.3417	2285	100.0%	100.0%	.0908

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A2 Type of building or structure your home is in	Between Groups	(Combined)	1495.537	8	186.942	10.238	.000
	Within Groups		41559.344	2276	18.260		
	Total		43054.881	2284			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A2 Type of building or structure your home is in	.186	.035

Figure 288: Annual Household Electricity Use, by Ownership

Annual Energy Use

A3 How your home is owned	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Owned with a mortgage or loan	9369.00	10675.77	172.651	6157.600	1272	55.5%	58.4%
Owned free and clear	9075.00	10586.51	261.831	6212.618	563	24.6%	25.6%
Rented from owner or manager	7005.00	7982.50	247.559	5181.033	438	19.1%	15.0%
Occupied without payment of rent	11106.50	10891.00	861.634	3853.343	20	.9%	.9%
Total	8855.00	10141.27	126.742	6069.068	2293	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A3 How your home is owned	Between Groups	(Combined)	2.53E+09	3	842482131.9	23.548	.000
	Within Groups		8.19E+10	2289	35777693.06		
	Total		8.44E+10	2292			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A3 How your home is owned	.173	.030

Annual Energy Use per Square Foot

A3 How your home is owned	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Owned with a mortgage or loan	4.633	5.867	4.0511	1264	55.7%	52.7%	.1139
Owned free and clear	4.243	5.712	4.2957	558	24.6%	22.7%	.1819
Rented from owner or manager	6.956	7.793	4.8636	426	18.8%	23.6%	.2356
Occupied without payment of rent	6.474	6.875	3.1419	20	.9%	1.0%	.7025
Total	4.907	6.199	4.3354	2268	100.0%	100.0%	.0910

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A3 How your home is owned	Between Groups	(Combined)	1363.164	3	454.388	24.941	.000
	Within Groups		41246.812	2264	18.219		
	Total		42609.976	2267			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A3 How your home is owned	.179	.032

Figure 289: Annual Household Electricity Use, by Whether Business is Operated in Home During the Day

Annual Energy Use

A5 Do you operate a business in your	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Yes	9866.50	10998.31	389.494	5855.374	226	10.9%	11.9%
No	8641.00	10041.73	143.322	6144.499	1838	89.1%	88.1%
Total	8808.00	10146.47	134.696	6119.431	2064	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A5 Do you operate a business in your home during the day?	Between Groups	(Combined)	1.84E+08	1	184154552.2	4.927	.027
	Within Groups		7.71E+10	2062	37376287.48		
	Total		7.73E+10	2063			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A5 Do you operate a business in your home during the day?	.049	.002

Annual Energy Use per Square Foot

A5 Do you operate a business in your	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	4.528	5.759	3.6205	223	10.9%	10.1%	.2424
No	4.983	6.289	4.4534	1817	89.1%	89.9%	.1045
Total	4.935	6.232	4.3724	2040	100.0%	100.0%	.0968

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A5 Do you operate a business in your home during the day?	Between Groups	(Combined)	55.880	1	55.880	2.926	.087
	Within Groups		38926.328	2038	19.100		
	Total		38982.209	2039			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A5 Do you operate a business in your home during the day?	.038	.001

Figure 290: Annual Household Electricity Use, by Decade Building Constructed

Annual Energy Use

A6 Decade in which your home was built	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
1900-1909	8707.00	9511.24	451.088	5579.656	153	7.3%	6.8%
1910-1919	8591.50	9548.13	445.450	5739.216	166	8.0%	7.4%
1920-1929	8434.00	9296.80	329.520	5343.916	263	12.6%	11.4%
1930-1939	8430.50	10031.91	613.632	6494.069	112	5.4%	5.2%
1940-1949	8946.00	10346.46	354.759	6195.602	305	14.6%	14.7%
1950-1959	9938.00	11250.55	319.008	6127.938	369	17.7%	19.3%
1960-1969	9179.50	10200.29	363.933	5471.120	226	10.8%	10.7%
1970-1979	10898.00	12342.83	639.846	6979.898	119	5.7%	6.8%
1980-1989	9721.00	12520.35	739.800	8304.234	126	6.0%	7.3%
1990-1999	8580.00	9589.33	453.529	5347.029	139	6.7%	6.2%
2000-2009	6759.00	8553.65	505.261	5226.458	107	5.1%	4.3%
Total	8989.00	10319.31	134.046	6120.781	2085	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A6 Decade in which your home was built	Between Groups	(Combined)	2.31E+09	10	231160670.6	6.328	.000
	Within Groups		7.58E+10	2074	36530028.87		
	Total		7.81E+10	2084			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A6 Decade in which your home was built	.172	.030

Annual Energy Use per Square Foot

A6 Decade in which your home was built	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
1900-1909	3.980	4.893	3.1066	153	7.4%	6.0%	.2512
1910-1919	4.148	5.168	3.2173	166	8.0%	6.9%	.2497
1920-1929	3.919	4.798	3.1021	260	12.6%	10.1%	.1924
1930-1939	4.489	5.643	3.9406	111	5.4%	5.1%	.3740
1940-1949	4.897	6.738	5.4792	304	14.7%	16.5%	.3143
1950-1959	5.163	6.386	4.2393	368	17.8%	19.0%	.2210
1960-1969	5.259	6.606	4.5588	225	10.9%	12.0%	.3039
1970-1979	7.261	7.669	4.0246	117	5.7%	7.2%	.3721
1980-1989	7.930	7.730	3.6967	121	5.9%	7.5%	.3361
1990-1999	4.637	5.592	3.4916	137	6.6%	6.2%	.2983
2000-2009	3.540	4.106	2.2765	104	5.0%	3.4%	.2232
Total	4.725	5.998	4.1469	2066	100.0%	100.0%	.0912

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A6 Decade in which your home was built	Between Groups	(Combined)	2078.487	10	207.849	12.776	.000
	Within Groups		33433.429	2055	16.269		
	Total		35511.916	2065			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A6 Decade in which your home was built	.242	.059

Figure 291: Annual Household Electricity Use, by Square Feet of Living Space

Annual Energy Use

A7 Square feet of living space in your home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Less than 250	5311.50	6092.12	875.248	3500.991	16	.7%	.4%
250-500	5269.00	5761.86	501.206	4040.850	65	3.0%	1.7%
501-750	5991.00	6707.48	297.441	4034.689	184	8.5%	5.6%
751-1,000	7667.00	8412.81	258.785	4592.983	315	14.5%	12.0%
1,001-1,250	8651.50	9663.85	321.078	5429.926	286	13.2%	12.5%
1,251-1,500	8573.00	10120.12	343.853	5565.752	262	12.1%	12.0%
1,501-2,000	8881.00	10215.61	265.202	5505.728	431	19.9%	19.9%
2,001-2,500	10545.00	11931.58	350.693	6253.754	318	14.7%	17.2%
2,501-3,000	10747.00	13340.91	577.973	7446.667	166	7.7%	10.0%
3,001-4,000	12904.50	14500.32	743.137	7204.980	94	4.3%	6.2%
4,001-5,000	14707.00	16353.15	2267.800	10141.909	20	.9%	1.5%
5,000 or more	17792.00	16801.25	2604.907	9023.664	12	.6%	.9%
Total	8881.00	10177.50	130.492	6077.341	2169	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A7 Square feet of living space in your home	Between Groups	(Combined)	1.05E+10	11	953934723.9	29.572	.000
	Within Groups		6.96E+10	2157	32257671.13		
	Total		8.01E+10	2168			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A7 Square feet of living space in your home	.362	.131

Annual Energy Use per Square Foot

A7 Square feet of living space in your home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Less than 250	4.330	6.121	4.0993	14	.7%	.6%	1.0956
250-500	6.446	6.830	4.2119	63	2.9%	3.3%	.5306
501-750	6.365	7.656	5.0174	182	8.5%	10.5%	.3719
751-1,000	6.881	7.983	5.2094	310	14.5%	18.7%	.2959
1,001-1,250	6.411	7.409	4.9007	279	13.0%	15.6%	.2934
1,251-1,500	5.259	6.260	3.8210	261	12.2%	12.3%	.2365
1,501-2,000	4.261	5.260	3.3699	430	20.0%	17.1%	.1625
2,001-2,500	4.284	5.078	2.8835	315	14.7%	12.1%	.1625
2,501-3,000	3.817	4.697	2.8689	165	7.7%	5.9%	.2233
3,001-4,000	3.671	4.243	2.2388	94	4.4%	3.0%	.2309
4,001-5,000	3.179	3.650	2.1882	20	.9%	.6%	.4893
5,000 or more	3.453	3.473	1.1868	12	.6%	.3%	.3426
Total	4.921	6.170	4.1917	2145	100.0%	100.0%	.0905

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A7 Square feet of living space in your home	Between Groups	(Combined)	3531.895	11	321.081	20.061	.000
	Within Groups		34138.439	2133	16.005		
	Total		37670.334	2144			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A7 Square feet of living space in your home	.306	.094

Figure 292: Annual Household Electricity Use, by Number of Rooms

Annual Energy Use

A9_01 Total number of rooms in your home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
1	4690.00	4834.66	525.593	2830.404	29	1.3%	.6%
2	5571.00	6239.05	426.120	3640.774	73	3.2%	2.0%
3	6280.00	7542.64	384.726	4971.760	167	7.4%	5.5%
4	7344.00	8045.83	290.351	4526.119	243	10.7%	8.5%
5	8127.00	9236.56	277.696	4720.824	289	12.8%	11.6%
6	9125.00	10139.26	328.322	5991.318	333	14.7%	14.7%
7	8880.50	10300.36	319.503	5643.541	312	13.8%	14.0%
8	9113.00	10889.12	358.823	6036.342	283	12.5%	13.4%
9	9842.50	11808.32	451.052	6598.329	214	9.5%	11.0%
10	11251.00	12761.99	550.455	6853.109	155	6.8%	8.6%
11	10007.00	12403.08	799.779	7108.589	79	3.5%	4.3%
12 or more	14129.50	15738.27	884.359	8201.211	86	3.8%	5.9%
Total	8846.00	10159.04	128.255	6101.237	2263	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A9_01 Total number of rooms in your home	Between Groups	(Combined)	9.28E+09	11	843859277.1	25.354	.000
	Within Groups		7.49E+10	2251	33283301.66		
	Total		8.42E+10	2262			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A9_01 Total number of rooms in your home	.332	.110

Annual Energy Use per Square Foot

A9_01 Total number of rooms in your home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
1	6.553	6.914	4.2359	27	1.2%	1.3%	.8152
2	5.358	6.377	4.2755	68	3.0%	3.1%	.5185
3	6.584	7.762	5.2009	164	7.3%	9.1%	.4061
4	6.543	7.551	4.7778	239	10.7%	13.0%	.3091
5	6.085	7.409	4.6342	282	12.6%	15.0%	.2760
6	5.505	6.805	5.0063	331	14.8%	16.2%	.2752
7	4.498	5.720	4.2566	310	13.9%	12.7%	.2418
8	4.115	5.158	3.3344	282	12.6%	10.4%	.1986
9	3.939	4.956	3.0000	214	9.6%	7.6%	.2051
10	4.069	5.109	3.4897	155	6.9%	5.7%	.2803
11	4.157	4.973	3.5091	79	3.5%	2.8%	.3948
12 or more	4.138	4.759	2.5041	86	3.8%	2.9%	.2700
Total	4.926	6.224	4.3558	2237	100.0%	100.0%	.0921

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A9_01 Total number of rooms in your home	Between Groups	(Combined)	2575.307	11	234.119	13.073	.000
	Within Groups		39847.666	2225	17.909		
	Total		42422.973	2236			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A9_01 Total number of rooms in your home	.246	.061

Figure 293: Annual Household Electricity Use, by Number of Rooms that are Usually Heated

Annual Energy Use

A9_02 Number of rooms that are usually heated	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
0	4938.00	4938.00	.	.	1	.0%	.0%
1	5507.50	6410.26	393.120	4306.418	120	5.8%	3.7%
2	7730.00	8598.04	344.439	4504.120	171	8.3%	7.0%
3	8671.50	9334.39	393.919	5762.534	214	10.4%	9.5%
4	7836.00	9373.48	359.184	5912.918	271	13.1%	12.1%
5	8600.50	9928.39	324.921	5571.228	294	14.2%	13.9%
6	9559.00	10673.87	350.219	6106.270	304	14.7%	15.4%
7	9044.00	10617.93	378.729	5903.805	243	11.8%	12.2%
8	9269.00	11089.13	440.206	6003.607	186	9.0%	9.8%
9	11745.50	12974.53	695.008	7087.716	104	5.0%	6.4%
10	11803.50	13259.40	779.093	7140.503	84	4.1%	5.3%
11	12032.00	12936.53	1042.656	5710.865	30	1.5%	1.8%
12 or more	12474.00	14852.69	1351.334	8757.648	42	2.0%	3.0%
Total	8881.00	10205.33	134.209	6097.277	2064	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A9_02 Number of rooms that are usually heated	Between Groups	(Combined)	5.54E+09	12	461293329.0	13.296	.000
	Within Groups		7.12E+10	2051	34695366.50		
	Total		7.67E+10	2063			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A9_02 Number of rooms that are usually heated	.269	.072

Annual Energy Use per Square Foot

A9_02 Number of rooms that are usually heated	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
0	5.628	5.628	.	1	.0%	.0%	.
1	6.044	6.800	4.0322	115	5.6%	6.2%	.3760
2	7.843	8.260	5.0587	167	8.2%	10.9%	.3915
3	6.887	7.995	4.9684	209	10.2%	13.2%	.3437
4	5.561	6.988	5.0611	268	13.1%	14.8%	.3092
5	4.868	6.169	3.9679	291	14.3%	14.2%	.2326
6	4.619	5.748	3.9673	304	14.9%	13.8%	.2275
7	4.069	5.310	4.2600	242	11.9%	10.2%	.2738
8	4.094	4.699	2.6285	185	9.1%	6.9%	.1933
9	3.966	4.879	2.8681	104	5.1%	4.0%	.2812
10	4.138	4.977	3.5862	84	4.1%	3.3%	.3913
11	4.186	4.521	2.2450	30	1.5%	1.1%	.4099
12 or more	3.677	4.205	1.9964	42	2.1%	1.4%	.3081
Total	4.946	6.193	4.3205	2042	100.0%	100.0%	.0956

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A9_02 Number of rooms that are usually heated	Between Groups	(Combined)	2819.874	12	234.990	13.515	.000
	Within Groups		35279.186	2029	17.387		
	Total		38099.060	2041			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A9_02 Number of rooms that are usually heated	.272	.074

Figure 294: Annual Household Electricity Use, by Number of Occupants

Annual Energy Use

A10 People living in this household at least	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
1 resident	6102.00	7128.58	170.725	4345.958	648	28.2%	19.8%
2 resident	9129.50	10495.25	187.002	5806.094	964	41.9%	43.3%
3 residents	10118.50	12077.10	367.972	6785.075	340	14.8%	17.6%
4 residents	10750.00	12446.21	424.945	6458.606	231	10.0%	12.3%
5 residents	13819.00	14305.67	850.963	7119.664	70	3.0%	4.3%
6 residents	12113.00	12956.33	1059.724	5506.486	27	1.2%	1.5%
7 residents	14104.50	13372.88	1468.880	4154.621	8	.3%	.5%
8 residents	18880.50	18051.83	3061.076	7498.075	6	.3%	.5%
9 residents or more	16070.00	15108.40	3970.755	8878.877	5	.2%	.3%
Total	8856.00	10160.98	127.141	6096.144	2299	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A10 People living in this household at least 6 months of 2008	Between Groups	(Combined)	1.05E+10	8	1314124253	40.185	.000
	Within Groups		7.49E+10	2290	32701966.14		
	Total		8.54E+10	2298			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A10 People living in this household at least 6 months of 2008	.351	.123

Annual Energy Use per Square Foot

A10 People living in this household at least	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
1 resident	4.849	5.990	4.2215	634	27.9%	26.8%	.1677
2 resident	4.960	6.286	4.3706	957	42.1%	42.4%	.1413
3 residents	4.918	6.311	4.5702	338	14.9%	15.0%	.2486
4 residents	4.990	6.179	4.0855	230	10.1%	10.0%	.2694
5 residents	4.789	6.525	4.1944	69	3.0%	3.2%	.5050
6 residents	5.803	7.564	5.2871	27	1.2%	1.4%	1.0175
7 residents	6.992	9.545	7.1911	8	.4%	.5%	2.5424
8 residents	6.853	7.331	2.6404	6	.3%	.3%	1.0779
9 residents or more	8.468	8.714	2.3136	4	.2%	.2%	1.1568
Total	4.951	6.237	4.3481	2273	100.0%	100.0%	.0912

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A10 People living in this household at least 6 months of 2008	Between Groups	(Combined)	216.161	8	27.020	1.431	.178
	Within Groups		42739.153	2264	18.878		
	Total		42955.314	2272			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A10 People living in this household at least 6 months of 2008	.071	.005

Figure 295: Annual Household Electricity Use, by 2008 Gross Annual Income

Annual Energy Use

K9 Total gross income for your household, from	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Less than $25,000	7603.50	8892.46	344.398	5721.569	276	13.1%	11.5%
$25-30,000	7344.00	8882.37	539.073	6027.020	125	5.9%	5.2%
$30-35,000	8057.00	9598.81	654.985	6213.737	90	4.3%	4.0%
$35-40,000	7610.00	9151.30	612.523	6276.494	105	5.0%	4.5%
$40-45,000	8383.50	10100.15	609.649	6035.217	98	4.6%	4.6%
$45-50,000	7882.00	9266.54	653.338	5806.997	79	3.7%	3.4%
$50-55,000	8202.00	9929.08	584.878	5517.727	89	4.2%	4.1%
$55-60,000	8136.50	8846.53	543.004	4411.385	66	3.1%	2.7%
$60-65,000	8707.00	9901.29	637.067	5662.374	79	3.7%	3.7%
$65-70,000	8836.00	10583.22	624.524	6982.392	125	5.9%	6.2%
$70-100,000	8985.00	10283.02	283.951	5798.447	417	19.8%	20.0%
More than $100,000	10131.00	11471.86	265.573	6290.212	561	26.6%	30.1%
Total	8840.00	10145.81	132.226	6073.745	2110	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * K9 Total gross income for your household, from all sources, in 2008	Between Groups	(Combined)	1.96E+09	11	178519120.9	4.939	.000
	Within Groups		7.58E+10	2098	36147805.66		
	Total		7.78E+10	2109			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * K9 Total gross income for your household, from all sources, in 2008	.159	.025

Annual Energy Use per Square Foot

K9 Total gross income for your household, from	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Less than $25,000	5.978	7.224	4.8176	268	12.8%	14.8%	.2943
$25-30,000	5.685	6.895	4.4913	122	5.8%	6.4%	.4066
$30-35,000	5.445	7.708	6.3014	90	4.3%	5.3%	.6642
$35-40,000	5.258	6.929	5.2431	104	5.0%	5.5%	.5141
$40-45,000	5.654	7.182	5.7810	98	4.7%	5.4%	.5840
$45-50,000	5.529	6.523	3.9402	78	3.7%	3.9%	.4461
$50-55,000	5.342	6.574	4.5069	87	4.2%	4.4%	.4832
$55-60,000	5.275	6.120	3.9403	64	3.1%	3.0%	.4925
$60-65,000	5.919	6.731	4.6204	78	3.7%	4.0%	.5232
$65-70,000	4.868	5.841	3.9157	125	6.0%	5.6%	.3502
$70-100,000	4.998	6.277	4.1840	413	19.8%	19.8%	.2059
More than $100,000	4.293	5.177	3.1044	560	26.8%	22.1%	.1312
Total	4.983	6.284	4.3591	2087	100.0%	100.0%	.0954

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * K9 Total gross income for your household, from all sources, in 2008	Between Groups	(Combined)	1327.234	11	120.658	6.535	.000
	Within Groups		38309.885	2075	18.463		
	Total		39637.119	2086			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * K9 Total gross income for your household, from all sources, in 2008	.183	.033

Figure 296: Annual Household Electricity Use, by Number of Years a Seattle City Light Customer at This Address

Annual Energy Use

K1 How long you have been a Seattle City Light	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
New in past year	5147.00	5711.88	698.898	2881.629	17	.8%	.4%
1-5 years	7607.00	8811.57	215.524	5599.483	675	29.8%	25.7%
6-10 years	9052.00	10064.96	282.399	5373.002	362	16.0%	15.8%
11-20 years	9280.00	10265.27	245.591	5637.912	527	23.3%	23.4%
21-30 years	9921.00	11590.78	427.083	7043.633	272	12.0%	13.6%
30 or more years	9623.00	11751.67	337.307	6854.884	413	18.2%	21.0%
Total	8862.50	10196.10	128.223	6103.757	2266	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * K1 How long you have been a Seattle City Light customer at this address	Between Groups	(Combined)	3.17E+09	5	634592779.6	17.660	.000
	Within Groups		8.12E+10	2260	35934307.78		
	Total		8.44E+10	2265			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * K1 How long you have been a Seattle City Light customer at this address	.194	.038

Annual Energy Use per Square Foot

K1 How long you have been a Seattle City Light	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
New in past year	3.783	3.843	1.5941	15	.7%	.4%	.4116
1-5 years	5.380	6.460	4.1765	664	29.6%	30.8%	.1621
6-10 years	5.014	6.472	4.8993	358	16.0%	16.6%	.2589
11-20 years	4.784	5.909	3.8779	521	23.3%	22.1%	.1699
21-30 years	4.621	6.354	4.8193	271	12.1%	12.4%	.2928
30 or more years	4.703	5.979	4.2078	411	18.3%	17.7%	.2076
Total	4.944	6.215	4.3179	2240	100.0%	100.0%	.0912

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * K1 How long you have been a Seattle City Light customer at this address	Between Groups	(Combined)	224.867	5	44.973	2.420	.034
	Within Groups		41519.234	2234	18.585		
	Total		41744.101	2239			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * K1 How long you have been a Seattle City Light customer at this address	.073	.005

Figure 297: Annual Household Electricity Use, by Number of Years a Seattle City Light Customer at Any Address

Annual Energy Use

K2 How long you have been a Seattle City Light	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
New in past year	7606.00	7610.40	1513.497	4786.097	10	.4%	.3%
1-5 years	6905.00	8156.46	313.320	5289.447	285	12.7%	10.2%
6-10 years	8349.50	9649.54	313.893	5400.418	296	13.2%	12.5%
11-20 years	8595.00	9620.82	241.545	5576.492	533	23.7%	22.5%
21-30 years	8990.50	10480.96	320.398	6179.612	372	16.5%	17.1%
30 or more years	9594.00	11364.77	240.067	6583.265	752	33.5%	37.4%
Total	8855.50	10155.73	127.865	6062.486	2248	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * K2 How long you have been a Seattle City Light customer at any location	Between Groups	(Combined)	2.57E+09	5	514181288.4	14.407	.000
	Within Groups		8.00E+10	2242	35688996.70		
	Total		8.26E+10	2247			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * K2 How long you have been a Seattle City Light customer at any location	.176	.031

Annual Energy Use per Square Foot

K2 How long you have been a Seattle City Light	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
New in past year	3.459	4.555	3.4731	9	.4%	.3%	1.1577
1-5 years	5.307	6.385	4.4006	278	12.5%	12.9%	.2639
6-10 years	5.479	6.676	4.1159	294	13.2%	14.2%	.2400
11-20 years	4.768	6.042	4.1868	528	23.8%	23.1%	.1822
21-30 years	4.492	6.114	4.8834	370	16.7%	16.4%	.2539
30 or more years	4.846	6.139	4.1527	743	33.4%	33.1%	.1523
Total	4.904	6.207	4.3162	2222	100.0%	100.0%	.0916

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * K2 How long you have been a Seattle City Light customer at any location	Between Groups	(Combined)	119.202	5	23.840	1.280	.269
	Within Groups		41257.897	2216	18.618		
	Total		41377.099	2221			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * K2 How long you have been a Seattle City Light customer at any location	.054	.003

Figure 298: Annual Household Electricity Use, by Community Reporting Area within the Seattle City Light Service Area

Annual Energy Use

Census Community Reporting Area	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
CRA Southwest	9005.00	9838.21	339.196	4832.793	203	8.6%	8.4%
CRA Delridge Area	8526.00	9686.25	573.424	5470.117	91	3.9%	3.7%
CRA Greater Duwamish	10301.50	11098.29	703.357	6819.298	94	4.0%	4.4%
CRA Southeast	9215.00	10513.26	536.204	6090.110	129	5.5%	5.7%
CRA Central	7805.50	9762.57	647.799	6145.564	90	3.8%	3.7%
CRA East Hills	6249.00	7894.04	568.541	6202.048	119	5.1%	3.9%
CRA Northeast	8521.50	10425.38	476.143	6932.744	212	9.0%	9.3%
CRA North	8516.00	10287.22	484.686	5397.230	124	5.3%	5.3%
CRA Northwest	8276.50	9516.23	330.836	5516.132	278	11.8%	11.1%
CRA Ballard	9047.50	10130.00	382.864	5414.520	200	8.5%	8.5%
CRA Lake Union	7825.00	8420.59	410.752	4107.525	100	4.2%	3.5%
CRA Magnolia-Q.Anne	8493.00	9143.10	445.404	5545.231	155	6.6%	5.9%
CRA Downtown	6555.00	7013.34	687.609	4402.845	41	1.7%	1.2%
CRA North King County	9889.00	11947.70	448.869	7025.916	245	10.4%	12.3%
CRA South King County	9482.00	11510.51	411.570	6812.696	274	11.6%	13.2%
Total	8835.00	10140.65	125.501	6090.344	2355	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * Census Community Reporting Area	Between Groups	(Combined)	3.05E+09	14	217750130.8	6.047	.000
	Within Groups		8.43E+10	2340	36011431.30		
	Total		8.73E+10	2354			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * Census Community Reporting Area	.187	.035

Annual Energy Use per Square Foot

Census Community Reporting Area	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
CRA Southwest	4.491	5.379	3.4750	202	8.7%	7.5%	.2445
CRA Delridge Area	6.206	7.250	5.5807	89	3.8%	4.5%	.5916
CRA Greater Duwamish	5.720	7.302	5.2917	94	4.0%	4.7%	.5458
CRA Southeast	4.276	5.525	3.6690	129	5.5%	4.9%	.3230
CRA Central	3.982	5.443	3.5973	90	3.9%	3.4%	.3792
CRA East Hills	4.240	5.432	3.5669	118	5.1%	4.4%	.3284
CRA Northeast	4.198	5.433	4.1218	208	8.9%	7.8%	.2858
CRA North	5.659	6.267	3.4056	124	5.3%	5.4%	.3058
CRA Northwest	4.906	6.093	4.3958	277	11.9%	11.7%	.2641
CRA Ballard	4.998	5.670	3.1908	200	8.6%	7.8%	.2256
CRA Lake Union	4.608	5.993	4.0503	98	4.2%	4.1%	.4091
CRA Magnolia-Q.Anne	4.518	6.128	4.2675	152	6.5%	6.4%	.3461
CRA Downtown	6.136	6.233	2.6854	39	1.7%	1.7%	.4300
CRA North King County	4.988	7.111	5.0386	243	10.4%	11.9%	.3232
CRA South King County	6.140	7.530	5.2268	266	11.4%	13.8%	.3205
Total	4.911	6.219	4.3388	2329	100.0%	100.0%	.0899

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * Census Community Reporting Area	Between Groups	(Combined)	1387.256	14	99.090	5.403	.000
	Within Groups		42436.773	2314	18.339		
	Total		43824.029	2328			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * Census Community Reporting Area	.178	.032

Variations by Space Heating, Water Heating & Household Type

Figure 299: Annual Household Electricity Use, for All Home Heat and All Water Heat Fuels

Annual Energy Use

B1_1 Home Heating Fuel - Elec vs Gas-Oil	E1_1 Water Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Electric	Electric	Single Family	16335.00	16969.62	441.584	7837.338	315	15.5%	25.4%
		Midsize	11413.50	12173.74	762.836	5605.674	54	2.7%	3.1%
		Multifamily	7019.00	7417.31	189.242	3205.956	287	14.2%	10.1%
		Total	10588.50	12395.70	295.808	7576.370	656	32.3%	38.6%
	Natural Gas	Single Family	9166.50	10551.43	946.787	6135.878	42	2.1%	2.1%
		Midsize	5174.00	6887.33	2521.725	4367.757	3	.1%	.1%
		Multifamily	9131.00	9685.79	1224.909	4583.190	14	.7%	.6%
		Total	9083.00	10159.71	744.462	5718.318	59	2.9%	2.8%
	Total	Single Family	15531.00	16214.54	419.421	7924.730	357	17.6%	27.5%
		Midsize	11393.00	11895.51	747.391	5642.679	57	2.8%	3.2%
		Multifamily	7041.00	7522.82	190.625	3307.223	301	14.8%	10.7%
		Total	10396.00	12211.20	279.093	7462.802	715	35.3%	41.4%
Natural Gas or Fuel Oil	Electric	Single Family	9596.00	10363.39	208.780	4829.088	535	26.4%	26.3%
		Midsize	7705.00	8571.57	1465.722	5484.228	14	.7%	.6%
		Multifamily	3482.00	4400.55	575.875	2575.392	20	1.0%	.4%
		Total	9416.00	10109.71	205.808	4909.281	569	28.1%	27.3%
	Natural Gas	Single Family	8169.00	9162.18	190.237	4982.625	686	33.8%	29.8%
		Midsize	5278.50	6214.92	552.408	3314.449	36	1.8%	1.1%
		Multifamily	2994.50	4065.68	727.110	3410.450	22	1.1%	.4%
		Total	7794.00	8868.86	182.716	4983.832	744	36.7%	31.3%
	Total	Single Family	8809.00	9688.51	141.660	4949.982	1221	60.2%	56.1%
		Midsize	5391.50	6874.78	582.561	4119.331	50	2.5%	1.6%
		Multifamily	3299.50	4225.14	464.444	3009.941	42	2.1%	.8%
		Total	8501.00	9406.60	137.652	4987.858	1313	64.7%	58.6%
Total	Electric	Single Family	11017.00	12811.58	236.586	6897.598	850	41.9%	51.7%
		Midsize	11207.00	11432.12	695.007	5731.175	68	3.4%	3.7%
		Multifamily	6877.00	7220.78	185.591	3251.813	307	15.1%	10.5%
		Total	9727.00	11333.88	187.796	6572.845	1225	60.4%	65.9%
	Natural Gas	Single Family	8188.00	9242.33	187.598	5061.680	728	35.9%	31.9%
		Midsize	5174.00	6266.64	534.821	3339.957	39	1.9%	1.2%
		Multifamily	5128.50	6251.28	790.599	4743.597	36	1.8%	1.1%
		Total	7834.00	8963.71	178.166	5048.729	803	39.6%	34.1%
	Total	Single Family	9633.50	11164.93	160.387	6371.239	1578	77.8%	83.6%
		Midsize	8800.00	9549.37	538.250	5567.702	107	5.3%	4.8%
		Multifamily	6803.00	7119.03	185.891	3442.756	343	16.9%	11.6%
		Total	9036.50	10395.40	136.013	6125.121	2028	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * B1_1 Home Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	3.64E+09	1	3641197815	101.885	.000
	Within Groups		7.24E+10	2026	35738391.90		
	Total		7.60E+10	2027			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * B1_1 Home Heating Fuel - Elec vs Gas-Oil	.219	.048

Annual Energy Use per Square Foot

B1_1 Home Heating Fuel - Elec vs	E1_1 Water Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Electric	Electric	Single Family	9.404	10.481	5.7750	314	15.6%	26.1%	.3259
		Midsize	9.475	10.668	5.5451	49	2.4%	4.2%	.7922
		Multifamily	7.778	8.067	3.7860	280	14.0%	17.9%	.2263
		Total	8.613	9.444	5.1240	643	32.0%	48.2%	.2021
	Natural Gas	Single Family	4.977	6.161	4.6690	42	2.1%	2.1%	.7204
		Midsize	3.793	4.015	.5387	3	.1%	.1%	.3110
		Multifamily	8.286	9.229	3.5848	14	.7%	1.0%	.9581
		Total	6.268	6.780	4.5190	59	2.9%	3.2%	.5883
	Total	Single Family	9.040	9.972	5.8198	356	17.7%	28.2%	.3084
		Midsize	9.351	10.284	5.6040	52	2.6%	4.2%	.7771
		Multifamily	7.820	8.122	3.7790	294	14.6%	19.0%	.2204
		Total	8.397	9.220	5.1266	702	35.0%	51.4%	.1935
Natural Gas or Fuel Oil	Electric	Single Family	4.585	5.427	3.2203	534	26.6%	23.0%	.1394
		Midsize	4.595	6.015	3.7265	13	.6%	.6%	1.0335
		Multifamily	4.592	5.185	2.6136	19	.9%	.8%	.5996
		Total	4.587	5.433	3.2102	566	28.2%	24.4%	.1349
	Natural Gas	Single Family	3.524	4.135	2.3035	684	34.1%	22.5%	.0881
		Midsize	3.193	4.154	2.7304	35	1.7%	1.2%	.4615
		Multifamily	3.335	3.574	2.9124	20	1.0%	.6%	.6512
		Total	3.500	4.121	2.3411	739	36.8%	24.2%	.0861
	Total	Single Family	3.955	4.701	2.8163	1218	60.7%	45.5%	.0807
		Midsize	3.586	4.658	3.1044	48	2.4%	1.8%	.4481
		Multifamily	3.614	4.359	2.8535	39	1.9%	1.4%	.4569
		Total	3.939	4.690	2.8267	1305	65.0%	48.6%	.0782
Total	Electric	Single Family	5.930	7.299	4.9813	848	42.3%	49.1%	.1711
		Midsize	8.838	9.693	5.5294	62	3.1%	4.8%	.7022
		Multifamily	7.573	7.884	3.7853	299	14.9%	18.7%	.2189
		Total	6.438	7.566	4.7732	1209	60.2%	72.6%	.1373
	Natural Gas	Single Family	3.553	4.252	2.5408	726	36.2%	24.5%	.0943
		Midsize	3.351	4.143	2.6207	38	1.9%	1.3%	.4251
		Multifamily	4.048	5.903	4.2340	34	1.7%	1.6%	.7261
		Total	3.559	4.317	2.6544	798	39.8%	27.4%	.0940
	Total	Single Family	4.526	5.893	4.3179	1574	78.4%	73.7%	.1088
		Midsize	6.589	7.584	5.3605	100	5.0%	6.0%	.5361
		Multifamily	7.416	7.682	3.8735	333	16.6%	20.3%	.2123
		Total	4.975	6.274	4.3646	2007	100.0%	100.0%	.0974

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * B1_1 Home Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	9369.720	1	9369.720	651.323	.000
	Within Groups		28843.275	2005	14.386		
	Total		38212.995	2006			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * B1_1 Home Heating Fuel - Elec vs Gas-Oil	.495	.245

Figure 300: Annual Household Electricity Use, for Homes with Electric Home Heat (all water heat fuels)

Annual Energy Use

E1_1 Water Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Electric	Single Family	16335.00	16969.62	441.584	7837.338	315	44.1%	61.2%
	Midsize	11413.50	12173.74	762.836	5605.674	54	7.6%	7.5%
	Multifamily	7019.00	7417.31	189.242	3205.956	287	40.1%	24.4%
	Total	10588.50	12395.70	295.808	7576.370	656	91.7%	93.1%
Natural Gas	Single Family	9166.50	10551.43	946.787	6135.878	42	5.9%	5.1%
	Midsize	5174.00	6887.33	2521.725	4367.757	3	.4%	.2%
	Multifamily	9131.00	9685.79	1224.909	4583.190	14	2.0%	1.6%
	Total	9083.00	10159.71	744.462	5718.318	59	8.3%	6.9%
Total	Single Family	15531.00	16214.54	419.421	7924.730	357	49.9%	66.3%
	Midsize	11393.00	11895.51	747.391	5642.679	57	8.0%	7.8%
	Multifamily	7041.00	7522.82	190.625	3307.223	301	42.1%	25.9%
	Total	10396.00	12211.20	279.093	7462.802	715	100.0%	100.0%

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * E1_1 Water Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	2.71E+08	1	270639047.9	4.886	.027
	Within Groups		3.95E+10	713	55391940.70		
	Total		3.98E+10	714			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use * E1_1 Water Heating Fuel - Elec vs Gas-Oil	.082	.007

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric

Annual Energy Use per Square Foot

E1_1 Water Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Electric	Single Family	9.404	10.481	5.7750	314	44.7%	50.8%	.3259
	Midsize	9.475	10.668	5.5451	49	7.0%	8.1%	.7922
	Multifamily	7.778	8.067	3.7860	280	39.9%	34.9%	.2263
	Total	8.613	9.444	5.1240	643	91.6%	93.8%	.2021
Natural Gas	Single Family	4.977	6.161	4.6690	42	6.0%	4.0%	.7204
	Midsize	3.793	4.015	.5387	3	.4%	.2%	.3110
	Multifamily	8.286	9.229	3.5848	14	2.0%	2.0%	.9581
	Total	6.268	6.780	4.5190	59	8.4%	6.2%	.5883
Total	Single Family	9.040	9.972	5.8198	356	50.7%	54.8%	.3084
	Midsize	9.351	10.284	5.6040	52	7.4%	8.3%	.7771
	Multifamily	7.820	8.122	3.7790	294	41.9%	36.9%	.2204
	Total	8.397	9.220	5.1266	702	100.0%	100.0%	.1935

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * E1_1 Water Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	383.608	1	383.608	14.885	.000
	Within Groups		18040.400	700	25.772		
	Total		18424.008	701			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use per Square Foot * E1_1 Water Heating Fuel - Elec vs Gas-Oil	.144	.021

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric

Figure 301: Annual Household Electricity Use, for Homes with Gas or Oil Home Heat (all water heat fuels)

Annual Energy Use

E1_1 Water Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Electric	Single Family	9596.00	10363.39	208.780	4829.088	535	40.7%	44.9%
	Midsize	7705.00	8571.57	1465.722	5484.228	14	1.1%	1.0%
	Multifamily	3482.00	4400.55	575.875	2575.392	20	1.5%	.7%
	Total	9416.00	10109.71	205.808	4909.281	569	43.3%	46.6%
Natural Gas	Single Family	8169.00	9162.18	190.237	4982.625	686	52.2%	50.9%
	Midsize	5278.50	6214.92	552.408	3314.449	36	2.7%	1.8%
	Multifamily	2994.50	4065.68	727.110	3410.450	22	1.7%	.7%
	Total	7794.00	8868.86	182.716	4983.832	744	56.7%	53.4%
Total	Single Family	8809.00	9688.51	141.660	4949.982	1221	93.0%	95.8%
	Midsize	5391.50	6874.78	582.561	4119.331	50	3.8%	2.8%
	Multifamily	3299.50	4225.14	464.444	3009.941	42	3.2%	1.4%
	Total	8501.00	9406.60	137.652	4987.858	1313	100.0%	100.0%

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * E1_1 Water Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	4.96E+08	1	496430602.3	20.247	.000
	Within Groups		3.21E+10	1311	24519037.86		
	Total		3.26E+10	1312			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use * E1_1 Water Heating Fuel - Elec vs Gas-Oil	.123	.015

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil

Annual Energy Use per Square Foot

E1_1 Water Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Electric	Single Family	4.585	5.427	3.2203	534	40.9%	47.4%	.1394
	Midsize	4.595	6.015	3.7265	13	1.0%	1.3%	1.0335
	Multifamily	4.592	5.185	2.6136	19	1.5%	1.6%	.5996
	Total	4.587	5.433	3.2102	566	43.4%	50.2%	.1349
Natural Gas	Single Family	3.524	4.135	2.3035	684	52.4%	46.2%	.0881
	Midsize	3.193	4.154	2.7304	35	2.7%	2.4%	.4615
	Multifamily	3.335	3.574	2.9124	20	1.5%	1.2%	.6512
	Total	3.500	4.121	2.3411	739	56.6%	49.8%	.0861
Total	Single Family	3.955	4.701	2.8163	1218	93.3%	93.6%	.0807
	Midsize	3.586	4.658	3.1044	48	3.7%	3.7%	.4481
	Multifamily	3.614	4.359	2.8535	39	3.0%	2.8%	.4569
	Total	3.939	4.690	2.8267	1305	100.0%	100.0%	.0782

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * E1_1 Water Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	551.770	1	551.770	72.861	.000
	Within Groups		9867.497	1303	7.573		
	Total		10419.267	1304			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use per Square Foot * E1_1 Water Heating Fuel - Elec vs Gas-Oil	.230	.053

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil

Figure 302: Annual Household Electricity Use, for Homes with Electric Water Heat (all home heat fuels)

Annual Energy Use

B1_1 Home Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Electric	Single Family	16335.00	16969.62	441.584	7837.338	315	25.7%	38.5%
	Midsize	11413.50	12173.74	762.836	5605.674	54	4.4%	4.7%
	Multifamily	7019.00	7417.31	189.242	3205.956	287	23.4%	15.3%
	Total	10588.50	12395.70	295.808	7576.370	656	53.6%	58.6%
Natural Gas or Fuel Oil	Single Family	9596.00	10363.39	208.780	4829.088	535	43.7%	39.9%
	Midsize	7705.00	8571.57	1465.722	5484.228	14	1.1%	.9%
	Multifamily	3482.00	4400.55	575.875	2575.392	20	1.6%	.6%
	Total	9416.00	10109.71	205.808	4909.281	569	46.4%	41.4%
Total	Single Family	11017.00	12811.58	236.586	6897.598	850	69.4%	78.4%
	Midsize	11207.00	11432.12	695.007	5731.175	68	5.6%	5.6%
	Multifamily	6877.00	7220.78	185.591	3251.813	307	25.1%	16.0%
	Total	9727.00	11333.88	187.796	6572.845	1225	100.0%	100.0%

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * B1_1 Home Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	1.59E+09	1	1592314864	37.970	.000
	Within Groups		5.13E+10	1223	41935643.82		
	Total		5.29E+10	1224			

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use * B1_1 Home Heating Fuel - Elec vs Gas-Oil	.174	.030

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Annual Energy Use per Square Foot

B1_1 Home Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Electric	Single Family	9.404	10.481	5.7750	314	26.0%	36.0%	.3259
	Midsize	9.475	10.668	5.5451	49	4.1%	5.7%	.7922
	Multifamily	7.778	8.067	3.7860	280	23.2%	24.7%	.2263
	Total	8.613	9.444	5.1240	643	53.2%	66.4%	.2021
Natural Gas or Fuel Oil	Single Family	4.585	5.427	3.2203	534	44.2%	31.7%	.1394
	Midsize	4.595	6.015	3.7265	13	1.1%	.9%	1.0335
	Multifamily	4.592	5.185	2.6136	19	1.6%	1.1%	.5996
	Total	4.587	5.433	3.2102	566	46.8%	33.6%	.1349
Total	Single Family	5.930	7.299	4.9813	848	70.1%	67.7%	.1711
	Midsize	8.838	9.693	5.5294	62	5.1%	6.6%	.7022
	Multifamily	7.573	7.884	3.7853	299	24.7%	25.8%	.2189
	Total	6.438	7.566	4.7732	1209	100.0%	100.0%	.1373

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * B1_1 Home Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	4844.362	1	4844.362	257.827	.000
	Within Groups		22678.592	1207	18.789		
	Total		27522.954	1208			

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use per Square Foot * B1_1 Home Heating Fuel - Elec vs Gas-Oil	.420	.176

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Figure 303: Annual Household Electricity Use, for Homes with Natural Gas Water Heat (all home heat fuels)

Annual Energy Use

B1_1 Home Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Electric	Single Family	9166.50	10551.43	946.787	6135.878	42	5.2%	6.2%
	Midsize	5174.00	6887.33	2521.725	4367.757	3	.4%	.3%
	Multifamily	9131.00	9685.79	1224.909	4583.190	14	1.7%	1.9%
	Total	9083.00	10159.71	744.462	5718.318	59	7.3%	8.3%
Natural Gas or Fuel Oil	Single Family	8169.00	9162.18	190.237	4982.625	686	85.4%	87.3%
	Midsize	5278.50	6214.92	552.408	3314.449	36	4.5%	3.1%
	Multifamily	2994.50	4065.68	727.110	3410.450	22	2.7%	1.2%
	Total	7794.00	8868.86	182.716	4983.832	744	92.7%	91.7%
Total	Single Family	8188.00	9242.33	187.598	5061.680	728	90.7%	93.5%
	Midsize	5174.00	6266.64	534.821	3339.957	39	4.9%	3.4%
	Multifamily	5128.50	6251.28	790.599	4743.597	36	4.5%	3.1%
	Total	7834.00	8963.71	178.166	5048.729	803	100.0%	100.0%

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * B1_1 Home Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	91087620	1	91087620.42	3.585	.059
	Within Groups		2.04E+10	801	25407765.24		
	Total		2.04E+10	802			

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use * B1_1 Home Heating Fuel - Elec vs Gas-Oil	.067	.004

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Annual Energy Use per Square Foot

B1_1 Home Heating Fuel - Elec vs Gas-Oil	A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Electric	Single Family	4.977	6.161	4.6690	42	5.3%	7.5%	.7204
	Midsize	3.793	4.015	.5387	3	.4%	.3%	.3110
	Multifamily	8.286	9.229	3.5848	14	1.8%	3.8%	.9581
	Total	6.268	6.780	4.5190	59	7.4%	11.6%	.5883
Natural Gas or Fuel Oil	Single Family	3.524	4.135	2.3035	684	85.7%	82.1%	.0881
	Midsize	3.193	4.154	2.7304	35	4.4%	4.2%	.4615
	Multifamily	3.335	3.574	2.9124	20	2.5%	2.1%	.6512
	Total	3.500	4.121	2.3411	739	92.6%	88.4%	.0861
Total	Single Family	3.553	4.252	2.5408	726	91.0%	89.6%	.0943
	Midsize	3.351	4.143	2.6207	38	4.8%	4.6%	.4251
	Multifamily	4.048	5.903	4.2340	34	4.3%	5.8%	.7261
	Total	3.559	4.317	2.6544	798	100.0%	100.0%	.0940

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * B1_1 Home Heating Fuel - Elec vs Gas-Oil	Between Groups	(Combined)	386.414	1	386.414	58.820	.000
	Within Groups		5229.306	796	6.569		
	Total		5615.720	797			

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use per Square Foot * B1_1 Home Heating Fuel - Elec vs Gas-Oil	.262	.069

a. E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Figure 304: Annual Household Electricity Use, for Homes with Electric Home Heat and Electric Water Heat (all-electric homes)

Annual Energy Use

A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Single Family	16335.00	16969.62	441.584	7837.338	315	48.0%	65.7%
Midsize	11413.50	12173.74	762.836	5605.674	54	8.2%	8.1%
Multifamily	7019.00	7417.31	189.242	3205.956	287	43.8%	26.2%
Total	10588.50	12395.70	295.808	7576.370	656	100.0%	100.0%

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A2 Housing Type	Between Groups	(Combined)	1.37E+10	2	6852902123	187.298	.000
	Within Groups		2.39E+10	653	36588205.64		
	Total		3.76E+10	655			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use * A2 Housing Type	.604	.365

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Annual Energy Use per Square Foot

A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Single Family	9.404	10.481	5.7750	314	48.8%	54.2%	.3259
Midsize	9.475	10.668	5.5451	49	7.6%	8.6%	.7922
Multifamily	7.778	8.067	3.7860	280	43.5%	37.2%	.2263
Total	8.613	9.444	5.1240	643	100.0%	100.0%	.2021

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A2 Housing Type	Between Groups	(Combined)	942.133	2	471.066	18.945	.000
	Within Groups		15913.846	640	24.865		
	Total		16855.979	642			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use per Square Foot * A2 Housing Type	.236	.056

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Figure 305: Annual Household Electricity Use, for Homes with Electric Home Heat and Natural Gas Water Heat (dual-fuel homes)

Annual Energy Use

A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Single Family	9166.50	10551.43	946.787	6135.878	42	71.2%	73.9%
Midsize	5174.00	6887.33	2521.725	4367.757	3	5.1%	3.4%
Multifamily	9131.00	9685.79	1224.909	4583.190	14	23.7%	22.6%
Total	9083.00	10159.71	744.462	5718.318	59	100.0%	100.0%

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A2 Housing Type	Between Groups	(Combined)	41714431	2	20857215.40	.630	.536
	Within Groups		1.85E+09	56	33122084.95		
	Total		1.90E+09	58			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use * A2 Housing Type	.148	.022

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Annual Energy Use per Square Foot

A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Single Family	4.977	6.161	4.6690	42	71.2%	64.7%	.7204
Midsize	3.793	4.015	.5387	3	5.1%	3.0%	.3110
Multifamily	8.286	9.229	3.5848	14	23.7%	32.3%	.9581
Total	6.268	6.780	4.5190	59	100.0%	100.0%	.5883

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A2 Housing Type	Between Groups	(Combined)	122.990	2	61.495	3.244	.046
	Within Groups		1061.431	56	18.954		
	Total		1184.421	58			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use per Square Foot * A2 Housing Type	.322	.104

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Electric, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Figure 306: Annual Household Electricity Use, for Homes with Natural Gas or Oil Home Heat and Electric Water Heat (multi-fuel homes)

Annual Energy Use

A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Single Family	9596.00	10363.39	208.780	4829.088	535	94.0%	96.4%
Midsize	7705.00	8571.57	1465.722	5484.228	14	2.5%	2.1%
Multifamily	3482.00	4400.55	575.875	2575.392	20	3.5%	1.5%
Total	9416.00	10109.71	205.808	4909.281	569	100.0%	100.0%

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A2 Housing Type	Between Groups	(Combined)	7.19E+08	2	359720832.3	15.698	.000
	Within Groups		1.30E+10	566	22915102.82		
	Total		1.37E+10	568			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use * A2 Housing Type	.229	.053

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Annual Energy Use per Square Foot

A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Single Family	4.585	5.427	3.2203	534	94.3%	94.3%	.1394
Midsize	4.595	6.015	3.7265	13	2.3%	2.5%	1.0335
Multifamily	4.592	5.185	2.6136	19	3.4%	3.2%	.5996
Total	4.587	5.433	3.2102	566	100.0%	100.0%	.1349

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A2 Housing Type	Between Groups	(Combined)	5.584	2	2.792	.270	.763
	Within Groups		5817.029	563	10.332		
	Total		5822.613	565			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use per Square Foot * A2 Housing Type	.031	.001

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Electric

Figure 307: Annual Household Electricity Use, for Homes with Natural Gas or Oil Home Heat and Natural Gas Water Heat (nonelectric homes)

Annual Energy Use

A2 Housing Type	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Single Family	8169.00	9162.18	190.237	4982.625	686	92.2%	95.3%
Midsize	5278.50	6214.92	552.408	3314.449	36	4.8%	3.4%
Multifamily	2994.50	4065.68	727.110	3410.450	22	3.0%	1.4%
Total	7794.00	8868.86	182.716	4983.832	744	100.0%	100.0%

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A2 Housing Type	Between Groups	(Combined)	8.20E+08	2	410067035.1	17.231	.000
	Within Groups		1.76E+10	741	23798832.25		
	Total		1.85E+10	743			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use * A2 Housing Type	.211	.044

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Annual Energy Use per Square Foot

A2 Housing Type	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Single Family	3.524	4.135	2.3035	684	92.6%	92.9%	.0881
Midsize	3.193	4.154	2.7304	35	4.7%	4.8%	.4615
Multifamily	3.335	3.574	2.9124	20	2.7%	2.3%	.6512
Total	3.500	4.121	2.3411	739	100.0%	100.0%	.0861

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

ANOVA Table[a]

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A2 Housing Type	Between Groups	(Combined)	6.151	2	3.076	.561	.571
	Within Groups		4038.733	736	5.487		
	Total		4044.885	738			

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Measures of Association[a]

	Eta	Eta Squared
Annual Energy Use per Square Foot * A2 Housing Type	.039	.002

a. B1_1 Home Heating Fuel - Elec vs Gas-Oil = Natural Gas or Fuel Oil, E1_1 Water Heating Fuel - Elec vs Gas-Oil = Natural Gas

Variations by Programmable Thermostat, Air Conditioning, CFL Light Bulbs & Major Appliance Holdings

Figure 308: Annual Single-Family Household Electricity Use, by Presence of Programmable Thermostat

Report

Annual Energy Use

B6 Do you have a programmable	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	9446.00	10680.26	5874.214	1027	61.1%	58.8%	183.301
No	9818.00	11786.85	7008.861	653	38.9%	41.2%	274.278
Total	9593.00	11110.38	6360.301	1680	100.0%	100.0%	155.175

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * B6 Do you have a programmable thermostat, with a clock that allows different settings for times of day?	Between Groups	(Combined)	4.89E+08	1	488818790.5	12.164	.000
	Within Groups		6.74E+10	1678	40186225.69		
	Total		6.79E+10	1679			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * B6 Do you have a programmable thermostat, with a clock that allows different settings for times of day?	.085	.007

Annual Energy Use per Square Foot

B6 Do you have a programmable	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	4.163	4.999	3.0564	1027	61.3%	52.2%	.0954
No	5.557	7.235	5.4537	649	38.7%	47.8%	.2141
Total	4.507	5.865	4.2913	1676	100.0%	100.0%	.1048

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * B6 Do you have a programmable thermostat, with a clock that allows different settings for times of day?	Between Groups	(Combined)	1987.840	1	1987.840	115.310	.000
	Within Groups		28858.190	1674	17.239		
	Total		30846.030	1675			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * B6 Do you have a programmable thermostat, with a clock that allows different settings for times of day?	.254	.064

Figure 309: Annual Household Electricity Use, by Presence of Air Conditioning Now

Annual Energy Use

C3 Do you have air conditioning in	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Yes	11512.50	13079.71	405.606	7164.429	312	14.0%	18.0%
No	8464.50	9681.33	131.391	5754.258	1918	86.0%	82.0%
Total	8865.50	10156.80	128.860	6085.130	2230	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * C3 Do you have air conditioning in your home now?	Between Groups	(Combined)	3.10E+09	1	3099160605	86.922	.000
	Within Groups		7.94E+10	2228	35654419.00		
	Total		8.25E+10	2229			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * C3 Do you have air conditioning in your home now?	.194	.038

Annual Energy Use per Square Foot

C3 Do you have air conditioning in	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	6.095	7.245	4.2437	310	14.0%	16.3%	.2410
No	4.697	6.051	4.3396	1900	86.0%	83.7%	.0996
Total	4.935	6.219	4.3452	2210	100.0%	100.0%	.0924

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * C3 Do you have air conditioning in your home now?	Between Groups	(Combined)	379.695	1	379.695	20.286	.000
	Within Groups		41327.704	2208	18.717		
	Total		41707.399	2209			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * C3 Do you have air conditioning in your home now?	.095	.009

Figure 310: Annual Household Electricity Use, by Type of Air Conditioning in Homes Having AC Now

Annual Energy Use

C4 Type of air conditioning that you have	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Central heat pump (with ducts) that provides cooling	13755.00	14796.12	692.652	7836.461	128	35.1%	41.1%
Another type of central air conditioning	11512.50	12445.26	954.190	5563.835	34	9.3%	9.2%
Window or wall air conditioners	10083.00	11542.93	605.899	6637.288	120	32.9%	30.1%
Portable units	10295.50	11135.51	739.180	6528.262	78	21.4%	18.9%
Evaporative unit ('swamp cooler')	6338.00	6796.80	1695.847	3792.029	5	1.4%	.7%
Total	10987.00	12615.75	373.053	7127.173	365	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * C4 Type of air conditioning that you have	Between Groups	(Combined)	1.09E+09	4	271954871.8	5.626	.000
	Within Groups		1.74E+10	360	48339278.63		
	Total		1.85E+10	364			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * C4 Type of air conditioning that you have	.243	.059

Annual Energy Use per Square Foot

C4 Type of air conditioning that you have	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Central heat pump (with ducts) that provides cooling	6.056	6.844	3.4548	126	35.1%	33.7%	.3078
Another type of central air conditioning	4.606	5.353	2.9487	34	9.5%	7.1%	.5057
Window or wall air conditioners	6.248	7.920	5.1222	116	32.3%	35.9%	.4756
Portable units	6.182	7.269	4.4310	78	21.7%	22.2%	.5017
Evaporative unit ('swamp cooler')	3.039	5.133	3.4282	5	1.4%	1.0%	1.5332
Total	6.023	7.119	4.2827	359	100.0%	100.0%	.2260

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * C4 Type of air conditioning that you have	Between Groups	(Combined)	211.398	4	52.850	2.944	.020
	Within Groups		6354.914	354	17.952		
	Total		6566.313	358			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * C4 Type of air conditioning that you have	.179	.032

Figure 311: Annual Household Electricity Use, by Number of CFL Bulbs Currently Installed

Annual Energy Use

G1 No. of CFLs installed right now in your home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
1-2 bulbs	7883.50	9596.32	318.849	5948.055	348	15.4%	14.5%
3-5 bulbs	8656.50	9976.64	265.750	5942.352	500	22.1%	21.7%
6-10 bulbs	8908.00	10252.53	255.436	6355.178	619	27.4%	27.6%
11-20 bulbs	9727.00	11077.56	316.691	6066.924	367	16.2%	17.7%
21 bulbs or more	9405.50	10892.07	488.048	5691.574	136	6.0%	6.4%
None at all	8276.00	9637.63	357.677	6101.516	291	12.9%	12.2%
Total	8861.00	10183.77	128.283	6099.861	2261	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * G1 No. of CFLs installed right now in your home	Between Groups	(Combined)	5.93E+08	5	118535955.5	3.201	.007
	Within Groups		8.35E+10	2255	37027975.76		
	Total		8.41E+10	2260			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * G1 No. of CFLs installed right now in your home	.084	.007

Annual Energy Use per Square Foot

G1 No. of CFLs installed right now in your home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
1-2 bulbs	5.202	6.441	4.4149	343	15.3%	15.8%	.2384
3-5 bulbs	5.413	6.576	4.8360	495	22.1%	23.3%	.2174
6-10 bulbs	4.703	5.994	3.9611	613	27.4%	26.3%	.1600
11-20 bulbs	4.706	5.963	4.1397	364	16.3%	15.5%	.2170
21 bulbs or more	3.929	4.756	2.7394	134	6.0%	4.6%	.2366
None at all	5.670	7.037	4.8348	286	12.8%	14.4%	.2859
Total	4.947	6.246	4.3521	2235	100.0%	100.0%	.0921

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * G1 No. of CFLs installed right now in your home	Between Groups	(Combined)	611.300	5	122.260	6.535	.000
	Within Groups		41702.321	2229	18.709		
	Total		42313.621	2234			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * G1 No. of CFLs installed right now in your home	.120	.014

Figure 312: Annual Household Electricity Use, by Number of Electric Microwave Ovens

Annual Energy Use

F1_04 No. Electric Microwave oven in home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	7062.00	8008.77	381.914	4598.859	145	6.8%	5.3%
1	8926.00	10261.40	140.163	6119.210	1906	89.2%	89.6%
2	11603.00	12967.27	731.962	6708.540	84	3.9%	5.0%
3+	8012.50	8012.50	5572.500	7880.705	2	.1%	.1%
Total	8881.00	10212.81	131.997	6101.940	2137	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_04 No. Electric Microwave oven in home	Between Groups	(Combined)	1.36E+09	3	451959877.5	12.332	.000
	Within Groups		7.82E+10	2133	36650365.84		
	Total		7.95E+10	2136			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_04 No. Electric Microwave oven in home	.131	.017

Annual Energy Use per Square Foot

F1_04 No. Electric Microwave oven in home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.493	6.211	5.0398	145	6.9%	6.9%	.4185
1	4.953	6.189	4.2559	1884	89.1%	89.1%	.0981
2	4.621	5.954	4.8192	84	4.0%	3.8%	.5258
3+	12.570	12.570	13.9130	2	.1%	.2%	9.8379
Total	4.901	6.187	4.3483	2115	100.0%	100.0%	.0946

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_04 No. Electric Microwave oven in home	Between Groups	(Combined)	86.157	3	28.719	1.520	.207
	Within Groups		39884.840	2111	18.894		
	Total		39970.997	2114			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_04 No. Electric Microwave oven in home	.046	.002

Figure 313: Annual Household Electricity Use, by Number of Electric Cooktops or Ranges Together with Oven

Annual Energy Use

F1_01 No. Electric Cooktop / range together	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8646.00	9545.87	269.679	5346.173	393	20.1%	19.0%
1	8659.00	10166.47	159.943	6235.716	1520	77.7%	78.2%
2	11964.00	12657.88	986.127	6314.294	41	2.1%	2.6%
3+	13585.00	14728.00	5604.972	9708.097	3	.2%	.2%
Total	8762.00	10101.03	137.634	6088.651	1957	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_01 No. Electric Cooktop / range together with oven in home	Between Groups	(Combined)	4.60E+08	3	153299106.3	4.155	.006
	Within Groups		7.21E+10	1953	36893139.39		
	Total		7.25E+10	1956			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_01 No. Electric Cooktop / range together with oven in home	.080	.006

Annual Energy Use per Square Foot

F1_01 No. Electric Cooktop / range together	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	3.980	4.735	3.4368	392	20.2%	14.9%	.1736
1	5.665	6.908	4.6615	1501	77.5%	83.1%	.1203
2	4.157	5.319	3.0298	41	2.1%	1.7%	.4732
3+	10.399	12.630	8.8756	3	.2%	.3%	5.1243
Total	5.083	6.444	4.5096	1937	100.0%	100.0%	.1025

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_01 No. Electric Cooktop / range together with oven in home	Between Groups	(Combined)	1634.344	3	544.781	27.905	.000
	Within Groups		37737.335	1933	19.523		
	Total		39371.680	1936			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_01 No. Electric Cooktop / range together with oven in home	.204	.042

Figure 314: Annual Household Electricity Use, by Number of Electric Cooktops or Ranges (separate from oven)

Annual Energy Use

F1_02 No. Electric Separate cooktop	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8284.00	9398.08	168.939	5445.514	1039	80.8%	76.7%
1	10097.50	11887.93	444.819	6891.102	240	18.7%	22.4%
2	15531.00	15857.14	1590.894	4209.110	7	.5%	.9%
Total	8670.50	9897.91	162.608	5831.274	1286	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_02 No. Electric Separate cooktop or range in home	Between Groups	(Combined)	1.46E+09	2	729303001.1	22.154	.000
	Within Groups		4.22E+10	1283	32919895.60		
	Total		4.37E+10	1285			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_02 No. Electric Separate cooktop or range in home	.183	.033

Annual Energy Use per Square Foot

F1_02 No. Electric Separate cooktop	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.944	6.167	4.2354	1026	80.7%	82.0%	.1322
1	4.590	5.626	3.5518	239	18.8%	17.4%	.2297
2	6.098	6.563	2.6781	7	.6%	.6%	1.0122
Total	4.888	6.068	4.1121	1272	100.0%	100.0%	.1153

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_02 No. Electric Separate cooktop or range in home	Between Groups	(Combined)	58.391	2	29.196	1.729	.178
	Within Groups		21432.899	1269	16.890		
	Total		21491.290	1271			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_02 No. Electric Separate cooktop or range in home	.052	.003

Figure 315: Annual Household Electricity Use, by Number of Electric Ovens (separate from range)

Annual Energy Use

F1_03 No. Electric Separate oven in home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8036.00	9166.24	175.394	5345.924	929	66.7%	60.6%
1	9952.50	11546.89	319.145	6414.742	404	29.0%	33.2%
2	11949.00	14224.25	977.478	7379.799	57	4.1%	5.8%
3+	17562.00	17183.00	525.795	910.704	3	.2%	.4%
Total	8881.00	10080.91	158.854	5928.879	1393	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_03 No. Electric Separate oven in home	Between Groups	(Combined)	2.78E+09	3	925100740.2	27.840	.000
	Within Groups		4.62E+10	1389	33229466.63		
	Total		4.89E+10	1392			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_03 No. Electric Separate oven in home	.238	.057

Annual Energy Use per Square Foot

F1_03 No. Electric Separate oven in home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	5.040	6.367	4.4471	917	66.5%	70.2%	.1469
1	4.357	5.505	3.5403	401	29.1%	26.5%	.1768
2	4.127	4.599	2.5907	57	4.1%	3.2%	.3432
3+	4.529	4.245	2.0103	3	.2%	.2%	1.1606
Total	4.712	6.038	4.1621	1378	100.0%	100.0%	.1121

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_03 No. Electric Separate oven in home	Between Groups	(Combined)	340.796	3	113.599	6.638	.000
	Within Groups		23512.907	1374	17.113		
	Total		23853.702	1377			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_03 No. Electric Separate oven in home	.120	.014

Figure 316: Annual Household Electricity Use, by Number of Electric Dishwashers

Annual Energy Use

F1_05 No. Electric Dishwasher in home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	6879.00	8277.55	322.123	5560.714	298	14.5%	11.7%
1	9133.00	10559.61	148.063	6131.650	1715	83.5%	85.5%
2	15235.00	15156.79	1014.509	6335.606	39	1.9%	2.8%
3+	2440.00	2440.00	.	.	1	.0%	.0%
Total	8976.00	10311.74	135.604	6144.239	2053	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_05 No. Electric Dishwasher in home	Between Groups	(Combined)	2.32E+09	3	771980191.6	21.048	.000
	Within Groups		7.52E+10	2049	36676669.37		
	Total		7.75E+10	2052			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_05 No. Electric Dishwasher in home	.173	.030

Annual Energy Use per Square Foot

F1_05 No. Electric Dishwasher in home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	5.558	6.952	4.9532	294	14.4%	16.4%	.2889
1	4.828	5.998	4.0786	1701	83.6%	82.0%	.0989
2	4.304	5.014	2.9173	39	1.9%	1.6%	.4671
3+	2.732	2.732	.	1	.0%	.0%	.
Total	4.858	6.116	4.2117	2035	100.0%	100.0%	.0934

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_05 No. Electric Dishwasher in home	Between Groups	(Combined)	287.973	3	95.991	5.447	.001
	Within Groups		35791.539	2031	17.623		
	Total		36079.512	2034			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_05 No. Electric Dishwasher in home	.089	.008

Figure 317: Annual Household Electricity Use, by Number of Electric Clothes Dryers

Annual Energy Use

F1_06 No. Electric Clothes dryer (electric	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	6031.00	6800.46	272.654	4471.855	269	12.9%	8.4%
1	9410.00	10838.37	145.369	6143.436	1786	85.7%	89.4%
2	16473.50	16778.39	1933.001	10228.481	28	1.3%	2.2%
Total	8981.00	10396.76	136.260	6218.907	2083	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_06 No. Electric Clothes dryer (electric heat) in home	Between Groups	(Combined)	4.97E+09	2	2483843490	68.381	.000
	Within Groups		7.56E+10	2080	36323676.43		
	Total		8.05E+10	2082			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_06 No. Electric Clothes dryer (electric heat) in home	.248	.062

Annual Energy Use per Square Foot

F1_06 No. Electric Clothes dryer (electric	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.529	5.596	3.6824	265	12.9%	11.6%	.2262
1	4.948	6.305	4.4379	1770	85.8%	87.2%	.1055
2	4.637	5.794	2.8362	27	1.3%	1.2%	.5458
Total	4.902	6.208	4.3361	2062	100.0%	100.0%	.0955

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_06 No. Electric Clothes dryer (electric heat) in home	Between Groups	(Combined)	120.817	2	60.409	3.220	.040
	Within Groups		38629.517	2059	18.761		
	Total		38750.334	2061			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_06 No. Electric Clothes dryer (electric heat) in home	.056	.003

Figure 318: Annual Household Electricity Use, by Number of Electric Clothes Washers: Top Loading, with Agitator

Annual Energy Use

F1_07 No. Electric Clothes washer .	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	7647.50	8644.10	233.651	5214.125	498	29.7%	25.5%
1	9178.00	10708.50	182.961	6244.828	1165	69.6%	73.9%
2	6125.50	8840.33	1607.118	5567.221	12	.7%	.6%
Total	8707.00	10081.34	147.196	6024.237	1675	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_07 No. Electric Clothes washer . Top loading + agitator in home	Between Groups	(Combined)	1.51E+09	2	752704997.3	21.242	.000
	Within Groups		5.92E+10	1672	35434476.77		
	Total		6.08E+10	1674			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_07 No. Electric Clothes washer . Top loading + agitator in home	.157	.025

Annual Energy Use per Square Foot

F1_07 No. Electric Clothes washer .	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.679	5.816	3.6831	490	29.6%	27.7%	.1664
1	4.987	6.412	4.6436	1155	69.7%	71.9%	.1366
2	3.789	4.010	1.6347	11	.7%	.4%	.4929
Total	4.901	6.220	4.3780	1656	100.0%	100.0%	.1076

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_07 No. Electric Clothes washer . Top loading + agitator in home	Between Groups	(Combined)	176.312	2	88.156	4.620	.010
	Within Groups		31544.284	1653	19.083		
	Total		31720.597	1655			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_07 No. Electric Clothes washer . Top loading + agitator in home	.075	.006

Figure 319: Annual Household Electricity Use, by Number of Electric Clothes Washers: Top Loading, no Agitator

Annual Energy Use

F1_08 No. Electric Clothes washer . Top	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8274.00	9518.70	181.631	5621.775	958	93.4%	92.0%
1	10890.50	11643.44	617.042	5088.262	68	6.6%	8.0%
Total	8509.00	9659.52	175.163	5610.675	1026	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_08 No. Electric Clothes washer . Top loading - agitator in home	Between Groups	(Combined)	2.87E+08	1	286642836.5	9.178	.003
	Within Groups		3.20E+10	1024	31230492.06		
	Total		3.23E+10	1025			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_08 No. Electric Clothes washer . Top loading - agitator in home	.094	.009

Annual Energy Use per Square Foot

F1_08 No. Electric Clothes washer . Top	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.951	6.241	4.2148	945	93.3%	92.6%	.1371
1	5.740	6.888	4.4412	68	6.7%	7.4%	.5386
Total	4.998	6.285	4.2312	1013	100.0%	100.0%	.1329

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_08 No. Electric Clothes washer . Top loading - agitator in home	Between Groups	(Combined)	26.505	1	26.505	1.481	.224
	Within Groups		18091.190	1011	17.894		
	Total		18117.694	1012			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_08 No. Electric Clothes washer . Top loading - agitator in home	.038	.001

Figure 320: Annual Household Electricity Use, by Number of Electric Clothes Washers: Front Loading

Annual Energy Use

F1_09 No. Electric Clothes washer .	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8090.50	9216.09	206.392	5499.479	710	50.8%	46.7%
1	9402.00	10675.01	229.597	5973.945	677	48.4%	51.6%
2	19732.50	19641.42	3618.121	12533.540	12	.9%	1.7%
Total	8774.00	10011.51	158.536	5929.748	1399	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_09 No. Electric Clothes washer . Front loading in home	Between Groups	(Combined)	1.86E+09	2	930035710.4	27.451	.000
	Within Groups		4.73E+10	1396	33879852.76		
	Total		4.92E+10	1398			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_09 No. Electric Clothes washer . Front loading in home	.195	.038

Annual Energy Use per Square Foot

F1_09 No. Electric Clothes washer .	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	5.505	6.634	4.5007	701	50.7%	55.4%	.1700
1	4.500	5.458	3.4766	670	48.5%	43.6%	.1343
2	7.591	7.505	3.7333	11	.8%	1.0%	1.1256
Total	4.847	6.071	4.0722	1382	100.0%	100.0%	.1095

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_09 No. Electric Clothes washer . Front loading in home	Between Groups	(Combined)	496.398	2	248.199	15.276	.000
	Within Groups		22404.979	1379	16.247		
	Total		22901.377	1381			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_09 No. Electric Clothes washer . Front loading in home	.147	.022

Figure 321: Annual Household Electricity Use, by Number of Refrigerators (plugged in more than three months of the year)

Annual Energy Use

F4_02 Refrigerators Plugged in more than	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	7359.50	8697.26	671.222	5453.036	66	3.4%	2.9%
1	7867.50	9209.92	152.534	5682.801	1388	71.6%	64.9%
2	11381.00	12929.29	302.693	6247.514	426	22.0%	28.0%
3+	12267.00	13981.15	928.771	7134.023	59	3.0%	4.2%
Total	8841.00	10154.80	138.216	6086.224	1939	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F4_02 Refrigerators Plugged in more than 3 months of the year	Between Groups	(Combined)	5.52E+09	3	1840836004	53.754	.000
	Within Groups		6.63E+10	1935	34245547.13		
	Total		7.18E+10	1938			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F4_02 Refrigerators Plugged in more than 3 months of the year	.277	.077

Annual Energy Use per Square Foot

F4_02 Refrigerators Plugged in more than	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	6.030	6.762	4.0063	66	3.4%	3.8%	.4931
1	4.874	6.245	4.3250	1366	71.3%	72.2%	.1170
2	4.653	5.798	3.9293	424	22.1%	20.8%	.1908
3+	5.101	6.579	4.3790	59	3.1%	3.3%	.5701
Total	4.858	6.174	4.2344	1915	100.0%	100.0%	.0968

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F4_02 Refrigerators Plugged in more than 3 months of the year	Between Groups	(Combined)	99.398	3	33.133	1.850	.136
	Within Groups		34219.128	1911	17.906		
	Total		34318.526	1914			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F4_02 Refrigerators Plugged in more than 3 months of the year	.054	.003

Figure 322: Annual Household Electricity Use, by Number of Stand-alone Freezers (plugged in more than three months of the year)

Annual Energy Use

F6_02 Freezers plugged in more than	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	7879.00	9025.28	165.363	5451.950	1087	66.2%	59.1%
1	10531.00	12095.20	278.869	6353.074	519	31.6%	37.8%
2	13541.00	16182.52	1799.214	9348.989	27	1.6%	2.6%
3+	8814.50	10694.13	2655.111	7509.789	8	.5%	.5%
Total	8836.00	10122.10	149.534	6057.502	1641	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F6_02 Freezers plugged in more than 3 months of the year	Between Groups	(Combined)	4.32E+09	3	1440837301	42.228	.000
	Within Groups		5.59E+10	1637	34120067.23		
	Total		6.02E+10	1640			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F6_02 Freezers plugged in more than 3 months of the year	.268	.072

Annual Energy Use per Square Foot

F6_02 Freezers plugged in more than	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.853	6.132	4.1579	1070	66.0%	65.8%	.1271
1	4.803	6.125	4.1247	517	31.9%	31.8%	.1814
2	5.477	7.247	6.0364	27	1.7%	2.0%	1.1617
3+	4.823	5.912	4.7696	8	.5%	.5%	1.6863
Total	4.847	6.147	4.1857	1622	100.0%	100.0%	.1039

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F6_02 Freezers plugged in more than 3 months of the year	Between Groups	(Combined)	33.605	3	11.202	.639	.590
	Within Groups		28366.143	1618	17.532		
	Total		28399.748	1621			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F6_02 Freezers plugged in more than 3 months of the year	.034	.001

Figure 323: Annual Household Electricity Use, by Number of Jacuzzi Tubs with Electric Booster Heat

Annual Energy Use

F1_10 No. Electric Jacuzzi tub with	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8558.00	9700.56	163.023	5654.323	1203	93.9%	91.7%
1	10686.00	13403.25	927.623	8086.830	76	5.9%	8.0%
2	15410.00	15410.00	4399.000	6221.125	2	.2%	.2%
Total	8707.00	9929.15	164.580	5890.489	1281	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_10 No. Electric Jacuzzi tub with booster heat in home	Between Groups	(Combined)	1.04E+09	2	520105918.7	15.325	.000
	Within Groups		4.34E+10	1278	33938221.97		
	Total		4.44E+10	1280			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_10 No. Electric Jacuzzi tub with booster heat in home	.153	.023

Annual Energy Use per Square Foot

F1_10 No. Electric Jacuzzi tub with	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.900	6.212	4.2700	1189	93.9%	94.4%	.1238
1	4.889	5.790	4.0406	75	5.9%	5.5%	.4666
2	3.754	3.754	.8080	2	.2%	.1%	.5714
Total	4.893	6.183	4.2541	1266	100.0%	100.0%	.1196

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_10 No. Electric Jacuzzi tub with booster heat in home	Between Groups	(Combined)	24.413	2	12.207	.674	.510
	Within Groups		22869.151	1263	18.107		
	Total		22893.564	1265			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_10 No. Electric Jacuzzi tub with booster heat in home	.033	.001

Figure 324: Annual Household Electricity Use, by Number of Hot Tubs with Electric Heater

Annual Energy Use

F1_11 No. Electric Hot tub with electric	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8421.50	9568.91	161.754	5561.155	1182	90.5%	86.3%
1	12915.00	14348.37	649.099	7198.856	123	9.4%	13.5%
2	27274.00	27274.00	.	.	1	.1%	.2%
Total	8839.50	10032.60	163.730	5916.986	1306	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_11 No. Electric Hot tub with electric heater in home	Between Groups	(Combined)	2.84E+09	2	1421194970	43.220	.000
	Within Groups		4.28E+10	1303	32883044.43		
	Total		4.57E+10	1305			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_11 No. Electric Hot tub with electric heater in home	.249	.062

Annual Energy Use per Square Foot

F1_11 No. Electric Hot tub with electric	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.803	6.173	4.3039	1167	90.4%	89.7%	.1260
1	5.412	6.602	4.0472	123	9.5%	10.1%	.3649
2	11.178	11.178	.	1	.1%	.1%	.
Total	4.911	6.218	4.2810	1291	100.0%	100.0%	.1191

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_11 No. Electric Hot tub with electric heater in home	Between Groups	(Combined)	45.097	2	22.548	1.231	.292
	Within Groups		23596.638	1288	18.320		
	Total		23641.735	1290			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_11 No. Electric Hot tub with electric heater in home	.044	.002

Figure 325: Annual Household Electricity Use, by Number of Swimming Pools with Electric Heater or Pump

Annual Energy Use

F1_12 No. Electric Swimming pool with	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8542.00	9693.89	161.346	5637.892	1221	97.8%	95.7%
1	19517.00	19144.86	1877.844	9936.616	28	2.2%	4.3%
Total	8646.00	9905.76	167.800	5930.251	1249	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_12 No. Electric Swimming pool with heater or pump in home	Between Groups	(Combined)	2.44E+09	1	2444916979	73.564	.000
	Within Groups		4.14E+10	1247	33235436.99		
	Total		4.39E+10	1248			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_12 No. Electric Swimming pool with heater or pump in home	.236	.056

Annual Energy Use per Square Foot

F1_12 No. Electric Swimming pool with	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.863	6.188	4.2665	1206	97.7%	97.7%	.1229
1	6.050	6.366	2.9006	28	2.3%	2.3%	.5482
Total	4.901	6.192	4.2396	1234	100.0%	100.0%	.1207

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_12 No. Electric Swimming pool with heater or pump in home	Between Groups	(Combined)	.868	1	.868	.048	.826
	Within Groups		22161.591	1232	17.988		
	Total		22162.459	1233			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_12 No. Electric Swimming pool with heater or pump in home	.006	.000

Figure 326: Annual Household Electricity Use, by Number of Electric Saunas (dry heat)

Annual Energy Use

F1_13 No. Electric Sauna (dry heat) in home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8591.00	9727.66	161.884	5668.268	1226	97.5%	96.7%
1	12875.00	13241.70	1239.266	6787.739	30	2.4%	3.2%
2	6237.00	6237.00	.	.	1	.1%	.1%
Total	8646.00	9808.75	161.285	5718.228	1257	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_13 No. Electric Sauna (dry heat) in home	Between Groups	(Combined)	3.74E+08	2	187186489.8	5.768	.003
	Within Groups		4.07E+10	1254	32451736.89		
	Total		4.11E+10	1256			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_13 No. Electric Sauna (dry heat) in home	.095	.009

Annual Energy Use per Square Foot

F1_13 No. Electric Sauna (dry heat) in home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.900	6.185	4.2675	1211	97.5%	97.5%	.1226
1	4.892	6.352	3.7205	30	2.4%	2.5%	.6793
2	3.182	3.182	.	1	.1%	.0%	.
Total	4.898	6.186	4.2530	1242	100.0%	100.0%	.1207

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_13 No. Electric Sauna (dry heat) in home	Between Groups	(Combined)	9.851	2	4.926	.272	.762
	Within Groups		22437.463	1239	18.109		
	Total		22447.315	1241			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_13 No. Electric Sauna (dry heat) in home	.021	.000

Figure 327: Annual Household Electricity Use, by Number of Electric Sump Pumps (for drainage, sewage)

Annual Energy Use

F1_14 No. Electric Sump pump (drainage,	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8641.00	9760.77	167.469	5654.389	1140	86.9%	85.9%
1	8946.00	10735.82	515.852	6585.962	163	12.4%	13.5%
2	7137.00	7772.89	754.731	2264.193	9	.7%	.5%
Total	8646.00	9868.27	159.320	5770.817	1312	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_14 No. Electric Sump pump (drainage, sewage) in home	Between Groups	(Combined)	1.75E+08	2	87684242.12	2.640	.072
	Within Groups		4.35E+10	1309	33219240.17		
	Total		4.37E+10	1311			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_14 No. Electric Sump pump (drainage, sewage) in home	.063	.004

Annual Energy Use per Square Foot

F1_14 No. Electric Sump pump (drainage,	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.947	6.263	4.3045	1126	86.8%	87.9%	.1283
1	4.587	5.798	4.2700	162	12.5%	11.7%	.3355
2	2.969	4.013	2.4560	9	.7%	.4%	.8187
Total	4.887	6.190	4.2946	1297	100.0%	100.0%	.1192

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_14 No. Electric Sump pump (drainage, sewage) in home	Between Groups	(Combined)	73.696	2	36.848	2.001	.136
	Within Groups		23828.816	1294	18.415		
	Total		23902.512	1296			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_14 No. Electric Sump pump (drainage, sewage) in home	.056	.003

Figure 328: Annual Household Electricity Use, by Number of Water Beds with Electric Heater

Annual Energy Use

F1_15 No. Electric Water bed with heater in home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8591.00	9760.01	162.121	5690.425	1232	98.7%	98.1%
1	12266.00	14314.67	2391.910	9263.827	15	1.2%	1.8%
2	19194.00	19194.00	.	.	1	.1%	.2%
Total	8641.00	9822.31	163.216	5765.931	1248	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_15 No. Electric Water bed with heater in home	Between Groups	(Combined)	3.95E+08	2	197664943.7	5.993	.003
	Within Groups		4.11E+10	1245	32981836.38		
	Total		4.15E+10	1247			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_15 No. Electric Water bed with heater in home	.098	.010

Annual Energy Use per Square Foot

F1_15 No. Electric Water bed with heater in home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.887	6.179	4.2603	1217	98.7%	98.4%	.1221
1	5.399	7.683	7.1062	15	1.2%	1.5%	1.8348
2	10.723	10.723	.	1	.1%	.1%	.
Total	4.897	6.201	4.3048	1233	100.0%	100.0%	.1226

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_15 No. Electric Water bed with heater in home	Between Groups	(Combined)	53.938	2	26.969	1.456	.233
	Within Groups		22777.115	1230	18.518		
	Total		22831.053	1232			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_15 No. Electric Water bed with heater in home	.049	.002

Figure 329: Annual Household Electricity Use, by Number of Fish Tanks with Electric Pump

Annual Energy Use

F1_16 No. Electric Fish tank with pump in home	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
None	8493.00	9709.24	166.144	5728.960	1189	92.0%	89.5%
1	11239.00	12665.80	621.672	6027.337	94	7.3%	9.2%
2	13831.50	18395.50	4207.456	11900.482	8	.6%	1.1%
3+	14199.00	14199.00	.	.	1	.1%	.1%
Total	8808.00	9981.60	163.724	5884.958	1292	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * F1_16 No. Electric Fish tank with pump in home	Between Groups	(Combined)	1.35E+09	3	449866765.0	13.363	.000
	Within Groups		4.34E+10	1288	33665568.89		
	Total		4.47E+10	1291			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * F1_16 No. Electric Fish tank with pump in home	.174	.030

Annual Energy Use per Square Foot

F1_16 No. Electric Fish tank with pump in home	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
None	4.892	6.181	4.2762	1174	91.9%	90.4%	.1248
1	5.757	7.244	4.9287	94	7.4%	8.5%	.5084
2	7.021	10.207	10.5550	8	.6%	1.0%	3.7318
3+	11.982	11.982	.	1	.1%	.1%	.
Total	4.945	6.289	4.4035	1277	100.0%	100.0%	.1232

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * F1_16 No. Electric Fish tank with pump in home	Between Groups	(Combined)	254.759	3	84.920	4.415	.004
	Within Groups		24488.099	1273	19.237		
	Total		24742.859	1276			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * F1_16 No. Electric Fish tank with pump in home	.101	.010

Variations by Perceived Need for More Energy Efficiency

Figure 330: Annual Household Electricity Use, by Perception of Home Energy Efficiency

Annual Energy Use

A1 Rate the energy efficiency of your	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Very efficient	8043.50	9403.55	332.630	5742.080	298	13.2%	12.2%
Somewhat efficient	8713.50	10062.83	167.944	6003.867	1278	56.6%	56.0%
Not very efficient	9538.50	11039.11	280.897	6551.596	544	24.1%	26.2%
I'm not sure right now	8334.50	9292.47	485.089	5698.507	138	6.1%	5.6%
Total	8844.50	10163.95	128.603	6111.026	2258	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * A1 Rate the energy efficiency of your home overall	Between Groups	(Combined)	7.07E+08	3	235610217.8	6.354	.000
	Within Groups		8.36E+10	2254	37080752.74		
	Total		8.43E+10	2257			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * A1 Rate the energy efficiency of your home overall	.092	.008

Annual Energy Use per Square Foot

A1 Rate the energy efficiency of your	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Very efficient	4.625	5.750	3.9293	297	13.3%	12.3%	.2280
Somewhat efficient	4.729	5.970	4.1405	1267	56.8%	54.6%	.1163
Not very efficient	5.462	6.941	5.0088	534	23.9%	26.8%	.2168
I'm not sure right now	5.692	6.498	3.9979	134	6.0%	6.3%	.3454
Total	4.910	6.205	4.3494	2232	100.0%	100.0%	.0921

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * A1 Rate the energy efficiency of your home overall	Between Groups	(Combined)	431.709	3	143.903	7.675	.000
	Within Groups		41771.950	2228	18.749		
	Total		42203.660	2231			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * A1 Rate the energy efficiency of your home overall	.101	.010

Figure 331: Annual Household Electricity Use, by Perception that Home Needs New Windows

Annual Energy Use

I1 Do you feel that your house or building	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Yes	9086.00	10499.30	226.910	6155.917	736	32.8%	33.8%
Maybe, not sure	8901.00	9962.98	317.414	5946.752	351	15.6%	15.3%
No	8581.00	10068.64	181.724	6178.622	1156	51.5%	50.9%
Total	8860.00	10193.42	129.572	6136.584	2243	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * I1 Do you feel that your house or building needs new windows?	Between Groups	(Combined)	1.06E+08	2	52750556.25	1.401	.246
	Within Groups		8.43E+10	2240	37644182.10		
	Total		8.44E+10	2242			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * I1 Do you feel that your house or building needs new windows?	.035	.001

Annual Energy Use per Square Foot

I1 Do you feel that your house or building	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	5.053	6.643	4.9012	726	32.7%	34.9%	.1819
Maybe, not sure	5.629	6.672	4.3189	343	15.5%	16.6%	.2332
No	4.736	5.847	3.8756	1148	51.8%	48.6%	.1144
Total	4.943	6.235	4.3214	2217	100.0%	100.0%	.0918

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * I1 Do you feel that your house or building needs new windows?	Between Groups	(Combined)	359.749	2	179.874	9.708	.000
	Within Groups		41023.274	2214	18.529		
	Total		41383.022	2216			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * I1 Do you feel that your house or building needs new windows?	.093	.009

Figure 332: Annual Household Electricity Use, by Perception that Walls Need More Insulation

Annual Energy Use

L2 Do you feel that the walls need	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Yes	9504.00	10612.64	259.294	5941.179	525	29.5%	28.5%
Maybe, not sure	9360.50	10972.00	243.053	6281.869	668	37.5%	37.5%
No	9666.50	11353.79	270.728	6553.622	586	32.9%	34.0%
Total	9522.00	10991.71	148.864	6278.827	1779	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * L2 Do you feel that the walls need more insulation?	Between Groups	(Combined)	1.53E+08	2	76262011.95	1.936	.145
	Within Groups		6.99E+10	1776	39382179.58		
	Total		7.01E+10	1778			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * L2 Do you feel that the walls need more insulation?	.047	.002

Annual Energy Use per Square Foot

L2 Do you feel that the walls need	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	4.807	6.100	4.2773	520	29.4%	30.1%	.1876
Maybe, not sure	4.684	6.099	4.5451	667	37.7%	38.6%	.1760
No	4.273	5.700	4.2129	580	32.8%	31.3%	.1749
Total	4.597	5.968	4.3614	1767	100.0%	100.0%	.1038

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * L2 Do you feel that the walls need more insulation?	Between Groups	(Combined)	62.214	2	31.107	1.637	.195
	Within Groups		33529.995	1764	19.008		
	Total		33592.209	1766			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * L2 Do you feel that the walls need more insulation?	.043	.002

Figure 333: Annual Household Electricity Use, by Perception that Attic Needs More Insulation

Annual Energy Use

L6 Do you feel that any part of the attic needs	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Yes	9197.00	10295.57	286.118	5443.768	362	24.7%	23.2%
Maybe, not sure	9461.00	11019.11	256.425	6502.277	643	43.9%	44.2%
No	10065.00	11392.93	298.585	6396.965	459	31.4%	32.6%
Total	9612.50	10957.40	162.893	6232.649	1464	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * L6 Do you feel that any part of the attic needs more insulation?	Between Groups	(Combined)	2.48E+08	2	124036807.9	3.203	.041
	Within Groups		5.66E+10	1461	38729291.92		
	Total		5.68E+10	1463			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * L6 Do you feel that any part of the attic needs more insulation?	.066	.004

Annual Energy Use per Square Foot

L6 Do you feel that any part of the attic needs	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	4.791	6.306	5.0450	360	24.7%	26.0%	.2659
Maybe, not sure	4.616	5.927	4.0976	641	43.9%	43.5%	.1618
No	4.377	5.803	4.3966	459	31.4%	30.5%	.2052
Total	4.584	5.981	4.4422	1460	100.0%	100.0%	.1163

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * L6 Do you feel that any part of the attic needs more insulation?	Between Groups	(Combined)	54.538	2	27.269	1.383	.251
	Within Groups		28736.304	1457	19.723		
	Total		28790.842	1459			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * L6 Do you feel that any part of the attic needs more insulation?	.044	.002

Figure 334: Annual Household Electricity Use, by Perception that Basement or Crawl Space Needs More Insulation

Annual Energy Use

M4 Do you feel that the basement or crawl space	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Yes	8804.50	9953.02	311.927	5614.683	324	28.1%	26.1%
Maybe, not sure	8979.50	10562.44	293.185	6065.464	428	37.1%	36.7%
No	9704.00	11415.90	335.355	6723.845	402	34.8%	37.2%
Total	9195.00	10688.64	182.705	6206.601	1154	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * M4 Do you feel that the basement or crawl space needs more insulation?	Between Groups	(Combined)	3.95E+08	2	197383894.2	5.161	.006
	Within Groups		4.40E+10	1151	38245855.77		
	Total		4.44E+10	1153			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * M4 Do you feel that the basement or crawl space needs more insulation?	.094	.009

Annual Energy Use per Square Foot

M4 Do you feel that the basement or crawl space	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	4.615	6.428	5.2460	321	28.0%	29.1%	.2928
Maybe, not sure	4.893	6.223	4.5003	428	37.3%	37.5%	.2175
No	4.501	5.962	4.4167	398	34.7%	33.4%	.2214
Total	4.633	6.190	4.6929	1147	100.0%	100.0%	.1386

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * M4 Do you feel that the basement or crawl space needs more insulation?	Between Groups	(Combined)	39.221	2	19.611	.890	.411
	Within Groups		25199.165	1144	22.027		
	Total		25238.386	1146			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * M4 Do you feel that the basement or crawl space needs more insulation?	.039	.002

Figure 335: Annual Household Electricity Use, by Whether Home has had Professional Home Audit or Green Audit

Annual Energy Use

K7 Have you ever had a professional Energy	Median	Mean	Std. Error of Mean	Std. Deviation	N	% of Total N	% of Total Sum
Yes	8922.50	10433.95	623.536	5980.747	92	4.1%	4.2%
No	8946.50	10248.58	136.641	6104.640	1996	88.2%	88.7%
Not sure / don't know	7732.00	9366.01	461.541	6105.613	175	7.7%	7.1%
Total	8860.00	10187.86	128.268	6101.830	2263	100.0%	100.0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use * K7 Have you ever had a professional Energy Audit or Green Audit of your home?	Between Groups	(Combined)	1.31E+08	2	65566447.49	1.762	.172
	Within Groups		8.41E+10	2260	37207257.83		
	Total		8.42E+10	2262			

Measures of Association

	Eta	Eta Squared
Annual Energy Use * K7 Have you ever had a professional Energy Audit or Green Audit of your home?	.039	.002

Annual Energy Use per Square Foot

K7 Have you ever had a professional Energy	Median	Mean	Std. Deviation	N	% of Total N	% of Total Sum	Std. Error of Mean
Yes	4.357	5.845	3.9992	91	4.1%	3.8%	.4192
No	4.867	6.127	4.2642	1977	88.3%	86.9%	.0959
Not sure / don't know	6.422	7.492	4.8151	172	7.7%	9.2%	.3671
Total	4.923	6.220	4.3126	2240	100.0%	100.0%	.0911

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Annual Energy Use per Square Foot * K7 Have you ever had a professional Energy Audit or Green Audit of your home?	Between Groups	(Combined)	308.198	2	154.099	8.340	.000
	Within Groups		41333.946	2237	18.477		
	Total		41642.144	2239			

Measures of Association

	Eta	Eta Squared
Annual Energy Use per Square Foot * K7 Have you ever had a professional Energy Audit or Green Audit of your home?	.086	.007

Trends over Three Decades of Residential Customer Characteristics Surveys

Figure 336: Annual Household Electricity Use, by Housing Type: Trends over 3 Decades

ANNUAL HOUSEHOLD ELECTRICITY USE (mean kWh) BY Housing Type

Households	1978	1979	1982	1984	*1986 **	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2009
Single Family		14,479	14,478	13,685	*13,300*	12,914	13,078					11,998				11,165
Multifamily		8,901	8,203	7,604	*7,990*	8,375	7,769					7,835				7,119
SCL Annual Reports	*12,443*	*12,980*	*12,894*	*12,119*	*11,884*	*11,548*	*11,250*	*10,313*	*10,465*	*10,739*	*10,335*	*10,316*	*9,311*	*8,852*	*9,011*	*9,250*

** Avg. 1984-1988*

Figure 337: Annual Household Electricity Use, by Housing Type and Space Heat Fuel: Trends over 3 Decades

ANNUAL HOUSEHOLD ELECTRICITY USE (mean kWh) BY Housing Type and Home Heating Fuel

Households	1979	1990	2000	2009
Single Family Electric	24,013	19,580	18,363	16,215
Multifamily Electric	10,071	8,347	8,112	7,523
Single Family Nonelectric	12,151	10,769	10,455	9,689
Multifamily Nonelectric	3,263	3,546	6,084	4,225

Figure 338: Annual Household Electricity Use, by Water Heat in Electric Space Heat Homes: Trends over 3 Decades

ANNUAL HOUSEHOLD ELECTRICITY USE (mean kWh) BY Housing Type:
Water Heat Fuel in Households with Electric Home Heating

Households	1979	1990	2000	2009
Single Family Electric	21,595	19,823	18,538	16,970
Multifamily Electric	10,086	8,391	8,525	7,417
Single Family Nonelectric	15,360	11,375	13,446	10,551
Multifamily Nonelectric	7,495	6,674	6,380	9,686

Figure 339: Annual Household Electricity Use, by Water Heat in Non-electric Space Heat Homes: Trends over 3 Decades

ANNUAL HOUSEHOLD ELECTRICITY USE (mean kWh) BY Housing Type:
Water Heat Fuel in Households with Non-electric Home Heating

Households	1979	1990	2000	2009
Single Family Electric	12,741	11,461	11,468	10,363
Multifamily Electric	5,517	3,776	8,330	4,401
Single Family Nonelectric	9,576	8,955	9,190	9,162
Multifamily Nonelectric	2,287	3,004	4,256	4,066

Seattle City Light

Printed on recycled paper

© Seattle City Light 2010

(10-01)