CABA Connected Home Roadmap

Final

Prepared by Ipsos Reid
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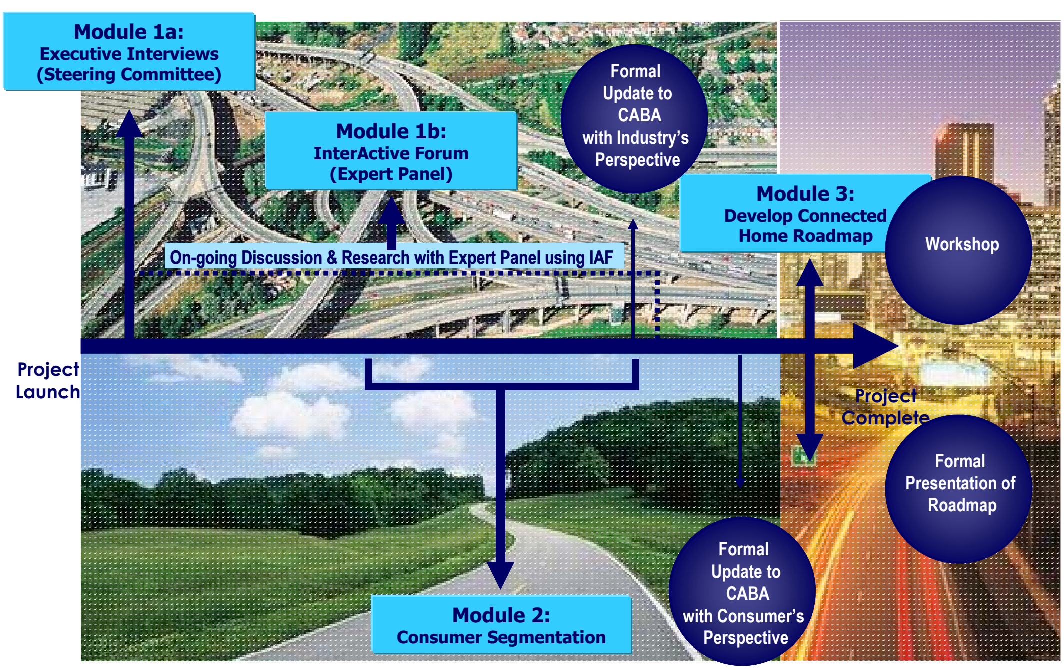
Table of Contents

INTRODUCTION

The Connected Home Roadmap project was initiated by the Continental Automated Buildings Association (CABA) in 2005 to stimulate the evolution of the Connected Home industry. The Roadmap is an assessment of the market today and of the probable short-term evolution of the Home industry. It is intended to provide a framework to support stakeholders and players in this arena as they navigate the complex and shifting dynamics of this emerging market.

The overarching objective was to facilitate the identification and development of business opportunities to encourage mainstream adoption of Connected Home solutions and their enabling technologies. A Steering Committee, composed of funding organizations, was established to lead and provide direction in the creation of the final Roadmap. Funding organizations included those listed to the right:

In the fall of 2005, the Steering Committee engaged Ipsos Reid to conduct a study of the Connected Home industry and ultimately develop this Roadmap. The Roadmap, founded upon primary market research, consists of three modules that integrate industry expertise with consumer interests and desires.



Module 1 focused on the industry's perspective and was comprised of two parts. Part A leveraged the key stakeholders involved in this initiative and took the form of one-on-one interviews with each member of the Steering Committee. Part B extended beyond the Steering Committee and CABA by inviting industry experts to participate in an online discussion over several weeks. This discussion was moderated by Ipsos Reid and was principally focused on specific questions and scenarios facing the industry.

Module 2 engaged the consumer. A comprehensive consumer survey was conducted to explore a variety of topics related to technology, the home, as well as lifestyles and motivations. Awareness of Connected Home technologies was also investigated, and various circumstances pertaining to the Connected Home were explored.

Module 3 brought the industry and consumer perspectives together to provide insight in the current state of the market and to shed light on its near term evolution.

This document represents the labours of Module 3, and should be considered the Roadmap to the Connected Home.

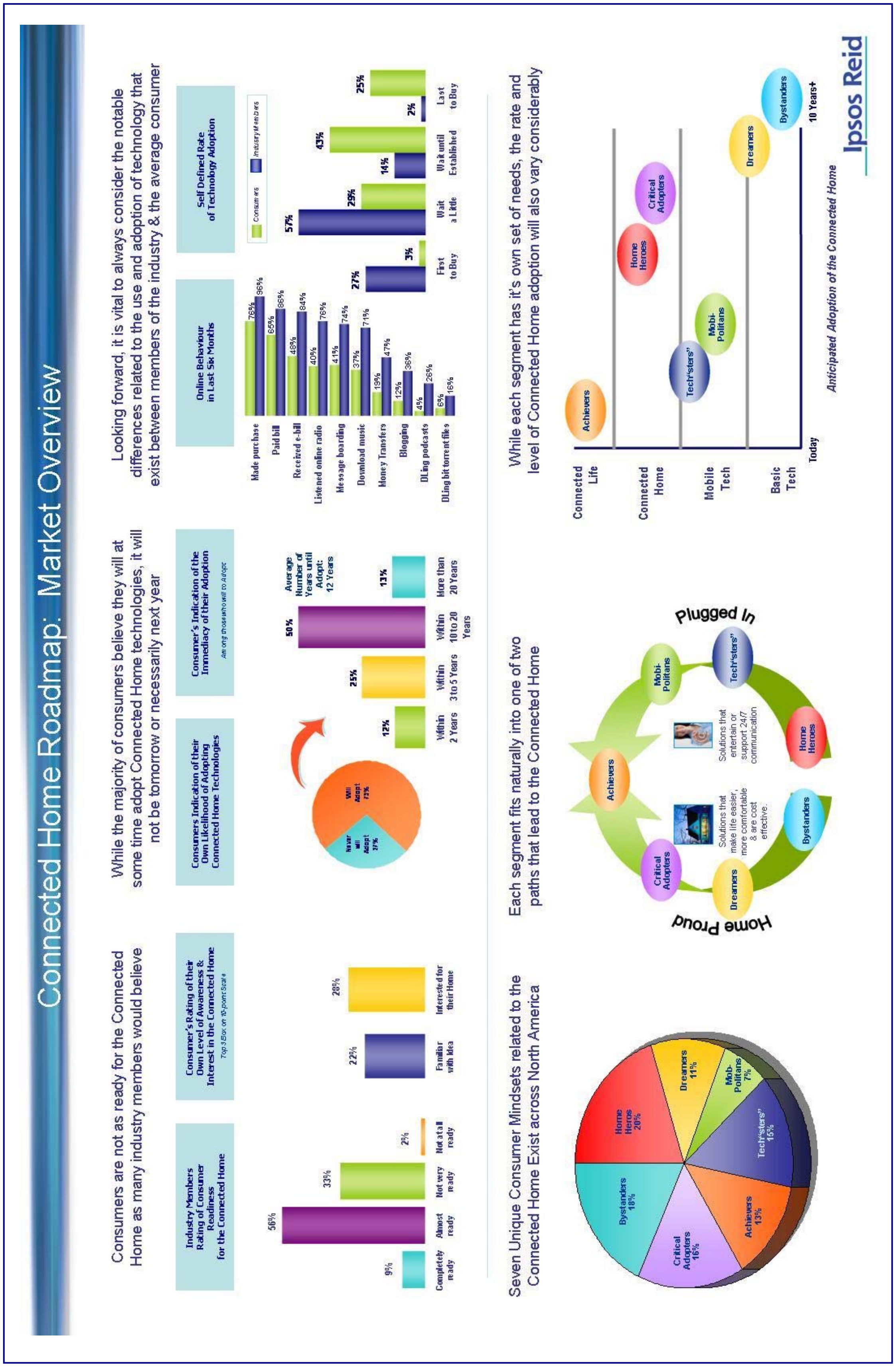
By design, this Roadmap leads the reader from the general to the specific, from the known to the new. The document begins with an overview of the Roadmap and identifies two paths to the Connected Home. It then details **Industry Levers for Developing the Connected Home**, and explores some misconceptions in **The Industry's Perceptions of the Consumer**.

The View Today unveils the seven consumer segments that represent the market in 2006. **The View Tomorrow** uncovers the potential value each segment represents to the Connected Home market. In addition, this section also identifies the appropriate value proposition required to encourage adoption and capture the wallets of these consumers.

The Roadmap concludes by offering guidance to readers in **Selecting the Right Target Segment(s)**. It provides the knowledge to successfully engage these segments in **Leveraging Opportunities with Target Segment(s).** This final section, designed to provide insight that is both relevant and actionable, includes a comprehensive review of each consumer segment.

Ultimately, this Roadmap is intended to support the continued evolution of the Connected Home by offering strategic direction for engaging consumers, and priming the market for mainstream adoption of the Connected Home.

Executive Summary



Ipsos Reid

Connected Home Roadmap: Consumer Segments

Home Heroes

Busy, young families looking for solutions

Canada 18% United States 21%

Demographics

Female, younger married, larger families with children, lower than average incomes ($58K US), average education, working full-time or homemakers

House-o-graphics

Owners, mid-size homes, single family detached, smaller cities

Relationship with the Connected Home

- Feel overwhelmed by their home and technology
- Skeptical about incorporating Connected Home technologies in their home anytime soon
- Children are key to encouraging adoption
- Moderately interested in Connected Home

The Value Proposition

- Need to understand why they need it
- Clear & direct benefits
- Affordable
- Trigger for most consumers in this segment will be family-related products and services

"Prove it works"

Dreamers

Removed, yet want to feel part of the mainstream

Canada 11% United States 12%

Demographics

Slightly older, male or female, lower education and income ($51K US), no children, working full-time

House-o-graphics

Renters, apartments and smaller older homes

Relationship with the Connected Home

- Mainstream technology adopters, they wait before buying
- Looking for solutions to make their day-to-day lives easier
- Like the idea of the Connected Home, but may not be willing or have ability to invest

The Value Proposition

- Solutions to assist household tasks
- Products and services will need to be low cost, simple to use and 'gadget oriented'
- Reality is that actual purchases will have to wait until a product has entered the mainstream

"I'm in the know"

Mobi-Politans

Tech savvy & urban, demand easy solutions

Canada 6% United States 7%

Demographics

Female, younger, single, no kids at home, higher education and average incomes ($76K US), working full-time

House-o-graphics

Owners, apartments & condos, newer and smaller, urban

Relationship with the Connected Home

- Use technology as an enabler
- Mainstream in terms of household and technology irritations and adoption
- Tech savvy when participating in online activities
- Solution must make their lives better or easier

The Value Proposition

- Plug & play
- Simple & straightforward
- Solutions that come standard, or as an easily installed off-the-shelf solution will be more likely to engage this group

"Integrate into my life"

Tech"sters"

Entertainment & mobile oriented adopters

Canada 18% United States 14%

Demographics

Male, younger single, no kids at home, higher education, average incomes ($72K US), working full-time

House-o-graphics

Renters, single family detached, smaller & older homes, small cities

Relationship with the Connected Home

- More optimistic about the future of technology in home
- High interest in communication or entertainment devices
- Interested in a solutions that keep them in touch
- Would buy tech products just to impress others

The Value Proposition

- Gadgets are badges, proof they are "in the know"
- Strongly oriented towards fun & staying in touch
- Interested in devices that can be moved from house to house as these consumers move

"Tech is my toy"

Achievers

Excited by all the possibilities of technology

Canada 16% United States 11%

Demographics

Male, middle aged, married with kids at home, higher education and income ($106K US), working full-time

House-o-graphics

Owners, larger, newer, suburban, single family detached

Relationship with the Connected Home

- Large, impressive homes
- Early adopters of all types of technology – for the home, entertainment or communications
- Appreciate all the benefits technology can offer their families and themselves

The Value Proposition

- Generally comfortable with and open to all types of technology
- Keep connected (home / work / family)
- Monitor family activity from the office

"Enable me"

Critical Adopters

Practical and function oriented

Canada 19% United States 15%

Demographics

Male or female, older married, no kids at home, moderate income ($80K US), average education, retired

House-o-graphics

Owners, moderate size, older, single family detached homes in suburban/ small cities

Relationship with the Connected Home

- Older, more established couples living in their own homes
- Not technology leaders, but aware of the benefits tech solutions can offer them
- Do not find household tasks onerous, but welcome innovations that can make their lives more efficient

The Value Proposition

- Relatively open to technology adoption, as long as it is proven and practical
- A main motivator will be a sensible solution to a given problem
- Likely to avoid a product with too many "bells and whistles"

"It must be seamless"

Bystanders

Traditional & uncomfortable with change

Canada 12% United States 21%

Demographics

Female, older married, no kids at home, lower income ($36K US), less education, retired

House-o-graphics

Owners, apartments and small homes, older homes, non-urban

Relationship with the Connected Home

- One of the oldest segments, and also one of the least urban
- Reticent about technology, it's ability to fit their needs & the unnecessary complexity it brings to their lives
- Do not easily see the advantages of Connected Home technology

The Value Proposition

- Products or services will need to be as simple, basic and fool-proof as possible
- Existing products stripped down and simplified
- Bystanders will need extensive customer service & support

"Hold my hand"

Ipsos Reid

How to Use the Connected Home Roadmap

1. *Review the industry's perspective to get an understanding of the Connected Home market as of early 2006.*

2. *Get acquainted with your "travel companions" - seven mindsets that reflect the range of consumer attitudes. Each has a unique posture toward the Connected Home. Some consumers may appear more familiar than others. Do not be too quick to judge these companions. Although not all are travelling at the same speed toward the Connected Home, they all have something to contribute to its evolution.*

3. *Consider the broad dynamics of the market. Explore what the Roadmap has to say about technology and what people need and want from their homes.*

4. *Skip ahead to the evolution of the market to understand the cascading needs that will drive mainstream demand for the Connected Home.*

5. *Overlay your own industry and company-specific objectives onto the Roadmap, and plan your trip. Look at where you are today, what is in the pipeline for tomorrow, and how you envision the future.*

METHODOLOGY

The Connected Home Roadmap incorporated three key stages of research. Each stage had a unique objective tied to eliciting triggers towards the development of the Connected Home. These stages came together to produce the Connected Home Roadmap. The stages were:

Steering Committee interviews
Interactive Forum (gathering the industry's perspective)
Consumer Segmentation (gathering the consumer's perspective)

STEERING COMMITTEE INTERVIEWS

This Connected Home Roadmap initiative began with a series of one-on-one interviews with members of the Steering Committee. The objective of this phase was to explore expectations of the Roadmap and to build upon their knowledge. All members of the Steering Committee participated and ten interviews were completed by telephone. Each interview was approximately 30 - 45 minutes in length.

INTERACTIVE FORUM (GATHERING INDUSTRY EXPERTISE AND INSIGHT)

To gather industry expertise and insight, Ipsos Reid created an InterActive Forum to initiate discussions and incorporate the perspective of experts within the Connected Home industry. The discussions were designed to uncover what was probable, possible and farthest reaching in terms of the Connected Home. The discussions were also structured to explore how industry experts felt the industry would unfold.

An InterActive Forum (IAF) is a community or group of respondents invited to participate in ongoing discussions online. In this case, the respondents were industry experts from a variety of fields in relevant sectors.

The Forum is interactive by design which allowed Ipsos Reid (on behalf of CABA) to engage participants in frequent, ongoing dialogue by asking members to complete short surveys or by posing general open-ended questions and leaving them open for discussion – such as an online bulletin board or chat.

Participants were recruited to the Forum by leveraging CABA's strong network within the industry. On Ipsos Reid's behalf, CABA sent an email invitation to request participation in the InterActive Forum to all members of its mailing list (approximately 10,000 members).

The effort successfully recruited 146 registered members from across North America. Participants represented a variety of sectors. Eleven surveys were administered to the panel, covering a variety of topics. They included the definition of the Connected Home, partnerships and market scenario development. On average, 60 respondents participated in each individual survey.

CONSUMER SEGMENTATION (GATHERING THE CONSUMER'S PERSPECTIVE)

An understanding of the Connected Home industry would be incomplete without an understanding of the consumer's perspective. The most effective means to gain this understanding was through a quantitative survey, with a focus on segmenting the market to reveal various needs and desires around connectivity and the home.

Today, organizations must not only know who their customers are, but why they are motivated to make purchases. Market segmentation is designed to help businesses develop products and services that directly address their customers' wants and needs. It also enables them to develop highly effective and targeted communications.

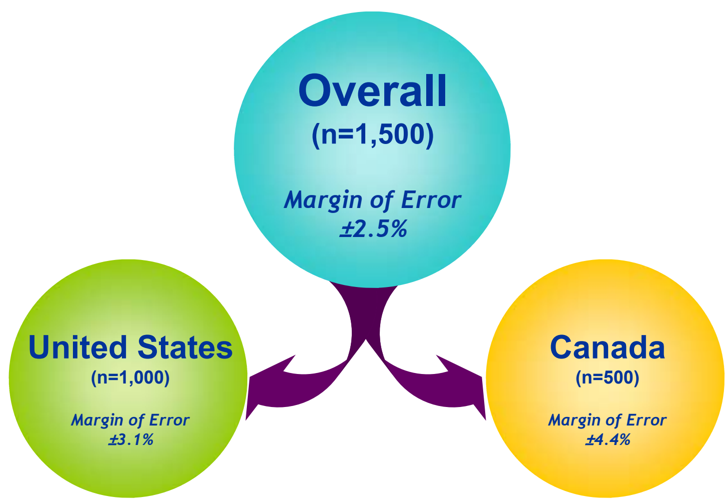
Segmentation is developed by maximizing consumer similarities or differences relative to key variables such as behaviour, needs, lifestyle and values.

Organizations tend to develop segmentations for use as a strategic tool or as a tactical guide. From a strategic perspective, segmentation can influence positioning, points of differentiation, and the profile of current and potential customers. Segmentation will also determine strategic fit and value, as well as identify customers at risk. From a tactical perspective, market segmentation will be instrumental in the development or evolution of products and or services, advertising campaigns, direct marketing programs and media buys and weights.

In this case, a quantitative survey was conducted with North American consumers to explore the consumer perspective of the Connected Home. Using the Ipsos online panel of 150,000 Canadians and 600,000 Americans, the survey was conducted with a random sample of 1,500 respondents (1,000 American, 500 Canadian).

Data was collected between January 13th and January 20th, 2006. Interviews were conducted in English and were approximately 20 minutes in length.

To ensure the sample was representative of the adult consumer market (18+), respondent data was weighted. Weighting was based on census data and applied within country by region, gender, age, income and education.



Margin of Error is based on 95% level of confidence

Overall, results can be considered accurate to ±2.5%, 19 out of 20 times.

Variables Used in the Segmentation

The consumer survey included upwards of 40 questions (please refer to Appendix C for the full questionnaire). Not all, however, were used to construct the Connected Home Consumer Segmentation. At a high level, the segmentation was developed by incorporating the following variables:

- Motivations in life
- Relationship to the home
- Daily life micro-stresses
- Attitudes towards technology and propensity for tech adoption
- Familiarity and interest in the Connected Home
- Technology solutions and devices currently in the home
- Key demographics (age, gender, household size)

The majority of questions were designed as batteries (a series of statements). Exceptions were familiarity and interest in the Connected Home, an inventory of technology and the key demographics. In battery-style questions respondents were asked to indicate their personal level of agreement to each using a 10-point scale, where 10 was strongly agree and 1 was strongly disagree. Respondents were encouraged to use the *entire* scale to express their answers.

In the case of the 'daily life micro-stresses' battery, respondents were asked to indicate the level of importance of each factor using a similar 10-point scale, where 10 was very important and 1 was not important at all. In the Home Renovations section, respondents were simply asked to indicate if their house currently had the items listed.

Segment Predictor Simulator

As part of this initiative, Ipsos Reid developed a Segment Predictor Simulator. This is a model based on a subset of questions from the original survey that can be used independently to classify respondents into one of the seven Connected Home consumer segments.

This Segment Predictor Simulator can function as a stand-alone survey, a focus group screener, or incorporated into existing or custom research initiatives. From a marketing and Customer Relationship Management perspective, the simulator can be used for Direct Mail/Marketing, telemarketing and online campaigns to classify consumers according to this Connected Home market segmentation.

As this is a model, it is subject to a certain degree of predictability or accuracy in terms of its ability to correctly classify respondents into one of the seven segments. Overall, the Segment Predictor Simulator correctly classifies respondents 71% of the time. Classification rates at a segment level do vary and are as follows:

Overall Level of Probability for Segment Classification							
Overall	**Home Heroes**	**Dreamers**	**Mobi-Politans**	**Tech"sters"**	**Achievers**	**Critical Adopters**	**Bystanders**
71%	80%	66%	63%	100%	71%	71%	73%

The predictive power of the segmentation model was estimated by first randomly splitting the representative respondent base (n=1,500) into two equal parts: databases A and B. Using discriminant analysis and the input variables for the segmentation, database A was used to develop a prediction model for determining segment membership of respondents in database B.

The Roadmap

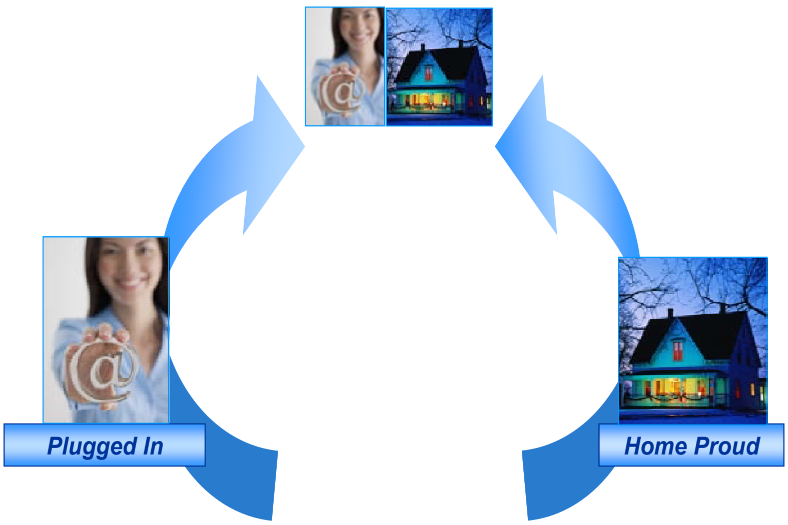
UNFOLDING THE CONNECTED HOME ROADMAP

The industry and consumer research findings were analyzed to unfold the Connected Home Roadmap. This thorough analysis describes the current market dynamics and also alludes to the next stage in the evolution of the Connected Home based on the development of both consumer needs and technology.

One should not presume the advancement of the Connected Home will be led by the usual technology pioneers. This research demonstrates the leaders of Connected Home adoption are those tuned into technology and those who are invested in their home. Successful Connected Home technologies are not only geared towards leading edge adopters. Leading edge adopters are those who are typically interested in all things tech-related, and those intrigued more by the novelty of technology than its application. The appeal of the Connected Home is broadened when technology "fits in" or "feels completely at home in the home".

Today, two paths lead to the way to the Connected Home.

The first path is the home, with the primary market being those who own a home. This is not to say that the market is limited to homeowners. Retrofit and mobile applications of Connected Home technologies will be a natural evolution of the market and expand appeal beyond homeowners. Homeowners seeking solutions that make their lives easier, their homes more comfortable or provide cost savings will be attracted to Connected Home solutions.



The second path is obviously technology. Technology already permeates the home in two key ways:

1. Through the need to stay in touch, principally driven by demands from work and busy families or lifestyles.

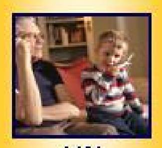
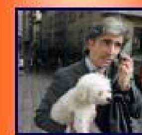
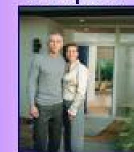
   Active and tech-integrated consumers are looking for 24/7 access to their homes, wherever they are and for whatever they need. For these individuals the home is very much a docking station.

2. Through entertainment, as it is introduced by younger members of the household.

   As is the case with most technology, we find that the Connected Home is coveted by consumers seeking to be entertained. They want the flexibility of accessing the entertainment they want – when they want it!

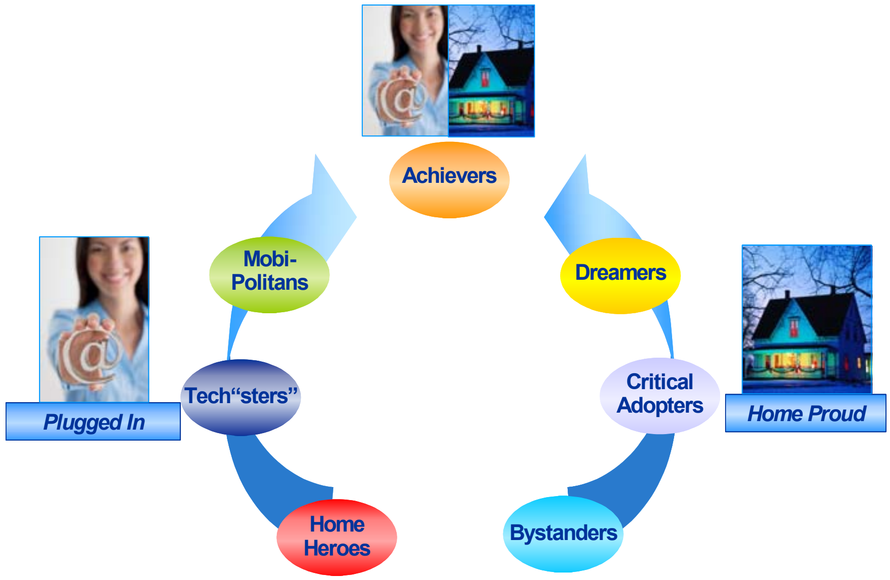
Two core dimensions shape these paths and lead to seven distinct consumer mindsets towards the Connect Home.

Seven CHRM Consumer Mindsets

Name	Home Heroes	Dreamers	Mobi-Politans	Tech"sters"	Achievers	Critical Adopters	Bystanders
							
Total NA Distribution: *(total 100% horizontally)*	**20%**	**11%**	**7%**	**15%**	**13%**	**16%**	**18%**
Canada:	18%	11%	6%	18%	16%	19%	12%
U.S.	21%	12%	7%	14%	11%	15%	21%
Socio-demographics	Female, younger married, larger families with children, lower than average incomes, average education, working full-time or homemakers	Average age, and gender, lower education and income, no children, working full-time	Female, younger, single, no kids at home, higher education and average incomes, working full-time	Male, younger single, no kids at home, higher education, average incomes, working full-time	Male, middle aged, married with kids at home, higher education and income, working full-time	Male or female, older married, no kids at home, moderate income, average education, retired	Female, older married, no kids at home, lower income, less education, retired
Average Household Income US$	$58,000	$51,000	$76,000	$72,000	$106,000	$80,000	$36,000
Home Profile	Owners, mid-size homes, single family detached, smaller cities	Renters, apartments/small homes, older homes	Owners, apartments\ condos, newer and smaller homes, urban	Renters, single family detached, smaller and older homes, smaller cities	Owners, larger, newer, suburban, single family detached	Owners, moderate size, older, single family detached homes in suburban/ small cities,	Owners, apartments/ small homes, older homes, non-urban
Tech Profile	Mainstream adopters, entertainment focused	Excited by tech but can't afford it	Open to tech but it is not a priority	Enthusiastic early adopters	Enthusiastic early adopters	Late adopters, sceptical of tech	Late adopters, tech avoiders
Interest in Connected Home	Moderately interested	Highly interested, little means to follow through	Moderately interested	Highly interested, particularly in entertainment devices	Highly interested, likely to follow through	Limited interest	Very limited interest

The primary dimension that differentiates consumers and their likelihood to adopt Connected Home technologies is their interest in technology capabilities specifically for the home. This dimension more strongly reflects potential purchase behaviour than interest or involvement in technology alone.

The next dimension differentiating consumers, and an indication of positive attitudes translating to behavioral intention, is their particular fondness for the home. The greater the attachment to the home, the greater the likelihood that the person will invest in the home.



INDUSTRY LEVERS FOR DEVELOPING THE CONNECTED HOME

The Connected Home Roadmap is not designed to predict where the industry is going; it is designed to identify where the industry needs to go to accelerate mass-market adoption of the Connected Home. Members of CABA and members of the Connected Home industry in general, come from a variety of industries and businesses. Despite this, they all have a common goal: to hasten the adoption of new Connected Home technologies and applications.

A key question to be answered by this Roadmap is: *What will enable the development and the mass market adoption of the Connected Home?* While the answers may appear simple, implementation could prove to be much more difficult.

THE RIGHT TECHNOLOGY AT THE RIGHT TIME

Until now, technology for the Connected Home has been developed largely for the sake of technology. Today a common industry perspective is that technology needs to be developed *to address specific consumer needs*. Even exciting and innovative products can somehow fail to be widely adopted by consumers; the key is to target consumers' needs with the right technology at the right time.

In the past decade, the 'ease of use' of technology has enticed many people to accept new technology at a faster rate than ever before. However there is still considerable consumer resistance for a host of factors that are explored later in this document. Therefore, it will be critical to identify the main triggers that will pull the mass-market into the Connected Home.

RELEVANT VALUE PROPOSITION FOR CONSUMERS

Each consumer needs a clear, understandable, and relevant value proposition in order to adopt Connected Home technologies. The cornerstone of such a proposition is communication, and it is vital for organizations to tap into this if they wish to promote adoption of Connected Home solutions. Regardless of how ideal any technological solution may be, if the associated message does not resonate with target consumers, they will fail to respond.

When technology is developed it is vital to educate consumers about these products and services, and to reinforce their benefits. Understanding consumer needs, developing relevant products and services, and positioning them appropriately are all vital to the development of the Connected Home.

PARTNERSHIPS

An industry with so many stakeholders coming from different perspectives, and with so many different areas of expertise, needs to develop partnerships to succeed.

While the need for successful collaborating is not restricted to one or two sectors, there are many examples of partnerships that could drive the development of the Connected Home in the energy, entertainment content, and home building sectors. Indeed, many organizations are looking to align themselves with key players in the market to form strategic partnerships.

Both energy (utility) companies and entertainment content providers are seen as good prospective partners because of their level of engagement with the end-users of Connected Home technologies. Today's consumers already have long-standing relationships with many of these companies. The customer experience, from installation to billing, is already in place. Many players in the industry believe that taking advantage of these existing relationships will advance mass-market adoption of technologies.

A large part of the current activity in the Connected Home industry is still considered to be in the "aftermarket." For this reason it is important to encourage the integration of Connected Home technologies as standard infrastructure in new homes. For this reason, many players in the industry believe that partnerships with homebuilders will assist in the growth of the industry.

Issues that are seen as impeding partnerships within the Connected Home industry are an innate sense of competition, incompatible business and profit models, resistance to adopting other standards, negative partnering experiences, intellectual property rights, and an overall fear that partnerships will hinder businesses ability to compete effectively.

Issues that are seen as facilitating successful partnerships are alignment and acceptance of common technology standards, marketing alliances, and seamless integration of products and services from the consumer's perspective. Today, industry certainly are looking for direction from successful partnership leaders.

Collaborating for purposes other than to share consumer dollars will also be beneficial to the development of the industry. Examples of different types of partnerships include:

- Marketing alliances
- Standards alliances
- Lobbying groups

Examples of potential partnerships include:

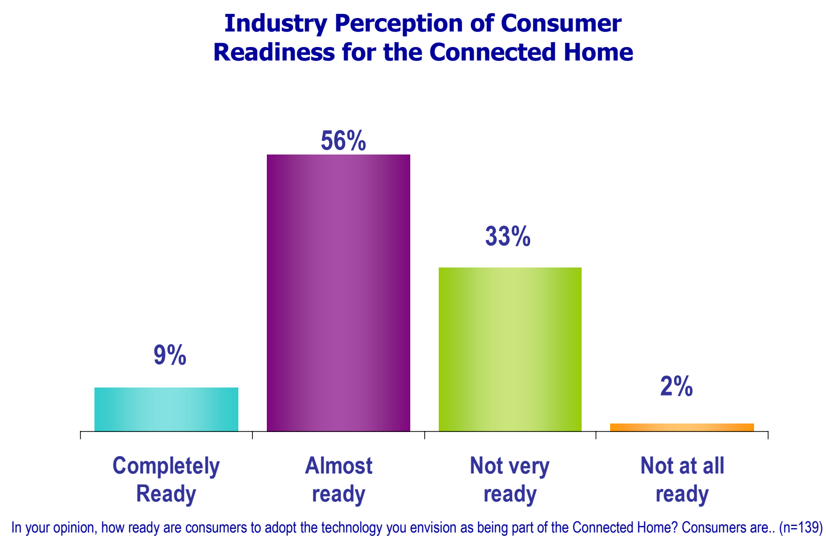
- Certification boards
- R&D – universities and corporate entities
- Services providers and developers
- CES manufacturers and communication networking companies
- Lobby groups for open standards or shared protocol

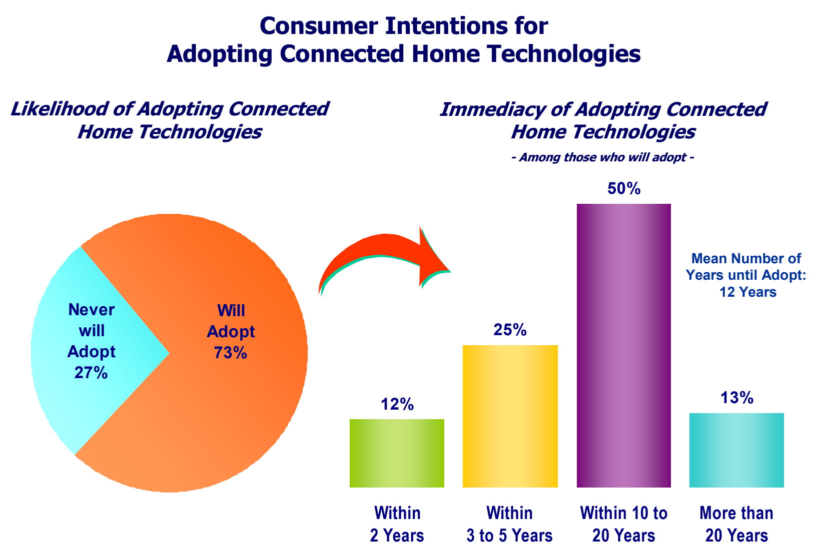
THE INDUSTRY'S PERSPECTIVE OF THE CONSUMER

Examining the distinct views of the industry and of the consumer has been highly beneficial. More interesting still however is the ability to contrast the industry's perspective of the consumer, with the perspectives held by consumers themselves.

Generally speaking, members of the industry believe the consumer market is on the cusp of adopting technologies related to the Connected Home. Only one-third express any degree of hesitation that the market is not yet ready.

While interesting, some suggest this is an overly optimistic perspective. Perhaps it is a perspective that is naturally inflated due to the members' high degree of involvement in the sector. This involvement lends itself to a greater understanding of new technologies, not to mention an inherent enthusiasm for the Connected Home (and, therefore, an escalated confidence in true market readiness).

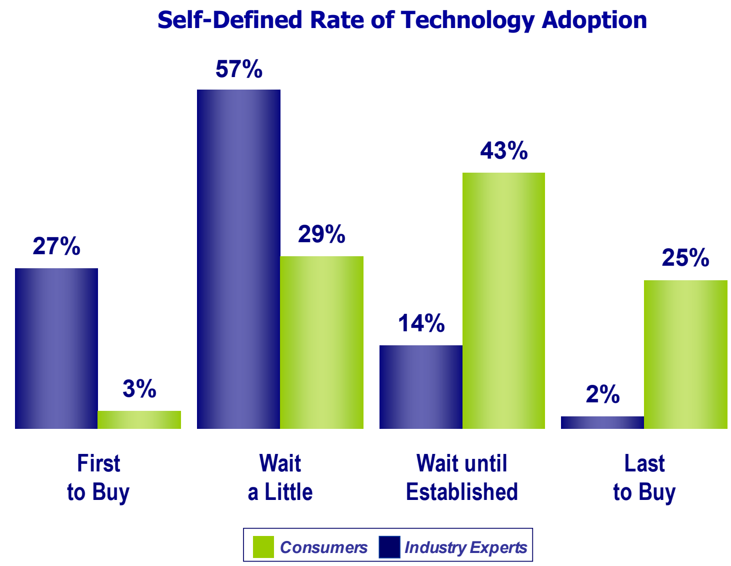




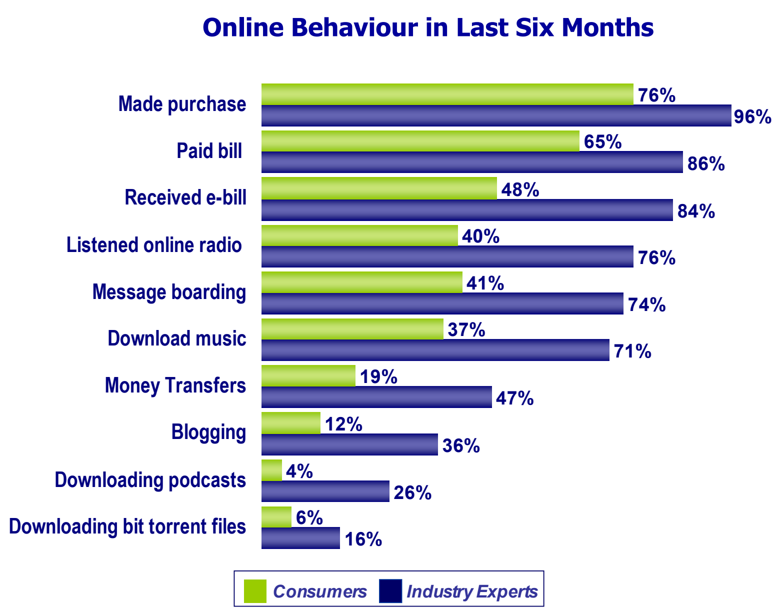
Consumers do not express this same level of readiness. While the majority of consumers believe they will adopt Connected Home technologies at some point, one-quarter believe they will never adopt. Among those who are likely and willing to adopt, it will not necessarily be tomorrow, or next year. On average, consumers believe it will be 2018 (some 12 years from now) before they begin adopting products and services of this nature.

As with industry's perspective, this view may be skewed. In reality, adoption will likely occur sooner than consumers think. Nevertheless, due to a natural hesitation about the unknown and some scepticism, few consumers are willing to indicate they are ready to embrace Connected Home technologies anytime soon.

Upon further investigation, there is even more evidence to suggest that the industry's perspective is perhaps too optimistic. In truth, when consumers and members of the industry were asked how they would define themselves in terms of their level of tech adoption (both were asked the same question); the results demonstrate a significant discrepancy. A strong majority of industry members believe they are either the first to adopt or wait a little before adopting a new high-tech product. Conversely, only one-third of consumers describe themselves in this manner. The majority of consumers position themselves on the other end of the spectrum, either waiting for the product to become well established or even being the last to buy.



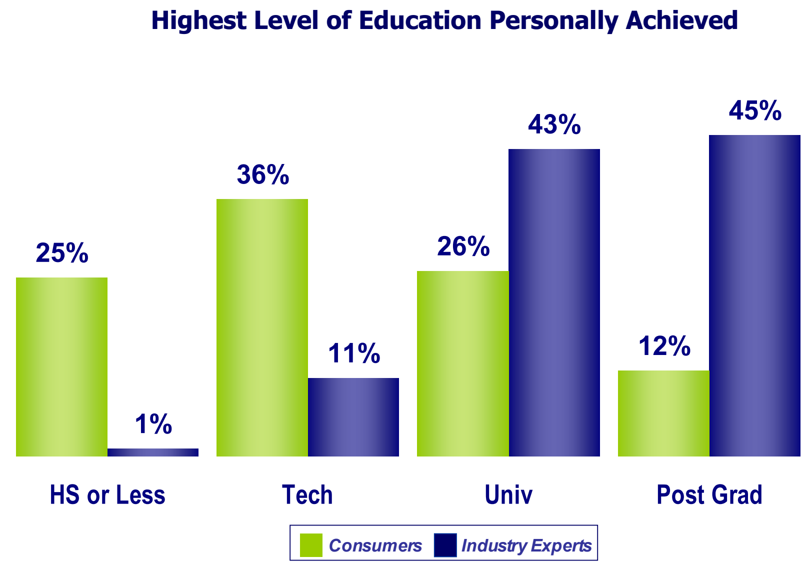
The same point can be illustrated when looking at recent online activity between members of the industry and the larger consumer market. On average, members of the industry are far more involved online than the typical consumer.



Interestingly, in both instances the majority has made a purchase or paid a bill online in the last six months, both common online activities. However the range of participation widens the more modern (or recent) the capability. For instance, members of the industry are almost twice as likely as consumers to listen to radio online, participate in a message board, blog, download music, podcasts, or bit torrent files, and make online money transfers.

One final point relates to the variation in education levels between members of the industry and the consumer market.

Once again, there are considerable disparities. In fact, consumers are five times more likely than members of the industry to have only achieved a high school or community college/technical school diploma.



This suggests that in fact there are considerable differences between members of the industry and consumers, and it is likely the industry's perspective of consumer readiness is inflated. Not only are a majority of consumers unprepared for the Connected Home, many are more apprehensive than tempted by the idea. Indeed, the research shows:

- *Consumers are not necessarily as ready as some would believe.*
- *Industry is leading the curve, but must allow time for consumers to adjust.*
- *Relevant products and services will be key to engaging the consumer.*
- *Simplicity will be essential: Consumers are not in the same league as members of the industry.*

MANAGING THE GAPS BETWEEN INDUSTRY AND CONSUMERS

AWARENESS GAP

As discussed in the previous section, there are considerable differences between the perspective of the industry and that of the consumer.

Another divergence in perspective revolves around industry drivers:

- From the industry's perspective, what are the market drivers of the Connected Home Industry?
- From the consumer's perspective, what is driving their household to adopt connected home technologies?

Industry Perspective: What factors will act as market accelerants?

Over 50% of industry forum members indicated that within the last five years their organizations have been actively involved in, or have been thinking and planning to be involved in, the Connected Home Industry. As well, there is evidence showing that the Connected Home Industry has been developing at a fast pace with new players joining regularly. From the perspective of the industry, the primary factors that are spurring increased activity in this sector are technology, partnerships and consumers. Specific factors include:

- Broadband adoption
- Open standards for interoperability and common standards
- Strong North American building market
- Development of new technology
  - Networked entertainment systems
  - Convergence of devices
- Industry partnerships
- Research and development
- Successful products like the iPod
- Consumers
  - Tele-commuting workers
  - Escalating energy costs
  - Desire for work mobility i.e. home satellite office
  - Collaborative content and product devices i.e. NBC/ iPod

The natural market dynamics in a consumer-based industry include a variety of factors that influence the evolution of the market. These are patterns of behaviour that act as forces of consumer adoption. They have occurred in the past, are present in the market today, and will likely continue to influence the industry in the future. The two general influencers on the mainstream adoption of Connected Home technologies are:

Industry Push

This is an influencer where the force behind consumer adoption is generated from the industry and then pushed toward the consumer. Quite simply, industry is pushing consumers to adopt connected home technology. A common example is the iPod; the main purpose for developing a product of this nature was to make the downloading of purchased music easy, accessible and fun. Instead of developing a product that met a current need, this product created the need. This phenomenon is described as a "killer application" or "killer app." A killer application is an application for a technology that is so great, that it compels mainstream consumers to purchase the relevant technology. Other common examples include the steam engine for rail transport, the spreadsheet program for computers, email for the Internet and so forth. The drawback to searching for a "killer app" for the Connected Home is that the integration between technology applications and the home is more complicated due to the multiple purposes of a home (i.e. shelter, family, community). Rather, it is likely that searching for the right Connected Home package of solutions to fulfill consumer needs will yield more success.

Consumer Pull

This influencer is most important for the Connected Home industry because it is the force behind what consumers want to adopt. Most often, mainstream consumer pulls are dependent on subtle shifts in the socio-cultural framework of a society. These changes can be caused by traumatic events, but are more often caused by subtle cultural and demographic changes in the population. Historically, examples of these trends can be identified; case in point, in the 1950's the family unit was typically headed by a male head of the household who married in their early 20s, worked full-time and rarely changed careers; the female did not work outside the home, cared for multiple children and managed the household. The connected home for a family in the 1950s would attempt to address a different set of needs compared to today. Thus, it is important to keep in mind that you are also designing a home for tomorrow's consumers. The following are two examples of product introductions to the home that were designed, and then redesigned to address emerging needs of a changing market.

Example 1: The TV dinner was originally introduced in 1954 by Swanson TV. The instant popularity of TV dinners was driven by a series of emerging trends: the baby boom, the need for timesaving modern appliances and the growing reliance on television for family entertainment. This is an example of how a product was successfully developed in reaction to a socio-cultural shift. As watching television became a family activity during the dinner hour, and homemakers were looking for ways to save time, Swanson TV recognized an opportunity. The TV dinner product addressed the need for inexpensive convenient dinners that saved time for homemakers (and women in the workforce). Since this product was first successfully launched, it has evolved to meet other changing needs among its consumers: aluminium trays were replaced with microwaveable safe trays, more variety (and dessert), more ethnic foods, healthy low fat alternatives and so forth.

Example 2: Instant pre-packaged cake mix was introduced to the American market in the 1940s by companies including Betty Crocker and General Mills. Homemakers were looking for quicker, easier and more consistent methods of cooking, especially baking. The cake mixes were advertised as more convenient, better tasting and with less chance of human error compared to cooking from scratch. The original Betty Crocker Cake Mix, requiring only water to be added, sold poorly. The company conducted a survey, and discovered that housewives felt guilty, believing that by making something so easy to bake they were cheating their families. The product needed to be redesigned so that homemakers were more engaged and felt that they were adding fresh ingredients. The company responded by changing the recipe to require an egg to be mixed in, and sales turned upward sharply.

A few of the socio-demographic shifts that are happening today that could have profound implications on the Connected Home Industry include:

Children: Children are living with their parents much longer than previously, particularly in urban areas. Many people are waiting until they are in their 30s to have children, while previous generations had kids in their 20s.

Boomers: The "baby boomers" (born between 1946 and 1964) represent a sizable population that is a popular target market for business. Due to the size of this demographic group, it is important to successfully manage their needs and expectations.

Women in the Workplace: More than ever before, there are more women in the workplace. This translates into an opportunity to help women manage their needs regarding home and work life.

Double Income Families: Increasingly, the reality of a dual income family is having a significant impact. Many families have dual incomes, thereby increasing their disposable income, but at the same time changing patterns of life in the home by having no full-time adult at home.

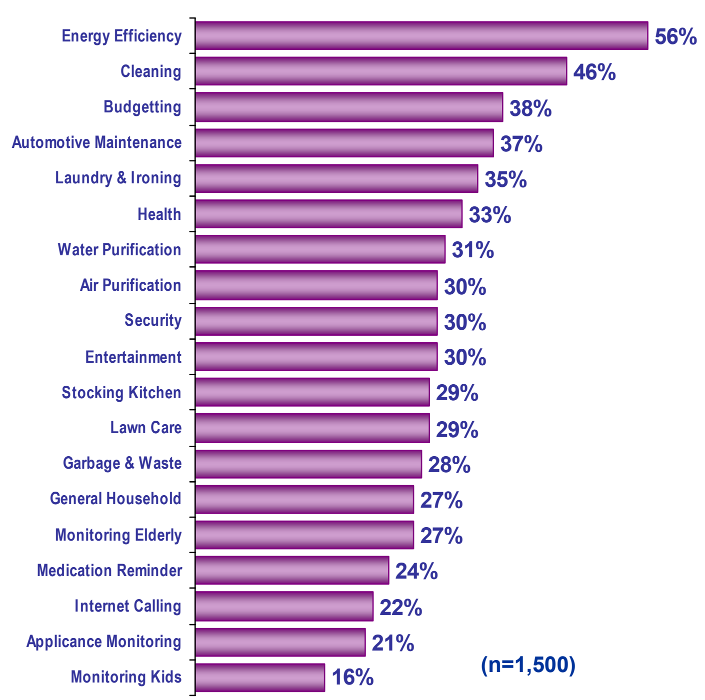
The key to success will be to identify new socio-demographic trends, and leverage these shifts by designing technologies and marketing plans to address these new and emerging needs.

Consumer Perspective: What household needs are you looking to address? What functions should the connected home be capable of?

The industry perspective illustrated that while there is some knowledge of what consumer factors may be driving activity in the Connected Home Industry, there is an obvious gap in terms of what will drive the industry today and into tomorrow.

It is important to note that while the industry perspective is dominated by the potentials of technology, the consumer view is rooted in personal experience. The consumer experience includes what they know is possible, what they have experienced, and what they wish could be different, easier or simply possible.

Looking for a Solution to Make Daily Tasks Easier



TECHNOLOGY GAPS

Technology gaps in the Connected Home Industry are not always a reflection of lack of available infrastructure, nor is it only about price or consumer education. The gaps identified for the Connected Home reveal a divide between affordability, needs and wants, gratuitous vs. pragmatic, and visible vs. invisible.

Technology infrastructure is integral to the development of the Connected Home and communities lacking this infrastructure will lag in mainstream adoption; however governments and private industry have and continue to make great leaps in improving access to technology-related infrastructure, such as broadband access.

Affordability and price can also be a key barrier of entry for many potential consumers, and could be considered a technology gap. Often 'first to market' technologies are expensive, the result being that the vast majority of early and mid-tier adopters are higher than average income earners. Connected home technology solutions need be developed so that they are affordable for mainstream consumers.

For the Connected Home to be adopted by mainstream consumers, it will be important to permeate the consciousness of consumers. The following items are more often directly correlated with consumer adoption: comfort, awareness, and experience, ability to use, familiarity and popularity.

When discussing the technology gap in the Connected Home Industry, we are referring to the difference between what products and services the industry is offering, versus what mainstream households are prepared to bring into their home.

The following is a list of key capabilities that consumers report they want to have in the Connected Home of the future. The key capabilities are pulled from a larger list that was included in the consumer segmentation questionnaire:

- A system that monitors the home's air quality, sounding an alarm and notifying the security company when smoke or carbon monoxide is detected.
- An integrated home security system that monitors the home when you are away, notifying you of any disturbance through an email, voicemail, text message or another customized alert.
- Ability for room temperatures to automatically adjust based on occupants, using pre-set preferences.

It is likely that these capabilities are perceived as important to the future of the Connected Home because, from a consumer perspective, they are viewed as being easy to integrate into the home. In fact, most of these capabilities are already available in the market and are often in new homes. These capabilities also have a general and pervasive impact on all occupants in a home, and therefore deliver on multiple individual needs. This could be compared to a very different technology need - entertainment technology - that is more personal and often designed for the individual rather than the group.

The biggest hurdle will be identifying what consumers need, often because consumers themselves have difficulty articulating needs. These are often referred to as latent consumer needs, because they are needs that potentially exist, but are hidden because the solution is not readily apparent or considered outside the scope of consumer reality. They can also be latent needs, if consumers cannot conceive of how they could work. For example, a combination washer/dryer would have been unthinkable a few decades ago. A combination washer/ dryer is one single appliance that performs both functions, thereby eliminating the process of loading and unloading clothes from one machine to another. Today the combo is very popular in Europe, and slowly gaining popularity in North America.

The key needs that consumers are looking for technology solutions to help them with are energy efficiency of the home, cleaning, laundry and ironing, budgeting, vehicle maintenance (i.e. oil changes), and monitoring personal health.

Energy efficiency of my home

There are currently many technologies available to assist in improving the energy efficiency of a home. Both stand-alone and customized solutions are available to homeowners and renters to deal with the escalating costs of energy and general concerns about the environment. The technology gap in this sector is not necessarily due to a lack of available solutions, the gap is accessibility and affordability. Lower income households have a greater need to obtain energy at the lowest price possible.

The tendency of lower-income household to live in older, less energy-efficient homes, or to live as renters, is well documented in the segment profiles. Solutions to increase the energy efficiency of a home need to be accessible to lower income segments. This could be key to encouraging mainstream adoption of energy efficient solutions in the home.

The following are a list of energy efficiency solutions, products and technologies that industry experts believe that consumers will adopt in the next 2 years:

- Adaptive Window Treatments
- Air Quality Monitoring
- Automated Lighting/Climate Controls
- Central Energy Management
- Communicating thermostats
- Digital Thermostats
- Distributed sensors for climate control
- Energy analysis and information display
- Grey water recovery system
- Heated Floors
- Automated Humidity Control
- Remote Energy Management from Email/ Mobile devices
- IP Security Camera
- Programmable Thermostats & Lighting
- Real-time energy monitoring
- Automated Scenario Manager
- Smart Energy Meters
- UPS (Uninterrupted Power Supply and Surge Protection)
- Web enabled HVAC controls
- Zone Temperature Control

These recommendations by industry experts can be grouped into a few key themes within the energy industry:

- **Quality –** this theme includes products and services that improve the quality of a home environment for the purpose of the overall health, safety and well-being of members of the household. These include: adaptive window treatments, air quality monitoring, distributed sensors for climate control, heated floors, automated humidity control, and IP Security Camera, and UPS.
- **Efficiency –** this theme includes products and services that improve the energy efficiency of a home for the purpose of cost savings and conservation. These include: energy analysis and information display, grey water recovery system, programmable thermostats and lights, real-time energy monitoring, automated scenario manager, smart energy meters, and zone temperature controls.
- **Management –** this theme includes products and services that assist in the overall management of the home environment for the purpose of convenience and timesavings. These include: automated lighting/ climate controls, central energy management, digital thermostats, remote energy management from email and mobile devices, and web enabled HVAC controls.

Cleaning and Laundry & Ironing

Cleaning the home is a chore and in most households, it is the biggest chore. Consumers are looking for technology solutions to help with cleaning and laundry/ ironing. Think of the invention of the vacuum – a technology that drastically improved the cleaning experience compared to previous options. Those types of technology advances are important; however, developing technology solutions that automate cleaning chores is not the only way to address this need. Consumers will readily adopt technology that will improve the overall experience of cleaning (i.e. entertainment).

Budgeting

Currently, there are many tools available to assist in managing household budgets, and many of these tools have achieved mainstream adoption. Customized spreadsheets and out-of-the-box software solutions for personal computers, online banking and bill tracking have all become commonplace in today's households. These current solutions are still fragmented, driven and managed by the individual consumer. They are primarily focused on paying the bills, rather than managing the consumption of utilities, products and monies. For example, most current solutions will tell you how much money you have monthly to spend on utilities, but they do not actually help you manage your consumption. Despite the current options, some consumers are still looking for additional solutions. The next step in household budgeting is the integration of the household with relevant suppliers to manage the consumption of their products within the household's budgetary constraints. For example, the automatic consumption of electricity for daily needs during off-peak times moves the household budget from merely paying the bills to efficiently managing their expenditures.

Vehicle Maintenance

The automotive industry and the role of the vehicle in a consumer's life has drastically changed over the past 20 years, in part driven by the following factors:

- **Vehicles are More Complicated -** The increasing number of electronic components in the vehicle has made it more difficult for regular consumers to manage their own vehicle maintenance. The home mechanic is becoming obsolete as more and more consumers look to their dealership for long-term maintenance of their vehicle.

- **More Time Spent in Vehicle -** Consumers are spending much more time in their vehicles, from daily commuting to weekend shopping this is dramatically influencing the role of the vehicle in day-to-day life.

- **The Vehicle as a Mobile Home & Office -** Technology innovation in personal communications and mobile entertainment has changed the role of the vehicle. The vehicle is now an extension of the home and the office and acts as a communication pipeline and an entertainment center.

- **Women are in the Driver Seat –** More and more women are the primary or secondary decision maker regarding the purchase and maintenance of household vehicles. Automotive companies have underestimated the difference between women and men's shopping and maintenance habits. For example, the male dealership experience is often concentrated on the negotiation component of the sales process, whereas women require a more comprehensive shopping experience and will evaluate a vehicle based on a broader range of criteria.

Vehicle manufacturers and aftermarket players have increasingly been adding technology solutions to the vehicle to meet consumer needs.

The following are a list of vehicle maintenance solutions, products and technologies that industry experts believe that consumers will adopt in the next 2 years:

- Biometric locks and ignition
- Bluetooth connectivity between personal devices and in car systems
- Driving statistics
- Email owner updates
- Entertainment systems integrated with home systems
- GPS as an anti-theft device
- GPS location of vehicle
- GPS with info on local features
- Manufacturers Recall Information
- Parking controls
- Pre-emptive maintenance
- Remote Diagnostics
- Tracking Onboard "black box" situation recorders
- Traffic Information
- Transfer of content to automobile
- Video Screens for Passengers
- Wi-Fi capability allows content from home network in car stereo
- Vehicle maintenance i.e. oil changes

These recommendations by industry experts can be grouped into a few key themes within the automotive industry:

- **Vehicle Management –** this theme includes products and services that assist in the overall management and maintenance of the vehicle for the purpose of convenience, record keeping, cost and vehicle management. These include: driving statistics, email owner updates, pre-emptive maintenance, remote diagnostics, and vehicle maintenance.
- **Safety & Security –** this theme includes products and services that ensure the safety and security of the vehicle and the vehicle occupants for the purpose of peace of mind. These include: biometric locks and ignition, GPS as an anti-theft device, GPS location of vehicle, GPS with info on local features, manufacturers recall information, parking controls, and tracking onboard "black box" situation recorders.
- **Communications & Entertainment –** this theme includes products and services that assist in creating a mobile environment within the vehicle for the purpose of communication and entertainment of drivers and passengers. These include: Bluetooth connectivity between personal devices and in-car systems, entertainment systems integrated with home systems, traffic information, video screens for passengers, and Wi-Fi capability allowing content transfer from home to car.

Monitoring Personal Health

The level of engagement in managing personal health has been steadily increasing over the past decade for a variety of reasons: aging North American population; competition for access to doctors and clinics; rising health care costs; the impact of environmental degradation (i.e. air quality) in urban areas; media actively reporting on new trends in medicine; and the Internet (easy access to information and misinformation). As such, monitoring the personal health of household members is becoming more important to mainstream consumers. Whether it is to maintain a current lifestyle, or to manage current medical conditions, consumers are looking for solutions that help them monitor the personal health of household members. Key areas to target are: personal medical recordkeeping, personal medical monitoring devices, access to reliable up-to-date information and home access to health care.

- Activity monitoring
- Blood pressure monitors integrated with BMI/weight scales
- Emergency alarms
- Hands free calling
- Health detection systems
- Medication reminders
- Movement/location monitoring
- Smart cards for medical coverage
- Software to manage medical issues
- Telemedicine
- Urine analysis device in toilet
- Ventilation control
- Video-conferencing appointments with doctor

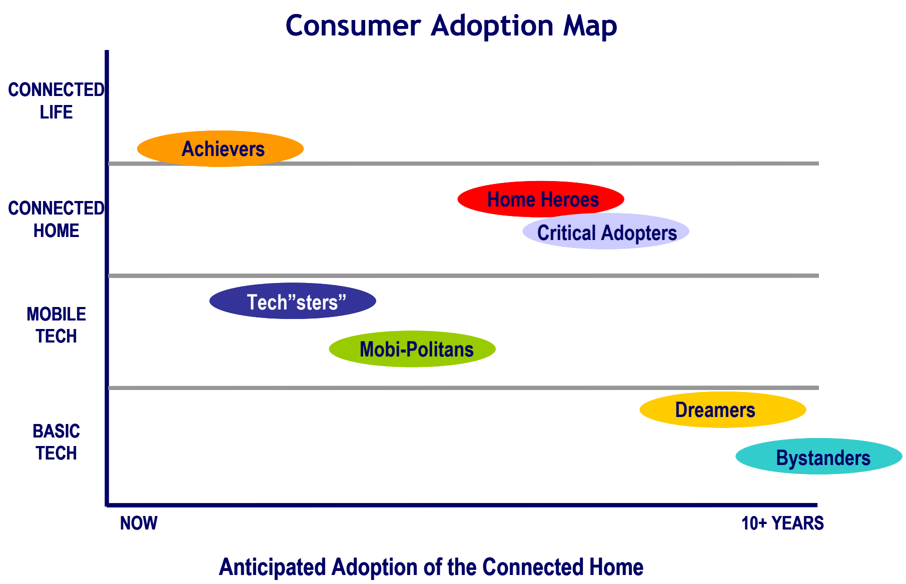
As discussed earlier, it will be important to identify successful technologies of the future by matching consumers' needs with the relevant technology.

We have another tool at our disposal to identify appropriate solutions for appropriate consumers – the Connected Home consumer segmentation.

Market Evolution in the Connected Home

As the market evolves, technologies may need to be developed to address specific needs of the various consumer segment groups; however, it is also important to note which consumer groups are ready.

Achievers are currently integrating various holistic connected home solutions across a range of interest areas, including entertainment, safety and energy efficiency. They have an immediate and positive sense that Connected Home solutions will improve their lives, and are ready to adopt.



Tech"sters" and Mobi-Politans are characterized by the way they have integrated mobile technology into their day-to-day lives. They anticipate that they will adopt connected home solutions in the near future; however, they do not have a strong relationship with their home. These two segments would react more positively to lifestyle solutions, where the home is only one component of the whole package that can also include work, friends & family, health, vehicle, and so forth. All of these various aspects of their lives could be managed through a wireless personal device.

Critical Adopters and Home Heroes indicate that they are less likely to be adopting Connected Home solutions in the near future. However, the relationship that they have with their home will be an important trigger to encouraging adoption of home technologies.

For different reasons, Dreamers and Bystanders will likely be laggards in adopting Connected Home solutions. Neither have strong relationships with their home; however, Bystanders have no interest in technology, while Dreamers are limited by financial resources.

As the technologies become more prevalent and consumer comfort and familiarity increase, we hypothesize that the integration of Connected Home solutions will evolve across the following four areas of consumer interest.

Work@Home

As broadband connectivity has become more widely available, and mobility via wireless communications has been embraced by companies, more employees are turning to telecommuting from home as a viable lifestyle alternative to working in the office. More than ever before, employees are working from home on a full-time, part-time or occasional basis. While many companies do provide the basics (i.e. laptop, cell phone and so forth), it will be important for some that their home have similar functionalities to an office. Connected Home solutions that build upon the work@home option will resonate with certain consumers and provide a path towards adoption of the Connected Home.

Mobility

Mobility has become a significant benefit of recent technological developments. It began with mainstream adoption of laptop computers and cell phones. Now, the widespread adoption of wireless networking is again changing consumer perceptions of personal mobility. Mobile devices and portable content solutions will drive the integration of solutions and mobile technology for some consumers. Products like the iPod and the Blackberry will lead the way, and lay the foundation for the adoption of Connected Home solutions among these mainstream consumer groups interested in mobility.

Home Manager

The stress and responsibility of managing a household can be an unmanageable task for the modern family, and is an area of primary interest for some consumer groups. Connected Home solutions that are introduced to the home through home management solutions will resonate with these consumers and provide a clear direction towards the adoption of the Connected Home.

Family Organizer

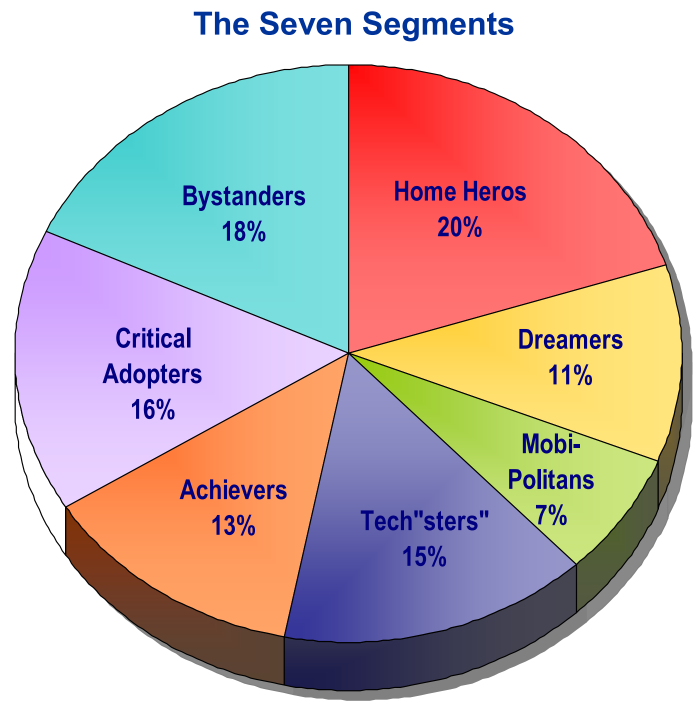
The Family Organizer path to the Connected Home will include all three areas of consumer interest discussed above, and additional facets including: monitoring, personal organization and family communication. The modern family includes individuals with diverse interests and needs, and those provide a pathway to the adoption of the Connected Home. In addition to accommodating work@home requirements, mobility needs, and overall home management, these consumers will want products and services that help them manage their family both inside and outside the home in a variety of areas, including: health, automotive, entertainment, safety and so forth.

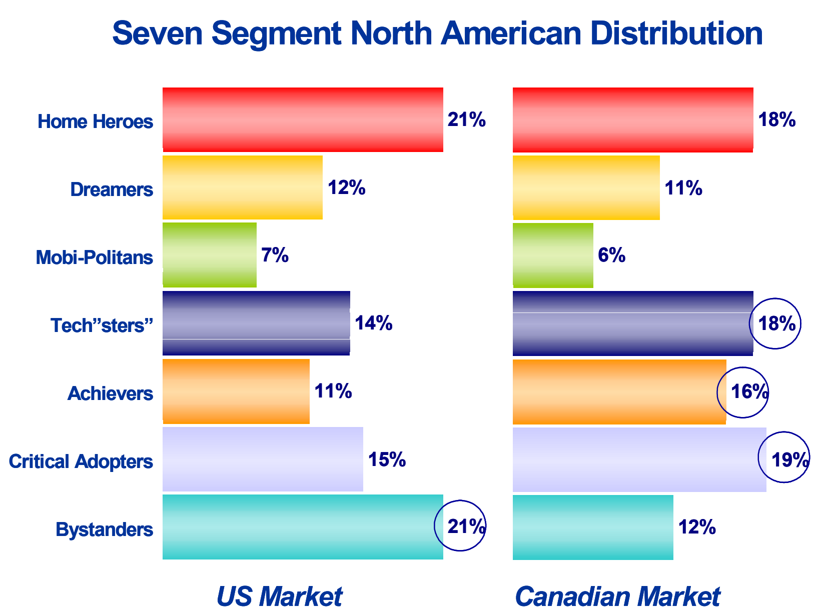
The View Today

The Segmentation Solution

Seven unique consumer segments emerge from the North American market. These segments are defined through a combination of factors including demographics, relationship with the home, attitudes towards technology, as well as current behaviour and reaction to the concept of the Connected Home.

While all segments are present in each country, there is some variance in segment penetration across North America. The segmentation solution presents three segments that have a slight Canadian skew, one that skews moderately American, and three that have relatively equal representation in each marketplace.





Tech"sters", Achievers and Critical Adopters are the three somewhat more Canadian segments, although the skew is only slight. The opposite is true of Bystanders, where consumers in the United States tend to be over-represented.

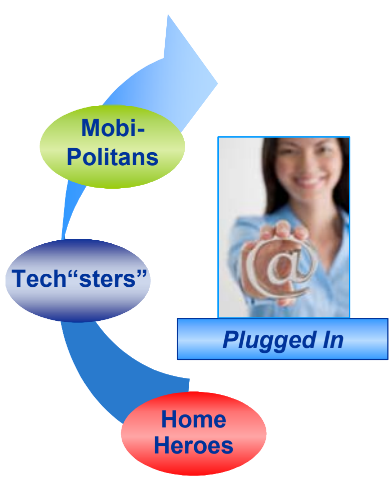
The remaining three segments, Home Heroes, Dreamers and Mobi-Politans maintain a consistent size across the North American marketplace.

SEGMENTATION DIMENSIONS/RELATIONSHIPS

The seven segments fit naturally into one of two paths relating to their appreciation for the Connected Home: "Plugged In" and "Home Proud". Each segment is characterized by either their relationship with their homes, or their relationship with technology.

Home Heroes, Tech"sters" and Mobi-Politans are "Plugged In" to technology. They are open to the possibilities it can offer them and look forward to additional product and service offerings in the future. Dreamers, Critical Adopters and Bystanders can primarily be defined in terms of their relationship with their homes. They are "Home Proud", spending much of their time in the home and are willing to take the time to ensure those homes are just the way they want them. The final segment, Achievers, combines the elements of both paths – they are engaged with technology and are also engaged with their homes.

"Plugged In"



"Plugged In" segments can be characterized by their approach to new technologies. While not all segments in this path describe themselves as "early adopters" their attitudes and behaviours reveal their openness to new ideas and concepts. Mobi-politans and Tech"sters" indicate that they find technology exciting, that it makes their lives easier and that it can bring people together. Although Home Heroes respondents are more moderate in these views, they do demonstrate a similar openness to technology.

These segments reinforce these attitudes through their actions. They are more likely to have almost every type of home technology, including newer mass-market innovations such as a media center and a PVR/DVR.

Their adoption is not limited to entertainment technologies. They are also likely to have integrated home innovations such as monitored security systems. Consistent with these adoption patterns, consumers in these segments are also more likely to participate in every online activity, from online shopping and bill payment to downloading music.

Home Heroes are the least engaged within the "Plugged In" path. They are open to technology, but it is not something they think about daily. Home Heroes are busy, on-the-go consumers who are so caught up in their whirlwind days that they do not have time to imagine all the possibilities technology might offer. They tend to focus on entertainment and communications, perhaps encouraged by their children.

The young male skewing Tech"sters" also focus on entertainment and communications. Nevertheless, this orientation is likely driven by their mobile lifestyle. These comparatively young consumers are less likely to own their homes, which limits their ability to incorporate many tech devices. Technology often appeals to Tech"sters" when it acts as a status symbol. They are attracted to the latest gadget, the 'must have' cool toy. As this segment ages they will likely begin to incorporate these toys into their homes (today it is plasma TVs).

Mobi-Politans are among the most tech savvy. This small segment skews younger, more urban and female. They are interested in many technological applications, not just those focused on entertainment and communications.

It is important to note that all of these segments within this path tend to be young and have average to high levels incomes, two factors behind both their openness to technology and their ability to acquire it.

"Home Proud"

Dreamers, Critical Adopters and Bystanders can be characterized by their association with their homes. Although not all consumers in these segments are homeowners, they all have a similar relationship with their homes. These consumers tend to feel a stronger attachment to their residence than the other segments and in some cases have made a greater investment. Their homes are central to their lives and they are willing to take the time and effort to ensure their homes are comfortable and cared for.

"Home Proud" consumers indicate that their homes are their ideal space, their retreat from the world where they prefer to spend much of their time. These sentiments are strongest amongst Dreamers, followed by Critical Adopters and finally Bystanders.

Although each of these segments is oriented towards their homes, this attitude does not always translate into action or purchasing habits.

The homes of Dreamers tend to be smaller than average and are less likely to be outfitted with safety devices or other custom features. Dreamers express a strong interest in home innovation technologies, but it is likely that their incomes are preventing them from acquiring everything they want.

These consumers could be described as "wannabes"; they want to have the fully outfitted home with all the latest gadgets but they lack the means.

Critical Adopters, on the other hand, have more assets at their disposal and do incorporate new devices into their homes. They are less interested, however, in having all the latest innovations. This segment skews older and retired and tends to favour the simple things in life. They are oriented towards practicality and their homes reflect this. They view their homes as private, functional spaces that are exactly as they want them.

Bystanders also skew older and retired, but these consumers tend to have much lower incomes. They are more likely to rent their homes and express a strong reluctance to adopt technology. Their homes are private spaces, purely functional and very basic. Bystanders are very traditional, wary of change and unlikely to incorporate any technology into their homes, even if they had the resources.

Achievers

There is one segment that combines the attributes of both paths. Achievers are both the most "Plugged In" and the most "Home Proud". A number of demographic factors combine with their general openness to technology and add up to a segment that is truly leading the way for the Connected Home.

This segment skews middle aged, with the highest incomes and as a result, they tend to live in larger, more suburban homes. They are open to all the possibilities technology offers, and they have the resources to acquire the technology. They are tech savvy, but most are not the typical leading edge adopter. Rather, they use their resources to acquire technology as it enters the mainstream and likely have others install it and teach them how to use it.

IMPORTANT ADDITIONAL DIMENSIONS

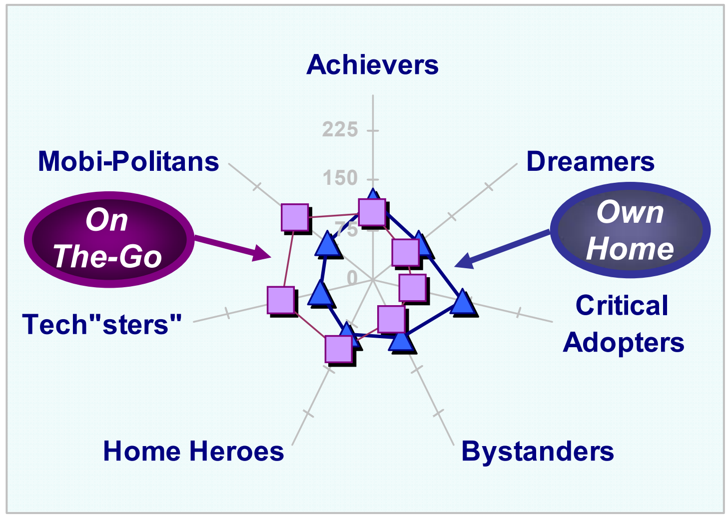
Although the seven segments can be primarily defined as either "Home Proud" or "Plugged In", there are several other key dimensions that connect these consumers.

The first dimension is mobility. Each of the seven segments are oriented either outwards (mobile) or inwards (towards the home) to varying degrees. The more mobile segments are Tech"sters" and Mobi-Politans. These two segments have one thing in common – both skew younger. Mobi-Politans are more female and Tech"sters" are more male.

The inset map reveals that Tech"sters", in particular, are much less likely to own their homes. While Mobi-Politans tend to be homeowners, they are typically in a starter home, not a place where they will settle, which is evident by their on-the-go nature.

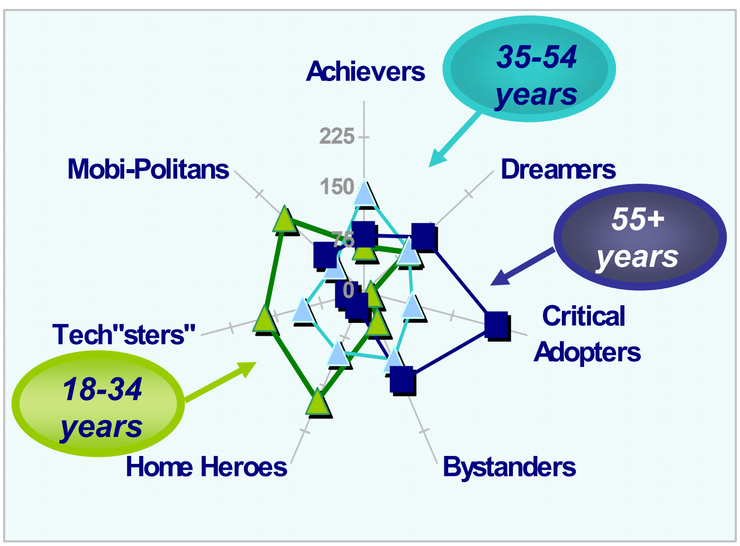
The map shows penetration by segment of home ownership (line marked by triangles) as well as on-the-go, meaning people who report that they do not spend a lot of time at home (line marked by squares). Looking at both aspects together reveals which pull is stronger, that of home ownership or an active lifestyle leading away from the home. For Achievers, these dimensions come together to reveal a segment that is both active *and* strongly connected to the home and consequently willing to invest in the home environment.

These younger, single, less family oriented consumers (Mobi-Politans & Tech“sters”) are busy building their lives. Their on-the-go lifestyles make their homes more of a pit stop than a real retreat from the world.



Tech“sters” in particular are much less likely to own their homes, and although Mobi-Politans do often own, these homes are likely transitional. These starter homes are simply a stepping stone and not a place to settle.

Dreamers are another group of consumers that are more often renters compared to the market as a whole. For them, a lack of income is likely the driving factor rather than their youth.



Many of these consumers simply lack the resources to commit to a long-term financial strain such as owning a home, and those that do tend to own smaller and older homes. Many of the same financial constraints are true for the older Bystanders.

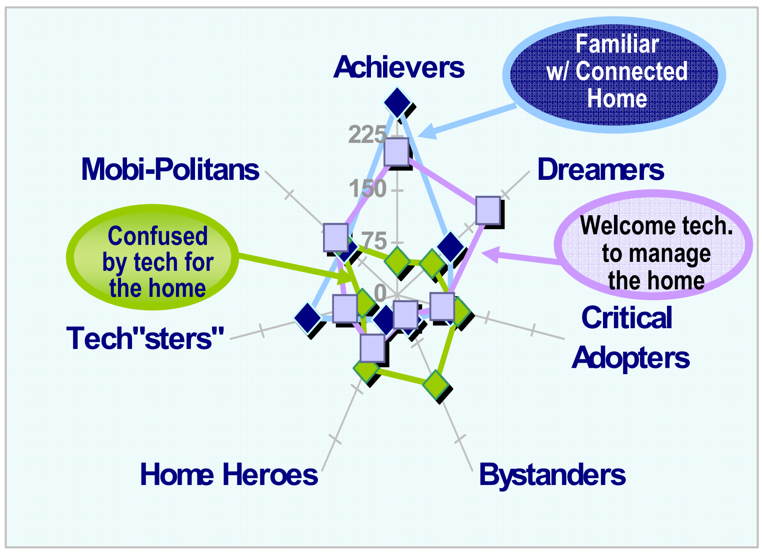
Other segments, particularly Critical Adopters, Home Heroes and Achievers are more likely to own their homes. Home Heroes and Achievers tend to have younger families, with the larger homes to accommodate them.

The older couples in Critical Adopters have almost universal home ownership, reflecting the economic stability they have achieved in their later stages of life.

Consumer attitudes towards the concept of the Connected Home, and home innovation technology in general, are likely related to age and general mobility. Many of the younger segments (Tech“sters”, Mobi-Politans and Achievers) are more familiar with the concept of the Connected Home and also tend to be among the least perplexed by technologies that might be incorporated.

The moderate confusion exhibited by Mobi-Politans (see chart below) is likely a result of a combination of factors. First, these consumers are relatively unengaged in their own homes and second, they tend to live in newer homes, often apartments or condos. For these consumers, Connected Home Technology is likely not something they need to think about often, if at all, given their living situation. Their confusion is likely not related to the technology itself, but rather to its particular application in the home. For example, the concept of installing a monitored home security system is not a task a condo owner will be particularly concerned about as many condominium buildings have a 24 hour concierge and security service. Despite their "confusion", Mobi-Politans indicate they would welcome technology to assist them in managing their homes, however for many that needs to make sense in the context of a condominium or multiple dwelling unit.

The younger consumers in Tech“sters”, on the other hand, are not confused at all by technology. However, they indicate they are not as welcoming as others in terms of incorporating that technology into their own homes. This attitude is likely a result of their mobile lifestyles.



Achievers are by far the most familiar with the Connected Home concept and the most interested in incorporating the technologies. Again, this attitude is related to their relatively young (middle) age and because they are most often homeowners.

Demographically Home Heroes have some similarities with the Achievers segment - both are family oriented, often with younger families. Home Heroes however, are not as engaged in their homes, nor do they have the time or the resources to investigate new home technologies.

Although Critical Adopters and Bystanders are engaged in their homes (Critical Adopters more so than Bystanders), age seems to most affect their attitudes towards the Connected Homes. They are the least familiar with the concept, and the least interested in incorporating the technology into their homes.

The final segment, Dreamers, indicate that they are moderately familiar with the concept and they appear to be excited and welcoming of any technology to help them manage their homes. Again, these consumers are younger than Critical Adopters and Bystanders and, hence, are more open to technology overall. It is important to note, however, that they may often lack the resources to follow through on their excitement.

ASSOCIATION WITH THE CONNECTED HOME

Each of the seven segments demonstrates differing levels of awareness and interest when exposed to the concept of the Connected Home.

As expected, given their affinity for new technologies and their higher levels of disposable income, Achievers are by far the most familiar with the concept and are also the most interested in incorporating the technologies into their homes.

At the other end of the spectrum, Bystanders are both the least familiar with and the least interested in the idea of a Connected Home. This lack of awareness and excitement may be related to their lower incomes and general aversion to technology.

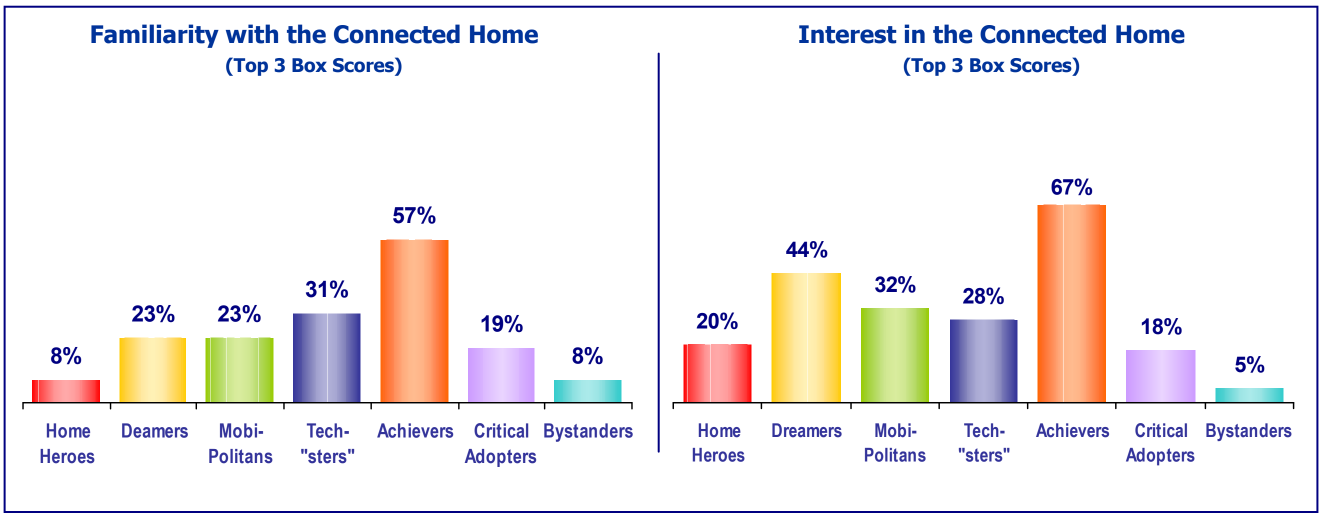
Connected Home Definition

The Connected Home will bring together a number of new technologies allowing you to manage all aspects of your home in more convenient ways.

- A Connected Home might include automation, connection of home electronics and appliances both within the home and over the Internet, wireless networking, entertainment, energy and water conservation, and information access.
- Connected Homes can also perform operations such as controlling lighting, heating, air conditioning, watering systems, monitoring changes in health and wellness, or arming/disarming the security system.

With a Connected Home it becomes possible to control many aspects of your home automatically or from a remote location.

Despite only moderate awareness levels, Dreamers are among the most interested in Connected Home technology. However, given the relatively lower income levels common in this segment, and their lower levels of current technology ownership, it seems unlikely that the interest demonstrated by this segment will translate into adoption.



The four remaining segments, Home Heroes, Mobi-Politans, Tech"ters" and Critical Adopters all demonstrate moderate levels of interest in the concept of the Connected Home (although Home Heroes do have a lower awareness of the concept). For these segments, certain aspects of their relationship to their homes will act as barriers, keeping them from incorporating Connected Home technologies for the time being. Among those factors: low levels of home ownership, a resistance to technology or the fact that they are too busy to keep up with developments in the industry.

Consumers were also asked to put a time estimate on their potential adoption of Connected Home technology. As expected, the time frame projected by Achievers was by far the shortest, followed by Home Heroes. Bystanders gave the longest time estimate and Dreamers, Mobi-Politans, Tech“sters” and Critical Adopters fell somewhere in the middle.

Consumers were also asked about some specifc home technolgies that may be developed (or already exist) for the Connected Home.

With only one exception, consumers in all seven segments were interested in the same three home technologies: a device that would automatically monitor the air quality in the home, an integrated and monitored home security system, and a tool that would allow the home to automatically adjust the temperature in each room depending on the profile of the occupants. The choices only differed in terms of the order of these three innovations.

The only exception to this pattern is Tech“sters”. These young, mobile consumers were more likely to indicate an interest in a media center, slightly more than the device that automatically adjusts the room temperature. This corresponds with this segment’s strong affinity for entertainment and communication gadgets.

It is important to note that these preferences do not necessarily indicate an endorsement of these specific technologies. Rather, they should be interpreted as areas of general interest.

Some commonalities exist when the potential technologies of least interest to consumers are reviewed, and the slight nuances that do exist tend to reflect the unique attitudes and lifestyle of each segment. For example, the younger segments tend to be less interested in a TV-based medication reminder notification, while the older segments are less interested in a seamless interface between their home office and work office.

The Connected Home Concept

Potential Technologies of LEAST Interest

Home Heroes
Seamless home office interface
Remote PC/Wireless voicemail access
TV-based e-mail access

Dreamers
Seamless home office interface
Child homework monitoring
Fridge-based recipe suggestion

Mobi-Politans
Remote PC/Wireless voicemail access
TV-based e-mail access
Child homework monitoring

Tech"sters"
TV-based medication notification
Automated vehicle diagnostics
Remote PC/Wireless voicemail access

Achievers
TV-based medication notification
Automated vehicle diagnostics
Remote PC/Wireless voicemail access

Critical Adopters
Child homework monitoring
Seamless home office interface
Fridge-based recipe suggestion

Bystanders
Seamless home office interface
Remote PC/Wireless voicemail access
TV-based e-mail access

Remote access to voicemail through PC and wireless devices seems to draw little interest, even from the more tech-oriented segments (Mobi-Politans, Tech“sters” and Achievers). It may be that these busy working consumers are already inundated with ways to access their voicemails and other messages both personal and business. They may be somewhat over-saturated with devices in this space.

THE VIEW TOMORROW

It is clear that the seven consumer segments will each respond and react in their own ways as Connected Home technologies are introduced and gain momentum in the market. A key objective of this Roadmap is to provide organizations with direction in order to leverage, motivate and maximize the opportunities of tomorrow.

With this in mind, there are two key considerations to explore and understand for each consumer segment. They are:

- The Potential Value
  - Based on past behaviour, this offers a proxy for the potential value of each segment
- The Value Proposition
  - Relates to the key triggers that will capture the attention and engage these consumers
  - Highlights broad solutions which will motivate this segment to adopt Connected Home technologies
  - Reviews likely reaction to plausible market forces
    - Two scenarios have been developed to illustrate how, and the extent to which, each segment would likely react. When industry members were asked what circumstances were likely to have the greatest influence on Connected Home technology adoption, these two scenarios received the most mention. They are:
      1. Energy crisis
      2. Aging population

Potential Value

The potential value of a segment can be assessed in a manner of ways. In the simplest of terms, it can be based on current and intended expenditure on products and services for the home. It is important to recognize that consumers in each of the seven segments are potential consumers of Connected Home technologies and services - and, therefore, a potentially viable target (depending on alignment with corporate strategies).

The challenge is estimating potential value when many factors come into play beyond current "share", and factors such as the economy can have a significant influence and create an unforeseen shift.

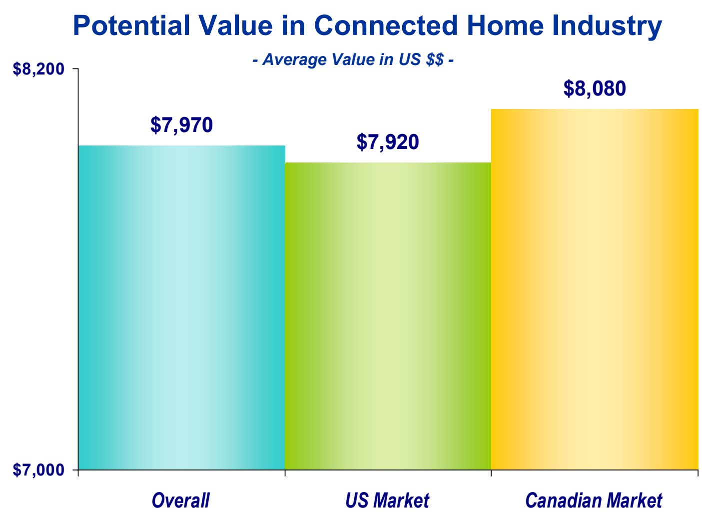
In an effort to generate some measure of potential value, this study has produced a value for each respondent based on various products or services he or she has in their home, beyond the standard appliances. The value incorporates a weighting scheme which includes current home ownership status (those who own are more likely to make an investment than those who rent), as well as their own self-defined approach to technology (first to buy are obviously more likely to purchase Connected Home products and services than those who are last to buy).

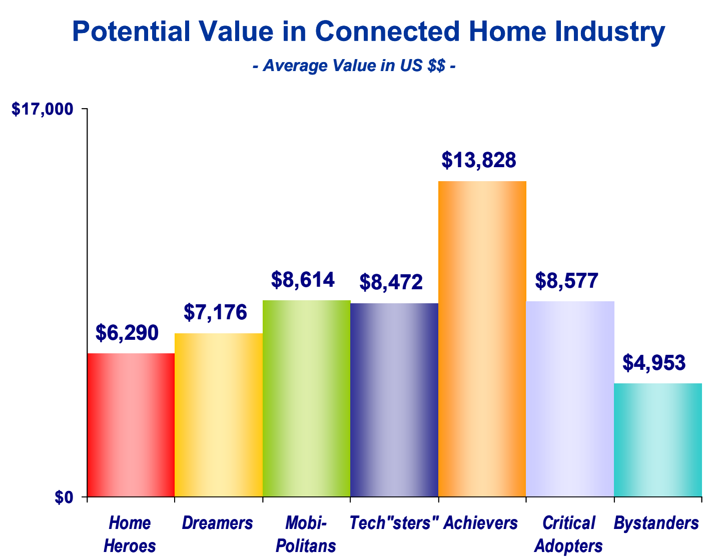
Ownership or subscription to the following convenience, communication, safety and entertainment products or services has been used to generate this value.

Garage door opener (system)	Programmable thermostat	Distributed audio/video	Wired router
Air conditioning system	Programmable lights (timer)	DVD player	Digital television service
Home security/alarm system	Remote notification of washer/dryer	Gaming system	Media adapter
Monitored home security/alarm	Ionic air purifiers	Handheld videogames	PVR (personal video recorder)
Outdoor sprinkler system	Water purification system	Home network	iPod/MP3 player
Central vac system	Home gym	Emergency medical monitor	VoIP (Voice over IP)
Forced air	Smoke detector	Home theatre system	Cellular phone
Smart electricity meter	Sprinkler system	High definition television	Cordless phone
Solar panels	Carbon monoxide detector	Plasma/LCD television	Internet service
Remote window blinds	Fire extinguisher	PDA (Palm Pilot/Blackberry)	
Heated floors (10sq ft.)	First aid kit	Wireless router	

Using this value as a measure of opportunity, rather than a concrete projection of their potential to spend in the category, there appears to be slightly more opportunity at an individual consumer level within the Canadian market than within the U.S. market.

Although the variation across the national markets is slight, the range across the seven segments is more pronounced.





Based on past behaviour, investment in their existing home, and attitudes related to tech adoption, Achievers are the most invested to date in the Connected Home market.

This segment represents consumers with higher incomes, larger homes and a keen interest in keeping current new technology, and using it to enable their active lifestyles.

Conversely, Bystanders, an older, lower income group of consumers, express little interest in technology or the Connected Home, and tend to be lower spenders in this category.

The opportunity between these two extremes is vast. The key to capturing the share of wallet among these average-spend consumers (Dreamers, Mobi-Politans, Tech“sters” and Critical Adopters) relates to understanding the right value proposition for each segment, and leveraging that opportunity.

The Value Proposition

Home Heroes: Practical, Affordable and Family Focused ***“Prove it works”***

Home Heroes often feel overwhelmed by the demands of their busy lives. Characterized by larger households and lower incomes, consumers in this female skewing segment are under considerable stress on a daily basis. They face constant demands and feel they have little time for themselves after taking care of the rest of the family. These busy families simply do not have the time or money to invest in upgrades for their older homes. For many, the children are their priority. To this end, products and innovations related to the family are likely to be the first to capture their attention.

These consumers also feel somewhat left behind by the pace of technological change. Lacking the time to learn about new technologies, many are reluctant to purchase new products they do not understand. Their tight budgets dictate that every product must have a clear and direct benefit for the family. That said, these consumers are willing to adopt technology as it becomes mainstream. Their current tech ownership profile reveals a strong liklihood to purchase entertainment-based products and services (such as gaming systems), chiefly driven by the interests of their children.

Engaging Home Heroes will require products and services that are simple, straightforward and relatively inexpensive. These consumers are not looking for the “latest and greatest”. Products that are too technologically advanced or innovative will miss this segment. Nevertheless, a Connected Home innovation that can be explained in a straightforward manner, installed easily and supported by a customer service system will be more readily adopted. Overall, the trigger for most consumers in this segment will be products and services that are related to the family.

Broad types of solutions Home Heros will be most attuned to:

- Family oriented entertainment
- Family oriented communication
- Household management

In the near term, products such as a remote child or home monitoring service might appeal to the Home Heroes sense of family. This will likely also hold true for new gaming consoles or online gaming services. Remote household management tools or systems would likely also hold some appeal for these busy consumers.

Home Heroes' Potential Reaction to Market Forces	
Energy Crisis	*Aging Population*
• Conserve before "buying" products/ services to make home more efficient • Replace appliances with energy efficient models as required (stop working) • Will be responsive to goverment incentives	• Family communication paramount as they are stretched to help care for their parents • May feel caught in the middle as products/services are marketed to either their children or parents

Dreamers: Low Cost, Simple Gadgets ***"Look at me"***

Encouraging Dreamers to acquire new Connected Home innovations will be a challenge. Although these consumers show a strong interest in the Connected Home, and in technology in general, their current purchase behaviour reveals they lag the mainstream in terms of adoption.

These consumers are excited by the idea of technology and by the solutions technology offers for their homes. For most, it is an aspiration rather than a reality. While this segment strives to be like more like the tech savvy consumer, they are often restricted from incorporating these products and services by their lower than average annual incomes. In addition, they often live in older and smaller homes, making any upgrades more costly and time consuming. This likely explains the lack of amenities (such as air conditioning or garage door openers) in the majority of Dreamers' homes.

Despite their small households and the general absence of children living in the home, many Dreamers appear overwhelmed by the demands of their daily lives. Although many of these consumers would like to adopt leading edge technology solutions to assist them with virtually every household task (from general cleaning to entertainment and communications), the reality for most is that actual purchases will have to wait until a product has entered the mainstream. If they were to own tech-based products it would be to demonstrate that they are worthy and "in the know". Connected Home products and services most likely to engage Dreamers will need to be low cost, simple to use and first and foremost gadget-oriented.

Broad types of solutions Dreamers will be most attuned to:

- Entertainment
- Communications (cellular, online, webcam, etc.)
- Gadget-oriented

More specifically, products or services that allow Dreamers to access their content (whether television, movies, music or other media) remotely will likely appeal to their entertainment-oriented nature. In addition it seems likely that these consumers will be attracted to gadgets such as new cellular phones and webcams. For these price-sensitive consumers, products like these may be the key to accessing the Connected Home.

Dreamers' Potential Reaction to Market Forces	
Energy Crisis	*Aging Population*
• Will not react – will not make any changes to their lifestyle	• More strain on household budgets and will rely on family more than technology for support • Likely to feel more out of touch with the pace of change than they are willing to admit

Mobi-Politans: Technology Advanced, Built-in and Straightforward ***"Integrate into my life"***

Mobi-Politans are among the youngest in the North American market. This, combined with their tendency to be female and urban, are the key factors that differentiate this segment. These younger, career-oriented women are in a busy and transitional stage of their lives. They will most likely be enticed by products and services that they don't have to spend a great deal of time thinking about.

Mobi-Politans tend to be new to home ownership, likely just entering the housing market via newer apartments or condominiums. Their homes are often fully equiped with the modern standard features of newer developments (i.e. monitored security, indoor sprinkler systems), but many have not upgraded their homes with any other amenities besides the standard basics. Despite their appreciation for the amenities that give them a sense of security, Mobi-Politans appear unlikely to take the steps to aquire these upgrades on their own.

Like many young consumers, Mobi-Politans are comfortable with technology. They understand the basics of technology and appreciate the possibilities it can offer. However, despite this level of openess, Mobi-Politans are no more likely to purchase new technology than the overall market. For these consumers, technology is simply not a priority at this point in their lives. They do not need technology to impress others. Rather they will incorporate it into their lives as they see a fit.

Although these consumers are not afraid of technology, they also do not want to spend much time and effort setting up a product or service. Connected Home innovations targeted at this segment will need to be simple and straightforward. If a Connected Home innovation comes standard, or in an easily installed off-the-shelf solution, then it will be more likely to engage this group.

Broad types of solutions Mobi-Politans will be most attuned to:

- Work/life balance for technology solutions
- Home to manage itself
- Seamless home office interface

The ambitious and career oriented Mobi-politans will likely find products that enable a mobile office appealing such as Fibre to the Node Internet services and wireless networking (in the near term future). In addition, products such as remote laundry notification or self-cleaning microwave ovens or other appliances will also assist these consumers in managing their homes.

Mobi-Politans' Potential Reaction to Market Forces	
Energy Crisis	*Aging Population*
• Will go along with the market and make small changes in lifestyle – providing it requires little effort and is easy	• Likely to move to new homes as they age • Will continue to be open to technology where it seamlessly integrates into their lifestyle

Tech"sters": Fun, Exciting and Portable

"Tech is my toy"

Tech"sters" are characterized by their tendency towards mobility, their lack of engagement in their homes and their enthusiasm for technology. Given their younger age skew and the general lack of home ownership, any product or service targeted at these consumers will need to be affordable, and more importantly portable.

Tech"sters" have grown up using technology and as a result are far more comfortable. They understand the potential frustrations inherent with new tech, and generally accept them as par for the course. They also tend to use their gadgets as badges, proof to the outside world that they are "in the know". This ease with tech suggests it will be relatively easy to get Tech"sters" excited about Connected Home innovations. The challenge will be encouraging these consumers to see a need for them into their current life stage.

There are two prime factors that can motivate Tech"sters": fun and portability. Current purchase behaviour for Tech"sters" suggest they are strongly oriented towards entertainment and communications products. Devices that can integrate these functions, and can be moved from house to house, will likely be the first to engage them.

Broad types of solutions Tech"sters" will be most attuned to:

- Entertainment systems (home theatre, gaming, etc.)
- Home networking
- Moving and sharing content between home, auto, portable devices
- Automotive diagnostics
- Novelty

As Tech "sters" are strongly entertainment oriented, home theatre and gaming systems will likely be some of the first products to attract them. In addition, devices or services that allow them to access their media and other content remotely will also have some appeal. A media hub is likely also a new product that will be high on the Tech "sters" lists in the next few years.

Tech"sters" Potential Reaction to Market Forces	
Energy Crisis	*Aging Population*
• Make energy conscious choices to ensure limited impact on lifestyle and use technology to manage energy (i.e. programmable thermostats) • View energy management as a fun challenge	• Demand that technology will adapt to their needs • Will continue to be leaders in the adoption of technology based products and services

Achievers: New, Innovative and Enabling ***"Enable me"***

The middle-aged, established suburban families who are Achievers have the means to acquire virtually every Connected Home technology product or service that interests them. This male skewing segment boasts the highest incomes of any group in North America. As a result, Achievers tend to live in larger and newer homes, most often in suburban areas. Their homes are fully equipped, both with standard safety devices such as smoke detectors, as well as newer amenities such as garage door openers, programmable thermostats and central vac systems.

Given their current home technology ownership, it seems llikely that Achievers will continue to adopt new home innovations as they enter the market. They are generally open to technology and embrace the possibilities it offers to make their lives easier. Although Achievers are not the typical leading edge technology consumer, many are able to acquire and use new technologies once they have someone else install the products for them.

Achievers split their time between their careers and familiies and will likely be most engaged by products or services that are communications oriented. Products that enable them to connect remotely to the office, or allow them to check on the family at home, are apt to be very appealing. These consumers strive to get the most from work and play, so entertainment products and services are also likely to be top attractions.

Overall, these consumers are ready for anything the Connected Home market has in store for them. They are excited by the concept and look forward to incorporating these innovations as soon as they can.

Broad types of solutions Achievers will be most attuned to:

- Anything and everything

Although Acheivers will likely embrace almost every new product or service to some degree, there are a few specific concepts that will likely be most appealing for them in the near future. Their family oriented nature will likely draw them towards devices they can enjoy with their children, such as home theatre systems or gaming systems. In addtion, Acheivers may be interested in remote child monitoring services that allow them to check up on their families while they are at the office or on the road. To enable these services, Acheivers will also likely be interested in installing faster and more secure Internet connections.

Achievers' Potential Reaction to Market Forces	
Energy Crisis	*Aging Population*
• Have elements in place today to react and will continue to seek solutions to address needs in the future	• Will assist elderly to take advange of current technology • Begin to explore how technology can be used to meet their needs as they age (taking notes from parents's experience)

Critical Adopters: Basic, Functional and Streamlined ***"Keep it simple"***

Product and service innovations that are basic, functional and practical are likely the most effective way to engage Critical Adopters in the Connected Home. Critical Adopters are older and include a large percentage of retirees. They are well established – home ownership is nearly universal for this segment. Although their homes tend to be somewhat older and larger than the overall market, they are unlikely to have children living with them. Critical Adopters have put a considerable amount of time and effort into upgrading their homes with safety features and other amenities to meet their specific, yet basic needs. At this stage, many feel their home meets their every need.

The older age which characterizes this segment tends to coincide with a general wariness of technology. Despite this skepticism, Critical Adopters appear relatively open to technology adoption, as long as it is proven and practical. Critical Adopters are not motivated to purchase technology to impress others. For them the main motivator is because it is the most sensible solution to a given problem. If a product has too many bells and whistles these consumers are likely to avoid it.

Broad types of solutions Critical Adopters will be most attuned to:

- Energy efficiency
- Health
- Safety

The practical and traditional Critical Adopters will likely appreciate the savings offered by new energy efficient appliances, as well as potential rebates that may be offered to encourage their installation. These consumers may also be interested in other efficiency products such as programmable thermostats and smart energy metres. Critical Adopters are also an aging segment and may demonstrate some interest in health and safety monitoring devices or services, but these would need to be priced at a reasonable level to attract these consumers.

Critical Adopters' Potential Reaction to Market Forces	
Energy Crisis	*Aging Population*
• Conserve - act immediately • Seek advice for the "right" solution • Intrigrued by incentive rebates	• Will aquire technology that allows them to stay in their home as long as possible • Use technology to maintain their lifestyle • Use technology to stay in touch with family

Bystanders: Simple and Supported ***"Hold my hand"***

Bystanders are likely to be among the most challenging group to engage in the development of the Connected Home. This predominantly female segment has the lowest annual income of any of the consumer segments in North America. As a result, it is not surprising that Bystanders are more likely to live apartments than the overall market. These consumers also tend live in homes that are smaller and older than average. Bystanders are not engaged in their homes. They appear reluctant to invest any time or money in even the most basic of upgrades.

In addition to their detachment from their homes, Bystanders are technology avoiders. They tend to be resistant to change and reluctant to adopt technology innovations in most categories. Many Bystanders feel they have made out just fine without new innovations such as computers or cellphones, and that these technologies make their lives unnessarily complicated. These consumers are unlikely to purchase new technology until it is both ubiquitous and economical. Even then, they will likely be uncomfortable with the change.

Any product or service that targets this segment will need to be as simple, basic and fool-proof as possible. Existing products stripped down and simplified may be one way to engage these consumers (for example, basic cell phones targeted at older consumers with larger displays and keypads). Bystanders are also likely to need extensive customer service and technical support as they gradually adopt new technologies.

Broad types of solutions Bystanders will be most attuned to:

- Communication (basic cell phones)
- Consumer electronics (product replacements)
- Entertainment (basic management of personal content)

The key triggers for the Bystanders are simplicity and affordability. As such, pared down versions of existing consumer products may be one way to reach them. Cellular phones with larger keypads and displays as well as more sensitive volume controls targeted at elderly consumers are one product that would allow Bystanders to stay in touch with their families. In addition, these consumers may be attracted to entertainment services such as digital television, as long as they have the customer support to assist them in learning to use it.

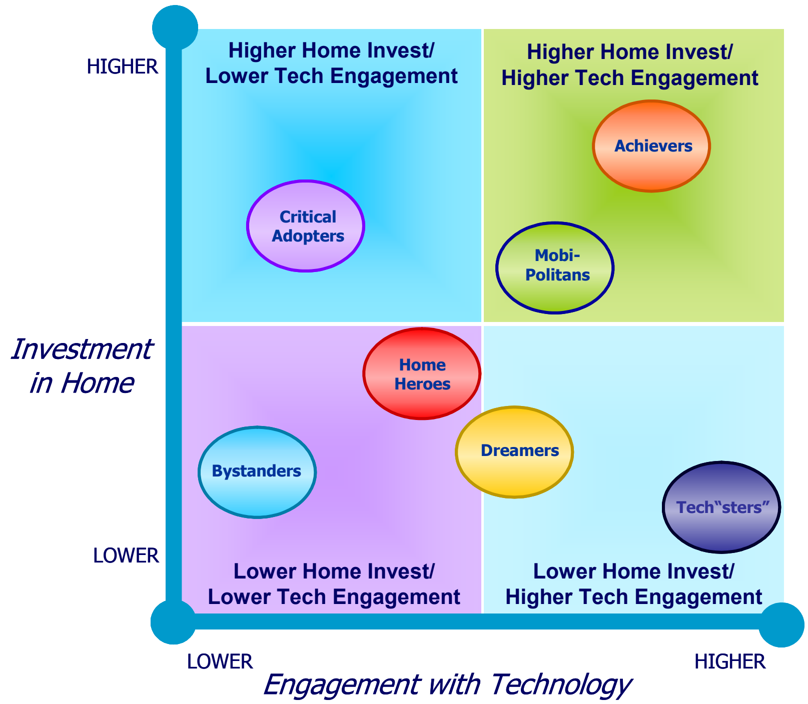
Bystanders' Potential Reaction to Market Forces	
Energy Crisis	*Aging Population*
• Will take very small measures, with minimal effort to conserve (energy efficient light bulbs, wear a sweater, turn off lights) • Will expect government and others to step in	• Will adopt the most basic and affordable products and services

SELECTING THE RIGHT TARGET SEGMENT(S)

In considering which segments are the right ones to target, it is important to have a comprehensive view of the consumer landscape. The Connected Home Roadmap has demonstrated that there are two steams, Technology and Home, channelling the development of the market, and seven consumer mindsets, which represent different paths of consumer adoption.

Imagine the consumer Roadmap as a four-square opportunity grid. The grid brings together the two paths - investment in the home on the Y axis and engagement with technology on the X axis. This illustrates where the levers of opportunity are from several perspectives.

The most immediate opportunity is where the two streams cross (upper right quadrant), where investment in the home is high and engagement with technology is high. The profile of this segment further reveals that these consumers have the income to act on their desires.



There are two segments that are more invested in their homes (some of which is directly tied to life stage) and less engaged with technology. The section that follows will detail how to tap into these segments. These segments are part of the bandwagon attraction needed for mainstream lift.

Additionally, two segments are engaged in technology, but are not invested in their home. These segments are quick (especially Tech"sters") to try new technologies. They are important sparks for an industry hoping to inform and excite surrounding segments.

While some segments are neither as engaged with technology nor involved with their home as others, they should not to be discounted. They are the litmus test for mainstream solutions. One segment is simply too busy to want keep up with technology, so will not adopt until the tech is truly a proven solution. The other is a lagging segment that waits to adopt. Their acceptance will truly indicate that a technology has become part of the social fabric. Catch them if you can!

The key, of course, is to select and target the right consumer segment(s). Consider, however, that the best prospect is not always an obvious prospect.

While Achievers may appear to be the lowest hanging fruit (as they are already very engaged), each of the remaining six segments present at least some level of opportunity for the Connected Home market. Target segments will vary from one organization to the next; in fact, target segments will likely differ by sector (and in some cases within a sector) depending on each organization's strategic direction. For example, if an organization is tied to "green values" it will be most appropriate to lock in on the environmentally conscious and environmentally sensitive segments. If an organization is a volume-based discounter, it will be most advantageous to hone in on deal seekers and price-conscious segments.

When selecting target consumer segments, organizations can apply one of two strategies:

Strategy 1: Select one or two primary (or secondary) segments to target

- All product/service development, retail outlet design, customer experience and marketing and communication efforts will be developed with these specific consumers segments in mind.

Strategy 2: Focus on one or two segments, but take into broader consideration natural catchments

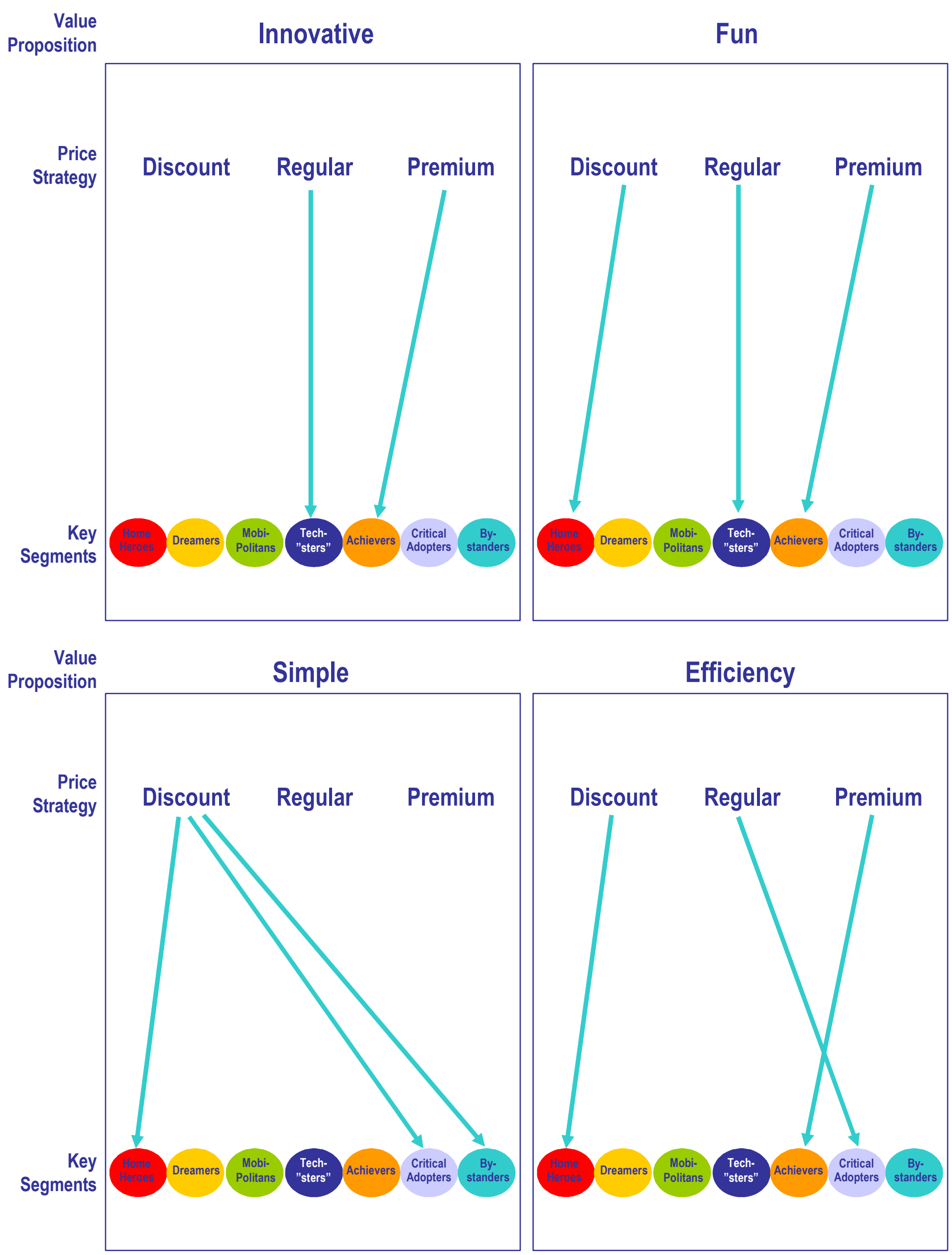
- In this case, all elements of the product/service, customer experience, as well as marketing and communication efforts will consider the characteristics of one or two focal segments. However, greater consideration will be given to segments with similar needs and values.

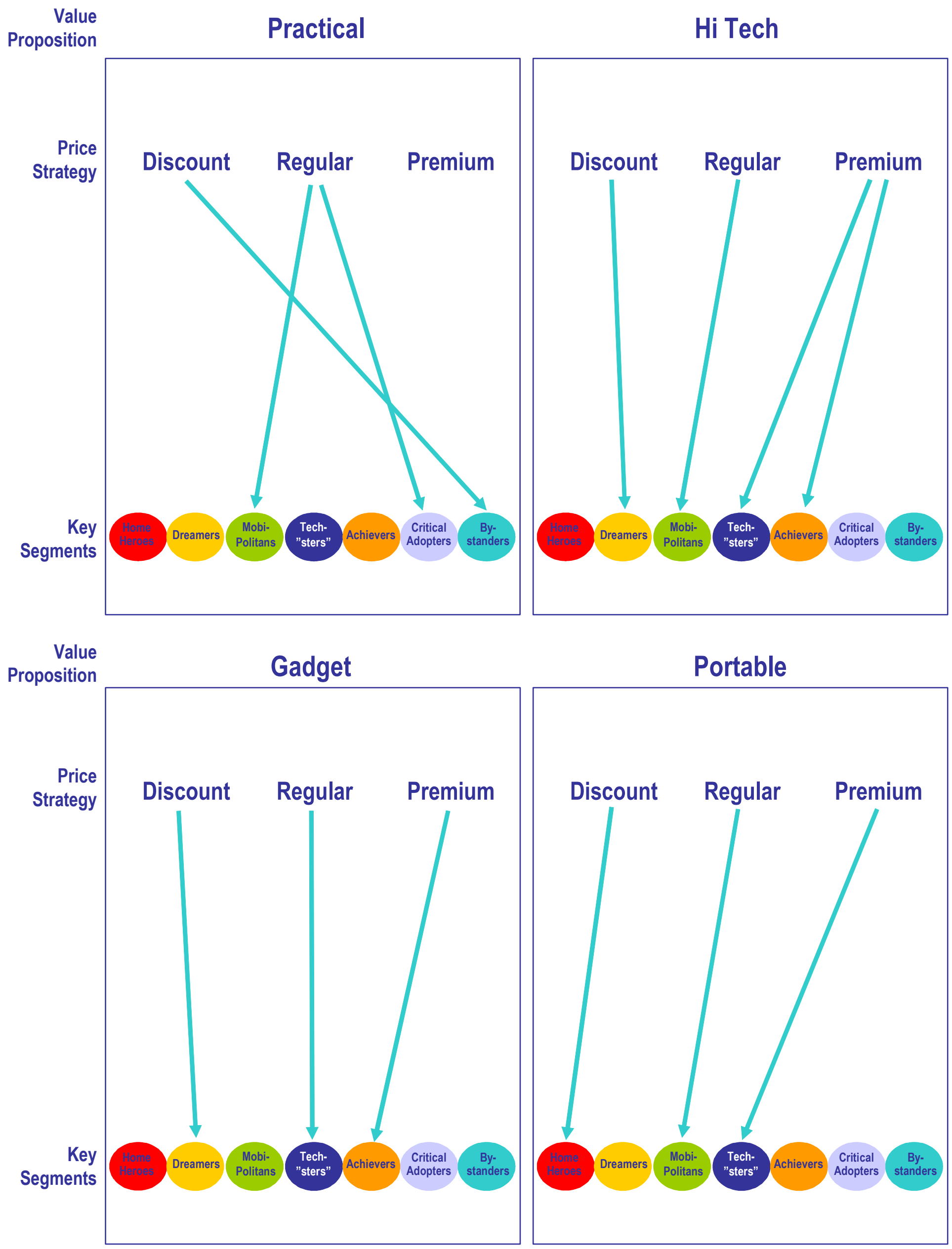
There is no steadfast rule to selecting the right consumer segment. There are several factors, however, that organizations should consider when selecting the best and most appropriate fit. Key questions to ask consider are:

- Which segments represent most closely our core customers today?
- Which segments represent the best for our current products/services offering?
- Which segments represent the best fit for the products/services we have in development?
- How involved are these segments in our category – are they deeply invested, beginning to invest or simply not invested at all?
- What is the size of the opportunity? How big the segment is and how much have they spent in this sector in the past?
- What is important to this segment and how does it align with our corporate strategy?
- Which segments do we want to ensure are part of our core customer base 3 - 5 years from now?
- Which segments do we want to use to inform our product development and/or consider developing in the next 3 - 5 years?
- What is this segment's position in the market? Where they are on the adoption curve and how does this align with the products and services we develop and/or sell?

What follows is a high-level decision tree to provide some direction and guidance when considering this selection process. It is a simplified approach that asks organizations to consider the value proposition they currently offer or are in the process of developing (there are 12 examples on the pages that follow - see the title of each chart for the value proposition being considered). Second, organizations should select their pricing strategy (each chart offers typical pricing strategies). Based on these selections, each chart will lead to the key segment that presents the greatest fit, given the variables considered.

To reiterate, there are no firm rules for this process. The charts outlined on the following pages are intended solely to provide food for thought and guidance.




Value Proposition
Practical
Hi Tech
Price Strategy
Discount
Regular
Premium
Discount
Regular
Premium
Key Segments
Home Heroes
Dreamers
Mobi-Politans
Tech-"sters"
Achievers
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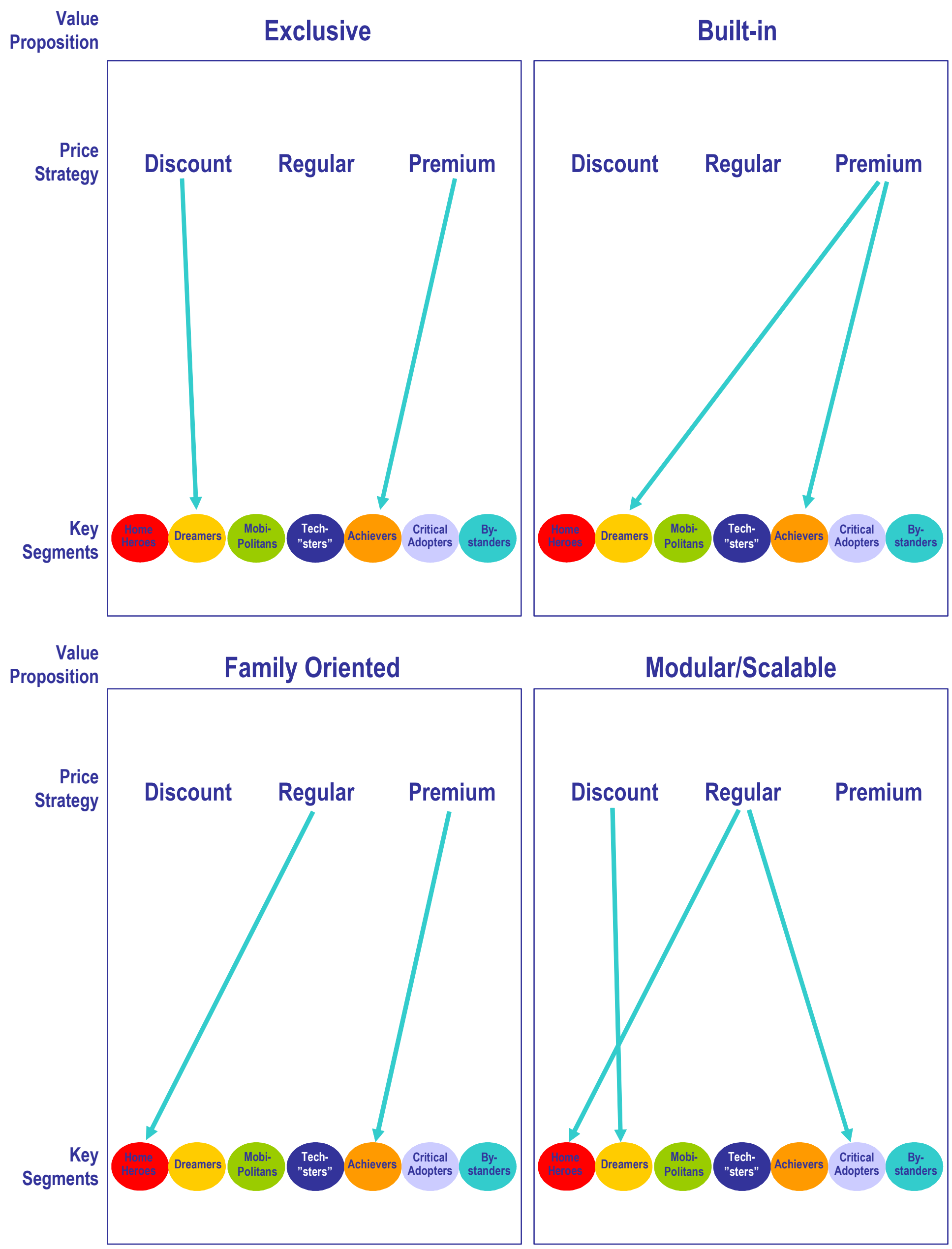
Regular
Premium
Key Segments
Home Heroes
Dreamers
Mobi-Politans
Tech-"sters"
Achievers
Critical Adopters
By-standers
Home Heroes
Dreamers
Mobi-Politans
Tech-"sters"
Achievers
Critical Adopters
By-standers


Value Proposition
Exclusive
Built-in
Price Strategy
Discount
Regular
Premium
Discount
Regular
Premium
Key Segments
Home Heroes
Dreamers
Mobi-Politans
Tech-"sters"
Achievers
Critical Adopters
By-standers
Home Heroes
Dreamers
Mobi-Politans
Tech-"sters"
Achievers
Critical Adopters
By-standers
Value Proposition
Family Oriented
Modular/Scalable
Price Strategy
Discount
Regular
Premium
Discount
Regular
Premium
Key Segments
Home Heroes
Dreamers
Mobi-Politans
Tech-"sters"
Achievers
Critical Adopters
By-standers
Home Heroes
Dreamers
Mobi-Politans
Tech-"sters"
Achievers
Critical Adopters
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Leveraging the Opportunity with Target Segments

LEVERAGING OPPORTUNITIES

Once primary and secondary segments have been selected, the next phase is one of education. To maximize the opportunities each target segment presents, organizations must develop a comprehensive understanding of the consumers that embody their target segment(s). The analysis that follows provides an appreciation for each segment's demographic characteristics, and attitudes related to their home and/or technology.

This section provides a comprehensive review and is designed to serve as a handbook for each segment. These can be used internally within an organization for product or service development, retail channel experience design, as well as by marketing and communication professionals. This could also be distributed to external agencies and media buyers.

This section is supported by a full appendix, which profiles and compares each segment to the overall market for every variable included in the consumer segmentation questionnaire (see Appendix A).

NOTE TO READER

Throughout this section and the supporting Appendix, indications of statistical significance are noted for your reference. This compares results for each segment with the overall market. Symbols are used to highlight when a segment can be considered significantly higher or lower than the overall market.

A red circle indicates the result is significantly higher at a 95% level of confidence ( ).

A solid orange square indicates the result is significantly lower at a 95% level of confidence ( ).

Who are the Home Heroes?

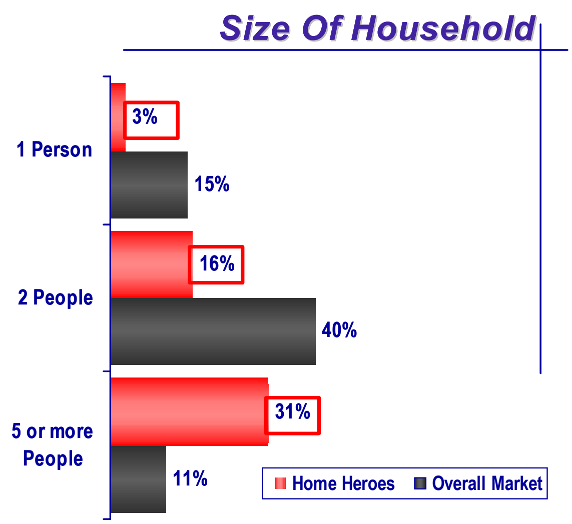
Demographics

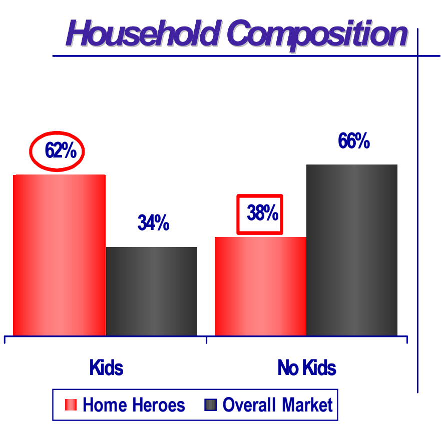
Home Heroes represent the largest segment of the North American market at 20% and is approximately the same size in both the U.S. and Canada. This segment tends to skew more female than any other segment. Home Heroes also tend to be younger – more than half are under age 34. These consumers tend to be relatively healthy, and are somewhat more ethnically diverse when compared with the market as a whole.

Those in Home Heroes are likely to have some higher education, whether it is university or college. Although the majority of these consumers is working full time, this segment has a higher concentration of homemakers than any other. In addition, Home Heroes are also more likely to be employed in sales and service jobs. These employment patterns may suggest that these consumers are more likely to be family oriented than career-oriented. The incomes of Home Heroes tend to reflect this, as they are slightly below average.

Almost half live in smaller cities, significantly more than the market as a whole. This tends to correspond with their tendency to be family oriented. Many consumers prefer to raise their children away from urban areas.

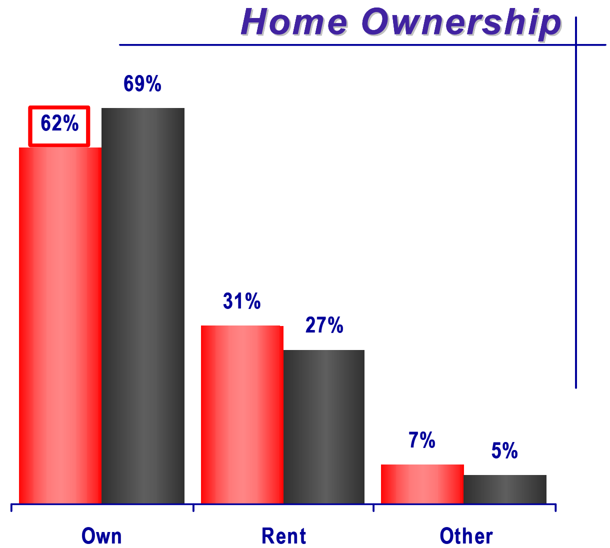
Although the majority are married, Home Heroes are also more likely to be single than the overall market. This is likely a factor of their relatively young age. Despite this, they tend to live in the largest households. Almost one-third live in a home with five or more people, and they are twice as likely as the overall market to have children under age 18, once again reinforcing their family orientation.





These consumers tend to feel overwhelmed by the demands of their busy family lives. With larger households and lower incomes, these consumers are under considerable daily stress. They face constant demands for their time and likely feel they have little time for themselves. These consumers also prefer to get things done themselves, rather than hiring someone else to do it. This may be related to their lower incomes, but is also a sign of their independent nature.

Home Profile



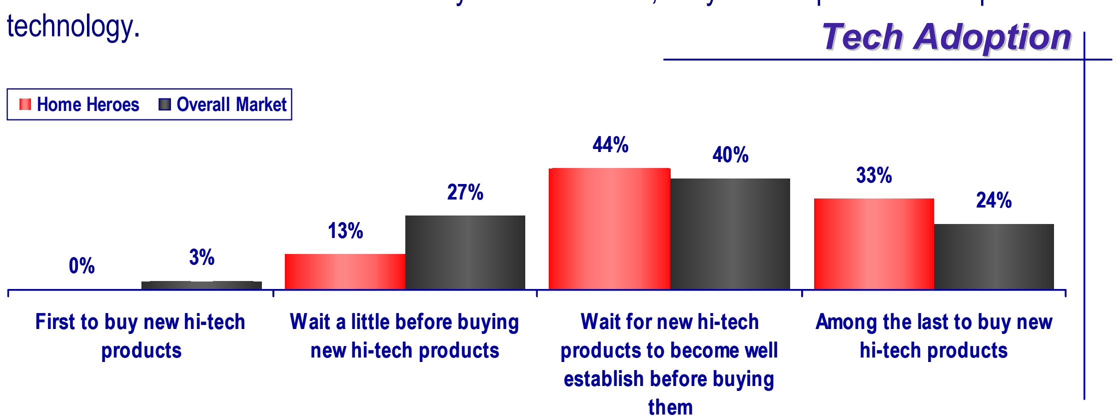
As one might expect, demographic factors seem to play a key role in the home choices of Home Heroes. Similar to the overall market, the majority of these consumers live in the single detached homes prevalent in smaller cities and suburban areas, although they are somewhat less likely to own these homes. Home Heroes' homes tend to be smaller on average than the overall market, and also tend to be slightly older. One interesting note – consumers in Home Heroes are signficantly less likely to know either the square footage or age of their homes, perhaps suggesting a lack of engagment in this area of their lives.

Home Heroes are less likely than the overall market to have saftey devices such as fire extinguishers and carbon monoxide detectors in their homes - further evidence of the lack of engagement they feel towards their homes. These consumers also tend to lag behind the overall market when it comes to home amenities such as garage door openers, home security systems, programmable lights and ionic air filters. Around the house, this segment tends to have the same concerns as the overall market. Solutions for energy efficiency, cleaning and budgeting top their list. It should come as no surprise that one key difference is their strong interest in any solution to make monitoring their children easier.

Given the relatively young ages and lower incomes more common in this segment, it seems likely these busy families simply do not have the time or money to invest in many upgrades to their older homes. For many, their priorities are elsewhere and the state of their home is something they do not have the energy to focus on for now. As a result, it is not surprising that many of them view their homes simply as pit stops they visit in between many activities. These houses are hubs of activity and definitely a work in progress for many. It seems that many of these consumers have put tending to their homes on the back burner.

Technology

Despite the relatively young age skew present in Home Heroes, these consumers tend to be somewhat wary of new technology. The majority indicate they either wait for new products to become well established before purchasing, or they are among the last to purchase them. Although these attitudes many be somewhat related to their relatively lower incomes, they also express some specific concerns about technology.



As mentioned, Home Heroes are more concerned about the potential costs associated with technologies than the market as a whole. But their other concerns reveal a more technology conservative attitude overall. Home Heroes are more likely to hesitate before purchasing technology and in fact are concerned technology will do something they are not able to control. They have yet to be convinced technology will allow them to be more mobile.

It seems possible Home Heroes are wary of technology because they do not have the time to learn about the possibilities it can offer them. They may have a sense of being left behind by technology and feel overwhelmed by the newer innovations. Home Heroes likely are the heads of the household and may be reluctant to purchase something they don't know enough about. These consumers act as the technology gatekeepers for their homes.

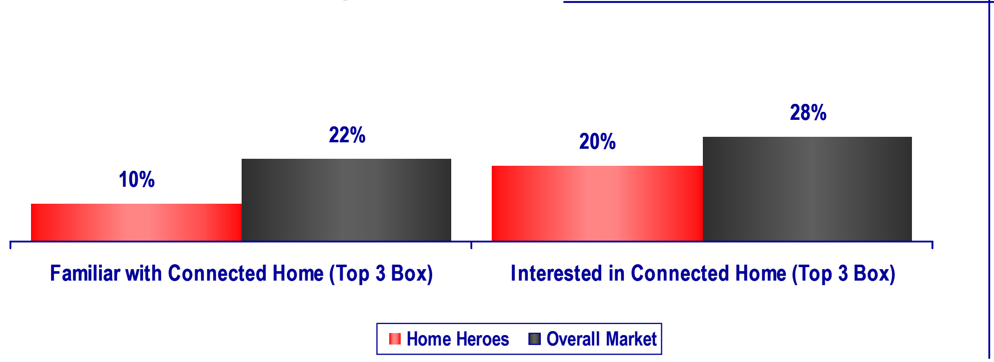
Despite these concerns, they tend to own the same technologies as the overall market. The majority have DVD players, home Internet, cordless phones, cellular phones, digital TV and wireless routers. One area where this segment differs from the overall market is their ownership of video gaming systems, both consoles and handhelds. These high penetration rates are likely due to the presence of children in the households. This may suggest that children in Home Heroes' households play the role of technology influencers.

Although they are as likely as the overall market to access the Internet through a broadband connection, they are less likely to participate in many Internet activities. These consumers tend to shop online, receive e-bills, contribute to message boards, and send money online less often than the overall market. These differences are likely driven primarily by their general wariness of technology, but also may stem from some general logistics. In a busy house with children, Home Heroes may find it difficult to spend time online.

Relationship to the Connected Home

Few Home Heroes exhibit any strong degree of familiarity with the concept of the Connected Home, and they also tend to be less interested than the overall market. Once again, these consumers are often wary of technology and are likely too busy to think about incorporating these innovations into their homes.

Affinity with the Connected Home Concept



This is supported by the fact that about a quarter of Home Heroes indicate they will never incorporate Connected Home technologies into their lives. Among those who do think it will happen, the average time frame is 13 – 14 years , a somewhat longer period than the market as a whole.

Home Heroes tend to be interested in the same specific Connected Home features as the overall market (air quality monitoring, integrated home security and automatic adjustment of room temperature). Still, there are some features that seem to resonate with this segment in particular. These features are an automated budgeting and scheduling assistant, and a device to assist in monitoring a child's homework. They are much less interested in features related to communications, such as remote PC or wireless voicemail access, or a seamless home office interface.

WHO ARE THE DREAMERS?

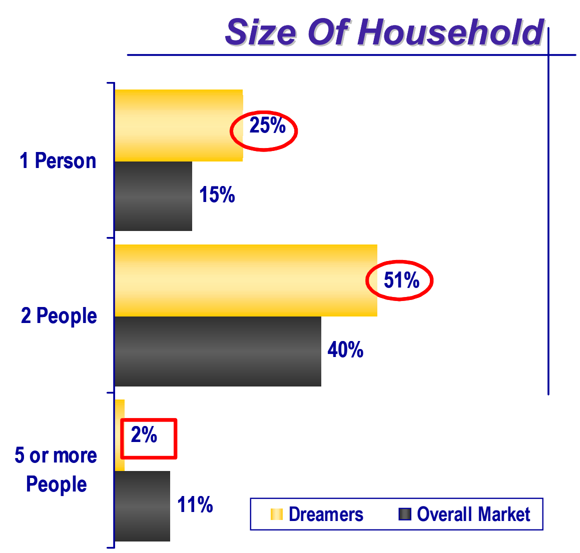
Demographics

Dreamers represent approximately 11% of the North American market, making this segment one of the smallest. Dreamers are about equally represented in both the U.S. and Canada.

Dreamers are demographically consistent with the overall market in many ways. They are just as likely to be male or female, and tend to be middle aged. The average age of Dreamers is 47, consistent with the overall market. These consumers are most likely to live in smaller cities, followed by suburban areas and are less likely to live in urban or rural areas – reflecting the overall market.

This pattern continues for the education and employment levels common among Dreamers. Dreamers have some college or university education, although they are slightly less likely to have completed any post-graduate studies. More than half the segment are employed full or part-time, and most often in managerial or professional roles, followed by clerical and technical positions – all consistent with the overall market.

There are two key areas where Dreamers differ significantly from the average: their incomes and their household size. The average annual income for Dreamers is $51,000 U.S., the second lowest of any segment in North America. Although these consumers are as likely as any other to be married (55% compared wih 61% of the overall market), they are far less likely to have children under age 18 living in their homes. In addition, three-quarters of these consumers live either alone or with a partner.

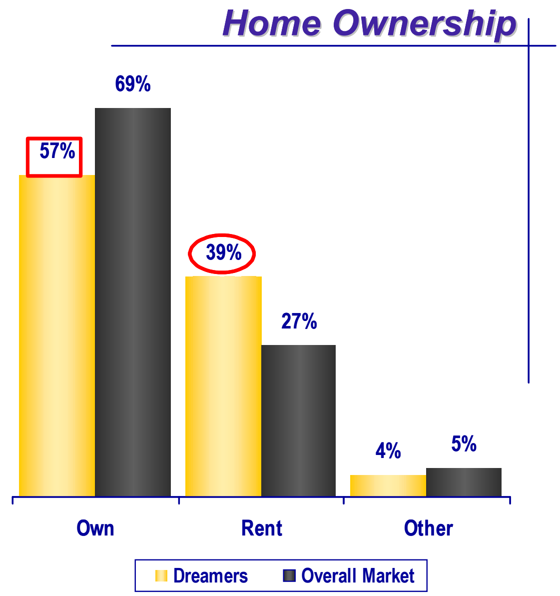


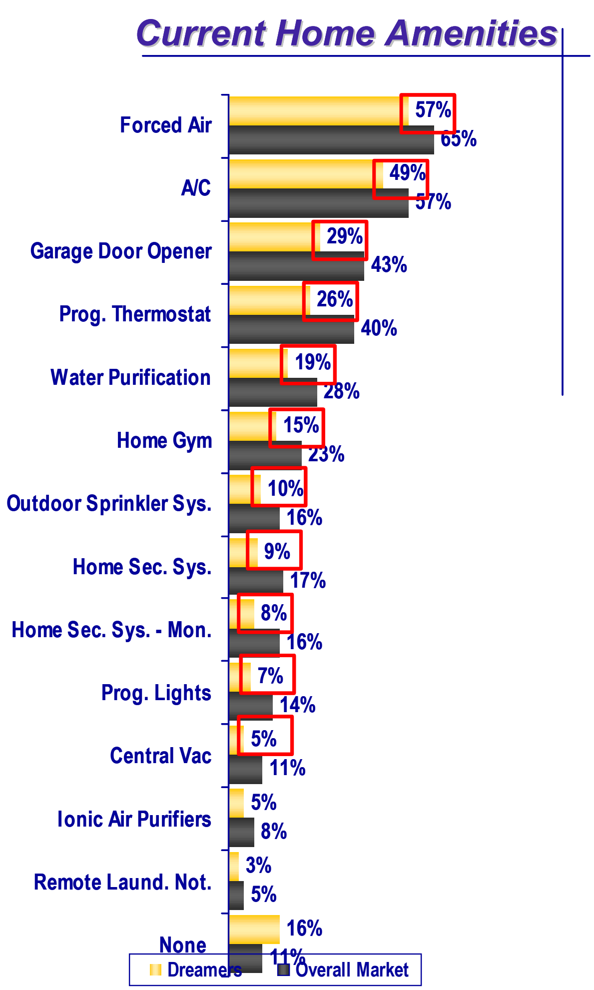
As one might expect given their lower levels of income, these consumers are often reluctant to hire someone to help out around the house, and prefer to eat in, rather than go to restaurants. Dreamers also have discriminating tastes; They are particular about the products and services they buy, perhaps trying to get the most they can from their restricted budgets.

Home Profile

Although Dreamers can be described as demographically average in many ways, their home profiles are quite different from the market as a whole, likely due to their lower average incomes. They are less likely to live in single detached homes and more likely to live in apartments or condos.

In addition, Dreamers have the largest proportion of renters in the North American market. More than a third of Dreamers rent their homes. As one might expect given this over-representation of apartments and condos, the homes of Dreamers tend to be smaller on average than those of the overall market. It also seems likely that these consumers are not able to afford to live in newer houses or apartments - about half live in homes that are 30 years or older.





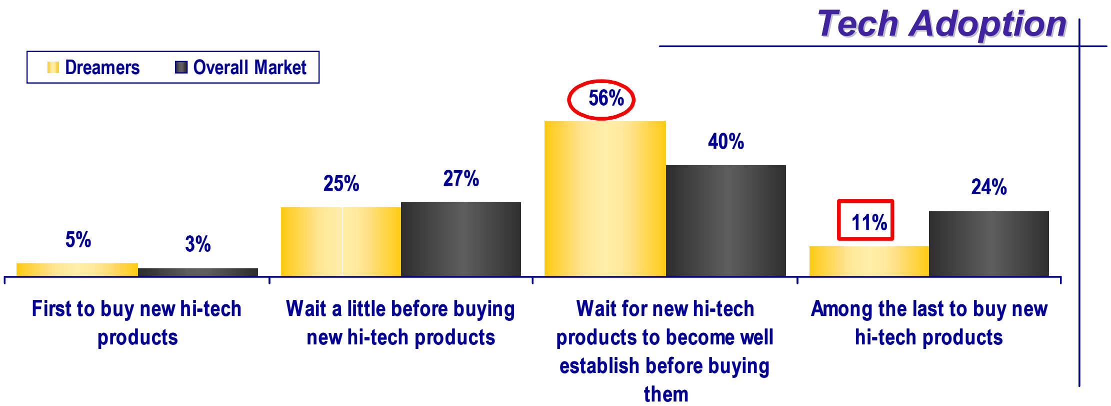
It seems that Dreamers are somewhat overwhelmed by the work involved in maintaining their homes. They are significantly more eager than the overall market for solutions to virtually every household task including energy efficiency, cleaning and budgeting, and vehicle maintenance.

Despite their strong interest in household solutions, Dreamers are less likely to have many extra amenities in their homes. They do tend to have basic safety devices such as smoke detectors, fire extinguishers and first aid kits. Anything above and beyond these basics appears to be out of reach. Dreamers are less likely than the overall market to have air conditioning, garage door openers, programmable thermostats or water purification systems.

It seems likely these consumers do not have the resources (either time or money) to upgrade their older homes. Also, given the high concentration of renters in this segment, it may be that many Dreamers are reluctant to invest in upgrades to residences that may only be temporary. Overall, these consumers appear relatively unengaged in their homes.

Technology

Dreamers tend to have something of a “split personality” in terms of technology. They seem to see mainly the positive aspects of technolgy and are unlikely to be confused or nervous about it. These aspirational consumers seem to view technology as a badge of success. They want to own the gadgets and products that they see on television in order to impress others.



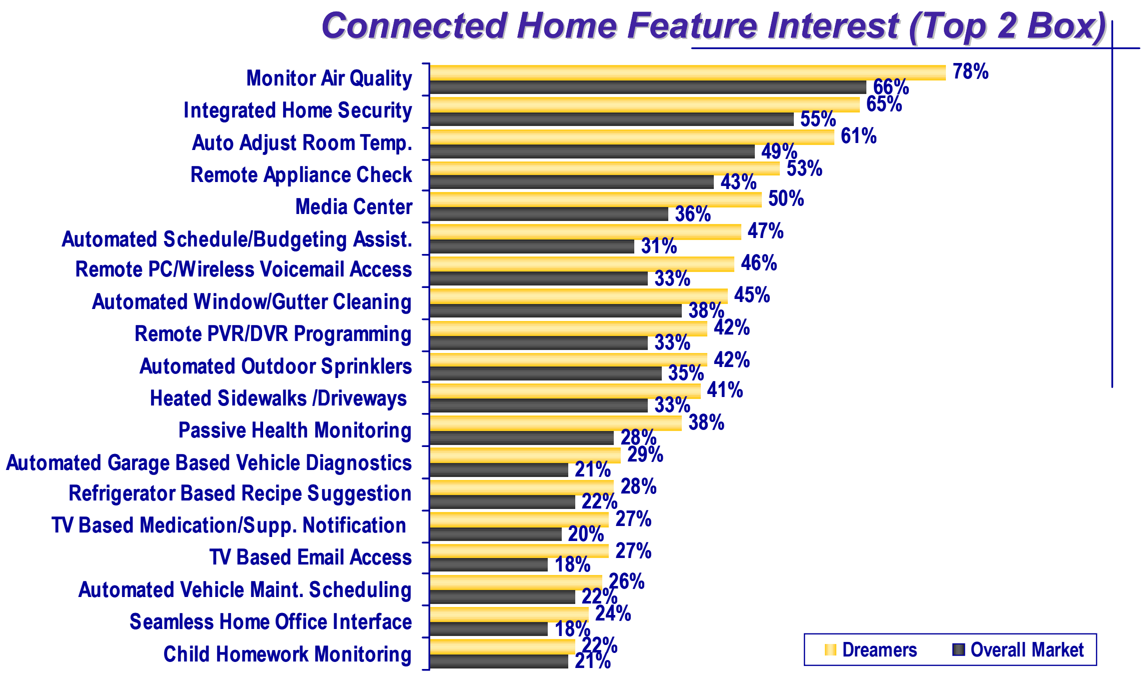
Although these consumers place themselves as solidly mainstream in terms of their technology adoption, often waiting for products to become extablished before purchasing, their reasons for waiting likely have more to do with their budgets than with any trepidation about technology. Dreamers are open, enthusiastic and excited by technology. They believe technology can help them run their homes more efficiently and gererally make their lives more comfortable.

The current purchase behaviour of these consumers, however, reveals another story. Despite their enthusiasm for the idea of owning technology, in practice these consumers are less able to incorporate new technologies into their lives. Dreamers have purchased DVD players, cordless and cellular phones now that these products have become more mainstream and affordable. More cutting edge technologies, such as plasma or LCD TVs and HDTVs, are simply out of reach for most Dreamers. Once the price of these items becomes more affordable for these consumers, it is likely they will purchase them.

The idea that Dreamers are tech enthusiasts, restricted primarily by their limited budgets, is further confirmed by their Internet activity profile. Although these consumers are no more likely than the overall market to have broadband Internet access, they tend to be more active online. Dreamers are significantly more likely to shop, pay and receive bills, and post to message boards online than the overall market, revealing a general comfort level with the Internet.

Relationship to the Connected Home

Although Dreamers are only as familiar as the overall market with the concept of the Connected Home, they are among the most interested in adopting the technology. It should come as no surprise that these technology enthusiastic consumers are as eager to learn and adopt Connected Home technologes as they are other new innovations.



Dreamers show more interest than the overall market in virtually every potential Connected Home feature, from devices to monitor air quality and integrated home security, to TV-based email access and automated vehicle diagnostics. Their interest is not confined to one industry, rather it spans nearly every sector including entertainment, communications, heating and cooling, and automotive.

This reaction to the Connected Home is consistent both with this segment's tendency to reach out for any solution to help make life easier, and with their aspirational enthusiasm for new technologies. Given Dreamers' restricted budgets and their lack of current home amenities, it remains to be seen whether their enthusiasm will lead to adoption.

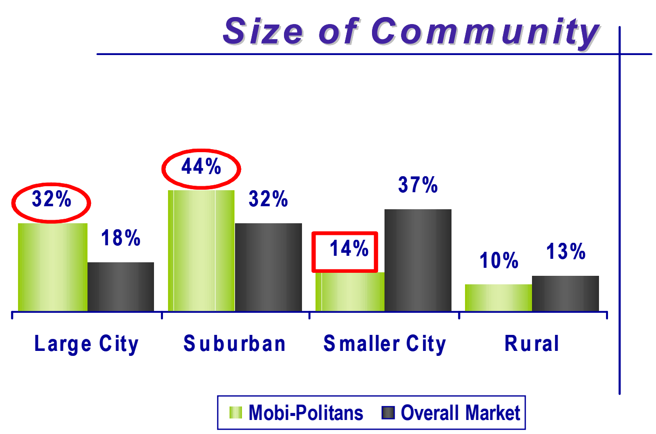
WHO ARE THE MOBI-POLITANS?

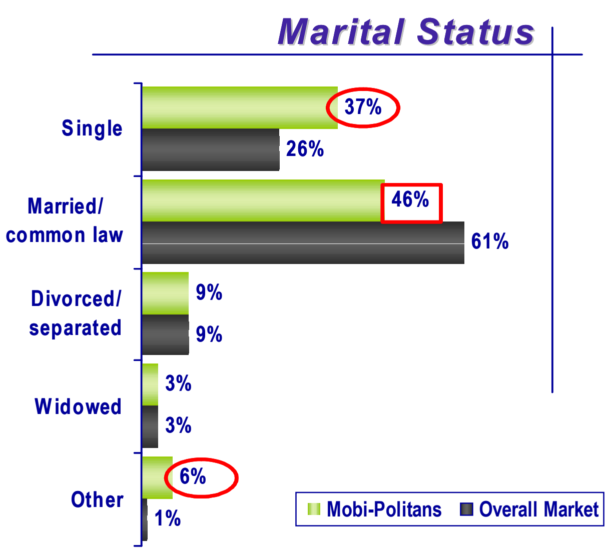
Demographics

Mobi-Politans represent the smallest segment at 7% of the overall North American market. They are equally represented in Canada and the U.S. These consumers are much more likely to be women, and almost half are under age 34. They tend to be relatively healthy, and consistent ethnically with the market as a whole.

They are somewhat more educated than the overall market – far fewer have only a high school education. Although they are no more likely than the overall market to have a college or university degree, they are quite successful in the job market with half in managerial and professional occupations. Their incomes also are slightly higher than average.

These consumers are far more urban than the overall market – almost 80% live in large cities or suburban areas. This corresponds with their choice of occupation, as many managerial and professional jobs are located in more urban areas than in small towns and rural areas.





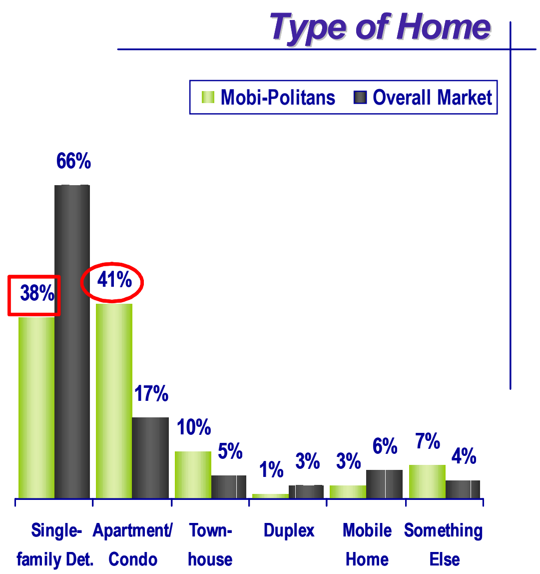
They are much more likely to be single than the overall market, likely related to their youth. It seems possbile that these young, ambitious women are more focused on their careers at this stage in their lives. As a result, they often live alone, and do not often have children under age 18 living in their homes.

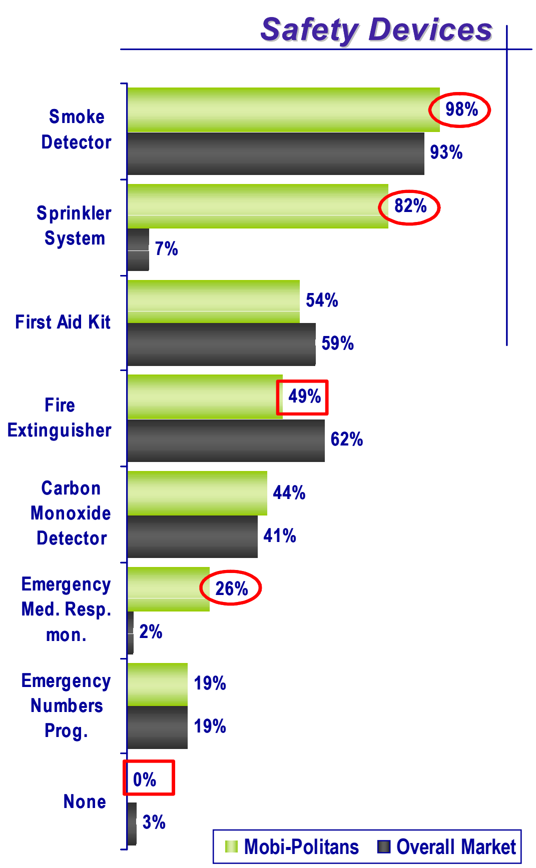
Mobi-Politans prefer to hire others to do work instead of doing it themselves. They are also likely to have discriminating tastes, considering both the form and the function of most new purchases.

Home Profile

Demographic factors likely play a major role when considering the homes common for Mobi-Politans. They are more than twice as likely as the overall market to live in an apartment or condo, and that condo is very likely small and newer than nine years old – consistent with the housing patterns typical in larger cities. About two-thirds of Mobi-Politans own their homes, and about another third rent, very similar to the overall market.

Because these consumers often live in newer condominum or apartment buildings, it should come as no surprise that they are much more likely to be equipped with safety devices such as smoke detectors, indoor sprinkler systems and monitored emergency respose systems. It seems likely that some of these younger women, living alone in urban areas, may have gone so far as to seek out buildings with these amenities for their peace of mind. One interesting finding is the relative lack of fire extinguishers in their homes. Could this be because they do not come as standard equipment?





The homes of Mobi-Politans are also more often equipped with air conditioning and security systems (both monitored and not). These are also features more common to newer homes.

For many Mobi-Politans, their current homes are their first homes. It then follows that they see these homes as expressions of their personality. They also appear somewhat reluctant to invest much time or money in them. The majority of their home amenities are features that are typically built into newer homes and condos, not items they have purchased for themselves.

It is possible that they view their homes as transitional in nature, not the home they see themselves in for the long-term. Perhaps they expect to move as they experience various life changes related to work or family.

Mobi-Politans do not express many strong frustrations about particular household tasks, although they do indicate some desire for a solution to make household cleaning easier.

Technology

Consistent with their relative youth, Mobi-Politans are comfortable with technology. Although they do not immerse themselves in technology just for the sake of technology, they do realize the possibilites technology can offer them and are not resistant to change.

About one-third of Mobi-Politans consider themselves close to the leading edge of tech adoption, and another half wait for products to become more established. This lag may be more related to a simple case of priorites rather than a resistance to technology. While the Mobi-Politan is not likely to be waiting eagerly for the next big innovation, she may purchase it once it becomes relevant to her own life.

This attitude is expressed through this segment's current ownership of technology, which very closely matches that of the overall North American market. Mobi-Politans most often own DVD players, cellular phones and cordless phones, and have home Internet access. Looking ahead to the next two years, the picture for Mobi-Politans is expected to be consistent with the overall picture. Planned purchases include plasma or LCD TVs, HDTVs and iPods or MP3 players.

When examining their specific attitudes towards technologies, Mobi-Politans are generally open-minded, eager, excited and and welcoming of new developments. They are not distrustful of the potential costs or nervous that they will have trouble understanding the technology. Instead, they tend to see that tech can offer them the advantage of running their homes and lives more efficiently.

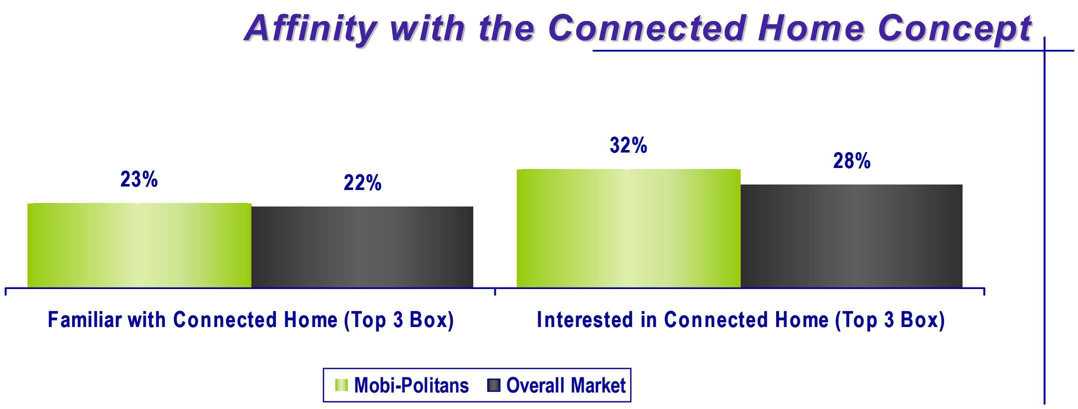
This comfort level is consistent with the relative lack of stress they express when asked about common tech-related irritations. Although they have similar concerns about tech obsolescence, too many separate devices, battery life and technical support as the overall market, these concerns are in no way overwhelming.

Much like their technology purchase behaviour, the Internet behaviour of Mobi-Politans is also consistent with the overall market. They most often go online using broadband access and frequently participate in online shopping, bill payment and receiving e-bills. Mobi-Politans also participate in the most leading edge online activities, such as blogging and podcasts, to the same degree as the market on the whole.

Despite a relative lack of technology purchasing behaviour, and their fairly average online activiity, Mobi-Politans are much more likely to feel that technolgy makes their lives easier, and that it brings people together. The apparent divergence between behaviour and attitude may be explained this way: although these consumers are open to and aware of technology they are simply not terribly interested in acquiring it at this stage in their lives.

Relationship to the Connected Home

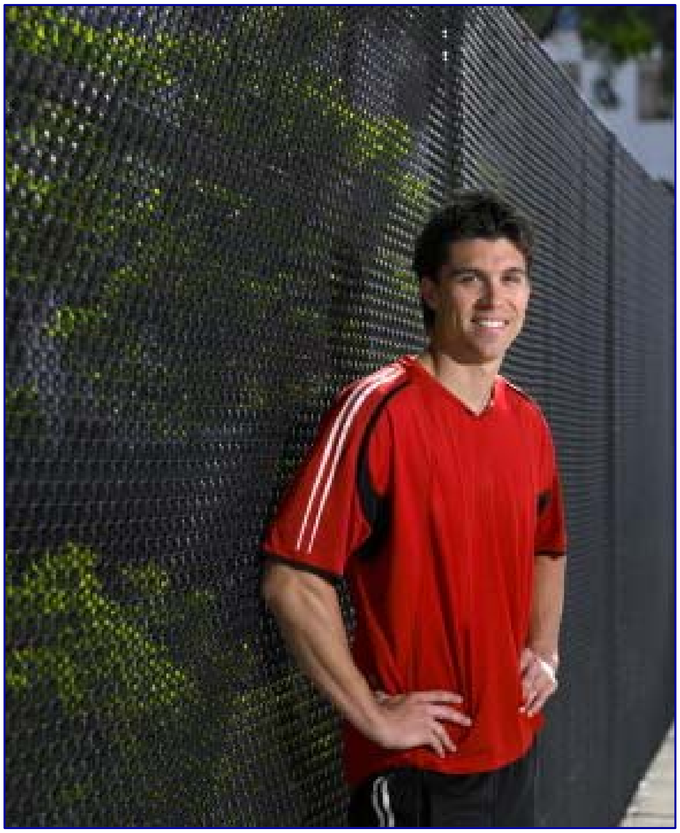
Mobi-Politans are about as familiar with and interested in the concept of the Connected Home as the rest of the North American market. About a quarter of these consumers have heard of the concept before and almost a third are interested in the idea.



Mobi-Politans tend to be interested in the same Connected Home features as the overall market (air quality monitoring, integrated home security and automatic adjustment of room temperature). But there are some features that seem to resonate with this segment in particular. These features include monitored home security, a media center, refridgerator-based recipe suggestions and a seamless home office interface. Each of these features fits with the profile of the Mobi-Politans as young, work-oriented, open-minded, and safety-oriented consumers.

WHO ARE THE Tech"sters"?

Demographics

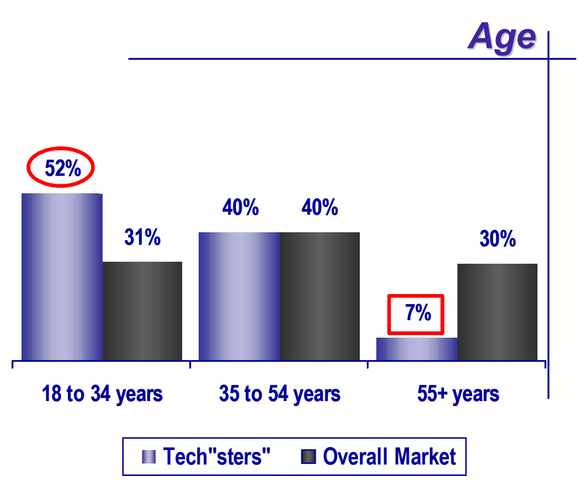


Tech"sters" tend to skew strongly male and more than half are under the age of 34, making them one of the youngest segments. This youth contributes to their generally high level of health – they are much less likely to indicate that someone in their household suffers from a chronic illness of any kind. The ethnic diversity found in this segment is likely also related to their younger age skew – almost 20% are non-caucasian.

Tech"sters" most often live in smaller cities, consistent with the overall market but can be found in almost all areas of North America. They are less likely, however, to live in rural areas and are somewhat more prominent in Canada than in the U.S.

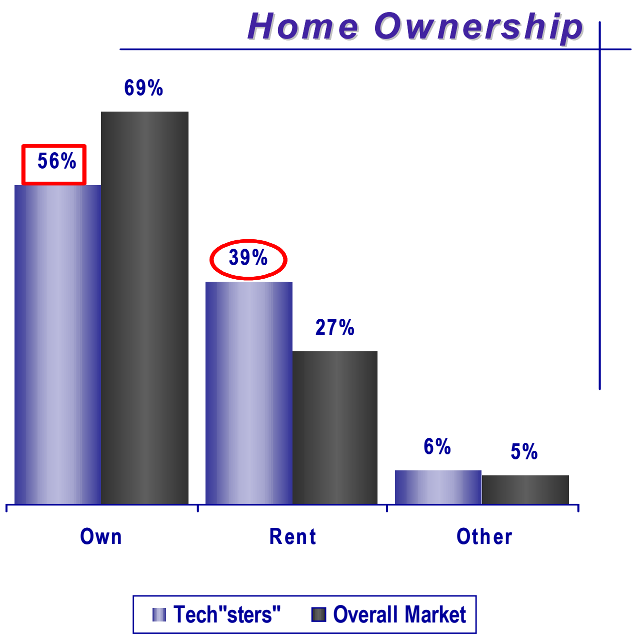
Tech"sters" are well educated. They are more likely to have some college or university experience. This reflects the general trend of higher education among younger consumers in the North American market.

These levels of education translate into a strong likelihood that Tech"sters" are working full-time, but not necessarily at a high-income level. At this point in their lives, many of these younger consumers are working at clerical and technical jobs, or continuing their studies. Their household incomes tend to be on par with the market as a whole.



About half of all Tech"sters" are married, significantly lower than the rate in the overall market. Again, this is likely a factor of their youth. As a result, it is not surprising that they live in smaller households, and are far less likely to have any children under age 18 in their homes.

Home Profile



Once more, the youth factor in this segment plays a major role when considering the homes they live in. Most live in smaller, older homes and they are far more likely to rent than the market as a whole. The type of home, however, is consistent with the overall market. Most live in single detached homes, followed by apartments or condos and townhouses.

These homes tend to have safety devices and other amenities that are consistent with the overall market. Most have smoke detectors, first aid kits and fire extinguishers and almost all have a carbon monoxide detector. They are less likely to have sprinkler systems, likely due to the age and size of their homes. Tech"sters" homes are less likey to have forced air systems or to have water purification or central vacuum systems – items that they are likely not concerned about day-to-day.

These consumers tend to put little emotional investment in their current homes. They view them as pitstops and hubs of activity. They are purely functional spaces that are viewed as works in progress. It seems likely that Tech"sters" view their homes as transitional, if they even think much about them at all. For the most part these consumers are oriented elsewhere.

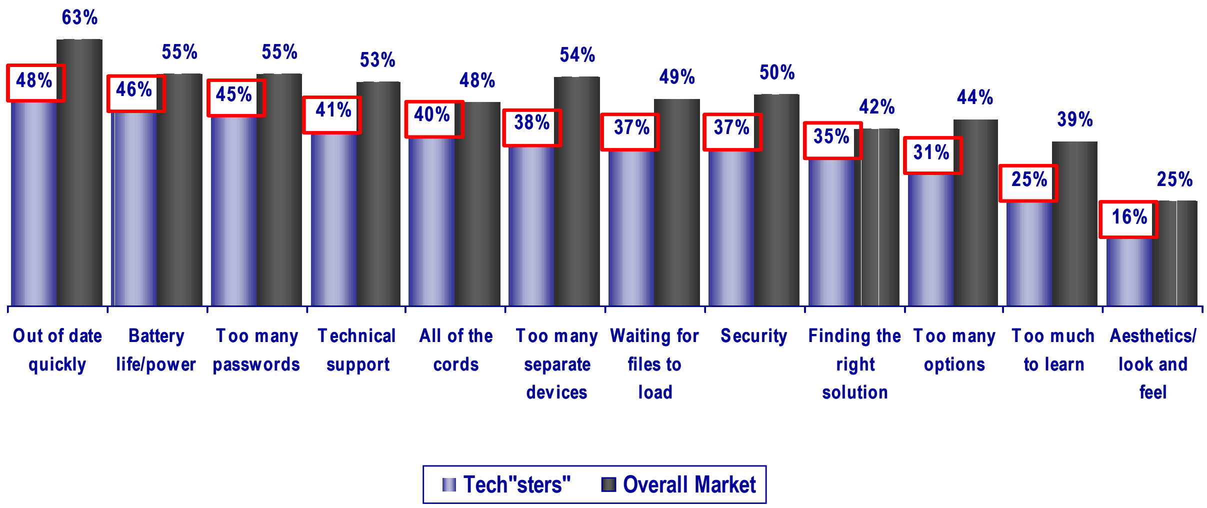
Consistent with their relatively carefree, single lives, these mobile consumers are not particularly stressed about many household tasks. In fact, one of the only areas where they would welcome a solution to make their lives easier is entertainment.

Technology

The key defining factor for most Tech"sters" is their relationship with technology. The young Tech"ster" loves technolgy, loves the toys and cannot wait to play with them. More than half consider themselves close to the leading edge of early tech adoption, waiting only briefly before they purchase. Only 3% indicated they are among the last to purchase. This a very significant difference when compared with the nearly 25% of the overall market who consider themselves late adopters.

When looking at their specific attitudes towards technology, Tech"sters" say they are far less confused, frustrated and nervous than the overall market. They are less concerned about potential costs, their privacy, the number of cords they need to manage, and any complications technology might bring into their lives. These consumers have grown up with technology and it may have become something they take for granted in every aspect of their lives. For them, there is little or no learning curve. Working with tech just comes naturally.

Technology Micro-stresses



This comfort level is consistent with the lack of stress they express when asked about common tech-related irritations. Tech“sters” report signficantly lower levels of irritation than the overall market with things like tech obsolescence, battery life, remembering passwords and technical support.

The purchase behaviour of Tech“sters” is consistent with their attitudes towards technology. Despite their stage in life, and relatively lower incomes, they are more likely than the overall market to own almost every type of technology, especially items that are entertainment or communications related. This includes more common technology, such as DVD players, and newer items, such as MP3 players, gaming systems, wireless routers, and digital TV, as well as even more leading edge tech, such as VoIP, media adapters, distributed A/V, and PVR/DVRs. Whatever technlogy they currently do not have Tech“sters” plan to purchase within the next two years, particularty big ticket entertainment items such as HDTV, plasma/LCD TV and home theatre systems.

It should come as no surprise then that almost 90% of all Tech“sters” with Internet access have a broadband connection, a signficantly higher percenatge than the overall market. These consumers are also more likely to participate in every online activity, from the most common (online purchasing and bill payment) to the most leading edge (downloading podcasts and posting to blogs).

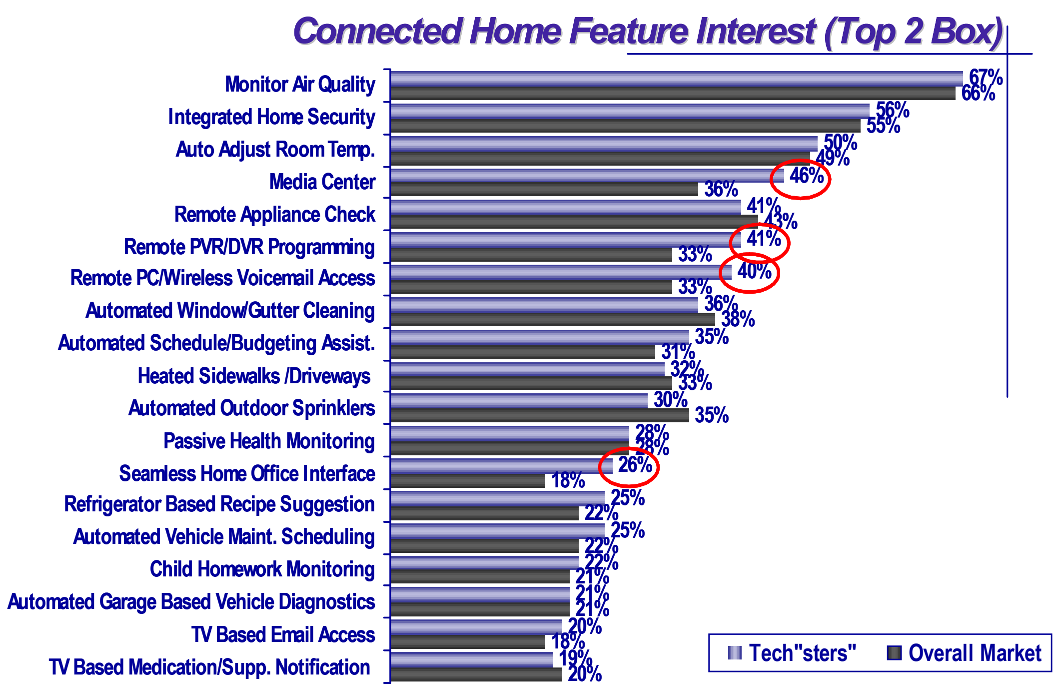
These consumers live, eat and breathe technology. For them, it makes their lives easier and connects them to the world.

Relationship to the Connected Home

Many Tech"sters" (31%) express a degree of familiary with the concept of the Connected Home, more so than the market as a whole. This awareness is likely related to their openess to new technologies and because these consumers are so intrigued by the possibilities of technology.

Despite this heightened awareness, however, these consumers are only as interested in the Connected Home as the overall market. As mentioned, Tech"sters" tend not to be engaged in their homes. They, often view them as transitional. Many, in fact, do not own their own homes. These consumers lead mobile lives and likely are unwilling to invest money or time in a residence that won't be permanent.

The Connected Home technologies that most interest this segemnt are consistent with the market as a whole – a device to monitor air quality, integrated home security and a device that will automatically adjust room temperature. Consistent with their tech attitudes and ownership, they are more interested in entertainment and communications technologies (such as media centers, remote voicemail access, PVR/DVR programming and seamless home office interface) than the overall market.



Tech"sters" envision a much shorter time frame for eventually incorporating Connected Home technologies. Most indicate they expect to have some of this technology in their own homes within 10 years, and almost a third think it will happen within five. They are significantly less likely than the overall market to believe it will take 20 years or more, if ever, to become part of their lives.

WHO ARE THE ACHIEVERS?

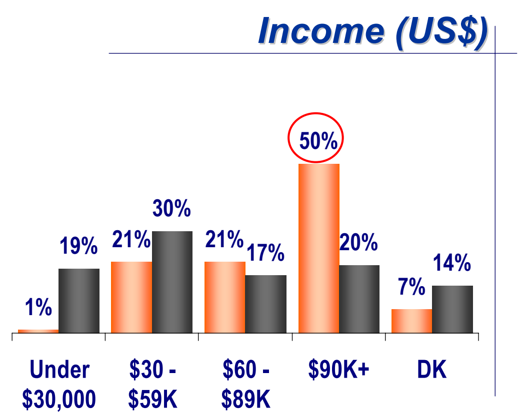
Demographics

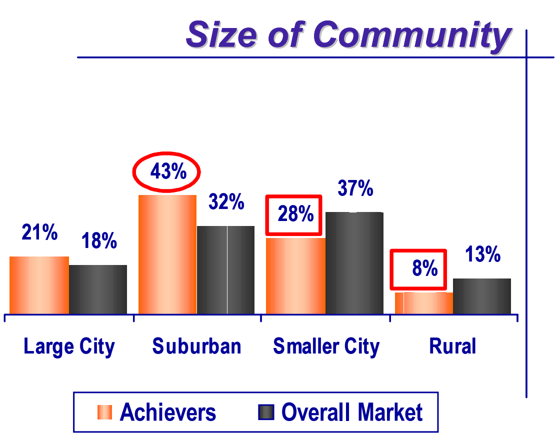
Approximately 13% of the North American market are Achievers. This segment skews towards Canada, where it represents 16 % of the population (in the U.S., Achievers make up only 11%).

The majority of Achievers are male, and most are middle-aged (more than half are between age 35-54).

Consumers in this segment are family oriented. The majority are married and maintain larger households, often with children. Given their age, it also seems likely that some Achievers have adult children (over age 18).

These consumers are the most highly educated of any group in North America. Achievers are almost twice as likely to have some post-graduate education as the overall market. They are putting their educations to work by pursuing either full-time employment in managerial or professional fields, or running their own businesses. They are successful and career-oriented, earning by far the highest annual incomes of any segment (an average of $106,000 U.S. per year).

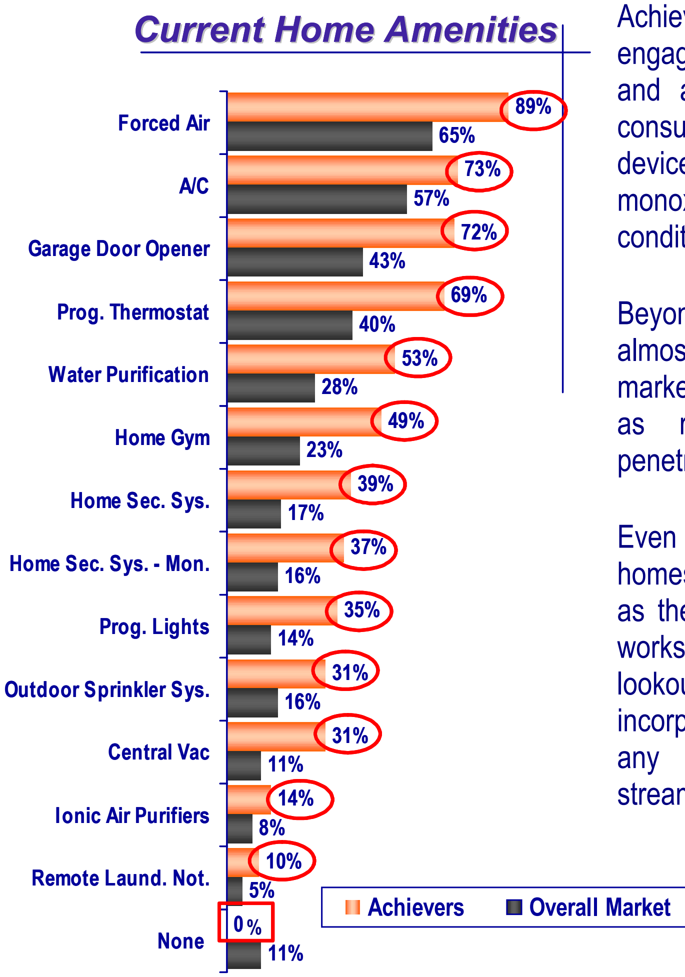




For Achievers, this success has spawned a comfortable, suburban lifestyle. They have discriminating tastes and tend to spend their money on products and services that are functional and aesthetically appealing. Although they also value substance, Achievers care about the image they present to the outside world, both through their own appearance and that of their homes and belongings. These consumers have achieved a certain measure of success and want to enjoy the fruits of their labour, often eschewing the simple basics in favour of style.

Home Profile

One area where Achievers express their personalities is through their homes. Most Achievers own their homes. These homes are most likely to be the single detached style most common in the suburban communities that surround large North American urban centres. Achievers likely view their homes as badges of their succes. Their homes tend to be both newer and larger in size when compared with the overall market.



Achievers have shown a commitment and engagement in their homes through the safety devices and amenities they have already installed. These consumers are among the most likely to have basic devices, such as smoke detectors and carbon monoxide detectors, as well as amenities such as air conditioning and garage door openers.

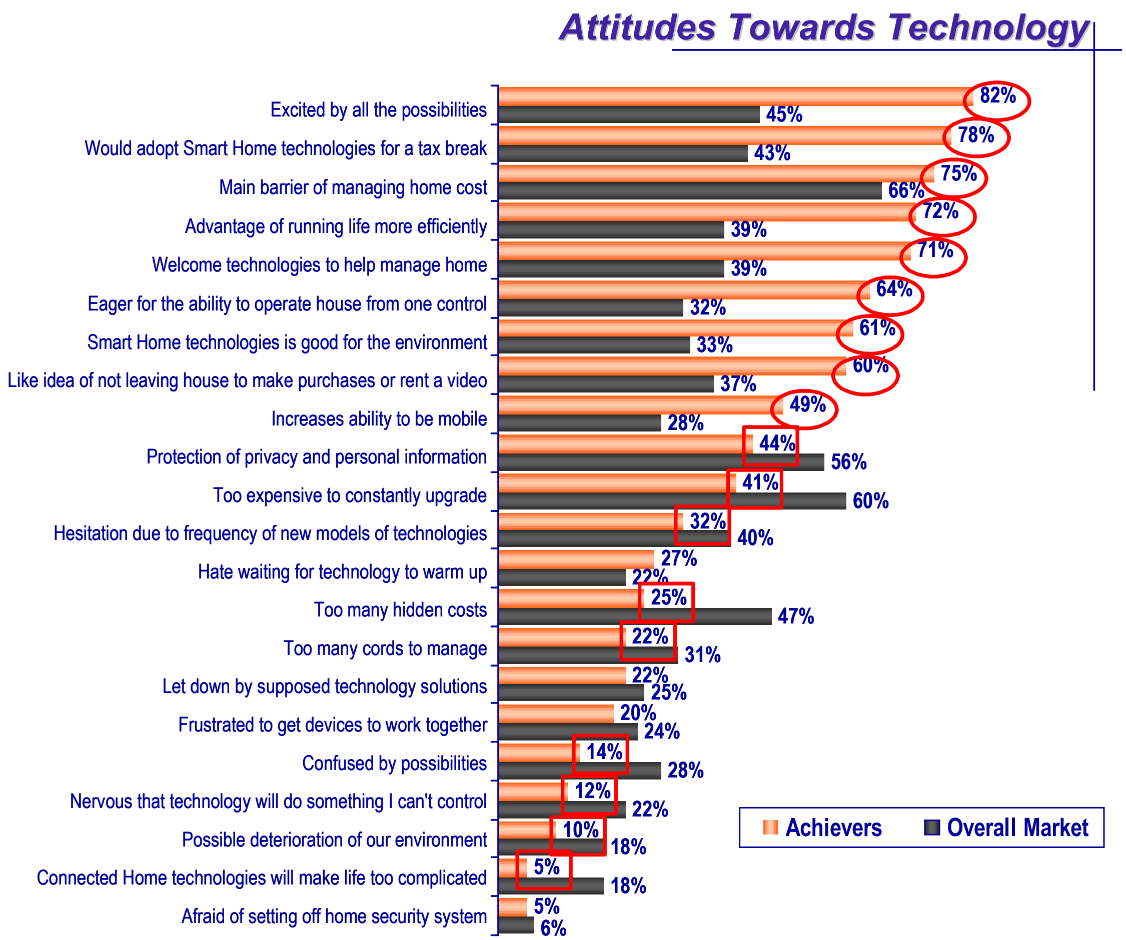
Beyond these more common amenities, Achievers are almost twice as likely as the overall North American market to have the most cutting edge devices, such as remote laundry notification (although the penetration of this device is still relatively low).

Even though these consumers have upgraded their homes to make them as customized and comfortable as they can, many still tend to view their homes as works in progress. Achievers are always on the lookout for new products and services they can incorporate into their lives. They are eager to discover any solution that can help them simplify and streamline.

Technology

In addition to their strong engagement and commitment to their homes, Achievers are also highly engaged with technology. Despite their openess, however, Achievers are not tech-oriented simply for the sake of owning technology. Rather they seek out technology because of what it can do for them.

Three-quarters of Achievers consider themselves to be leading edge technology adopters, either purchasing new innovations as soon as they become available, or waiting only a short time before purchasing. These consumers are among the most tech-oriented of any consumer group and they have the disposable income to support it.



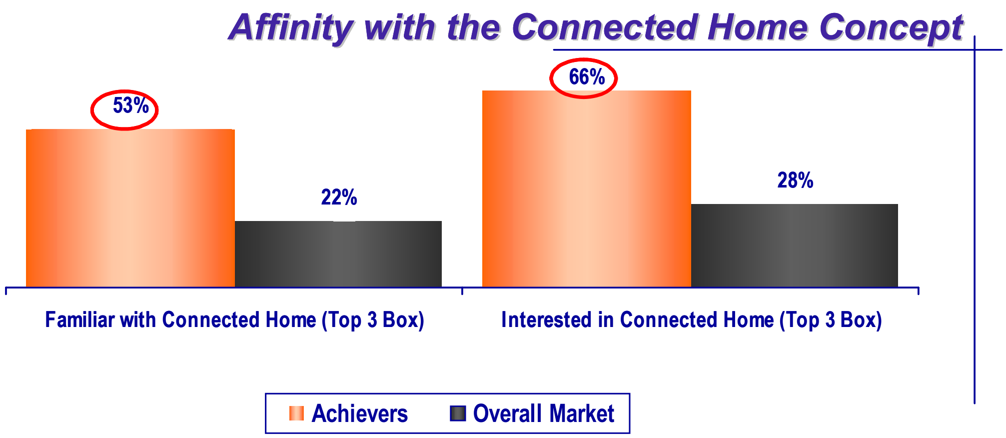
Specifically, Achievers are almost twice as likely as the overall market to say they are excited by technology, welcome it into their lives, are eager for new home technology, and believe that technogly will help them run their homes more efficiently. Achievers are also far less likely to be worried about common concerns such as privacy and security, the expense of upgrading, or the hidden costs of technology.

This attitude is clearly demonstrated in their pattern of current technology ownership. Achievers are more likely to own virtually every technology device on the market today, including the most leading edge devices, such as distributed A/V, and plasma or LCD TVs. These consumers also indicate that they plan to continue to acquire new technologies over the next few years.

Online, the story is much the same. Achievers are more likely than the overall market to subscribe to broadband Internet service at home, and are also more likely to participate in almost every online activity, from online shopping to sending email money transfers.

Relationship to the Connected Home

Achievers are ready for Connected Home technology right now. More than half are already familiar with the concept of the Connected Home, and two-thirds are interested in adopting the technologies. In addition, Achievers have the shortest time line in mind for their own adoption of Connected Home innovations. The majority of the segment expects to incorporate at least some Connected Home technologies within the next five years. Only about a third of the overall market shares this adoption time frame.



Their interest spans every industry sector, from energy management and home heating and cooling, to entertainment and family or office communications. These consumers seem prepared to purchase any technology that will make their lives more comfortable. Given their current level of tech adoption and their apparent willingness to invest in their homes, it seems likely that Achievers will be among the first to embrace the Connected Home.

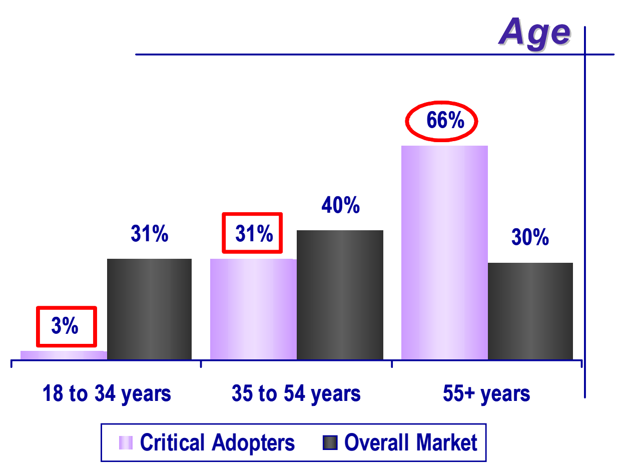
WHO ARE THE CRITICAL ADOPTERS?

Demographics

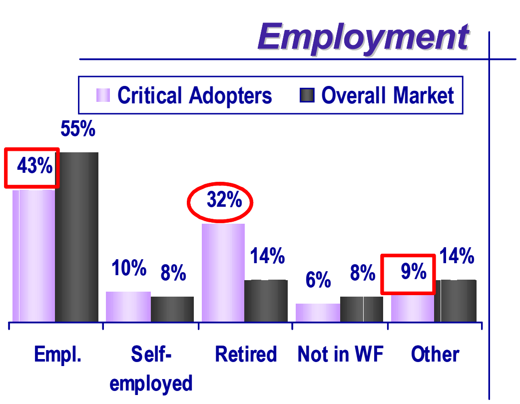
Approximately 16% of the North American market are Critical Adopters, making this group one of the largest segments. The segment skews slightly towards Canada, with about 19% of the Canadian market represented by Critical Adopters, compared with 15% of the U.S. market.

Critical Adopters are just as likely to be male or female, but they are much more likely to be older than the market as a whole. About two-thirds of these consumers are older than age 55, and only 3% are under age 34. Critical Adopters are the most likely to have someone with a chronic illness in the household, consistent with their older age skew. They are also primarily caucasian, more so than the overall market.

These consumers most often live in smaller cities or suburban areas, but are just as likely as the overall market to live in urban areas. They are slighly more likely to live in rural areas.



Critical Adopters tend to have average levels of education, somewhat surprising given their older age skew. Their levels of employment, however, are consistent with their age. They are more than twice as likely to be retired as the overall market.



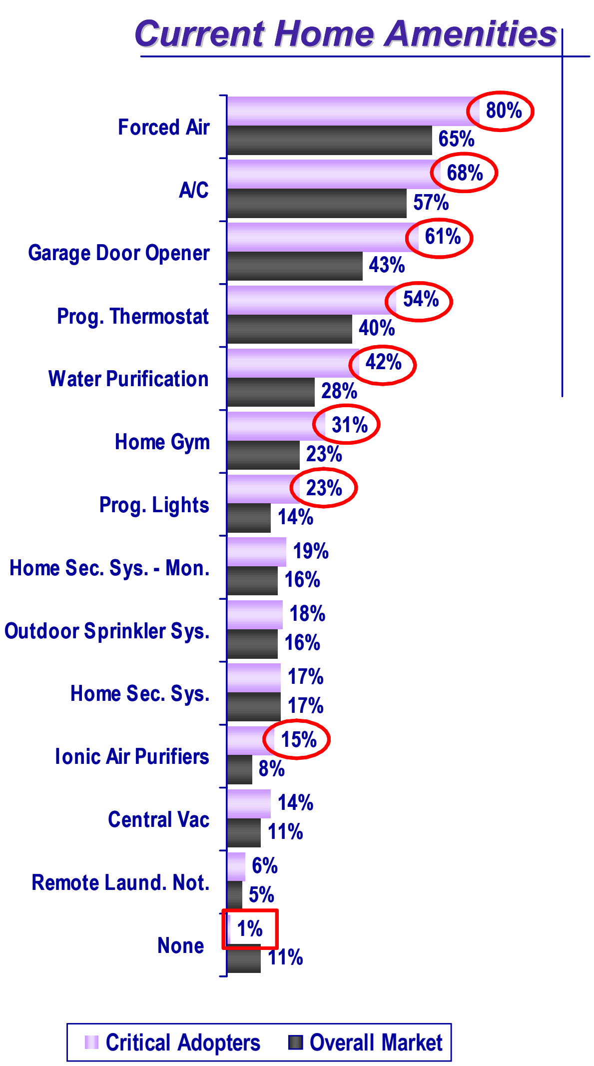
Fewer than half of all Critical Adopters are employed either full or part-time. Incomes in this segment tend to be slightly more than average, suggesting that these consumers may have stable pension or retirement plans. Apart from the 30% who are currently retired, another third are employed in managerial or professional roles. Only one-tenth are in clerical or technical roles, significantly less than the overall market.

The majority of Critical Adopters are married (more than the market as a whole) but do not have children living at home. It seems likely that the children of Critical Adopters consumers are older and have already moved out. This is also consistent with the fact that about half of the households in this segment are compromised of two people.

Critical Adopters are oriented towards the simple things in life. They look for efficiencies and prefer products and innovations that are functional and practical, rather than flashy.

Home Profile

Critical Adopters most often live in single detached homes, signficiantly more than the overall market, and they are far less likely to live in apartments, condos or mobile homes. Home ownership in this segment is almost universal. Some 94% of these consumers own their homes, far more than in any otther segment. Their homes tend to be slightly larger than average, and also slightly older. This is consistent with the older age of the segment. These empty nesters are settled in their homes, and likely have been for many years. They also do not need much space now that their children have moved away.



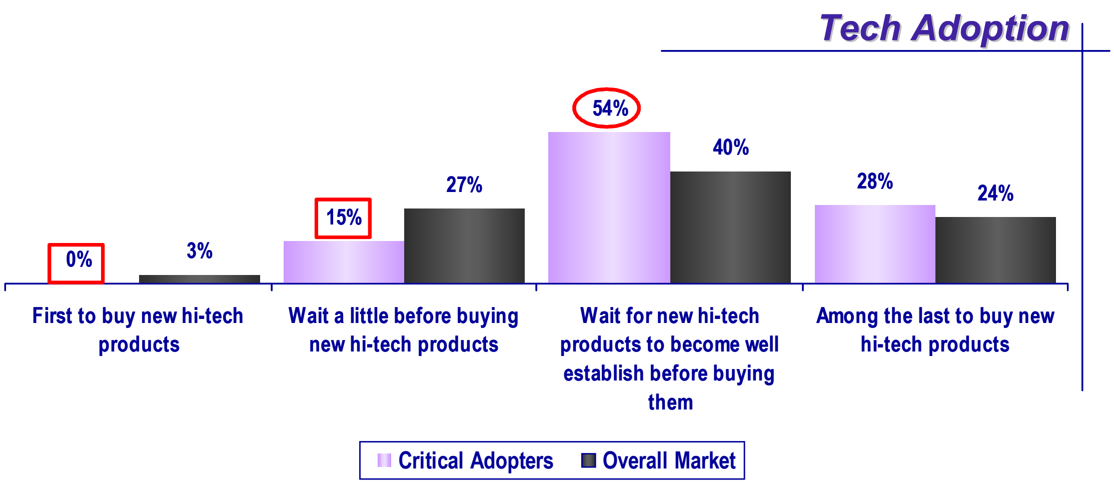
It should come as no surprise that these practical and functional consumers are more likely than the overall market to have many home safety devices, including smoke detectors, fire extinguishers, first aid kits and carbon monoxide detectors.

These consumers are also more likely to have many other home amenities, such as air conditioning, garage door openers, programmable thermostats, water purification systems home gyms and programmable lights. This long list of amenities illustrates the commitment Critical Adopters have for their homes. In addition, they also have the means to finance these devices.

The amount of time, money and energy these consumers have put into their homes makes sense when their attitudes are considered. Critical Adopters view their homes as their retreat from the world. They are most likely to consider their homes to be ideal spaces. They have invested the resources necessary to create these sanctuaries and are generally happy with the results.

Technology

Despite the older age skew of this segment, these consumers are relatively open to technology. Although they are less likely than the overall market to consider themselves early adopters, only one quarter of Critical Adopters indicate they are among the last to purchase technology. The majority falls somewhere in the middle, waiting for products to become established before purchasing. Indeed, they are not completely open to the possibilities of technology, retaining a certain degree of skepticism and reluctance to adopt.



They are much more concerned than the overall market about the expense of upgrading products and about safety and security. As well, these consumers tend to find that tech products have too many cords to manage and can make their lives more complicated. They are less likely than the overall market to be excited about technologies to manage their homes. These practical consumers likely feel they can manage their own homes just fine on their own.

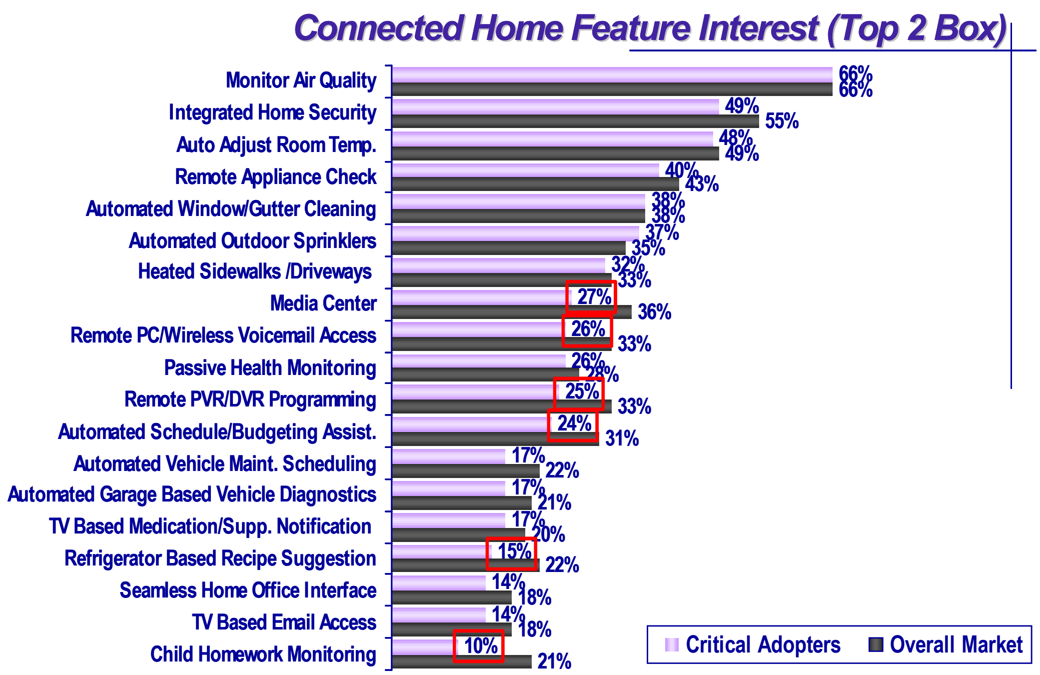
These attitudes towards technology are consistent with the types of technologies they are most likely to own. Critical Adopters are more likely than the overall market to have home Internet access and cordless phones, but less likely to have most entertainment and communications gadgets, such as home theatres, wireless routers, HDTV, gaming systems and others. This is expected to be consistent over the next several years, as entertainment gadgets do not appear to be a priority for these consumers now or in the future.

Critical Adopters express relatively strong levels of irritations with many common tech stresses. They are much more likely to be irritated by products becoming obsolete, too many passwords, separate devices, options, and the amount they need to learn. Critical Adopters just want their products to be simple, to work and to last, things they may find lacking from many current tech products.

Despite reservations, Critical Adopters have embraced the Internet. Most have broadband access, although they are more likely than the overall market to have dial-up access. Once connected, these consumers are once again oriented towards practical activities. They are as likely as the overall market to shop, pay their bills or receive their bills online, but tend to avoid entertainment - related activities, such as posting to message boards or listening to online radio.

Relationship to the Connected Home

Critical Adopters demonstrate about average levels of awareness and below average levels of interest in the concpet of the Connected Home. These consumers likely feel they can manage their own homes and now that they are retired, have the time to do it.



Consistent with their current behaviours and attitudes, Critical Adopters tend to be less interested in Connected Home features focusing on entertainment or communications, such as a media center, remote PC or wireless voicemail access, remote PVR/DVR programming or TV-based email access. As one might expect, these older empty nesters display little interest in technologies related to children, such as child homework monitoring.

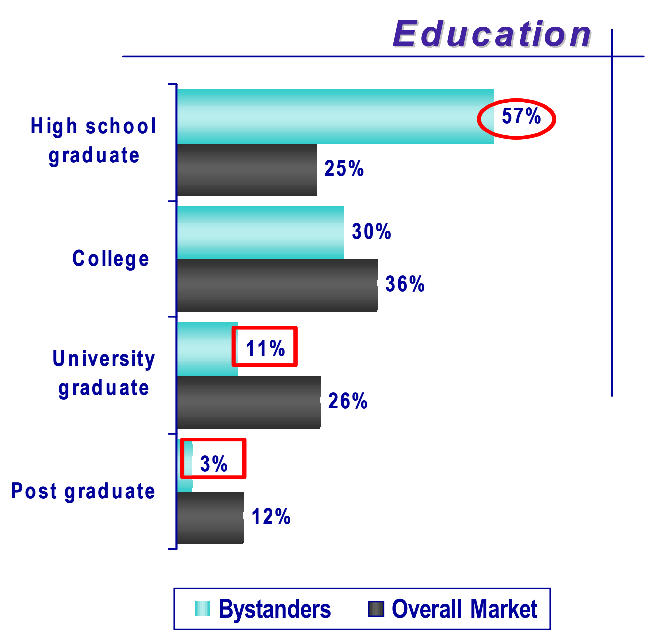
WHO ARE THE BYSTANDERS?

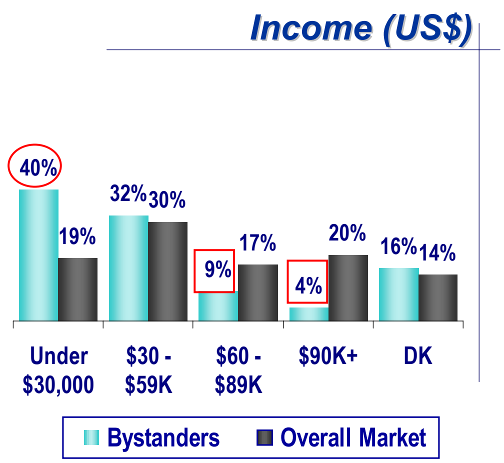
Bystanders represent approximately 18% of the North American market, making it one of the largest segments. It is the only segment to skew strongly towards the U.S. market. About 21% of all Americans fall into Bystanders, significantly more than the 12% of the Canadian population.

The segment also skews strongly female and it is also one of the oldest segments, with 40% age 55 and up. This older age skew likely explains why about a third of these households include someone with a chronic illness. In terms of ethnicity, the majority of Bystanders are caucasian, consistent with the overall market. Bystanders are one of the most non-urban segments in North America, with about one in five living in a rural area, and another 42% living in a small city.

Bystanders tend to be far less educated than any other segment. More than half of these consumers have only a high school education, and they are much less likely than the overall market to have any university or post-graduate education. It should come as no surprise that these older consumers are more likely to be retired, with fewer than half holding down full or part-time employment outside the home.

The lower levels of education typical among these consumers likely contributes to the types of jobs they hold. Bystanders are much less likely to be in a managerial or professional position and far more likely to work as homemakers, or labourers than the overall market. It is not surprising then that Bystanders have the lowest annual income of any segment – clode to four in ten earn less than $30,000 US annually.





Although close to half of Bystanders are married, this is significantly lower than the marriage rate of the overall market. The key difference for this segment is the relatively high number of widowed or divorced consumers. Bystanders most often live with one other person, but a significant number live alone. The average household size for this segment is smaller than the average. As one might expect given the older age skew, Bystanders are unlikely to have children under age 18 living in the household.

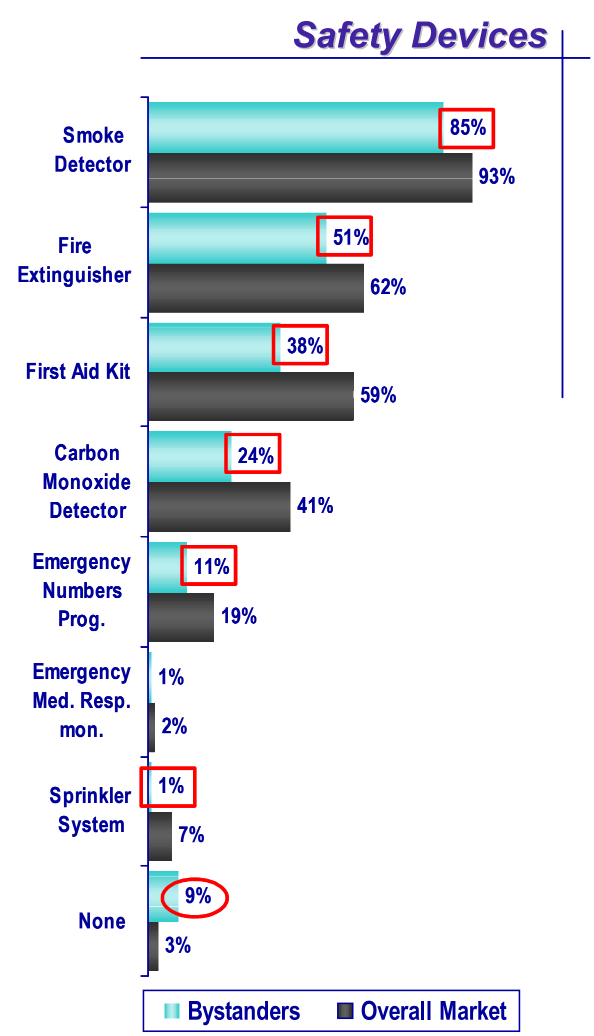
Bystanders prefer to hire others to do work instead of doing it themselves. They are engaged with their homes and have somewhat discriminating tastes. They have strong preferences for how things look and are willing to put in the time and effort to ensure they get what they want.

Home Profile

Despite the older age skew and somewhat more established nature of Bystanders, they are much less likely than the market as a whole to live in a single detached home (although they are just as likely to own their home). This skew away from single detached homes may be related to the low levels of income common in this segment, something that is reinforced by the tendency for Bystanders to live in much smaller homes on average that the overall market. Their homes are also more likely to be older.

Despite the average levels of home ownership found in this segment, these consumers appear reluctant to invest any time or money in their homes. Bystanders are significantly less likely than the overall market to have even the most basic of safety devices in their homes, including smoke detectors, fire extinguishers, first aid kits or carbon monoxide detectors.

Bystanders' homes are also less likely to have any additional home amenities, such as air conditioning, garage door openers or programmable thermostats. It may be that these consumers cannot justify the expense necessary to make these upgrades to their older homes. The older consumers most common in



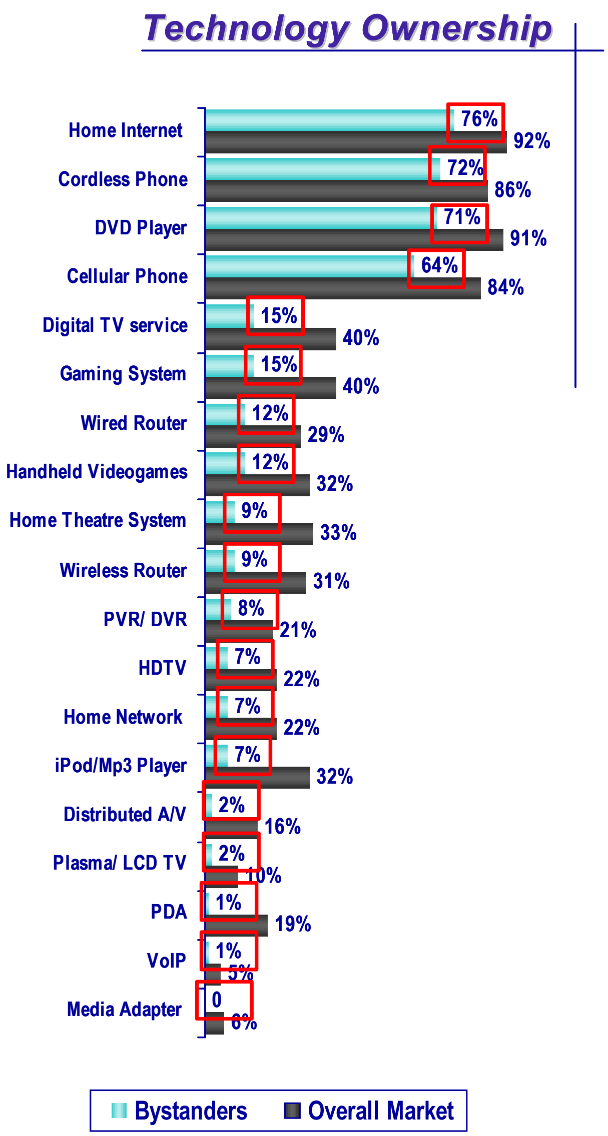
Bystanders may also lack an interest in performing these ugrades as they are comfortable with their homes as they are.

Given their relatively older ages, it is probable that many Bystanders have lived in their homes for a good number of years. As a result, they likely see these homes as their ideal, functional and private spaces that do not require any new amenities to make them more comfortable. They also are unlikely to have the funds available to upgrade their homes even if they wanted to.

Bystanders tend to express the lowest levels of frustration of any segment with many household tasks. At this stage in their lives, these older consumers may have the time to perform household tasks that younger and busier consumers do not.

Technology

Bystanders are resistant to the current pace of change. They are are reluctant to adopt technology, seeing only the challenges of adoption, not the possibilities it can offer. Many feel left behind by recent advancements and have little or no desire to catch up.



More than half consider themselves to be the last to purchase new technology. This attitude is likely a combination of their general reluctance to adopt technology and their lower income levels. Bystanders are not eagerly awaiting the next new technology to enter their lives. On the contrary, they are likely unaware of new technologies or, if aware of them, avoid them.

These attitudes are confirmed by the technology these consumers have in their home today. Although the most mainstream items such as home Internet service, DVD players, cordless phones and cellular phones are owned by the majority of Bystanders (but to a far lesser degree than the overall market), few own any other technologies. Even relatively common devices, such as wired routers, gaming systems or digital televisions are owned by less than 20% of this segment. It may be that, in addition to their general resistance to technology, these consumers are not particularly interested in technologies which are focused on entertainment and communications.

This picture is likely to remain consistent in the near future. Only 12% of Bystanders plan to purchase an HDTV compared with 30% of the overall market. Even more telling, 7% are planning to purchase a DVD player as new technology, illustrating just how far consumers in this segment lag behind the market as a whole.

Given the low levels of technology ownership among Bystanders, it should come as no surprise that these consumers have fairly negative attitudes towards technology. These consumers tend to express concerns about privacy and security, expense, general confusion, nervousness and frustration. These concerns tend to prevent them from seeing the benefits technology could bring to their lives. Bystanders are overwhelmed by technology and demonstrate a general lack of understanding of it. For Bystanders this lack of understanding manifests itself as fear of change.

Although Bystanders tend to express some of the same stresses about technology as other segments (such as worries about tech obsolescence and too many passwords), they are also far more likely to express concerns about having too much to learn and too many tech options, once again reinforcing their sense of feeling overwhelmed.

Consistent with their attitudes towards technology, Bystanders also tend to lag behind the overall market when it comes to their online activities. Only about half of these consumers have a broadband Internet connection and they are far less likely than the overall market to participate in common online activities. Fewer than half shop online (compared with 76% of the overall market). Bystanders are extremely unlikely to participate in such leading edge online activities such as blogging, or downloading bit torrent files or podcasts.

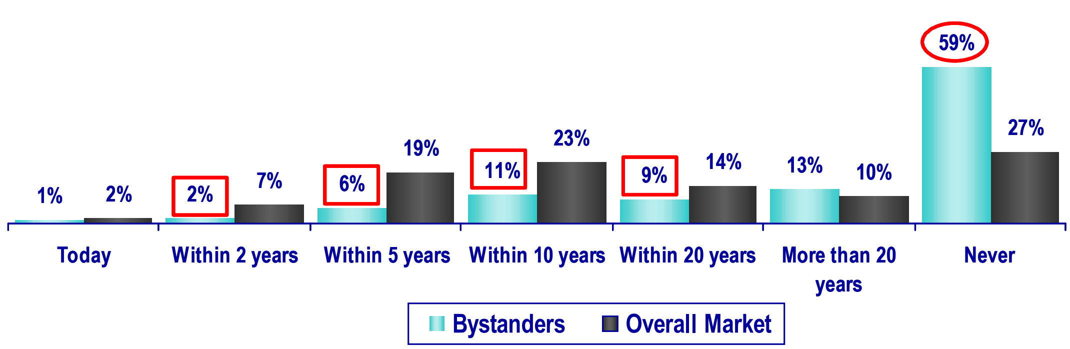
Given their behaviours, these consumers are the most likely segment to feel that technology is isolating, complicated and overwhelming.

Relationship to the Connected Home

Bystanders are the consumers least familiar with the concept of the Connected Home and also the least interested in it. This lack of interest in the Connected Home is likely related to two factors. First, these consumers are comfortable in their current homes and tend to feel they are ideal just as they are now. Combine this with their general resistance to technology and it should come as no surprise that, to these consumers the Connected Home has little to offer. It does not appeal to them either in terms of technological innovation (too overwhelming) or in terms of home improvements (these consumers feel their homes are functional as is).

This lack of appeal is consistent across all the specific features available in the Connected Home. Bystanders are far less interested in every possible feature mentioned when compared with the overall market, although they do have the same top three choices (air quality monitoring, integrated home security and automatic adjustment of room temperature). None, however, seem to resonate with this segment.

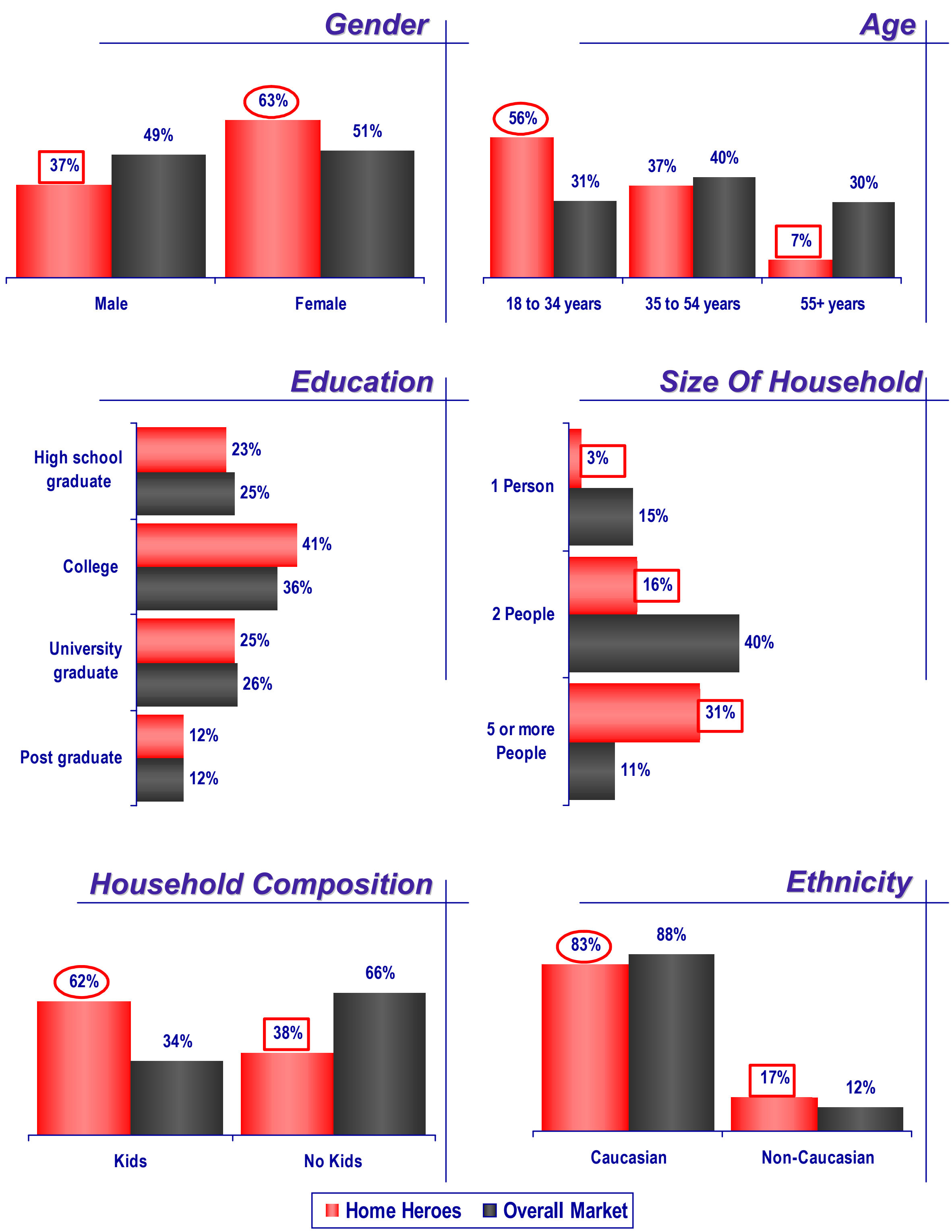
Connected Home Time Frame



Appendices

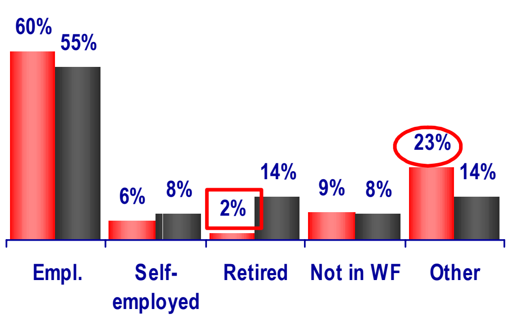
Appendix A

Home Heroes: Demographic Profile

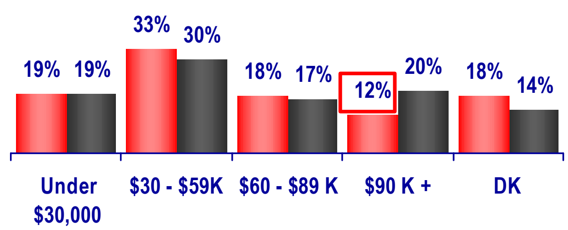


Home Heroes: Demographic Profile

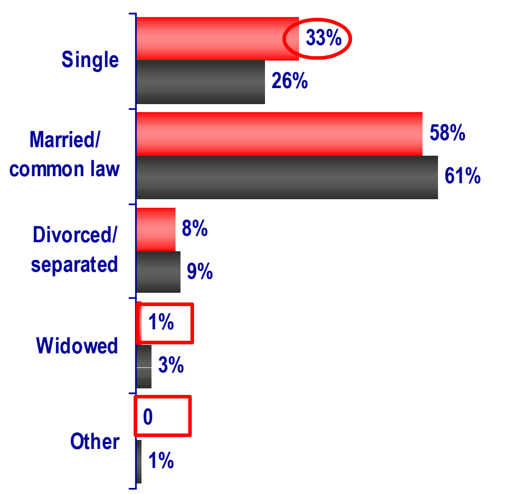
Employment



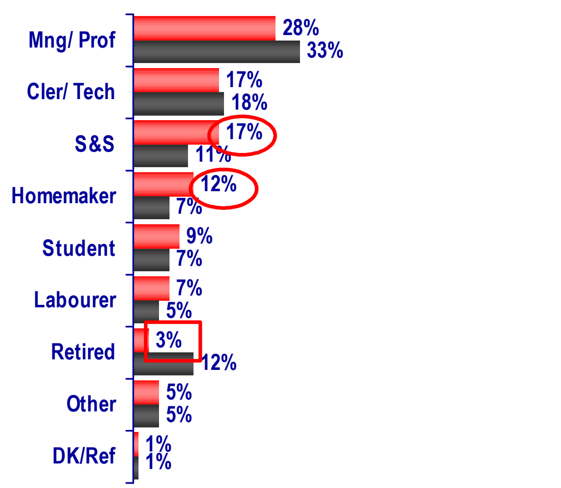
Income (CN$$)



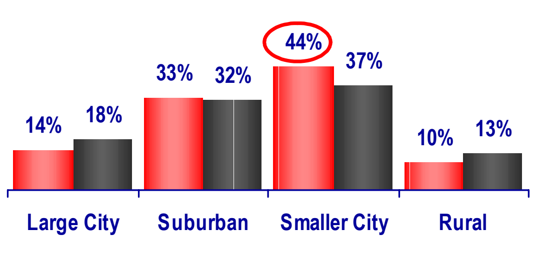
Marital Status



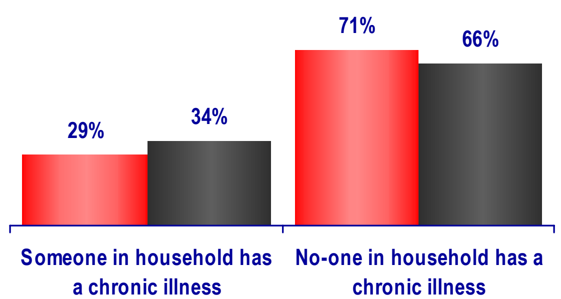
Occupation



Size of Community

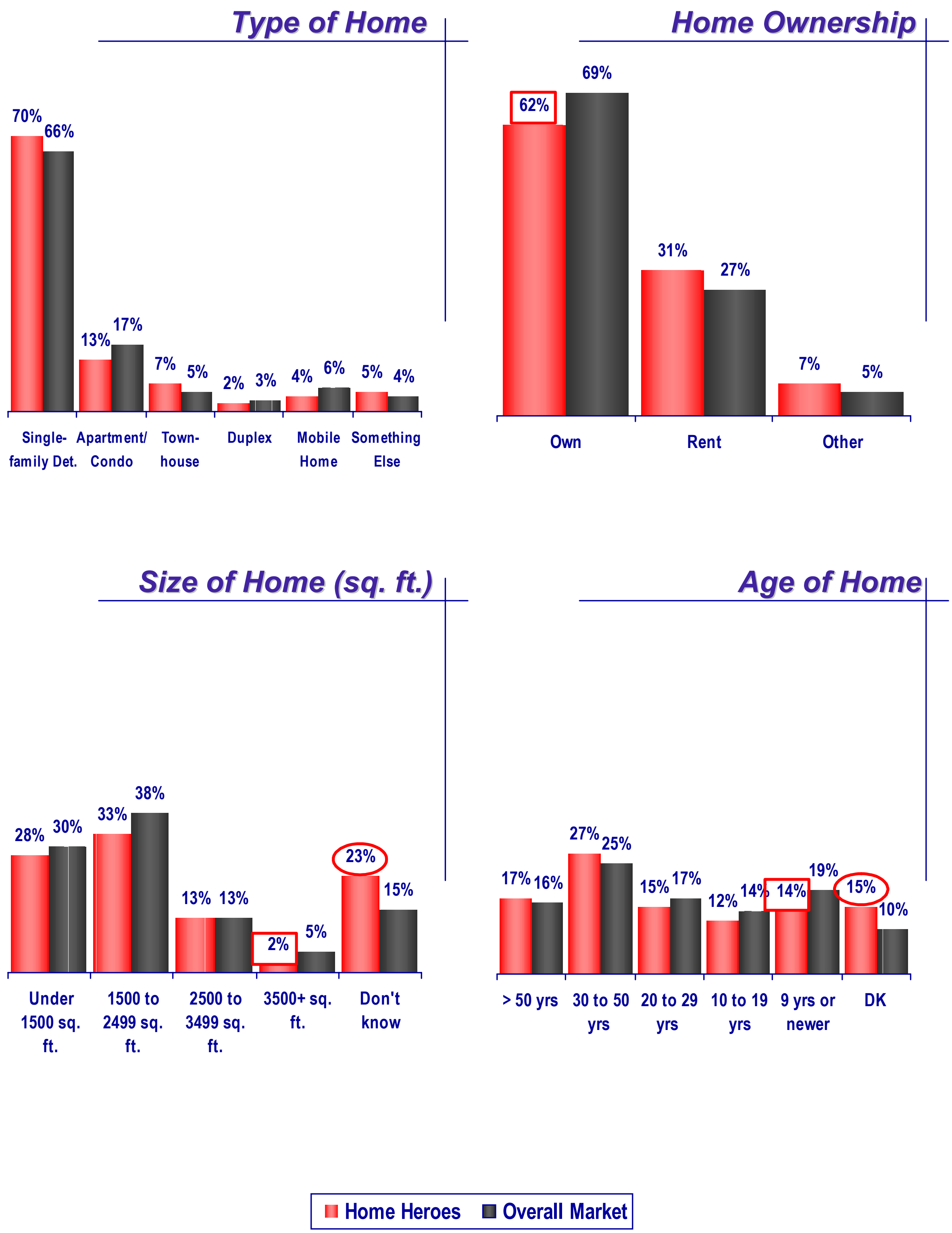


Household Medical Conditions

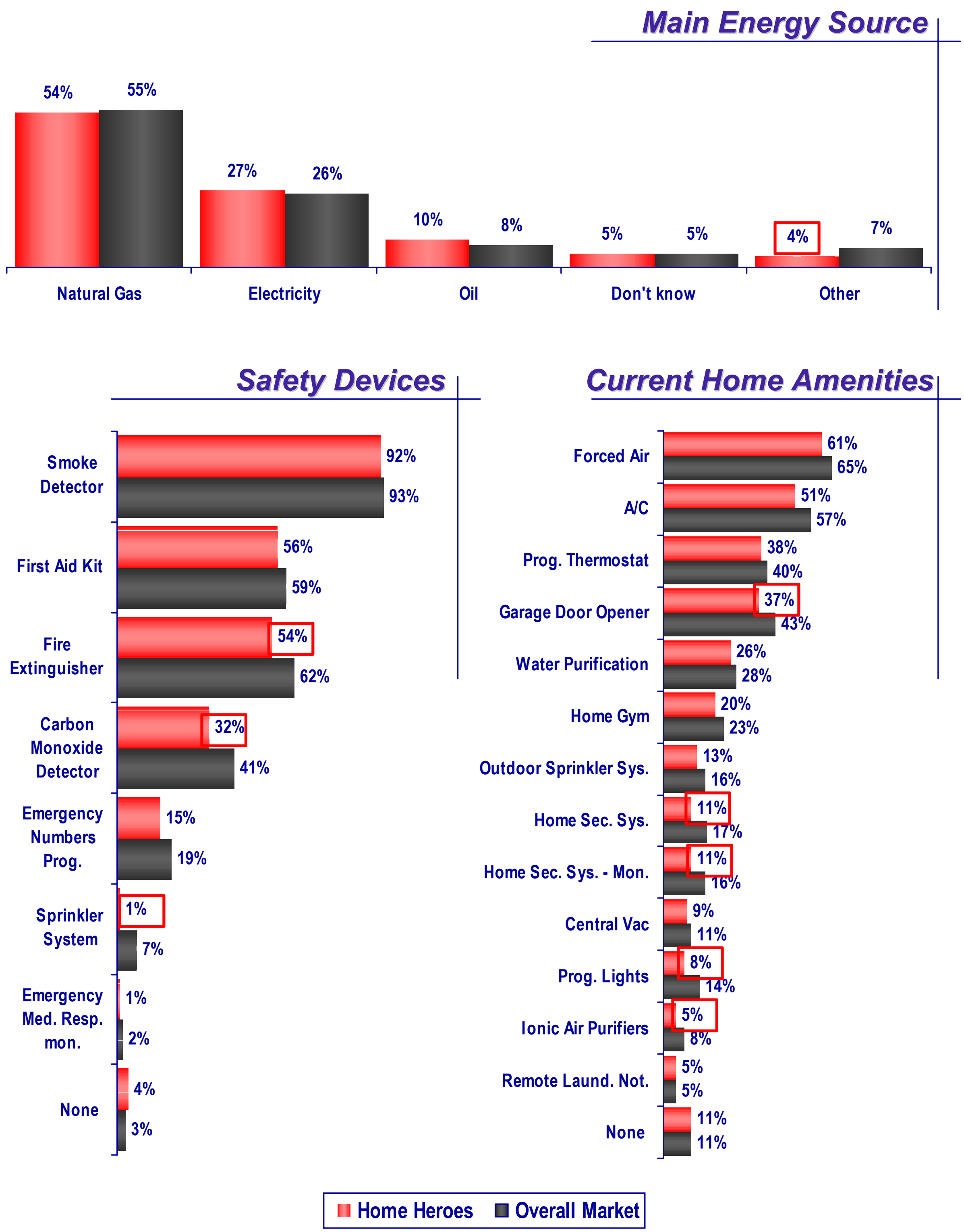


Home Heroes Overall Market

Home Heroes: Home Profile

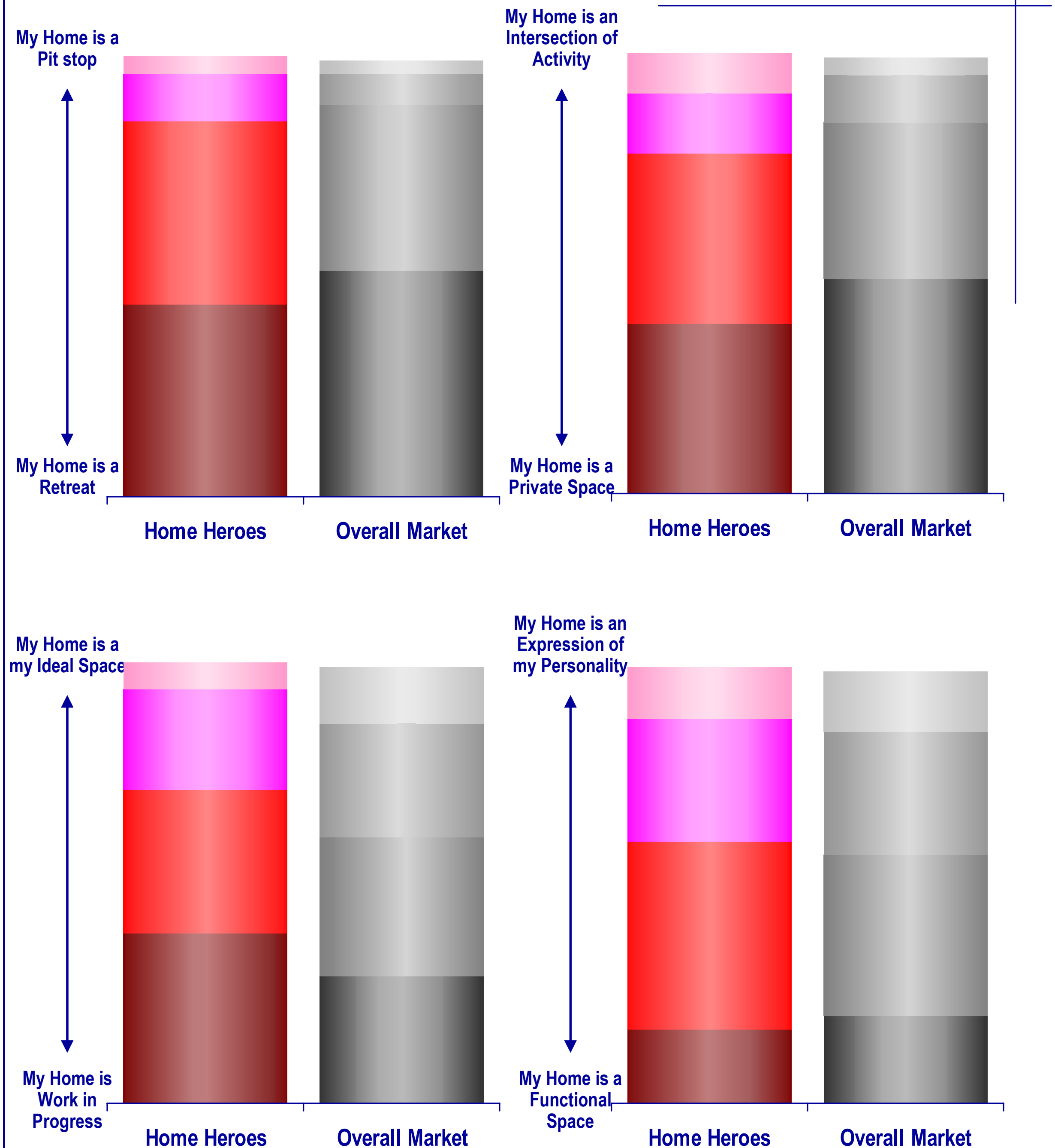


Home Heroes: Home Profile

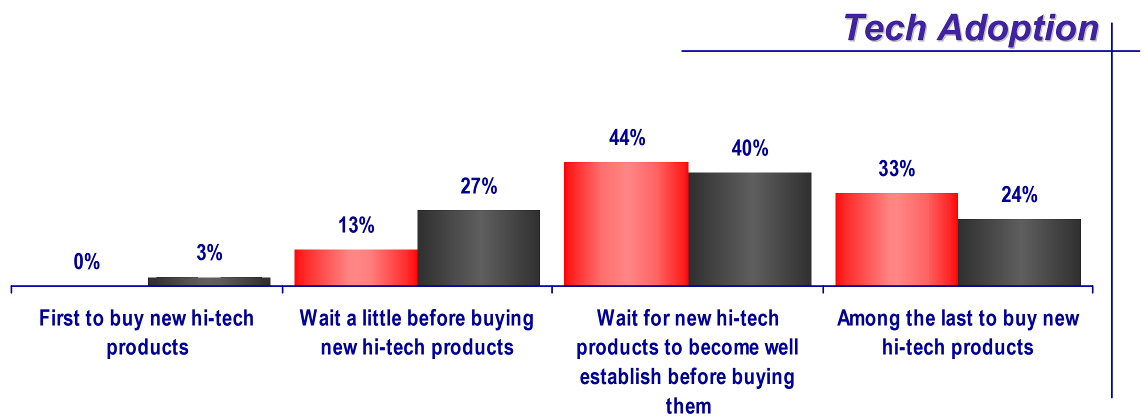


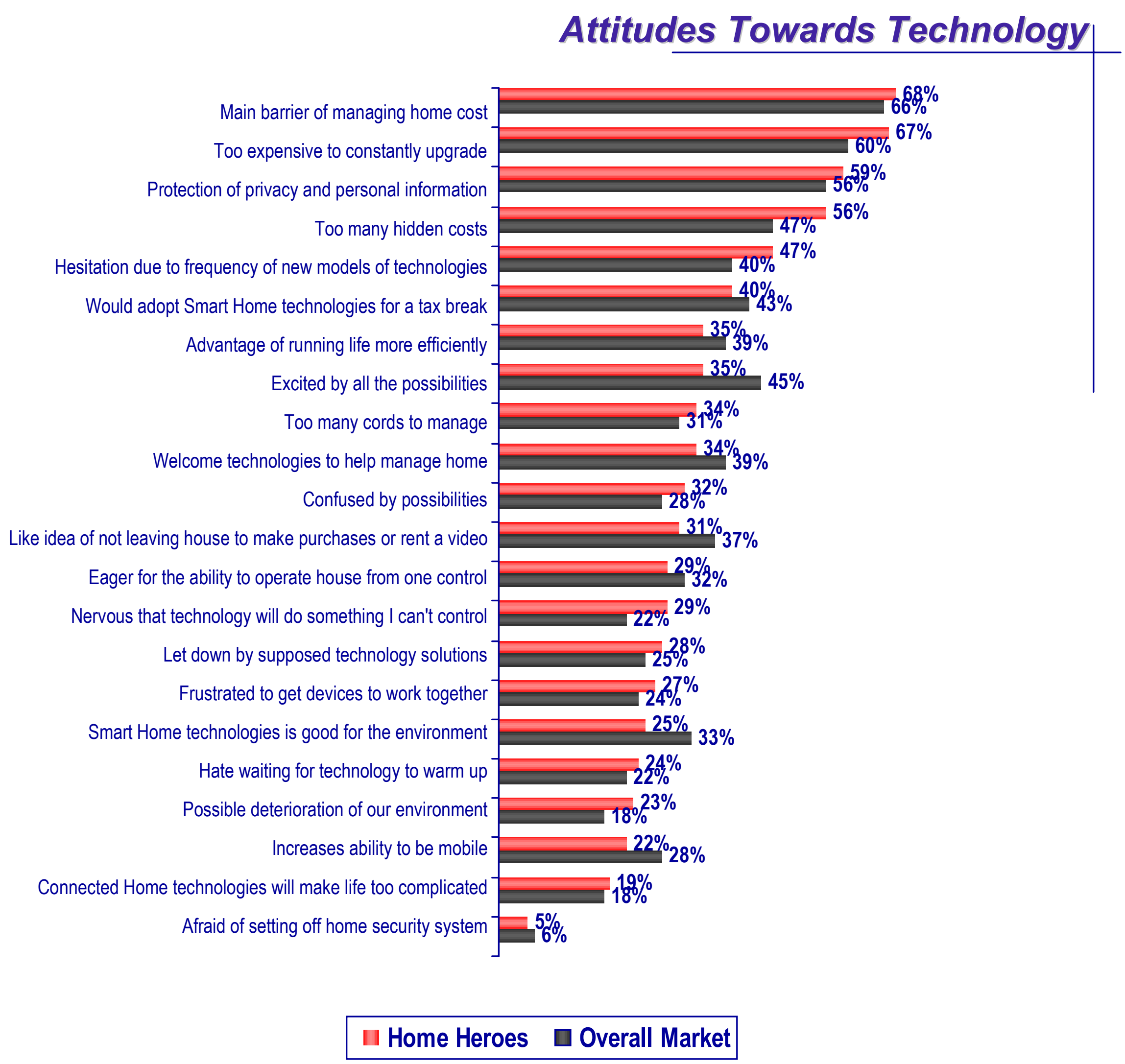
Home Heroes: Home Profile

View of the Home

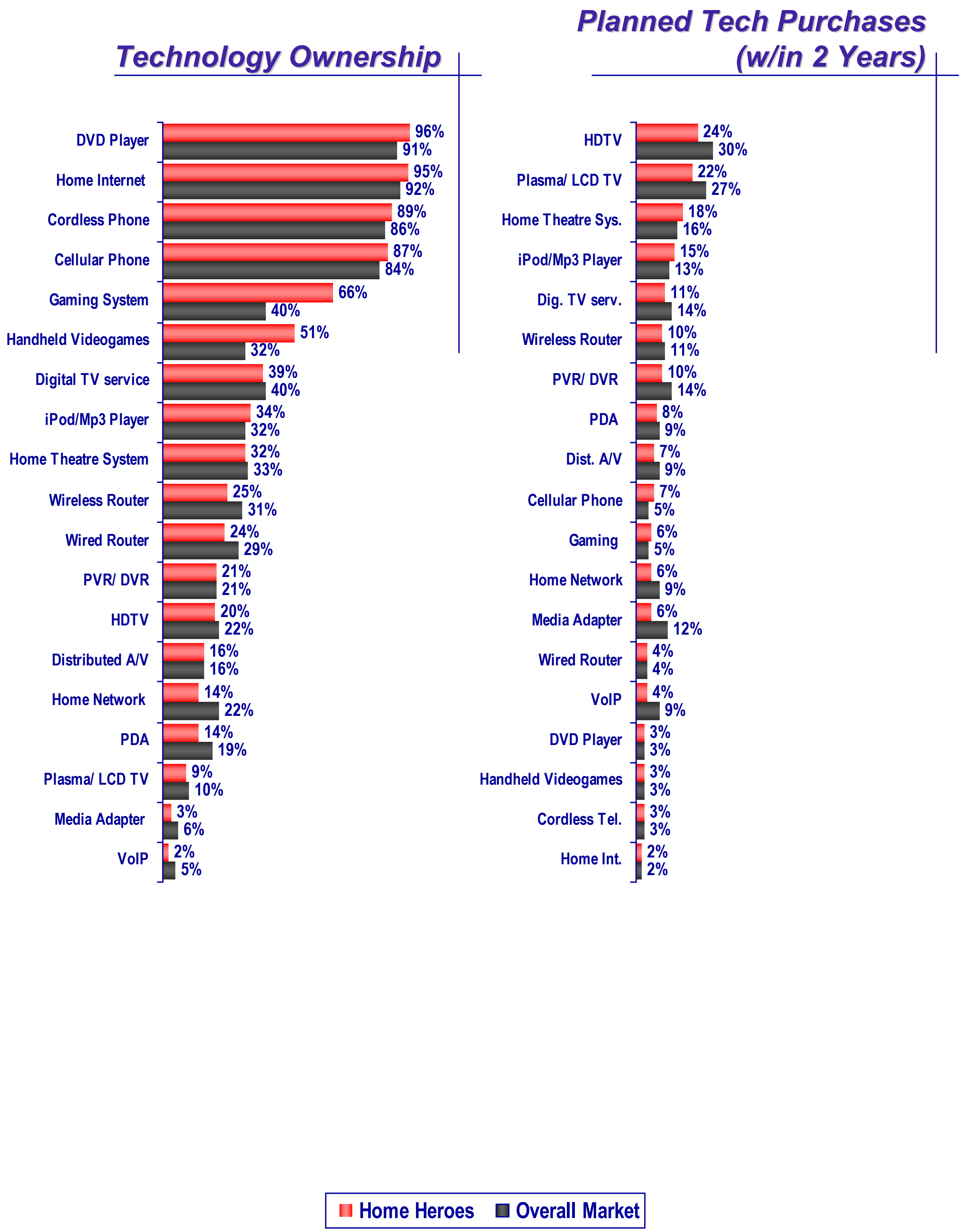


Home Heroes: Technology Profile



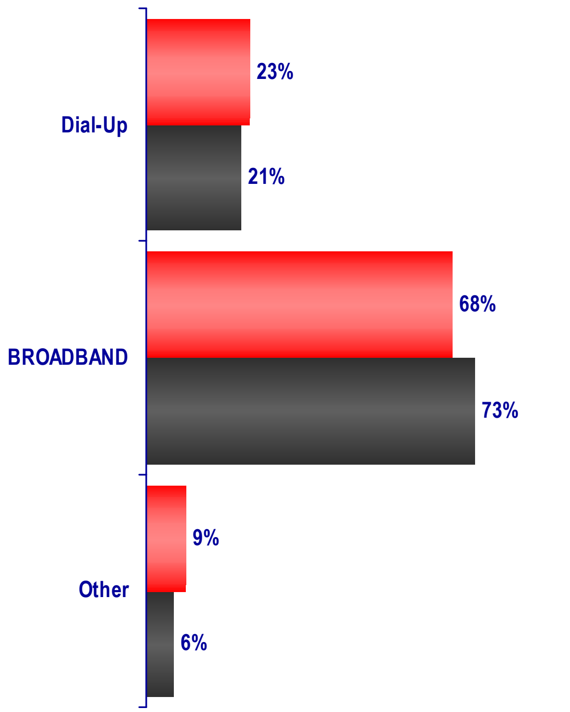


Home Heroes: Technology Profile

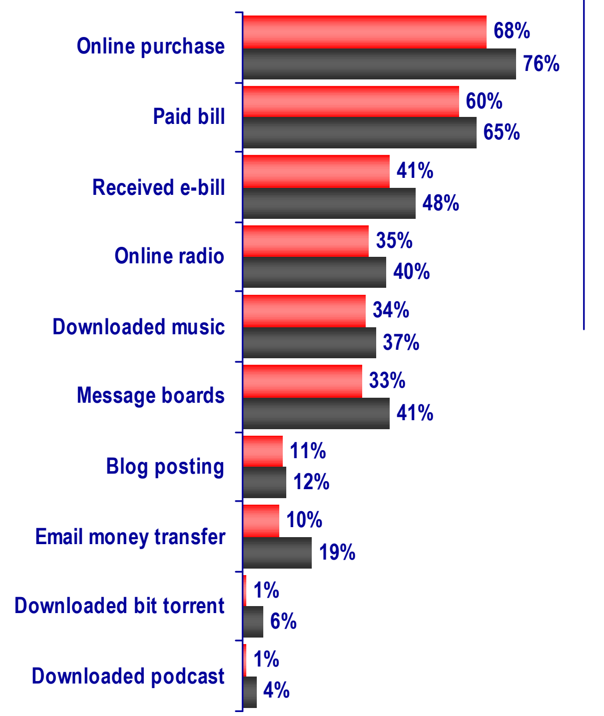


Home Heroes: Technology Profile

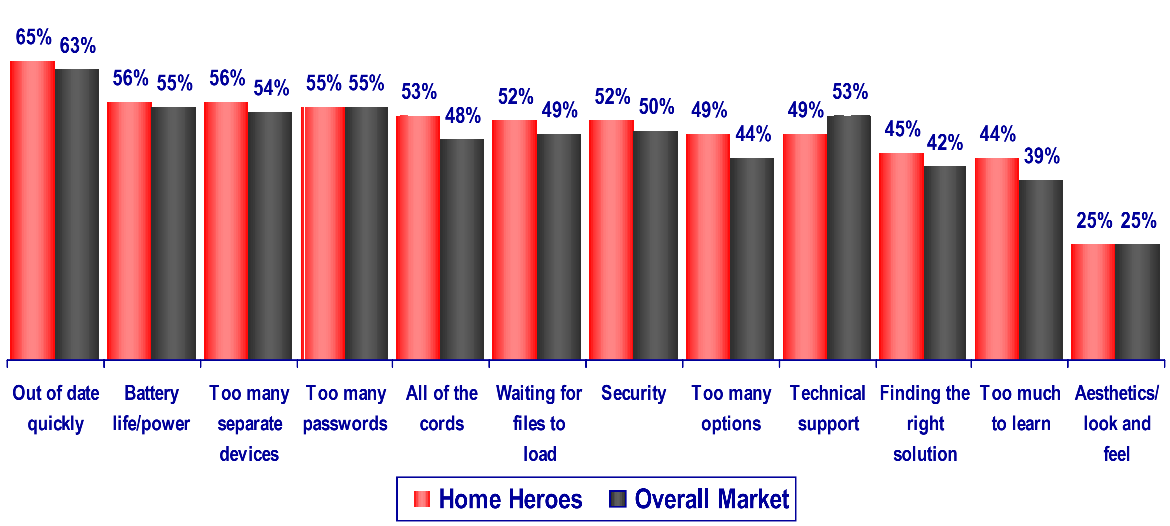
Type of Internet Service



Internet Activities

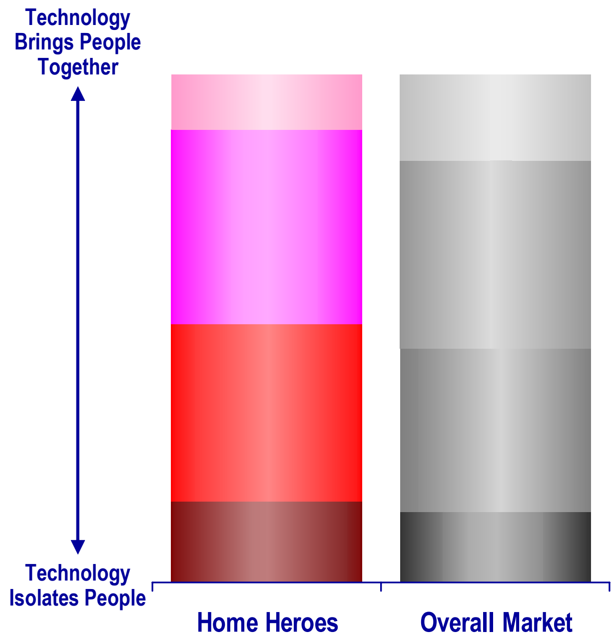


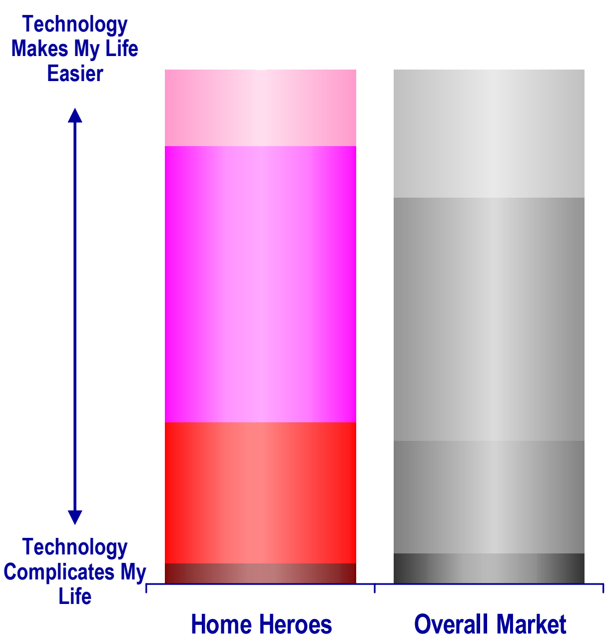
Technology Micro-stresses

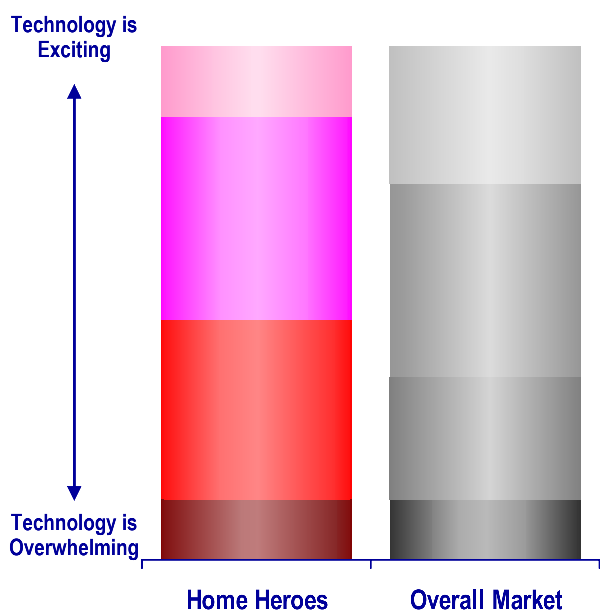


Home Heroes: Technology Profile

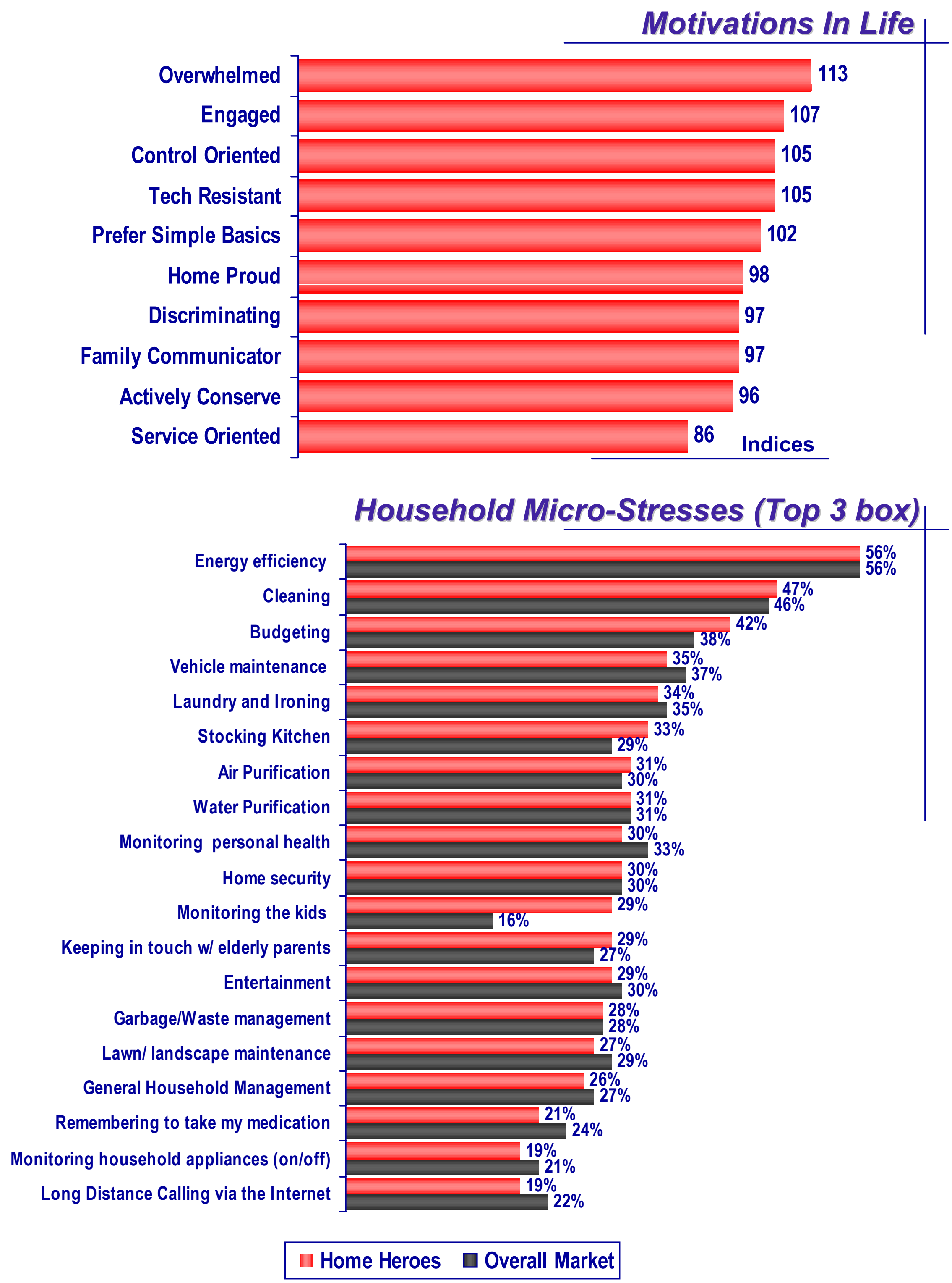
View of Technology





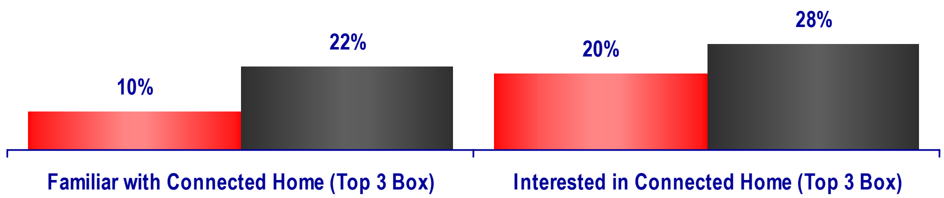


Home Heroes: Needs & Wants/Micro-Stresses

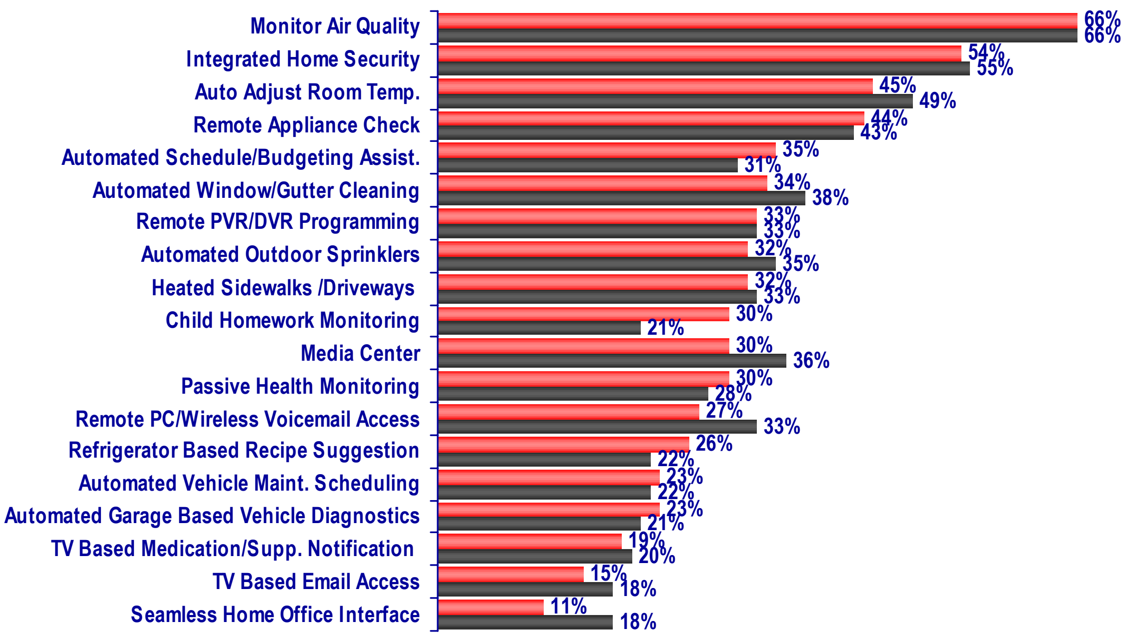


Home Heroes: Relationship with the Connected Home

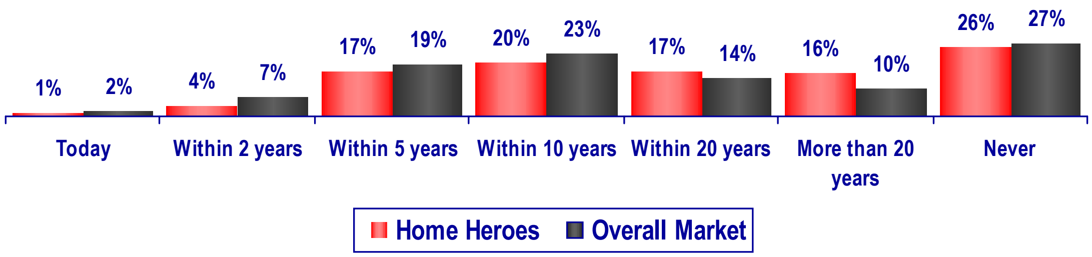
Affinity with the Connected Home Concept



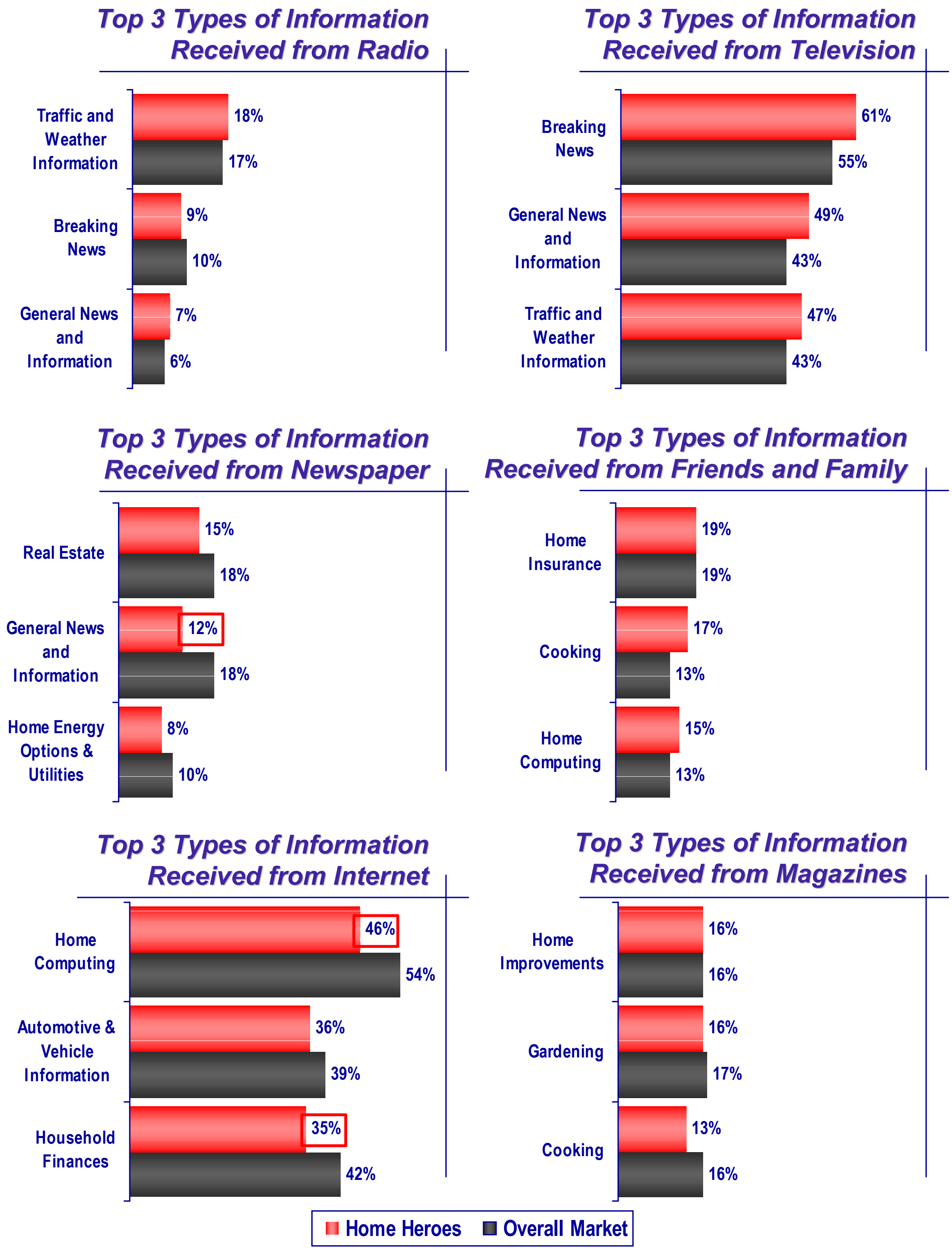
Connected Home Feature Interest (Top 2 Box)



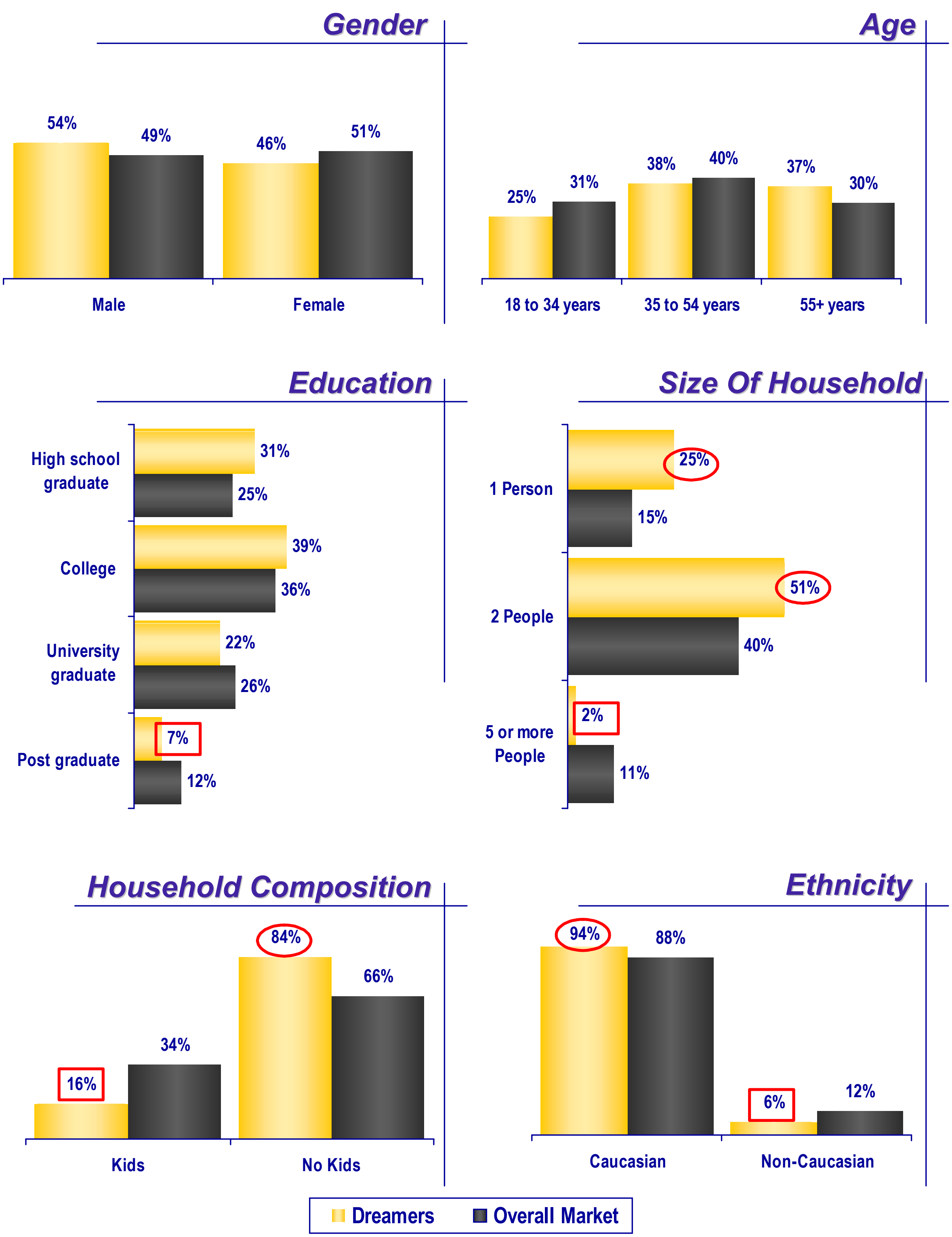
Connected Home Time Frame



Home Heroes: Information Sources

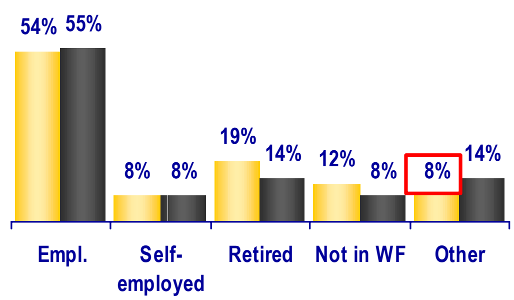


Dreamers: Demographic Profile

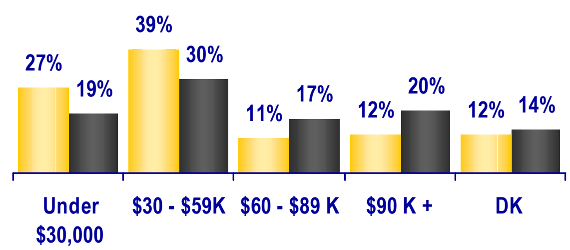


Dreamers: Demographic Profile

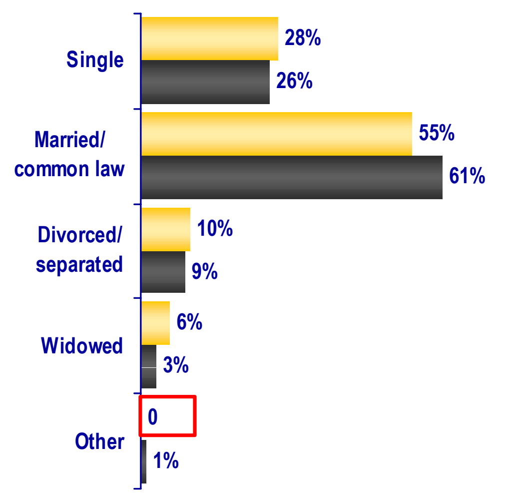
Employment



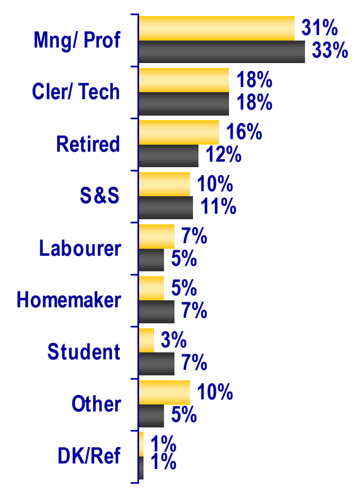
Income (CN$$)



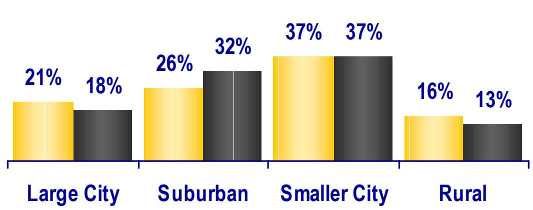
Marital Status



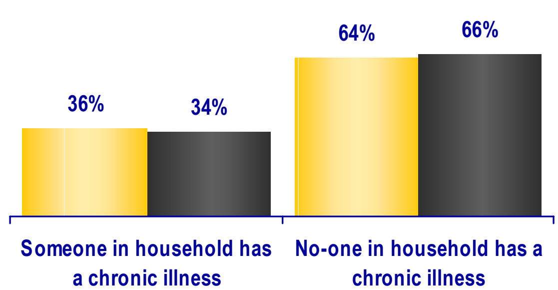
Occupation



Size of Community

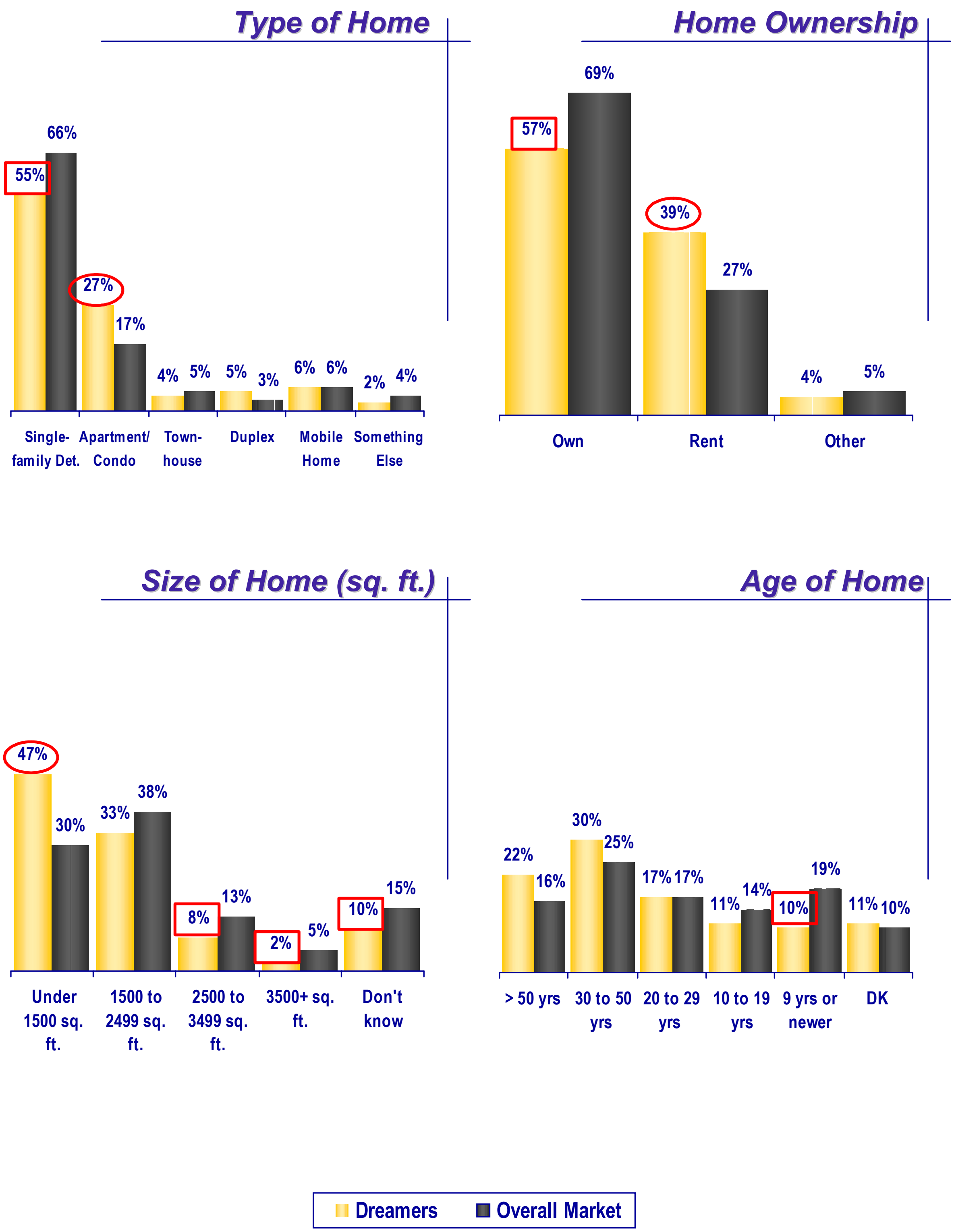


Household Medical Conditions

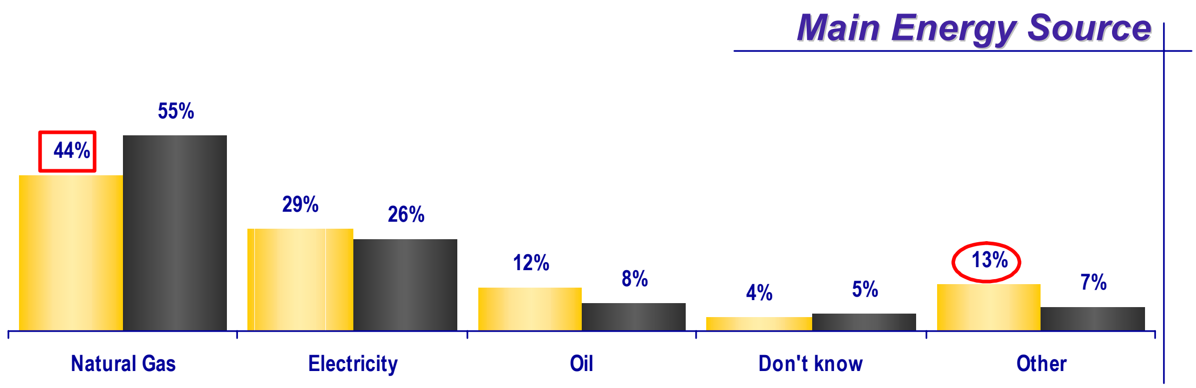


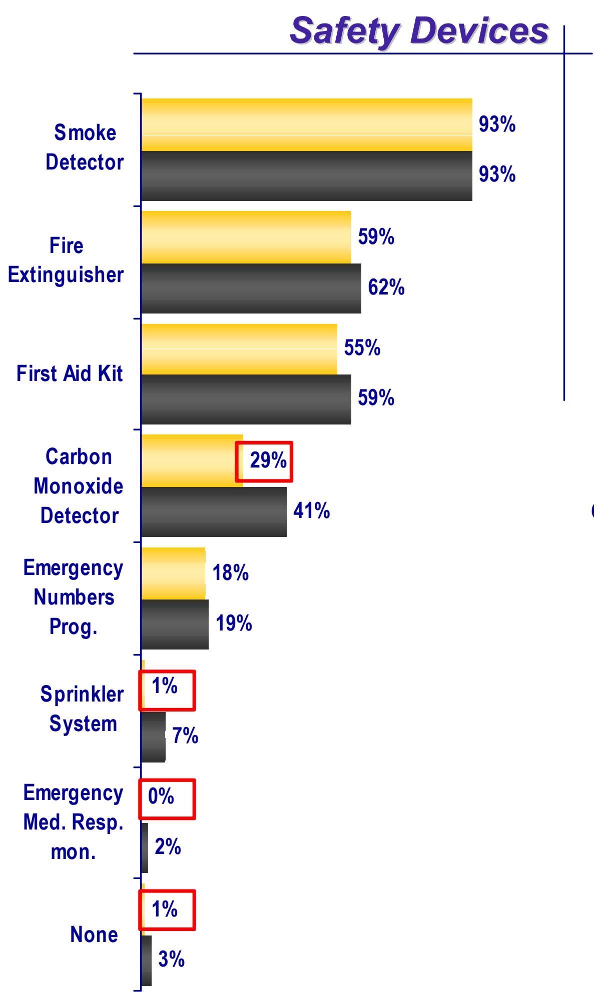
Dreamers ■ Overall Market

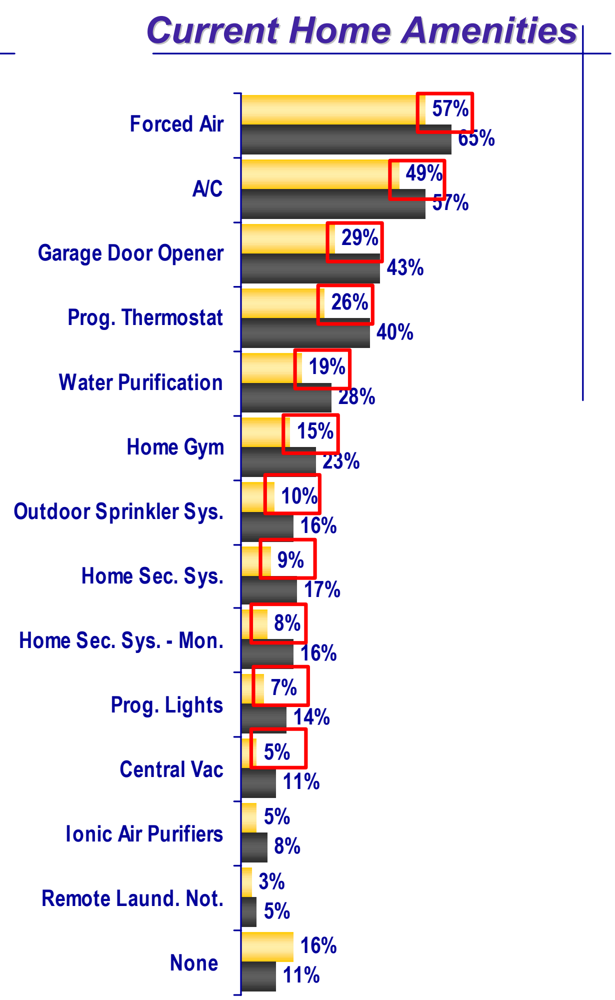
Dreamers: Home Profile



Dreamers: Home Profile

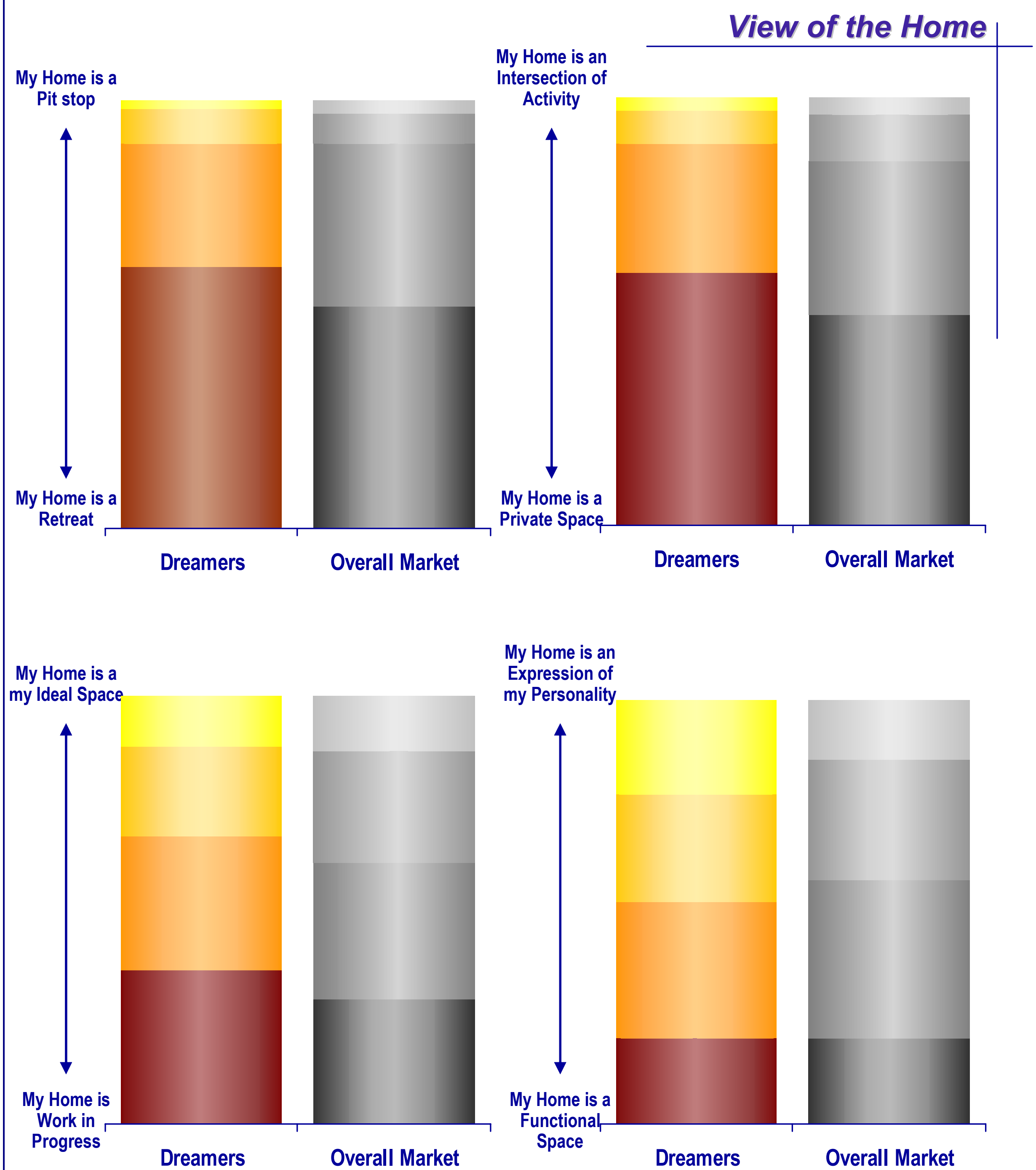






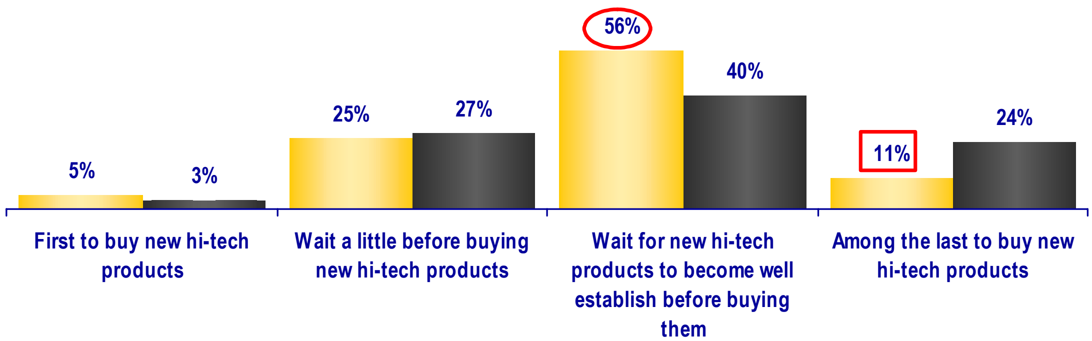
Dreamers Overall Market

Dreamers: Home Profile

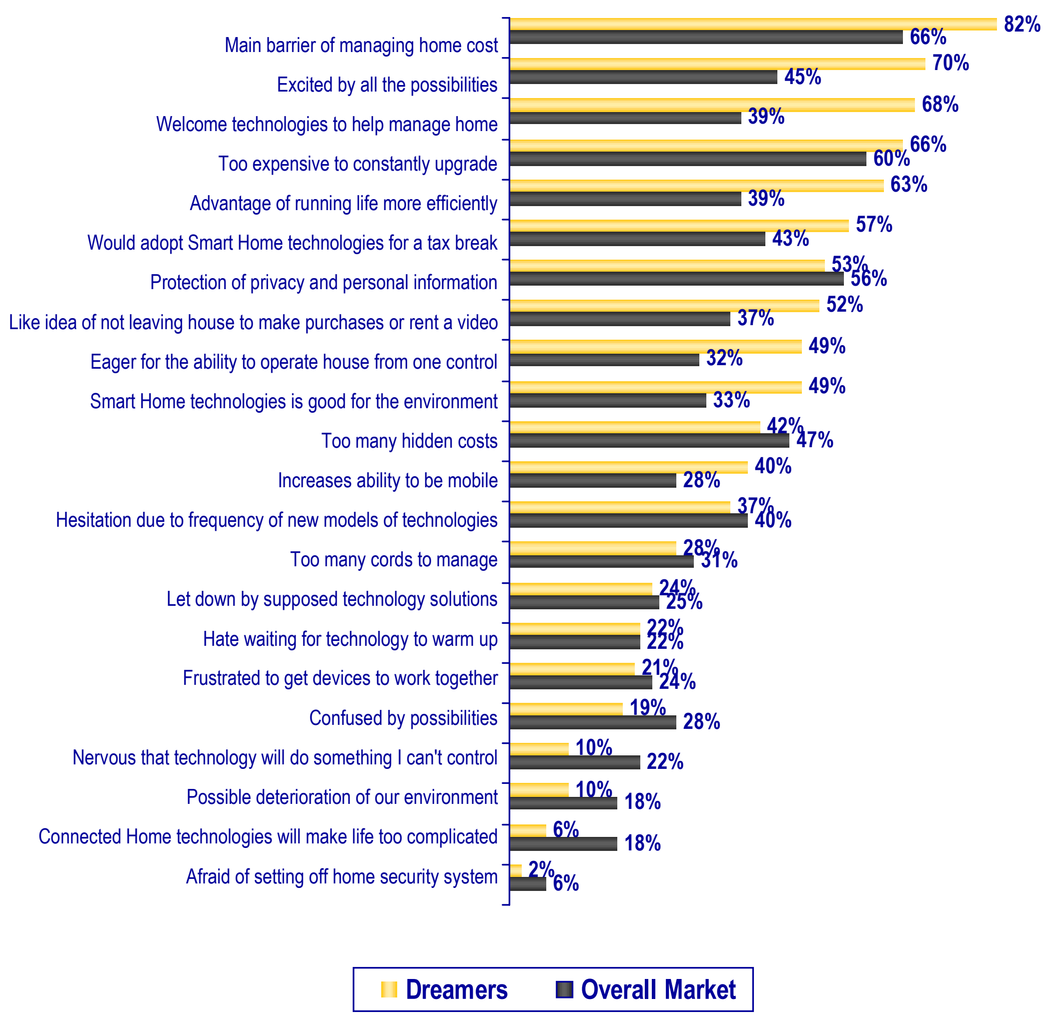


Dreamers: Technology Profile

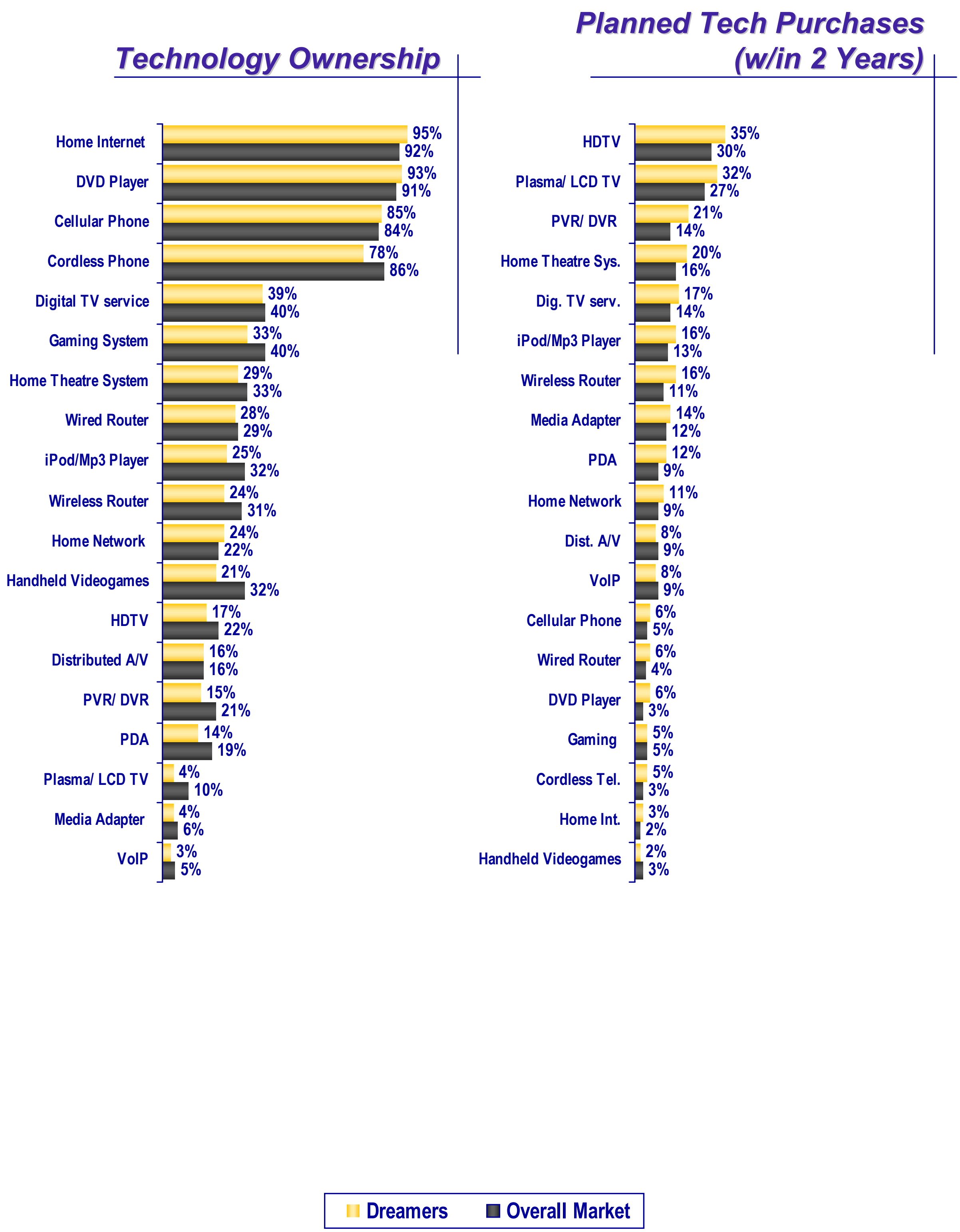
Tech Adoption



Attitudes Towards Technology

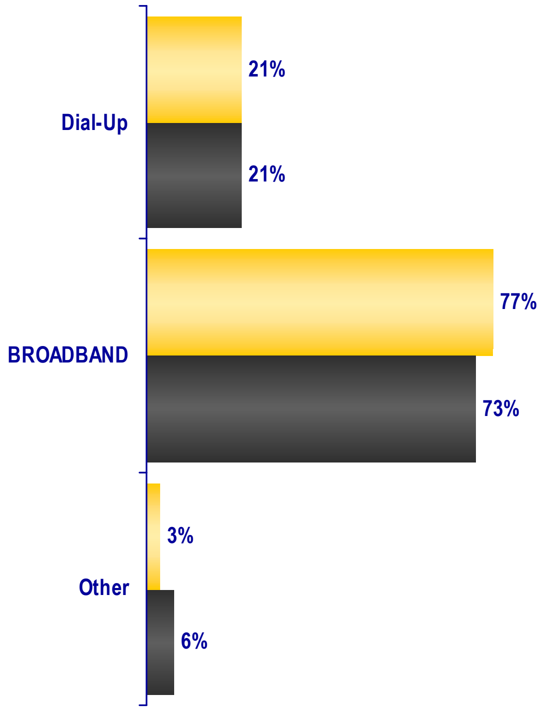


Dreamers: Technology Profile

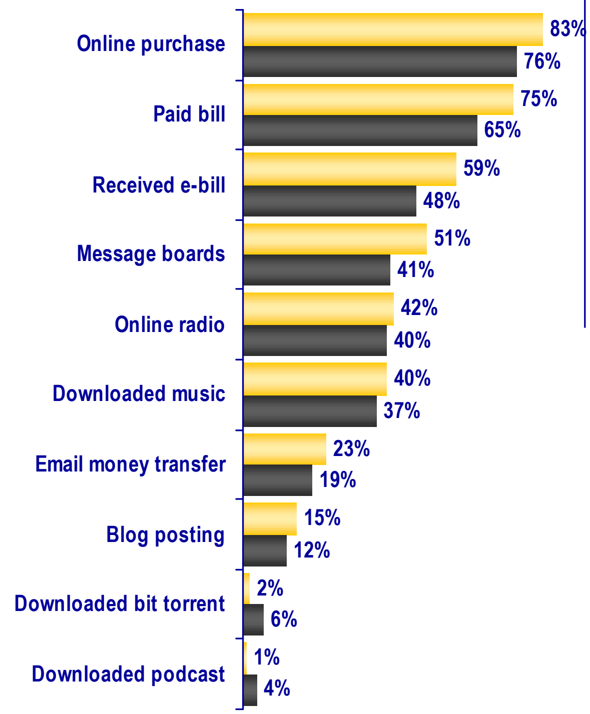


Dreamers: Technology Profile

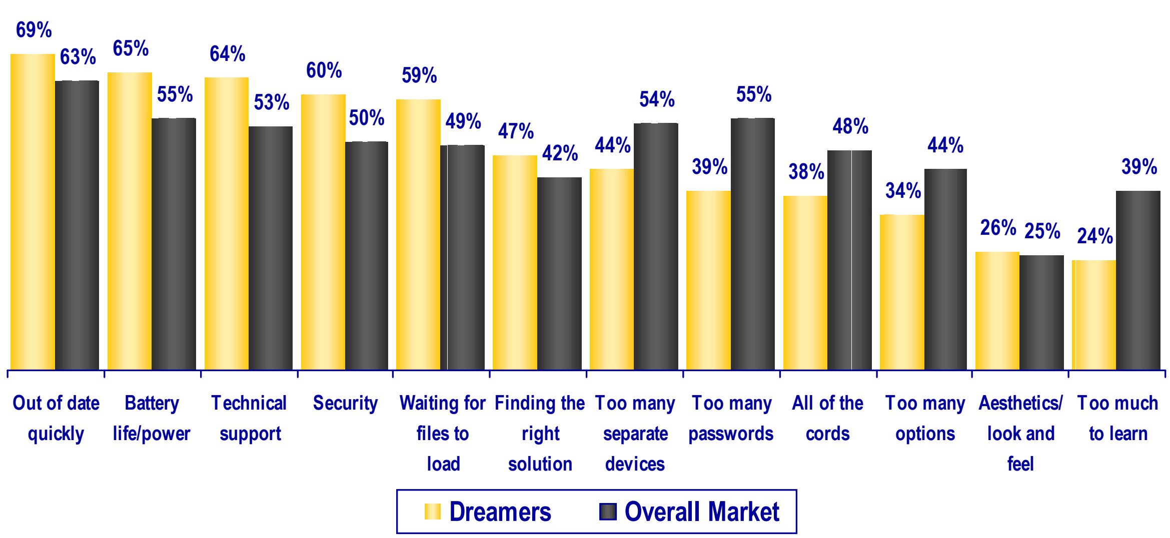
Type of Internet Service



Internet Activities

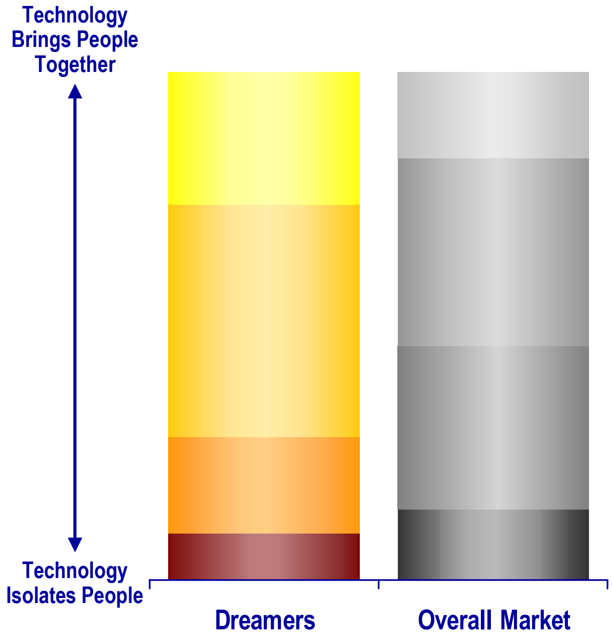


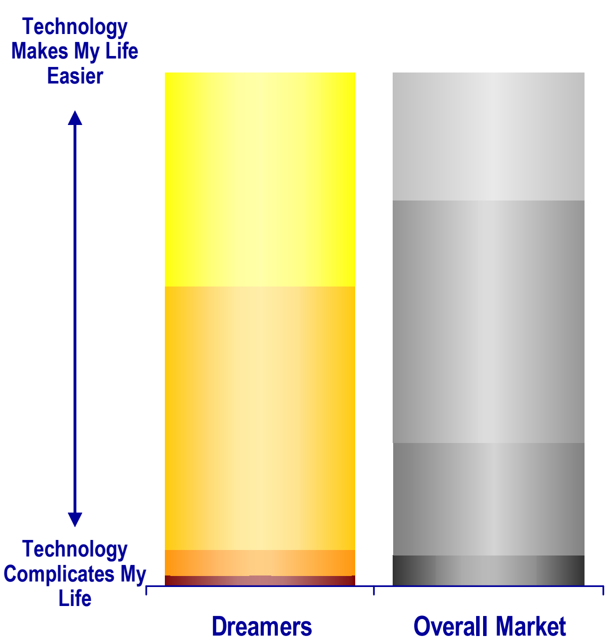
Technology Micro-stresses

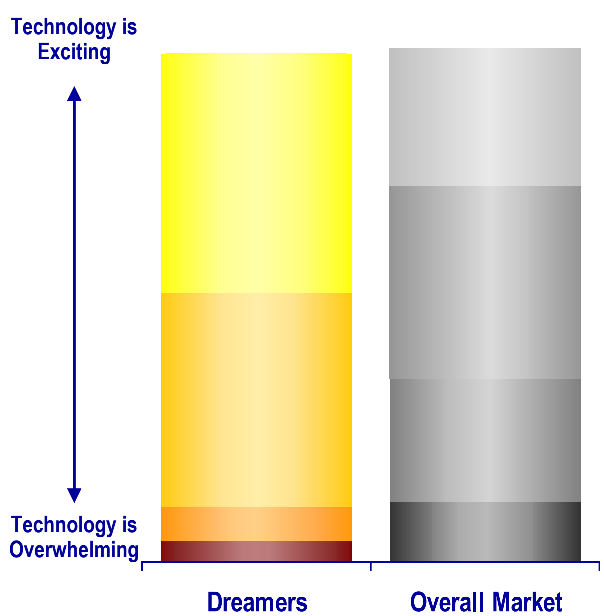


Dreamers: Technology Profile

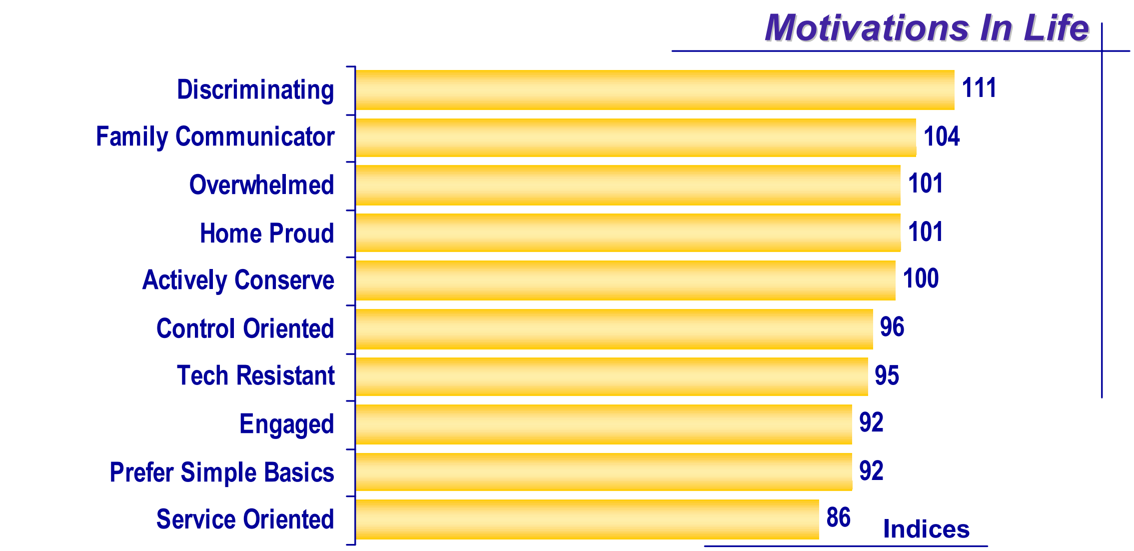
View of Technology

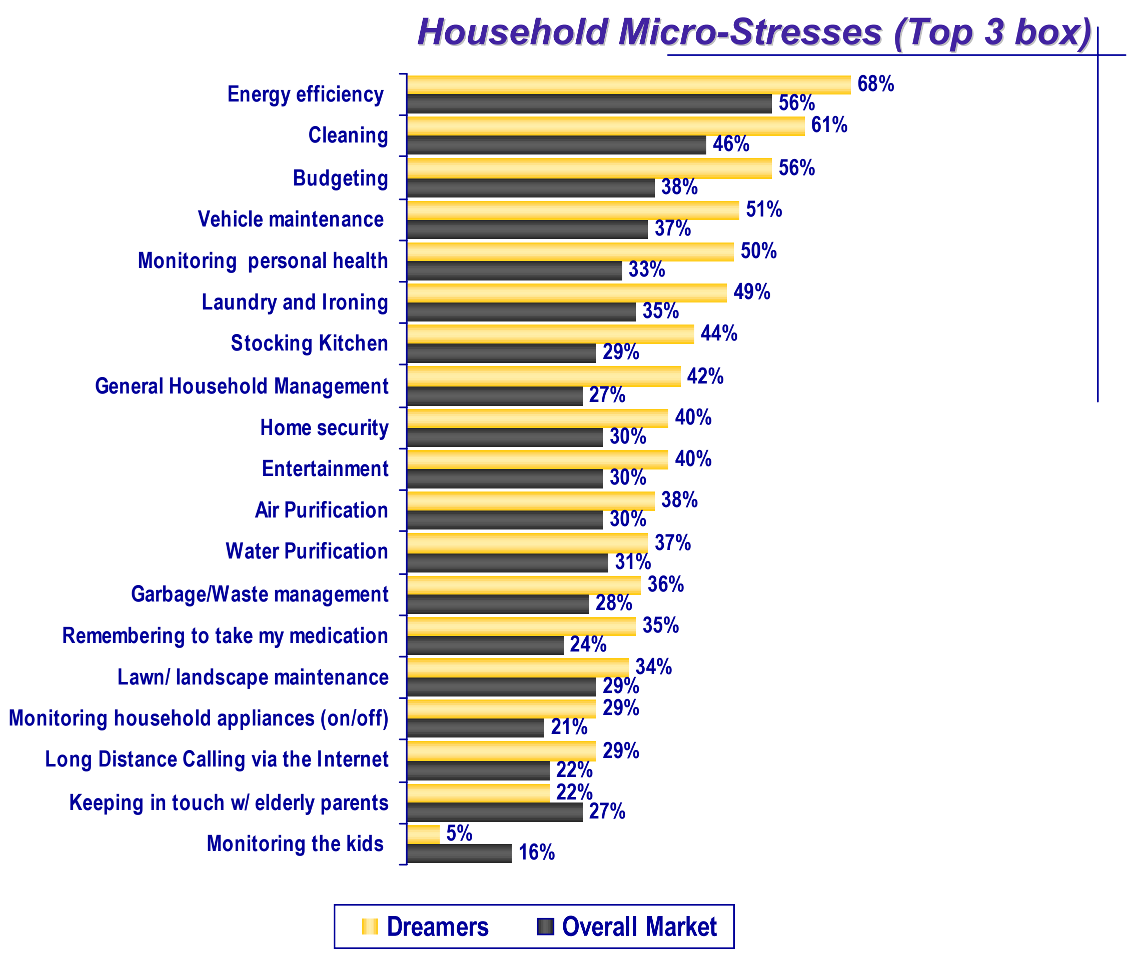






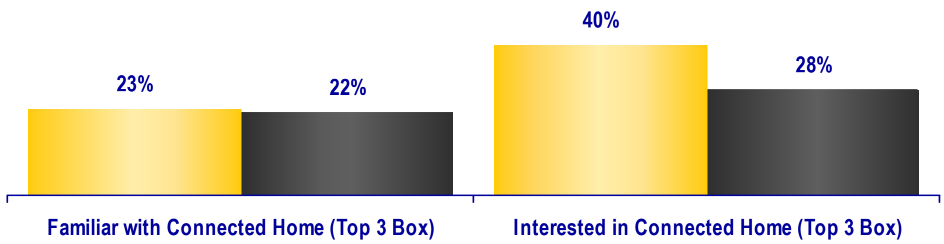
Dreamers: Needs & Wants/Micro-Stresses



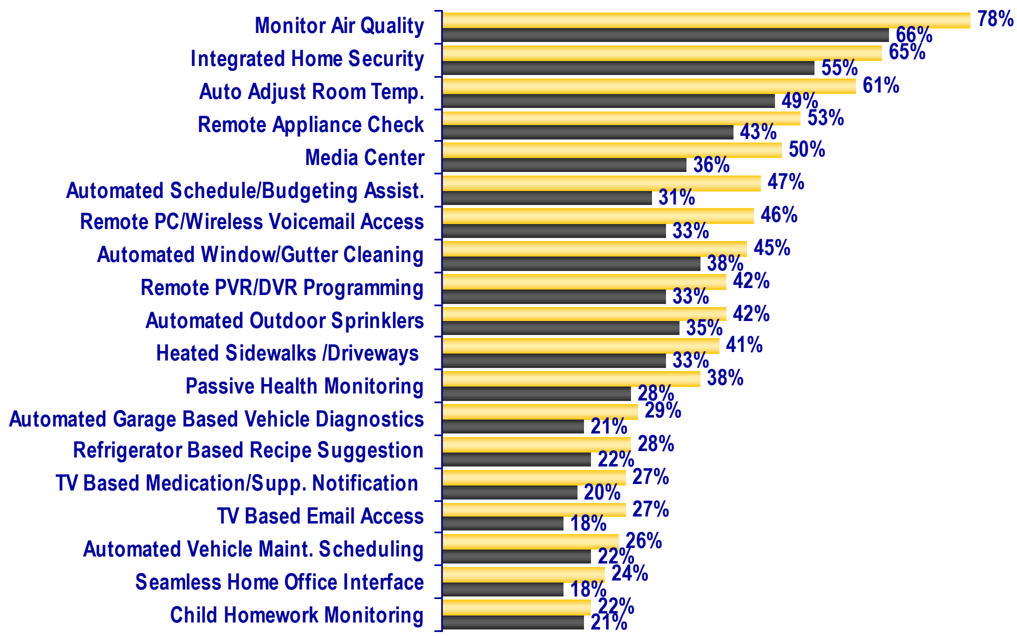


Dreamers: Relationship with the Connected Home

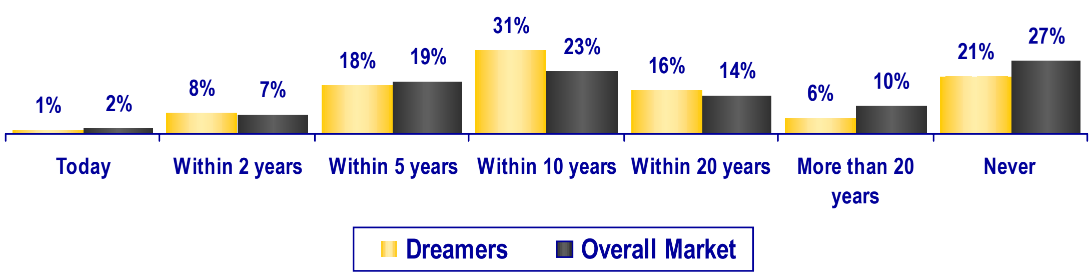
Affinity with the Connected Home Concept



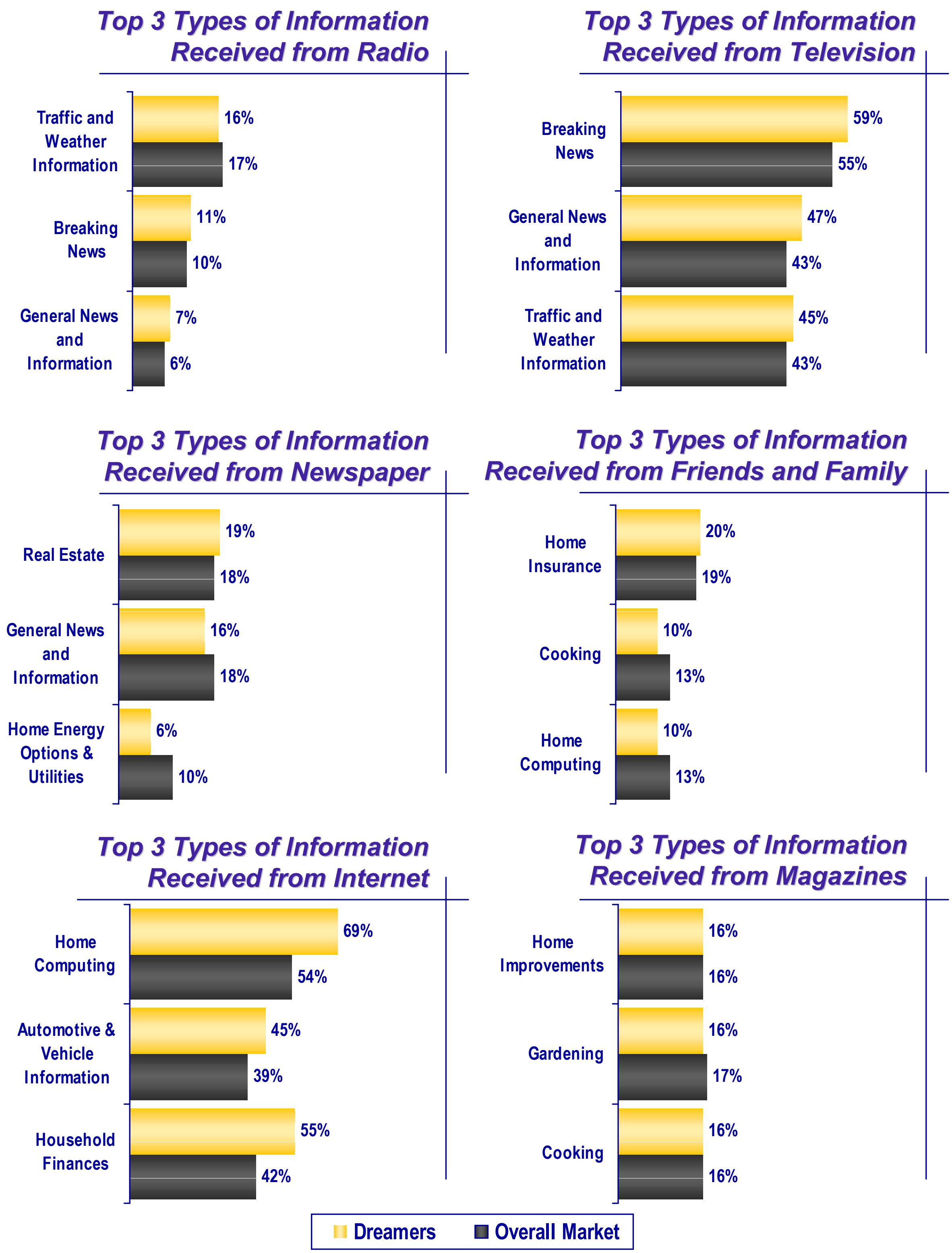
Connected Home Feature Interest (Top 2 Box)



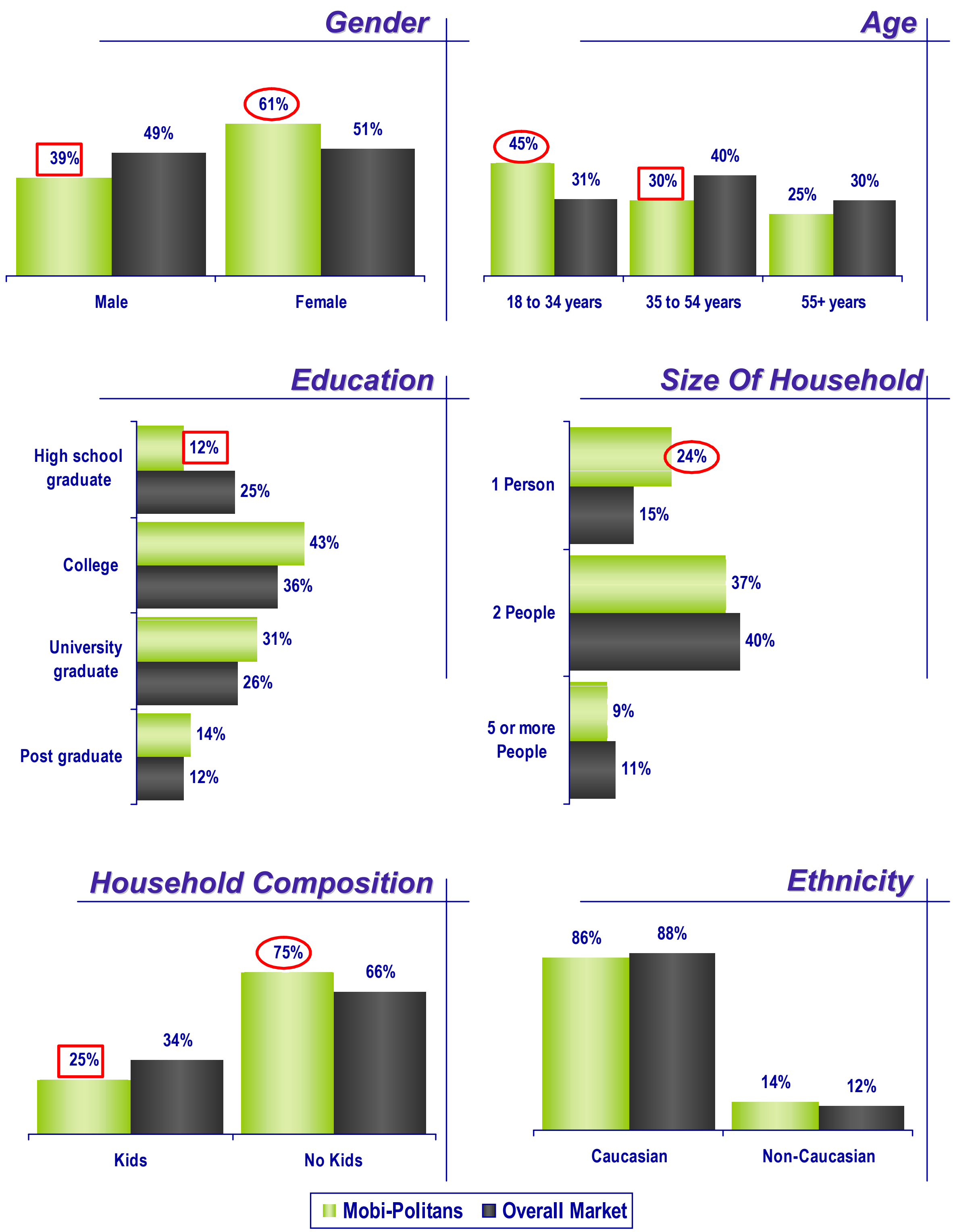
Connected Home Time Frame



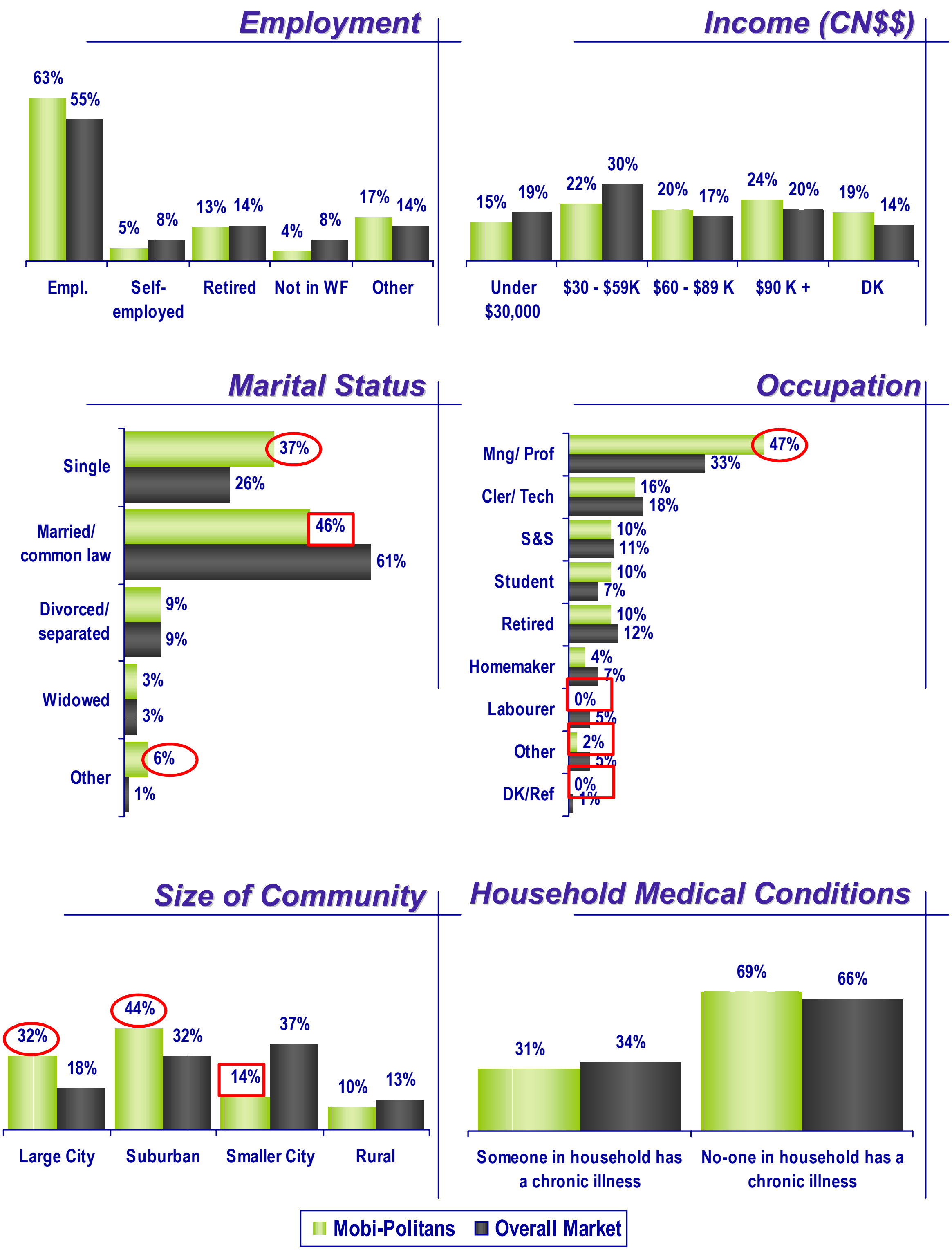
Dreamers: Information Sources



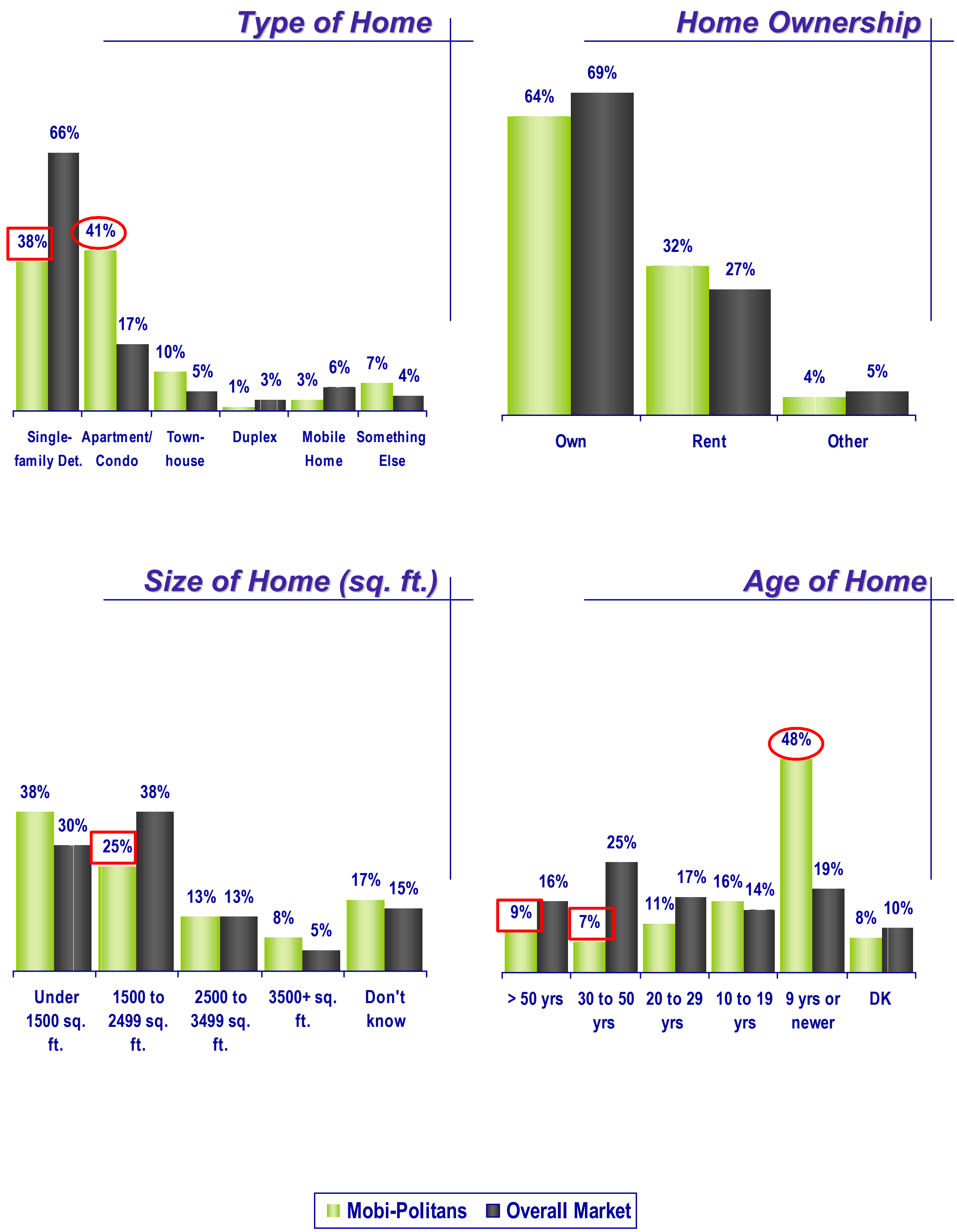
Mobi-Politans: Demographic Profile



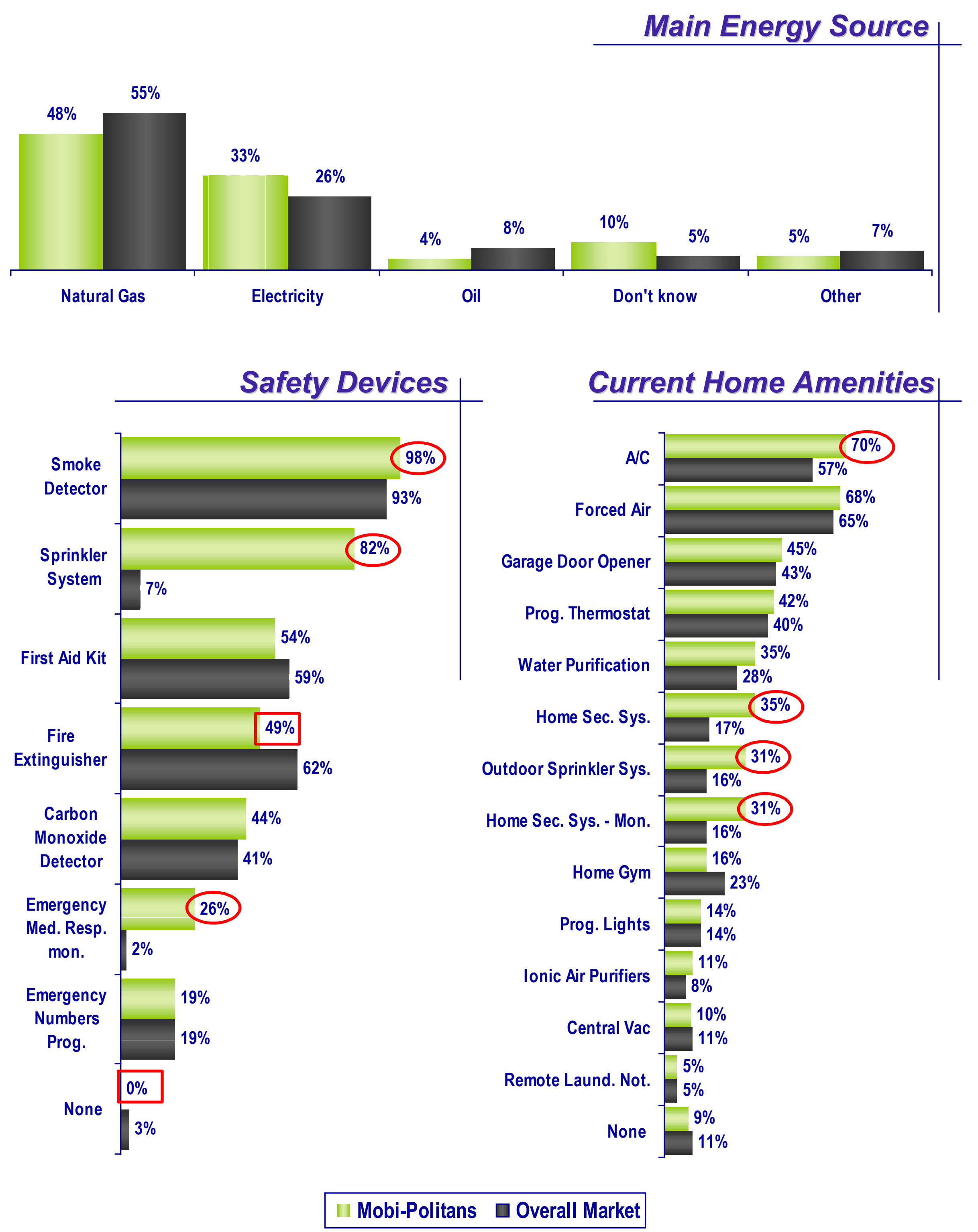
Mobi-Politans: Demographic Profile



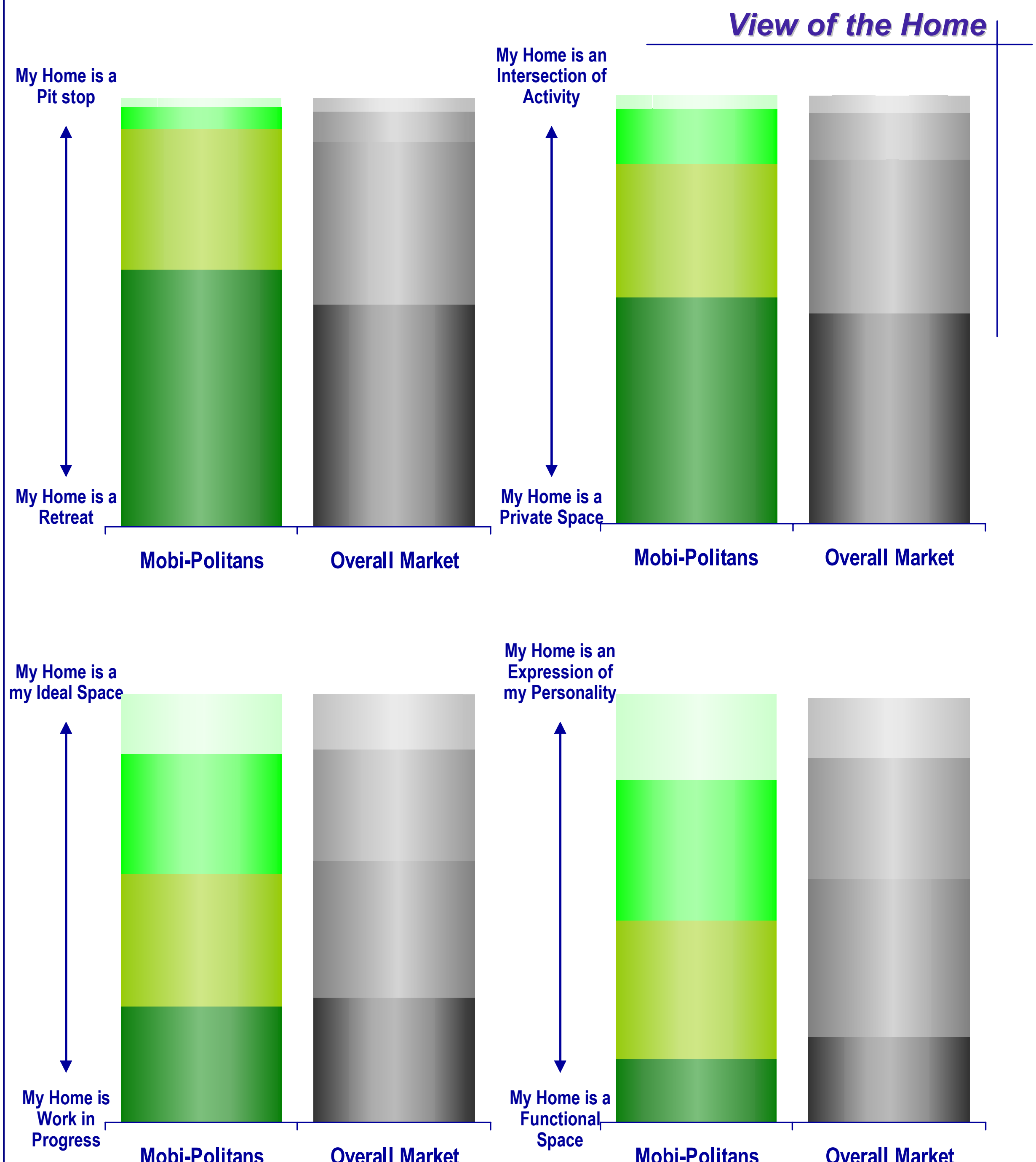
Mobi-Politans: Home Profile



Mobi-Politans: Home Profile

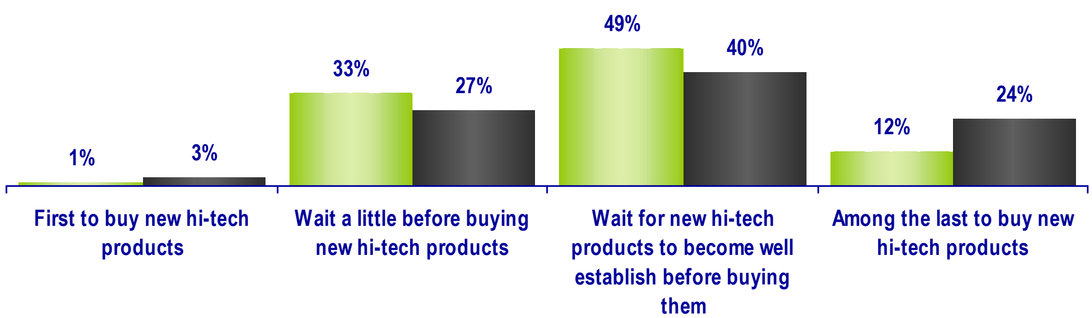


Mobi-Politans: Home Profile

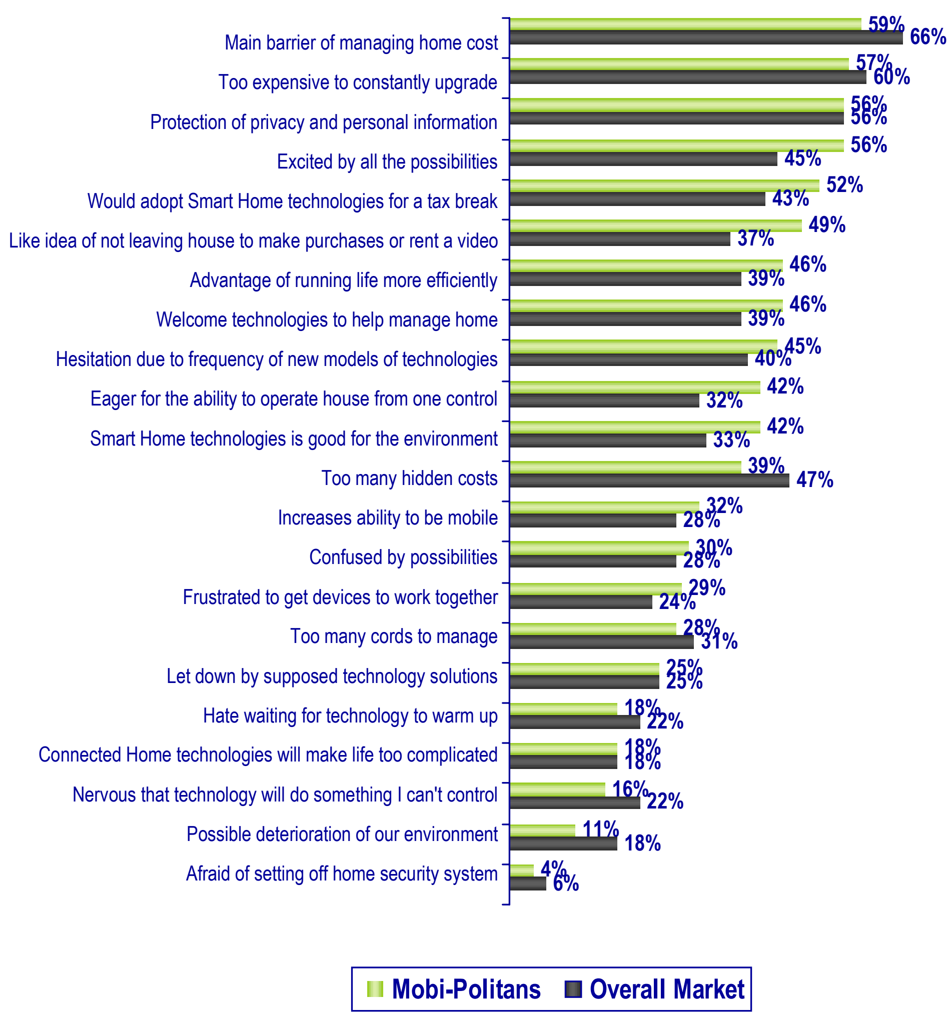


Mobi-Politans: Technology Profile

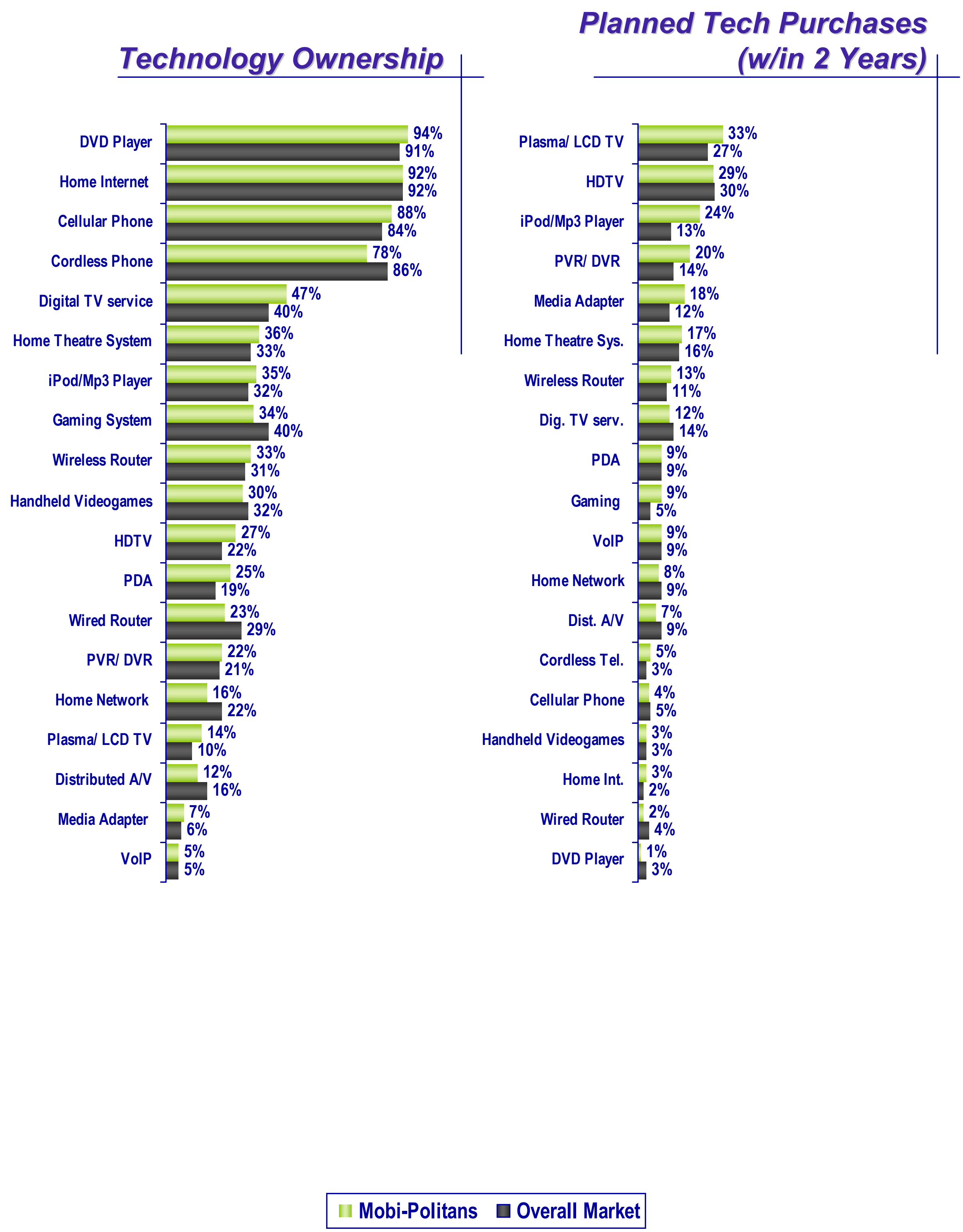
Tech Adoption



Attitudes Towards Technology

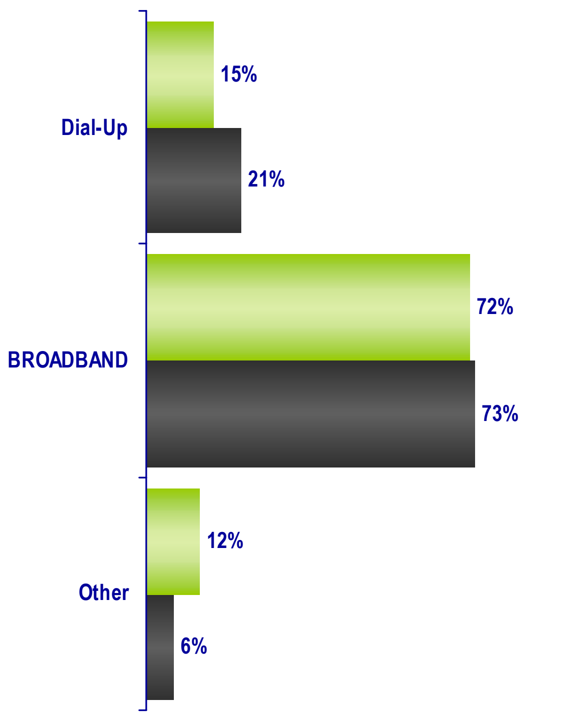


Mobi-Politans: Technology Profile

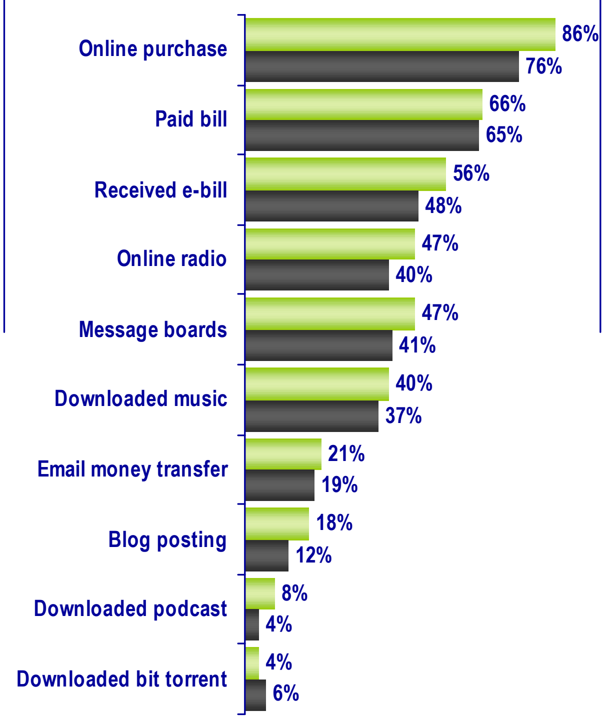


Mobi-Politans: Technology Profile

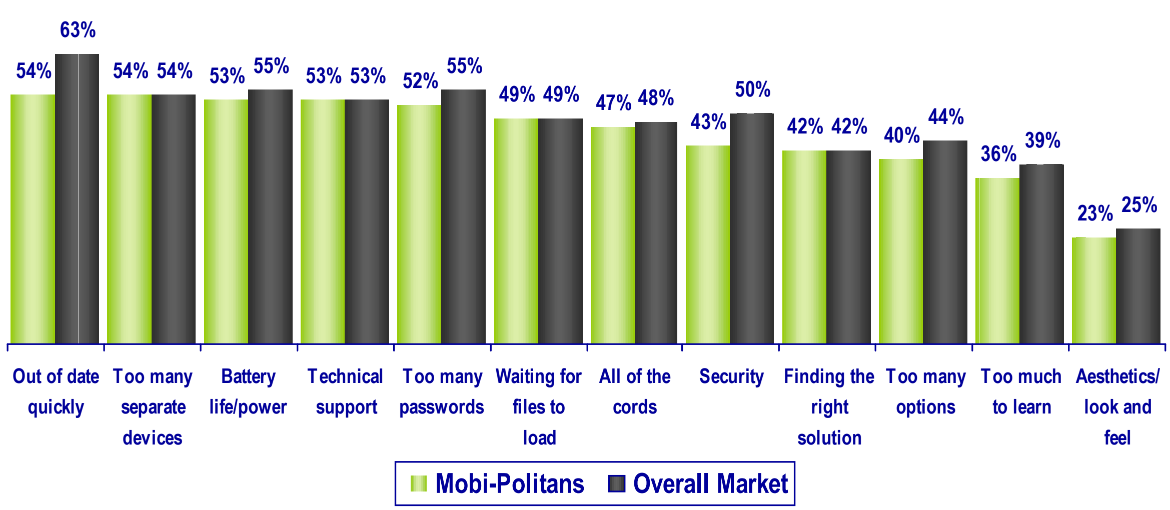
Type of Internet Service



Internet Activities

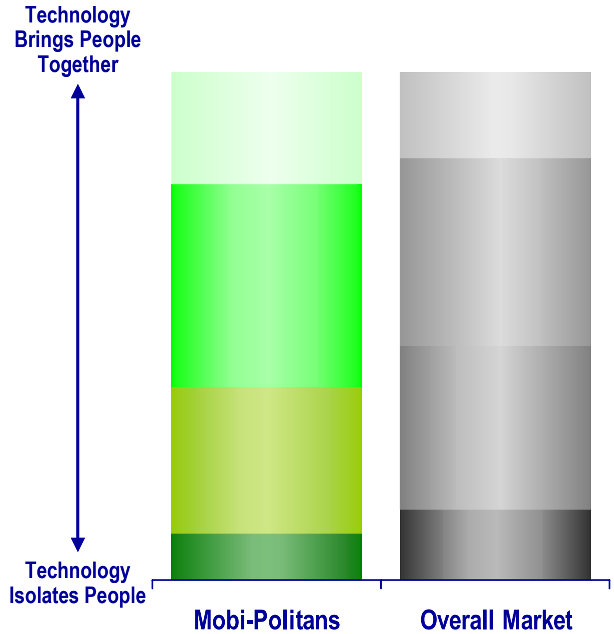


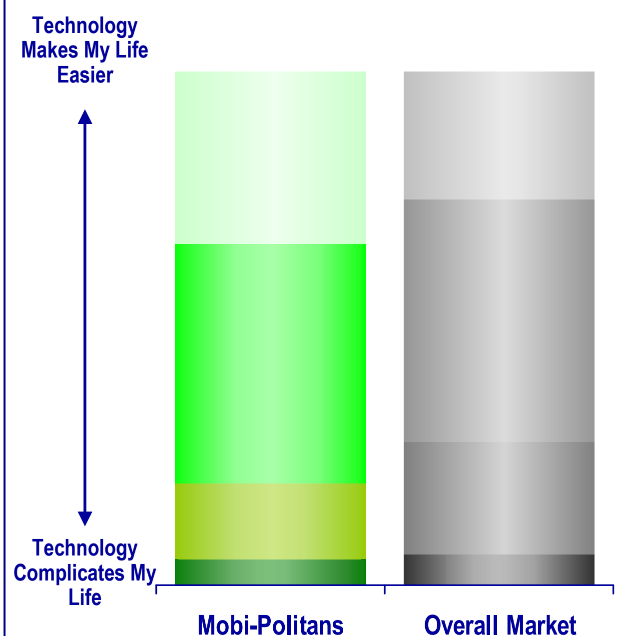
Technology Micro-stresses

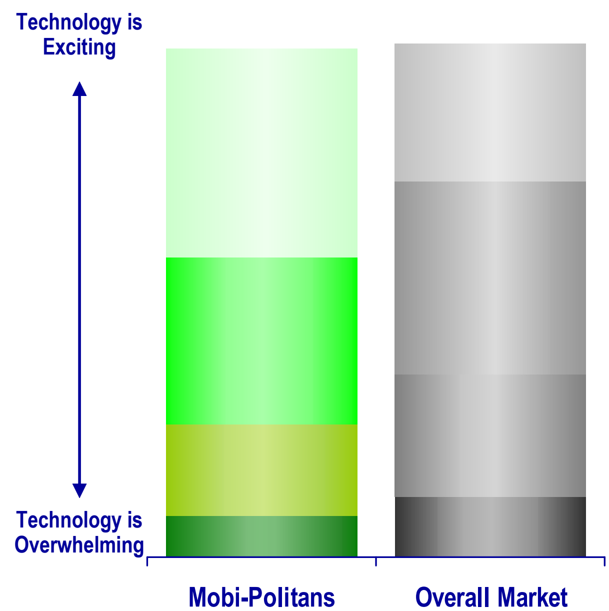


Mobi-Politans: Technology Profile

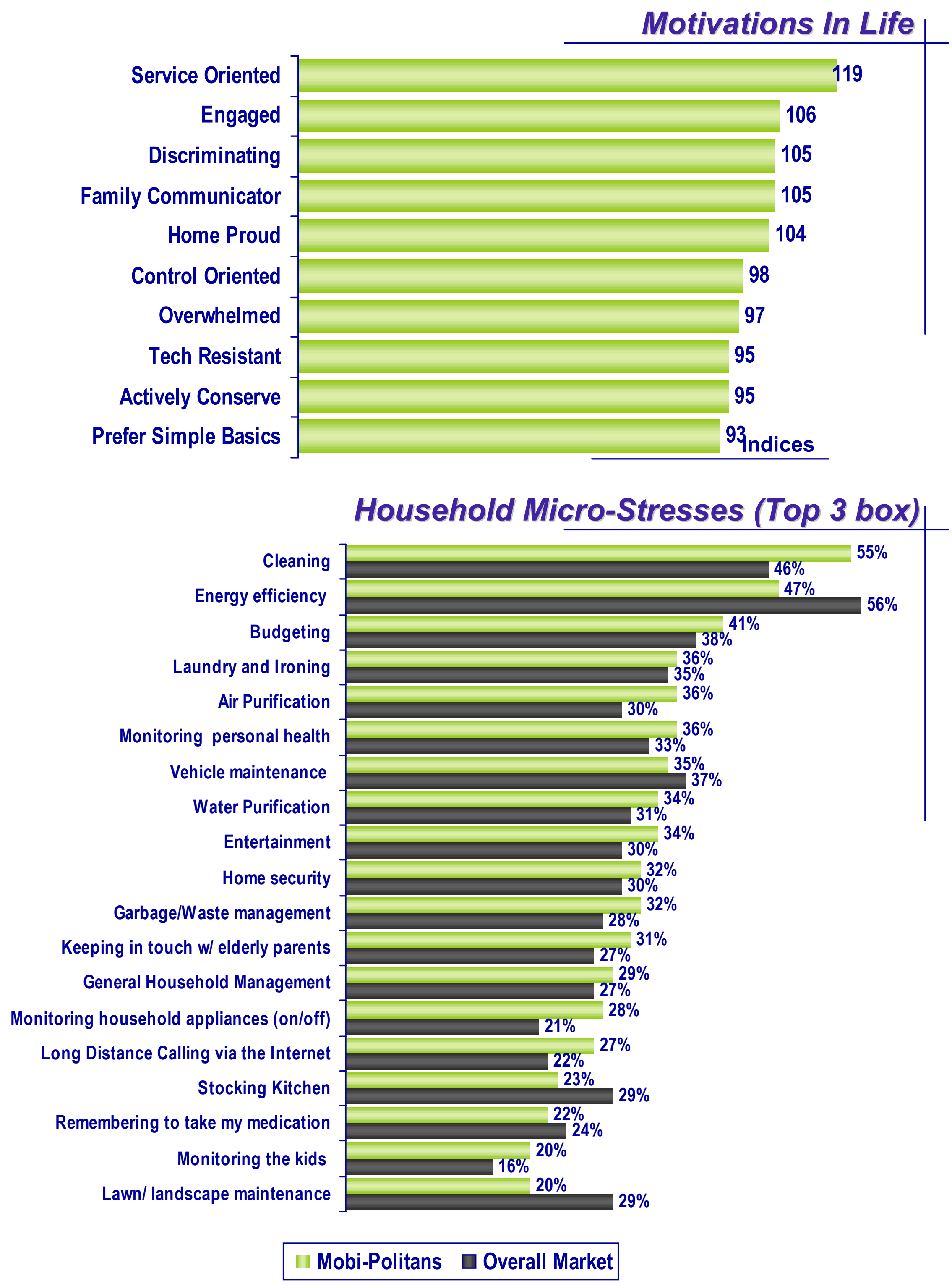
View of Technology





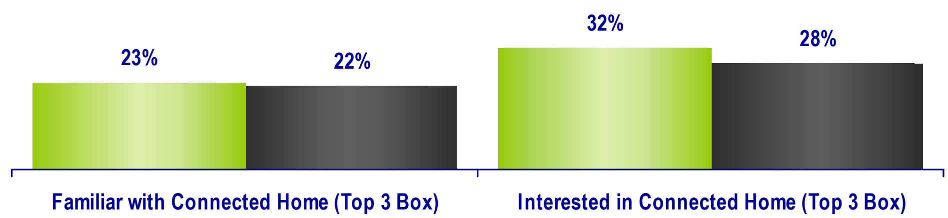


Mobi-Politans: Needs & Wants/Micro-Stresses

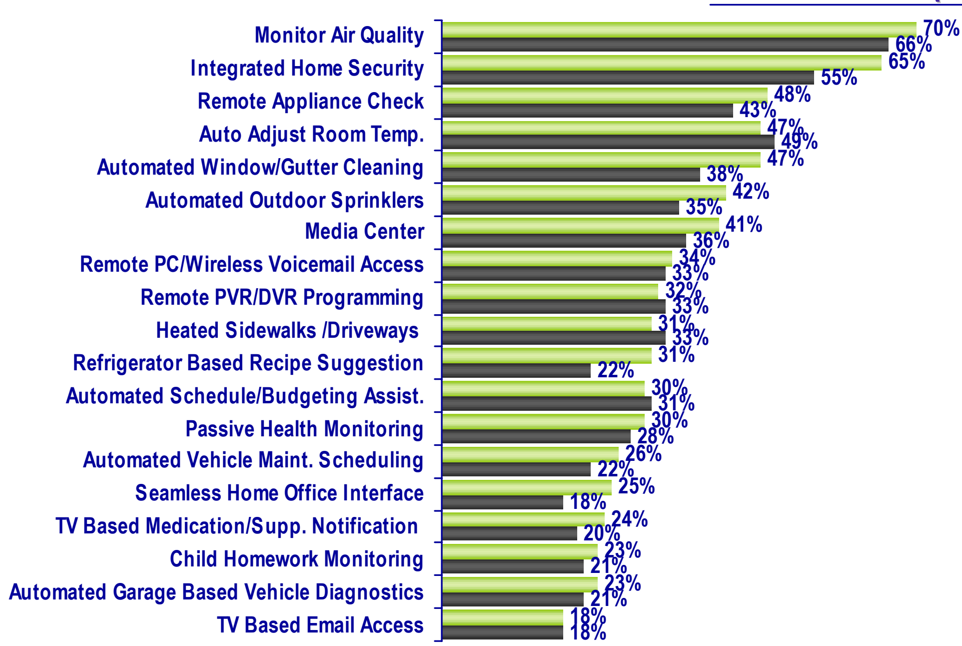


Mobi-Politans: Relationship with the Connected Home

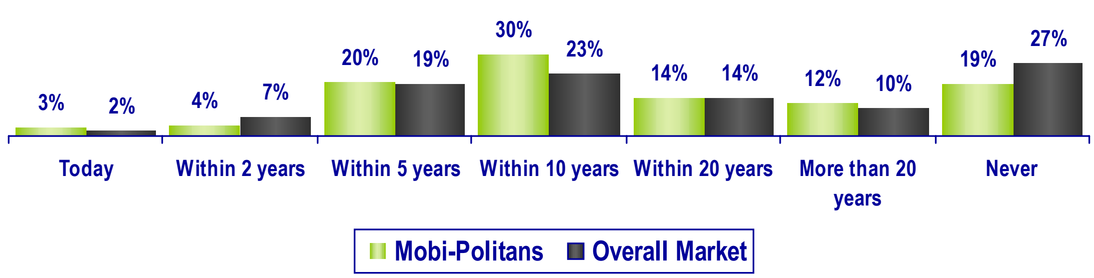
Affinity with the Connected Home Concept



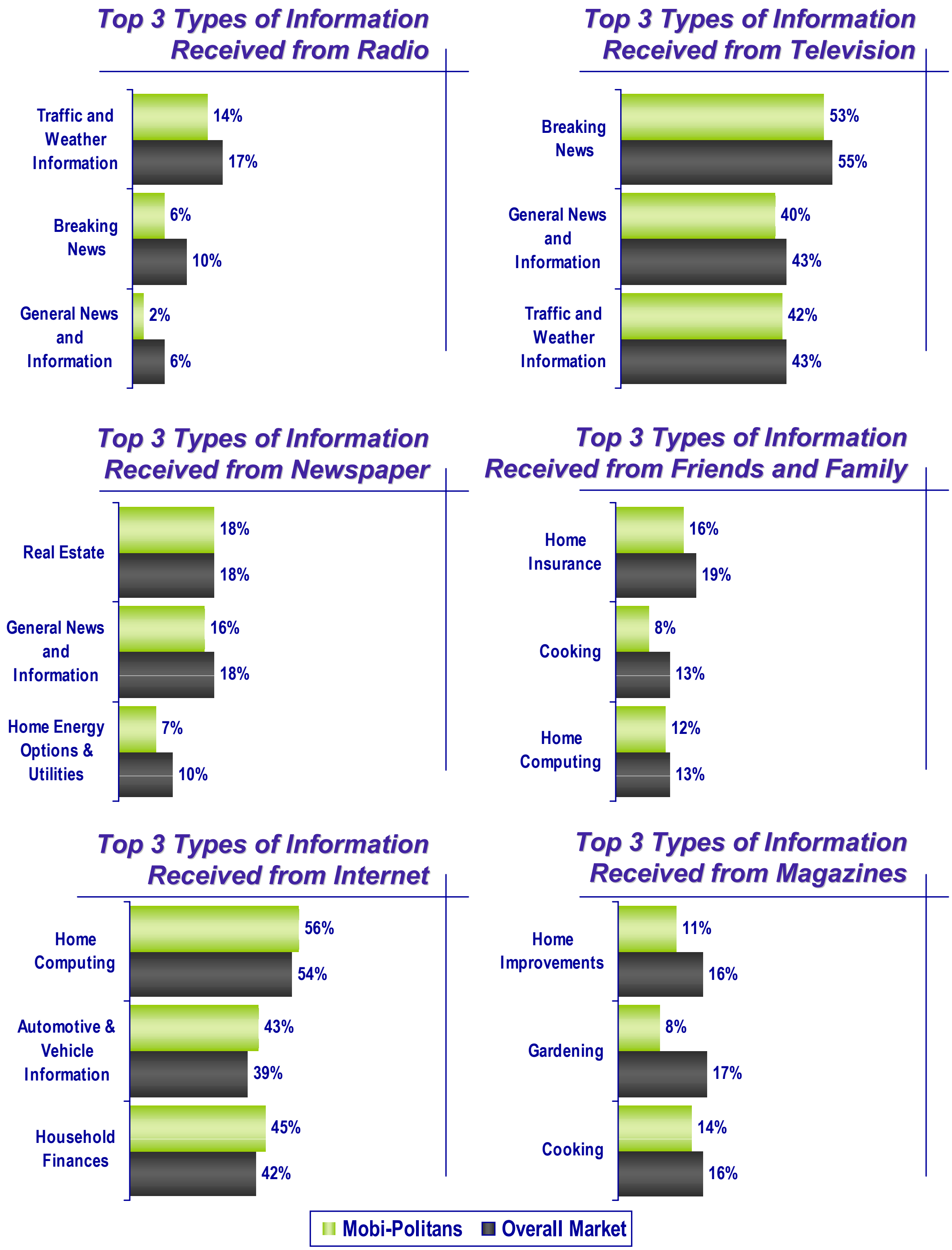
Connected Home Feature Interest (Top 2 Box)



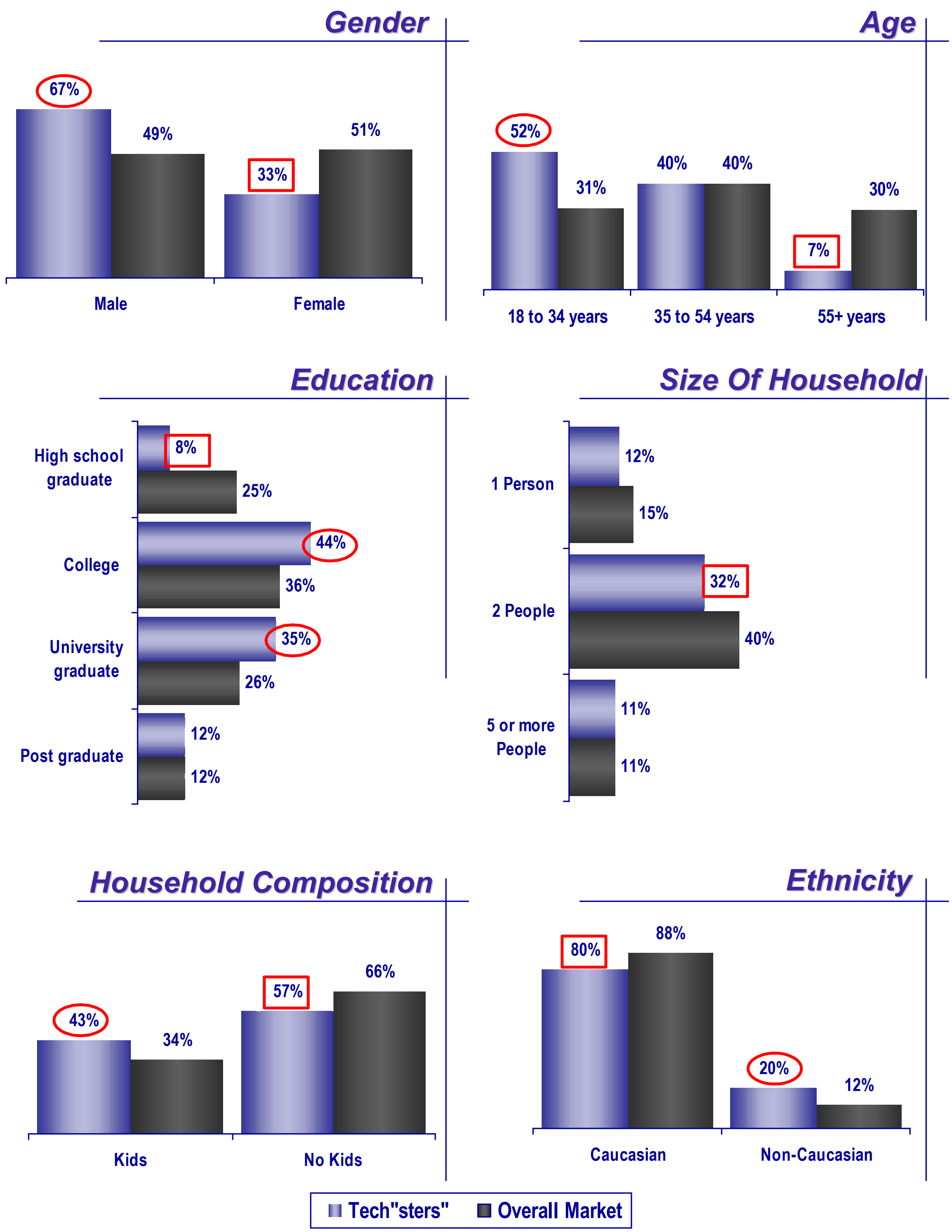
Connected Home Time Frame



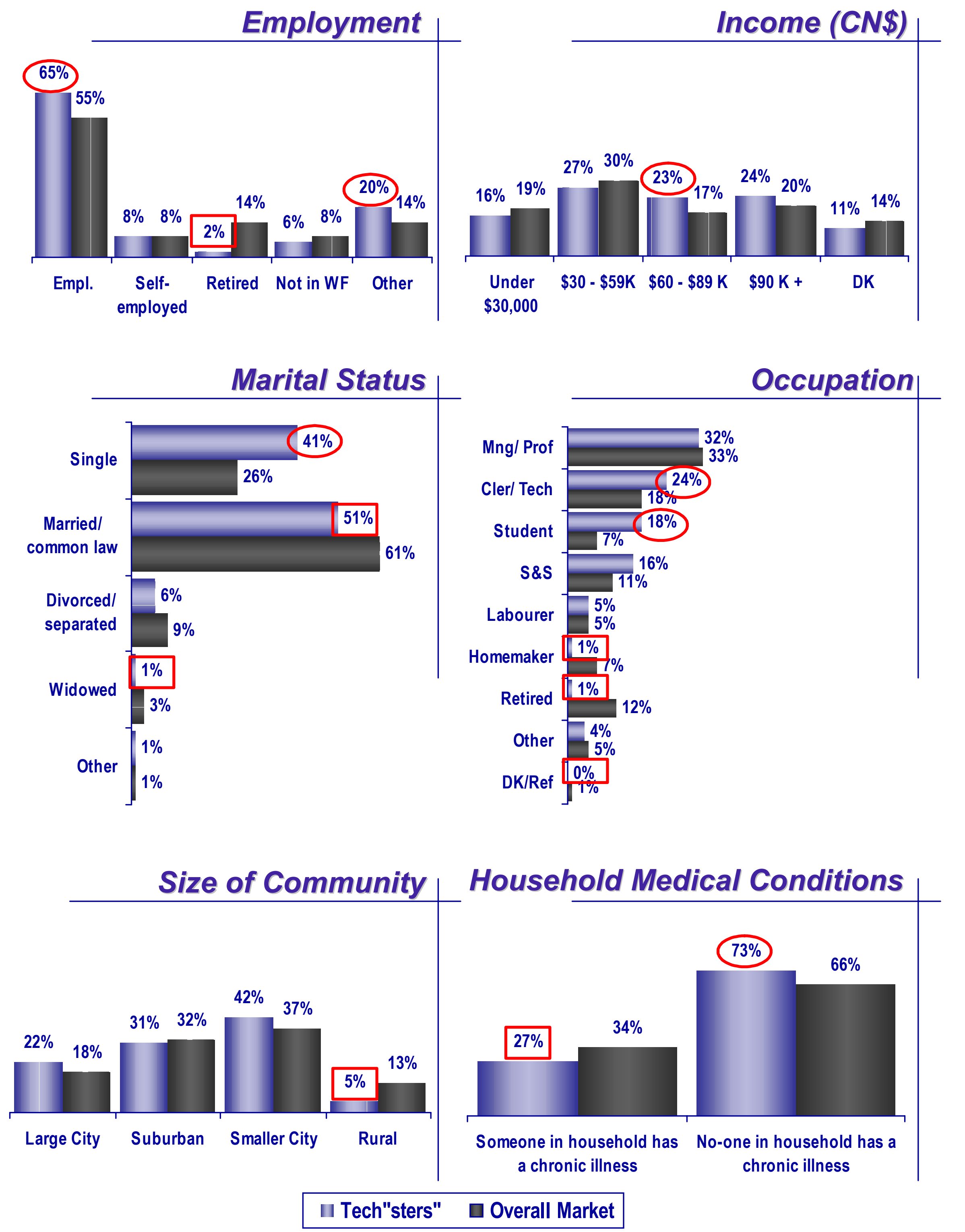
Mobi-Politans: Information Sources



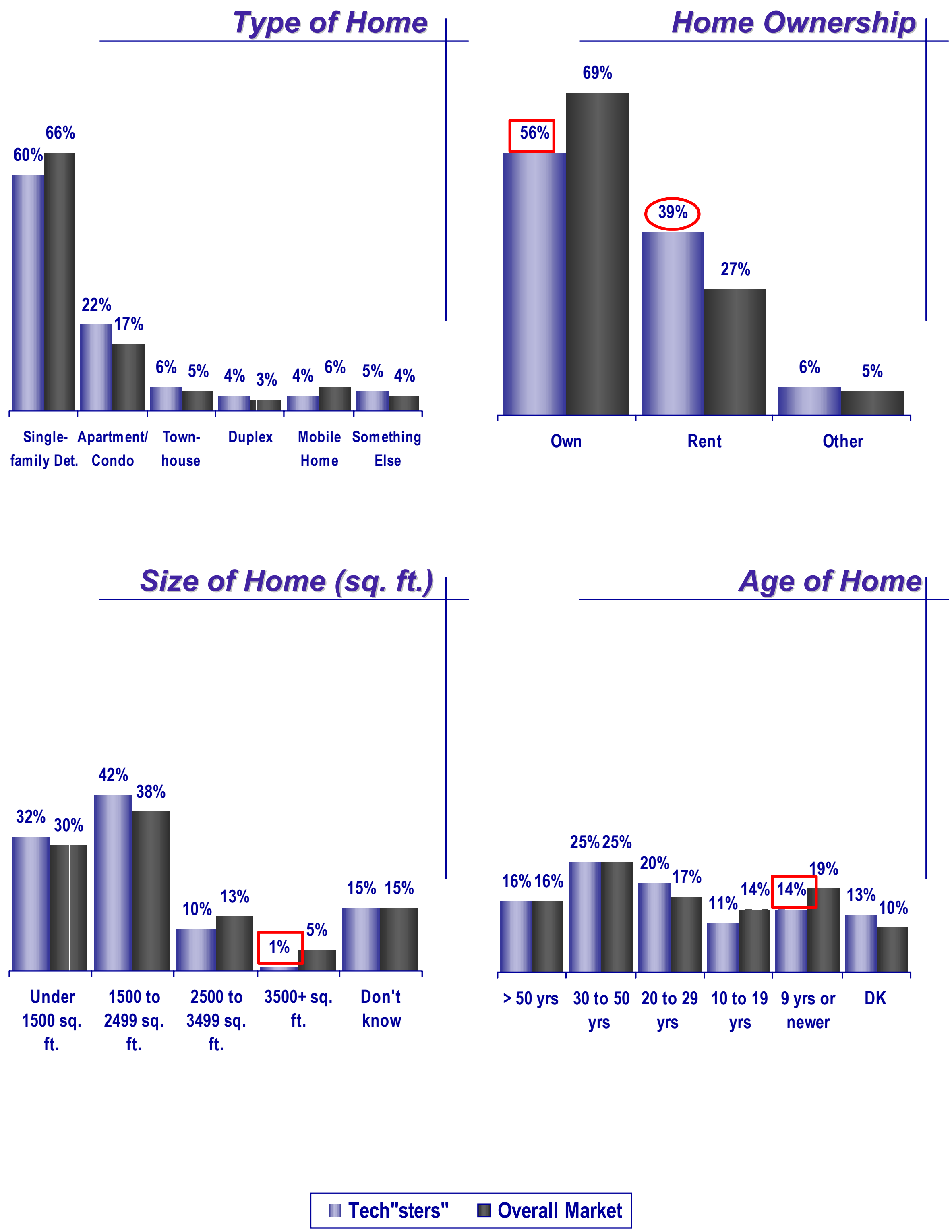
Tech"sters": Demographic Profile



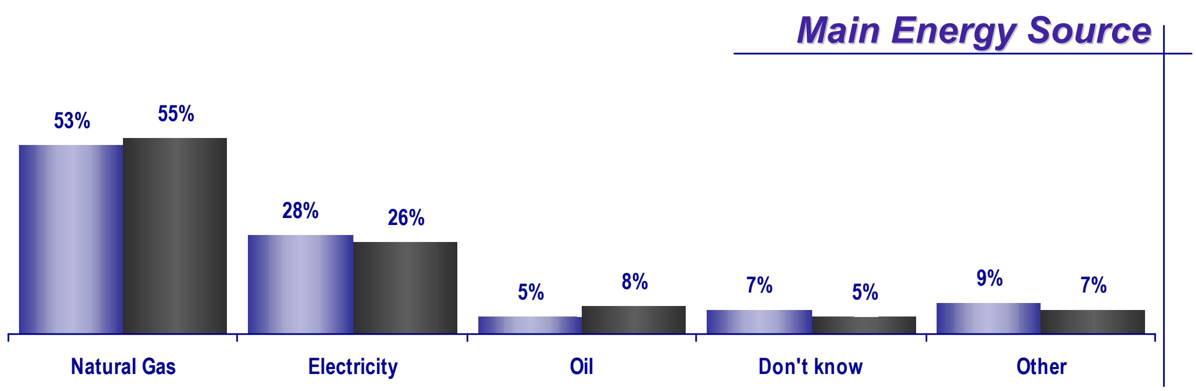
Tech"sters": Demographic Profile

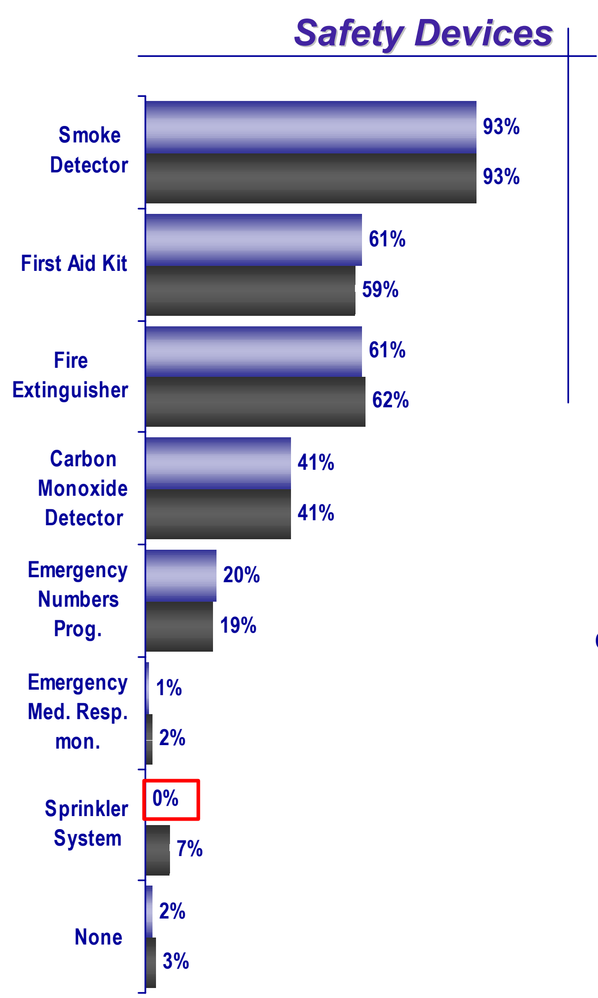


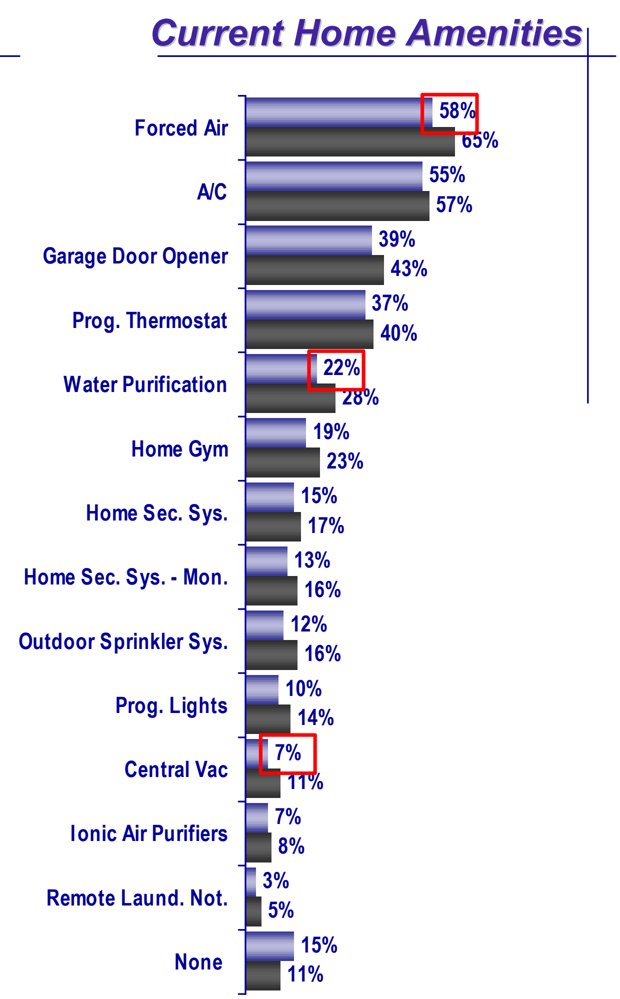
Tech"sters": Home Profile



Tech"sters": Home Profile



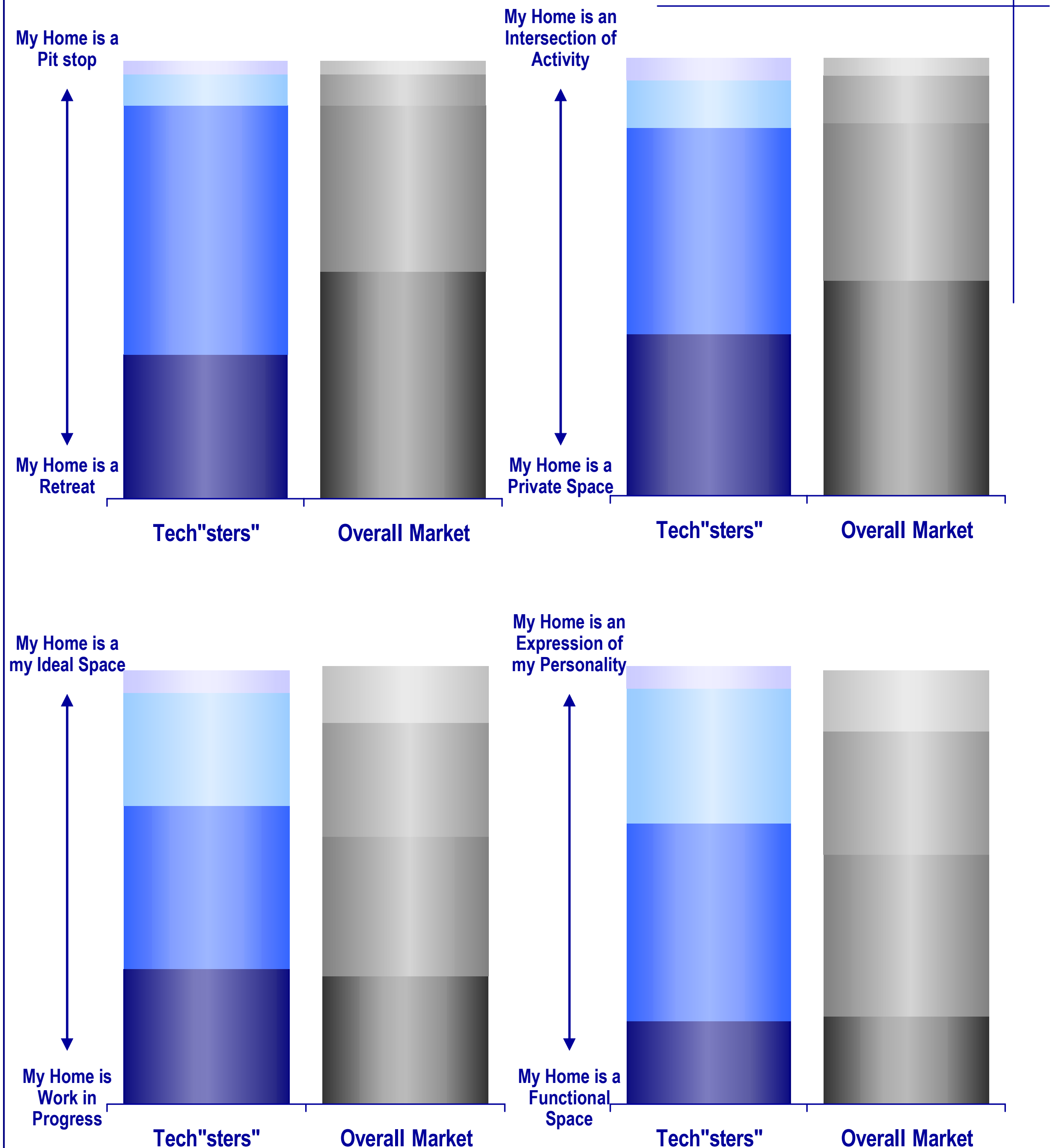




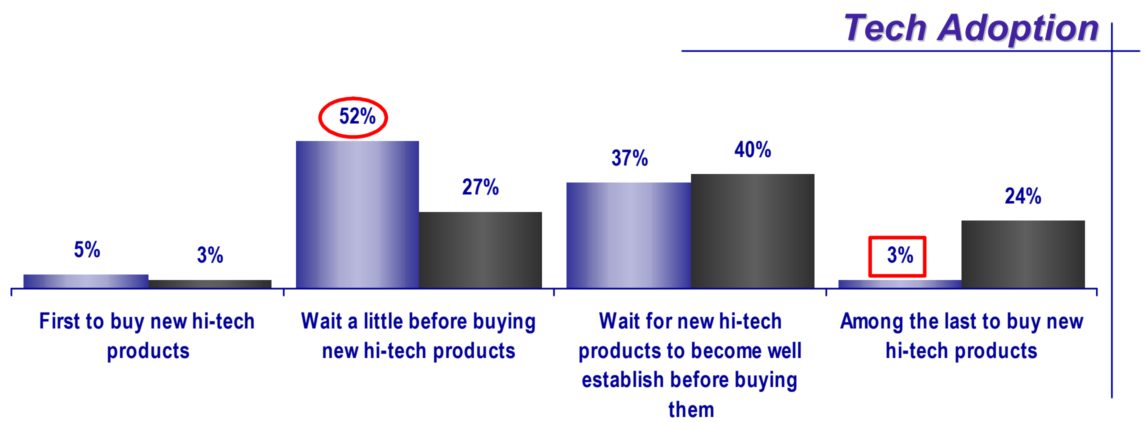
Tech"sters" Overall Market

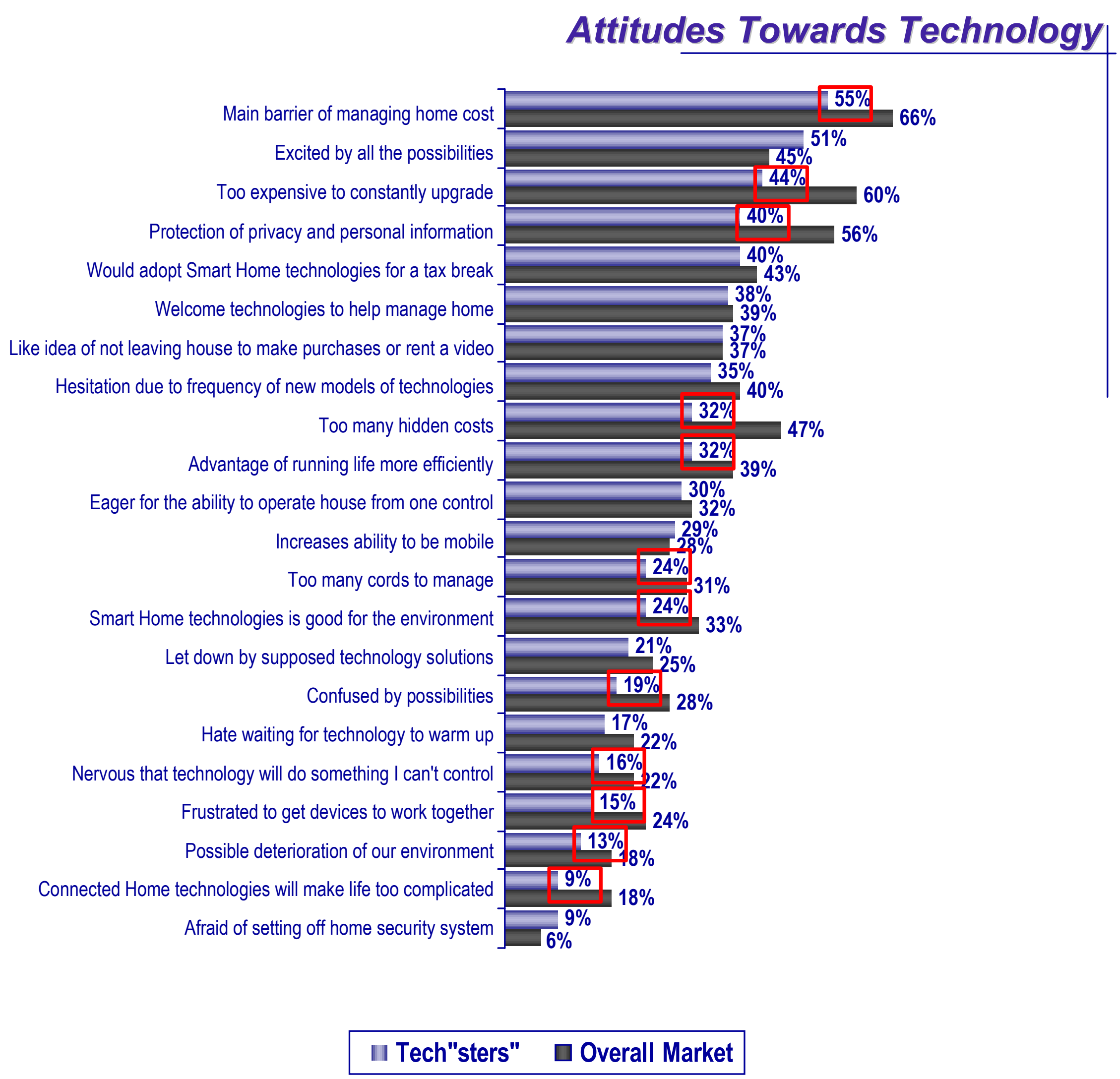
Tech"sters": Home Profile

View of the Home

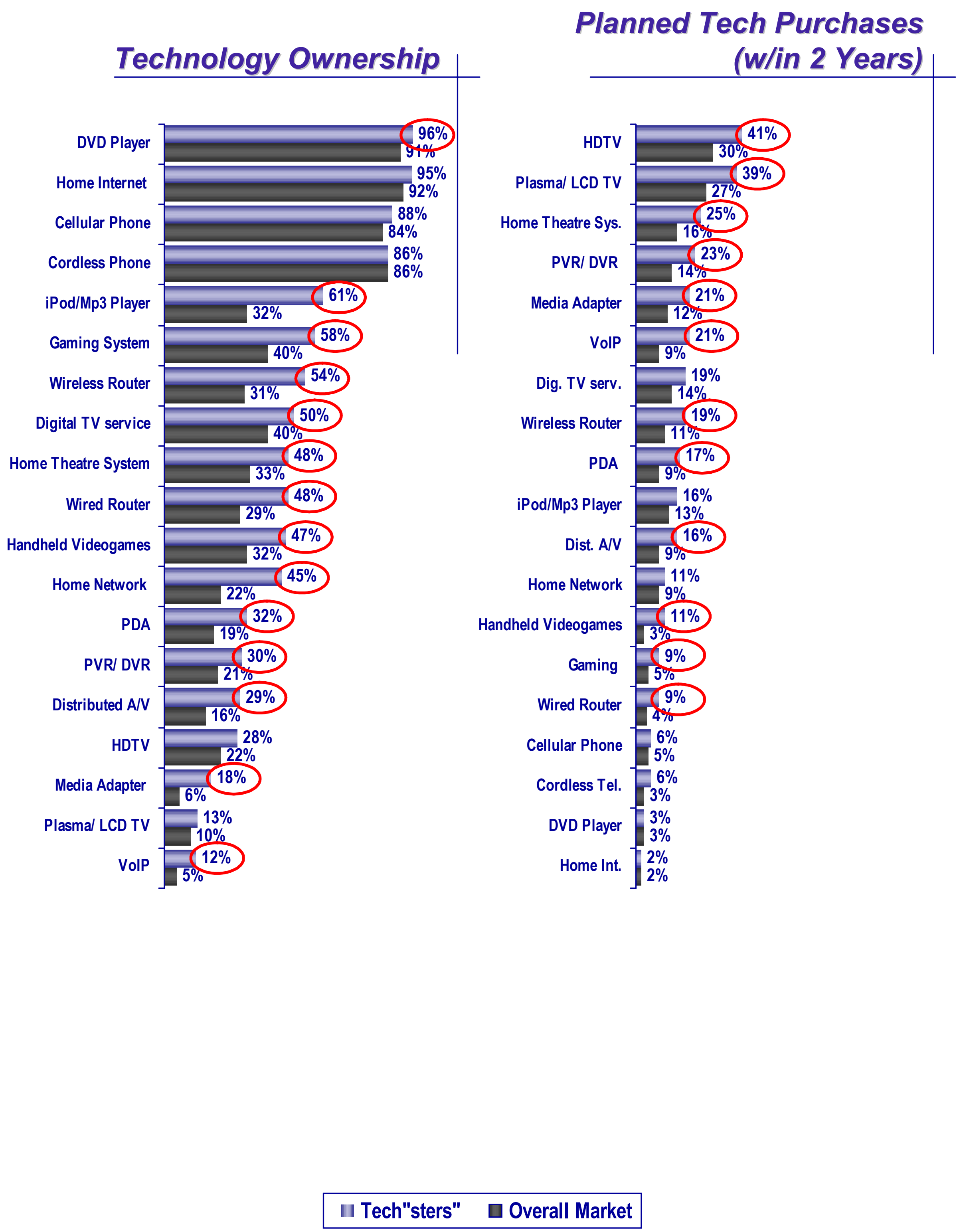


Tech"sters": Technology Profile



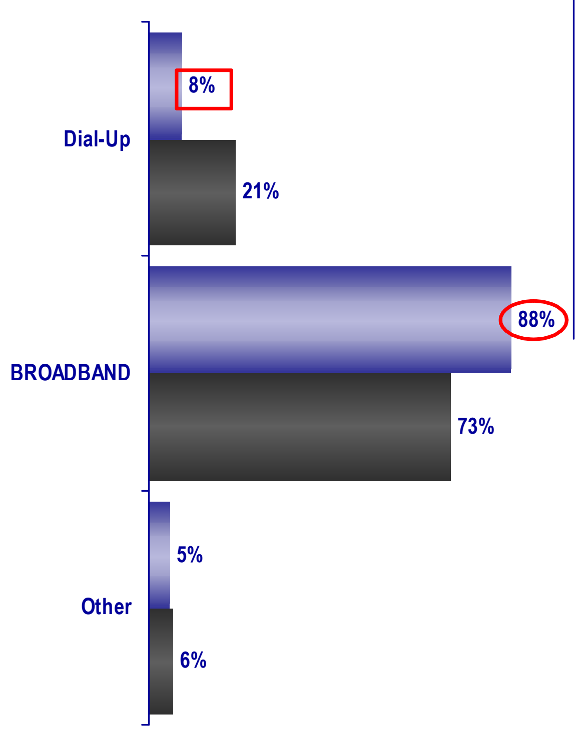


Tech"sters": Technology Profile

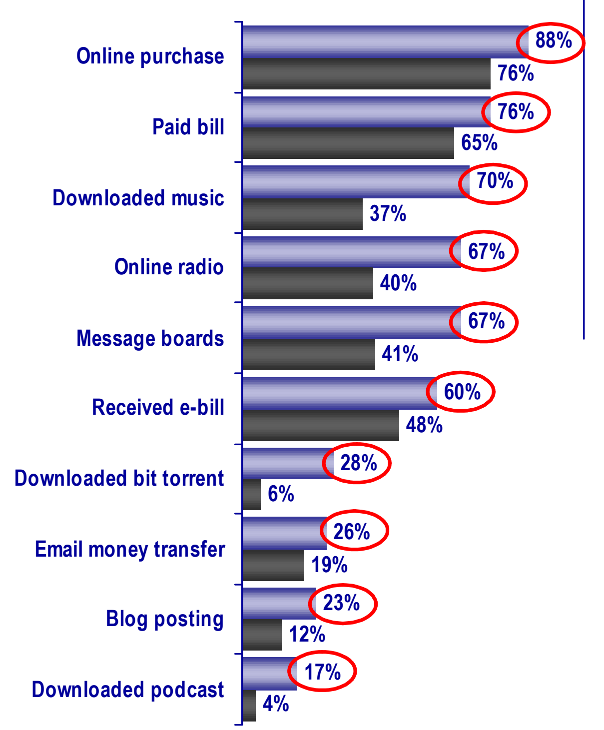


Tech"sters": Technology Profile

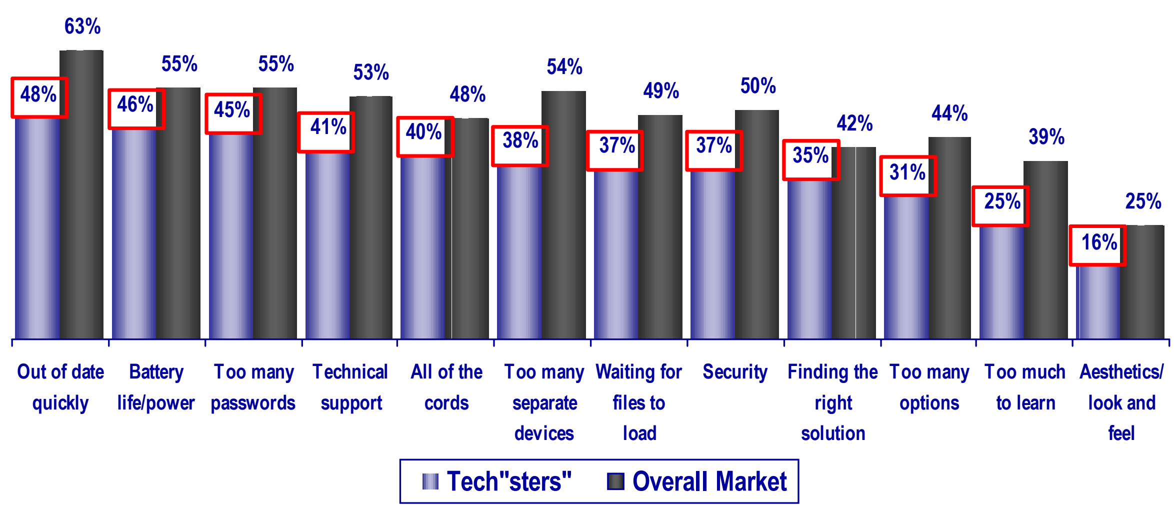
Type of Internet Service



Internet Activities

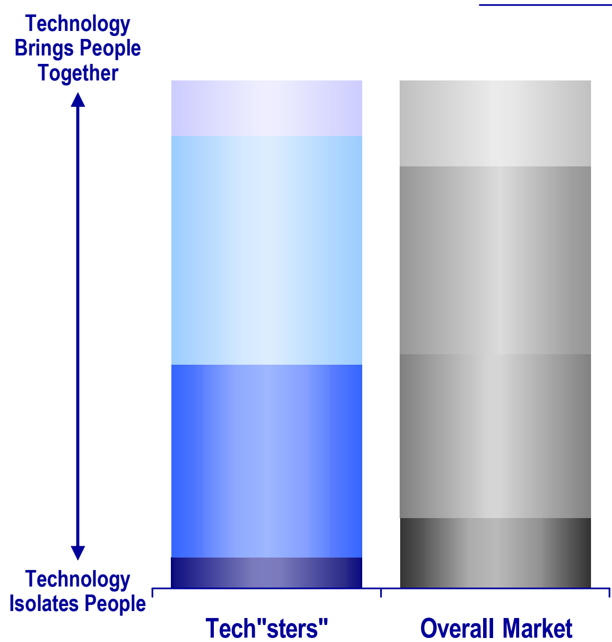


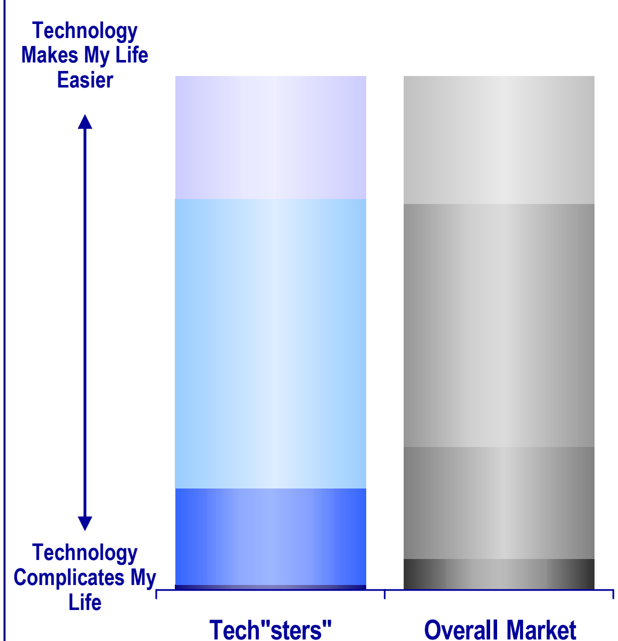
Technology Micro-stresses

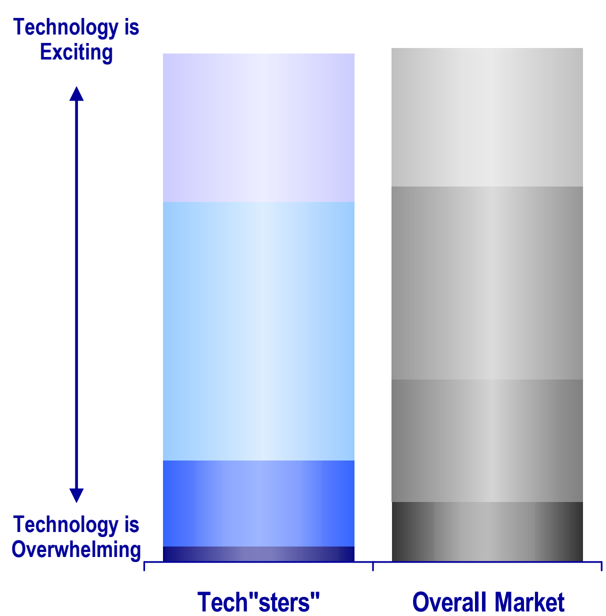


Tech"sters": Technology Profile

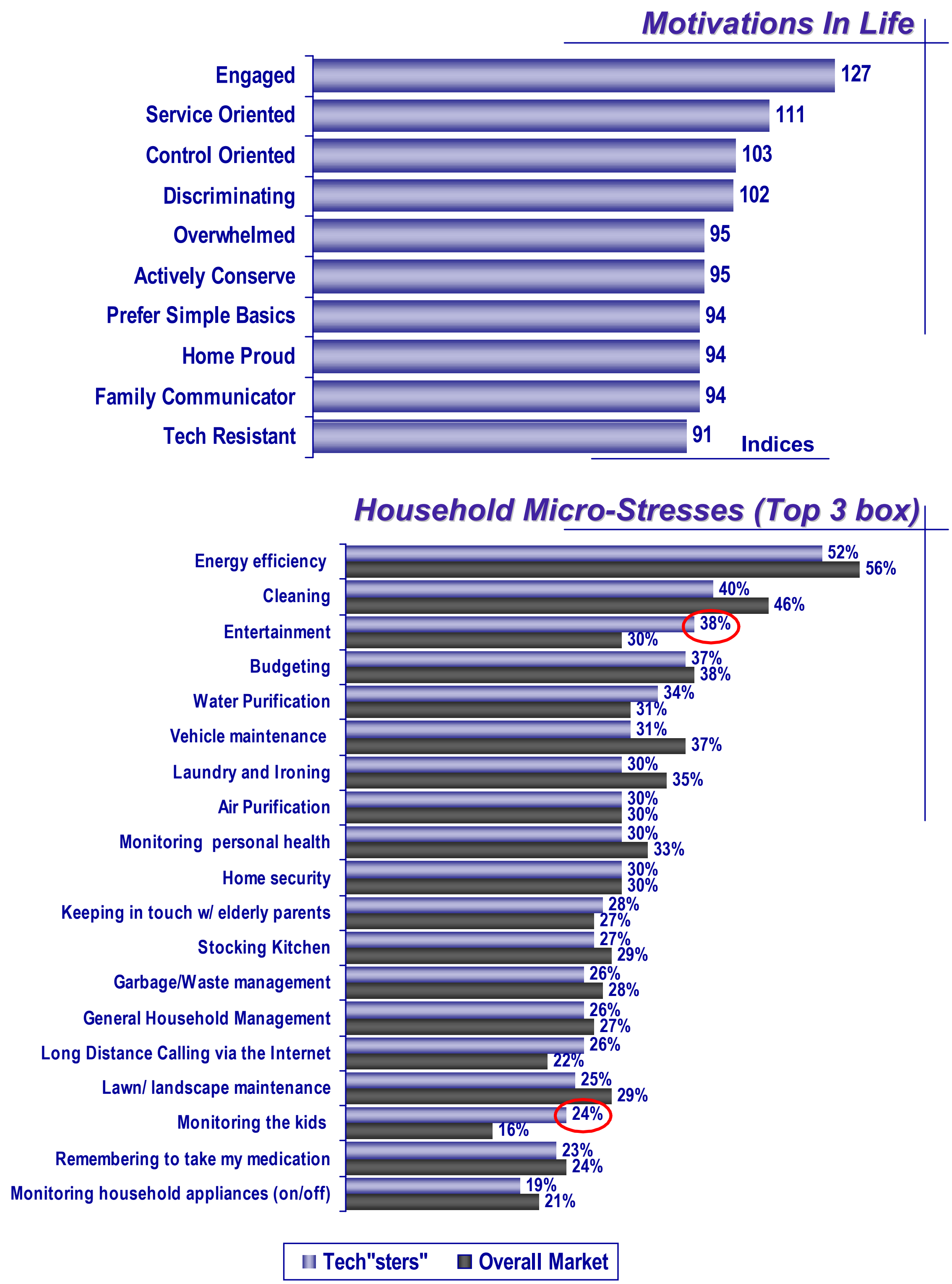
View of Technology





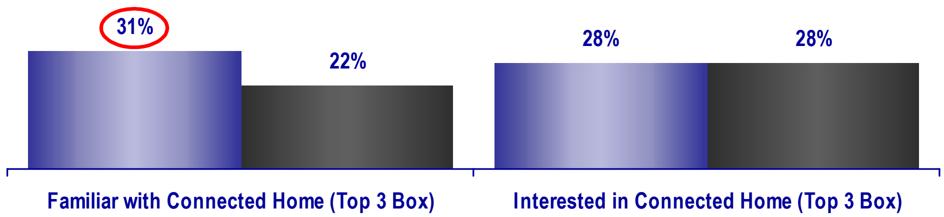


Tech"sters": Needs & Wants/Micro-Stresses

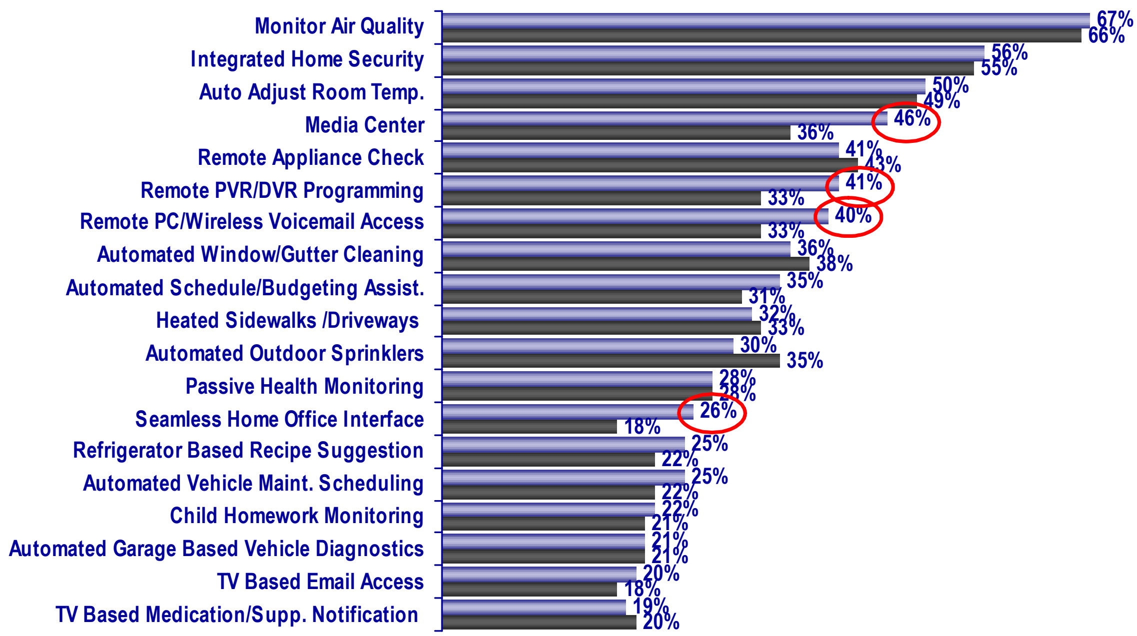


Tech"sters": Relationship with the Connected Home

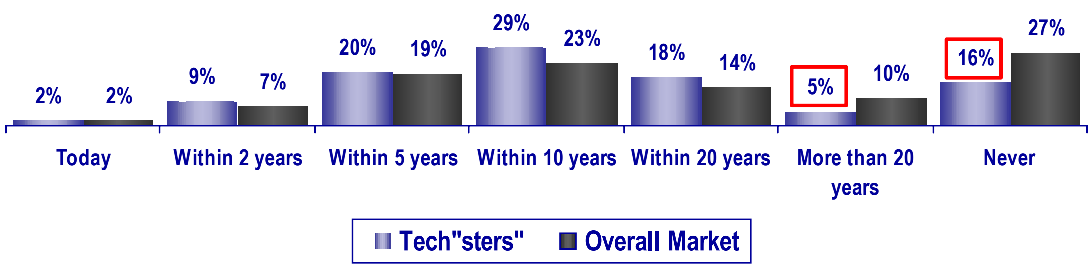
Affinity with the Connected Home Concept



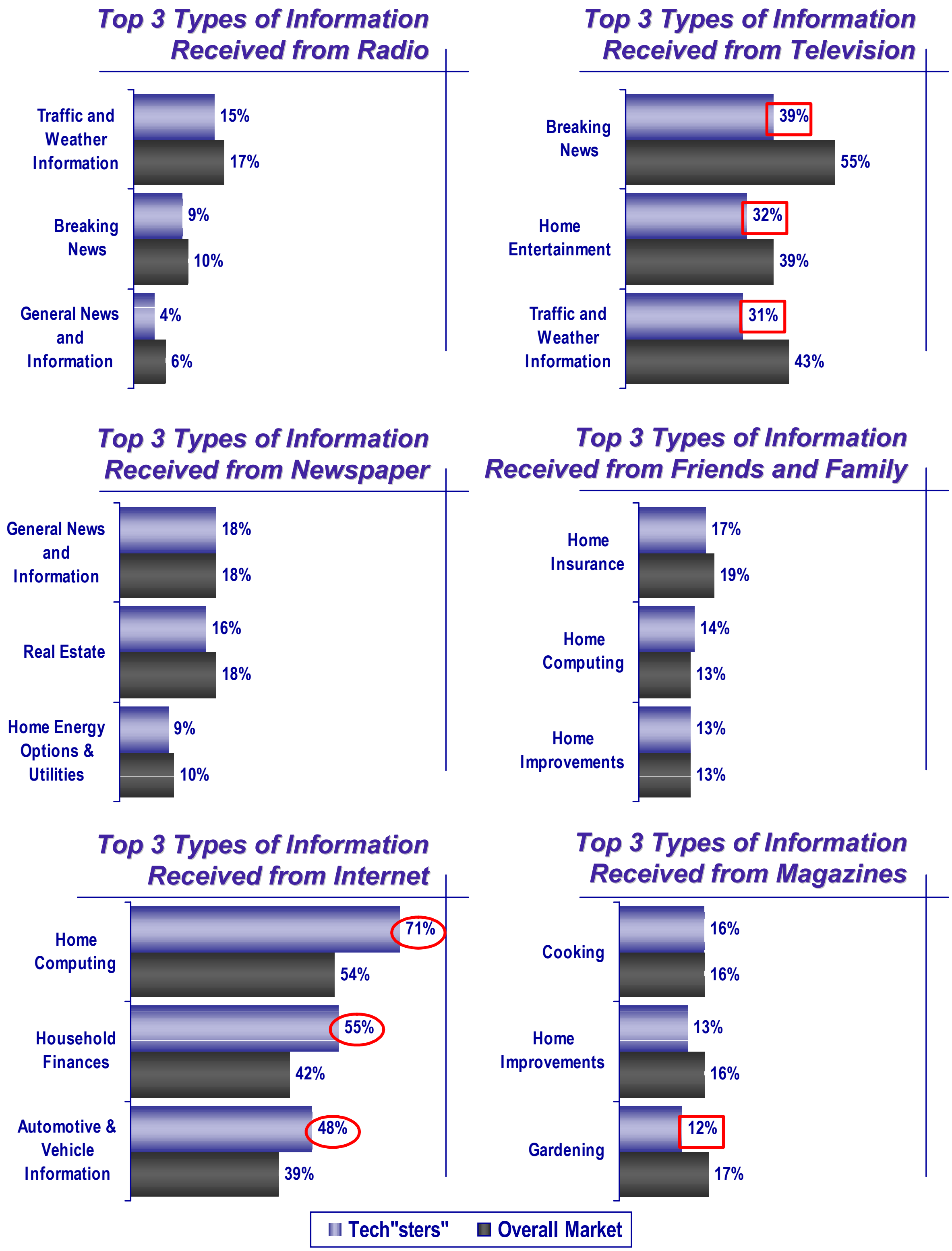
Connected Home Feature Interest (Top 2 Box)



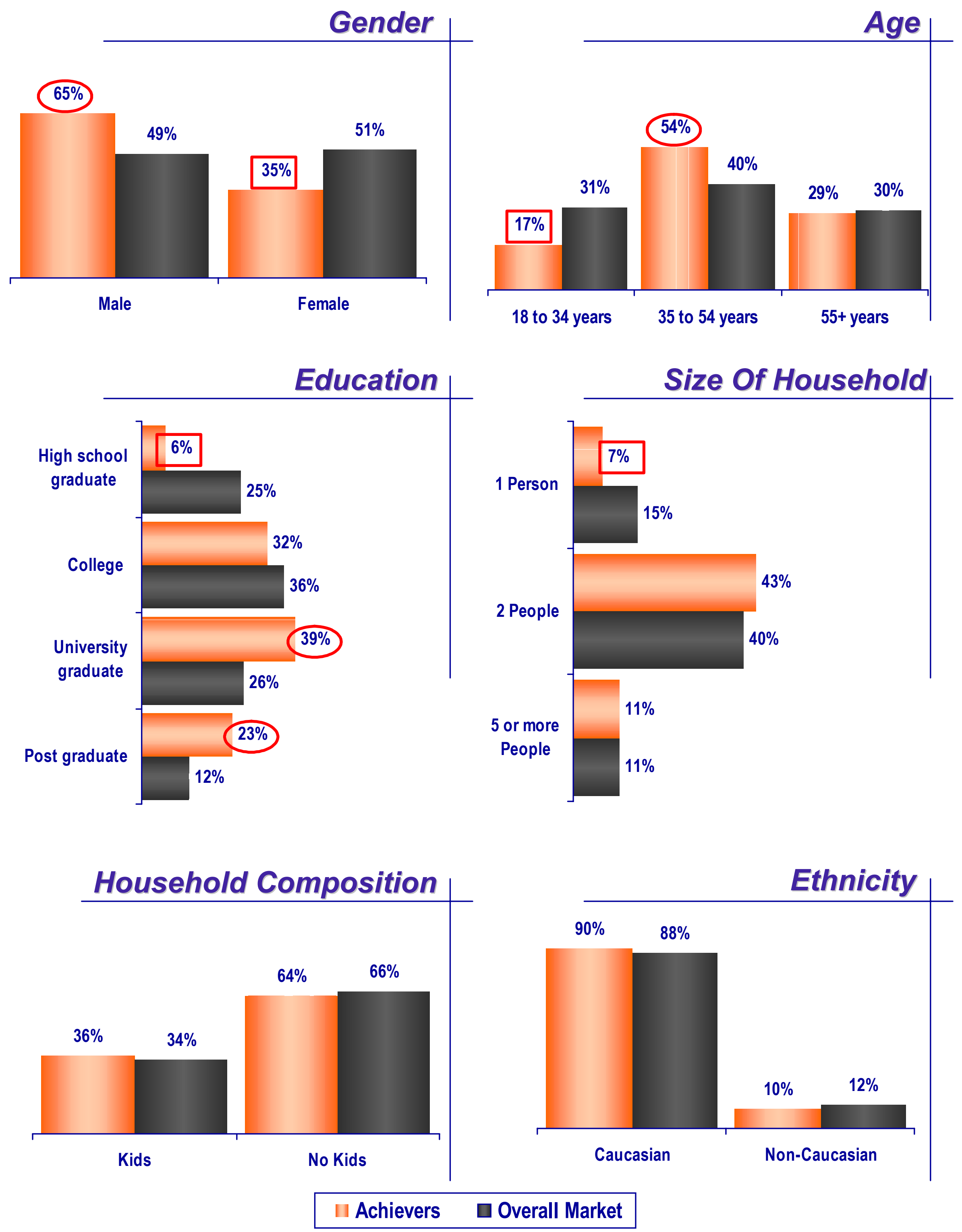
Connected Home Time Frame



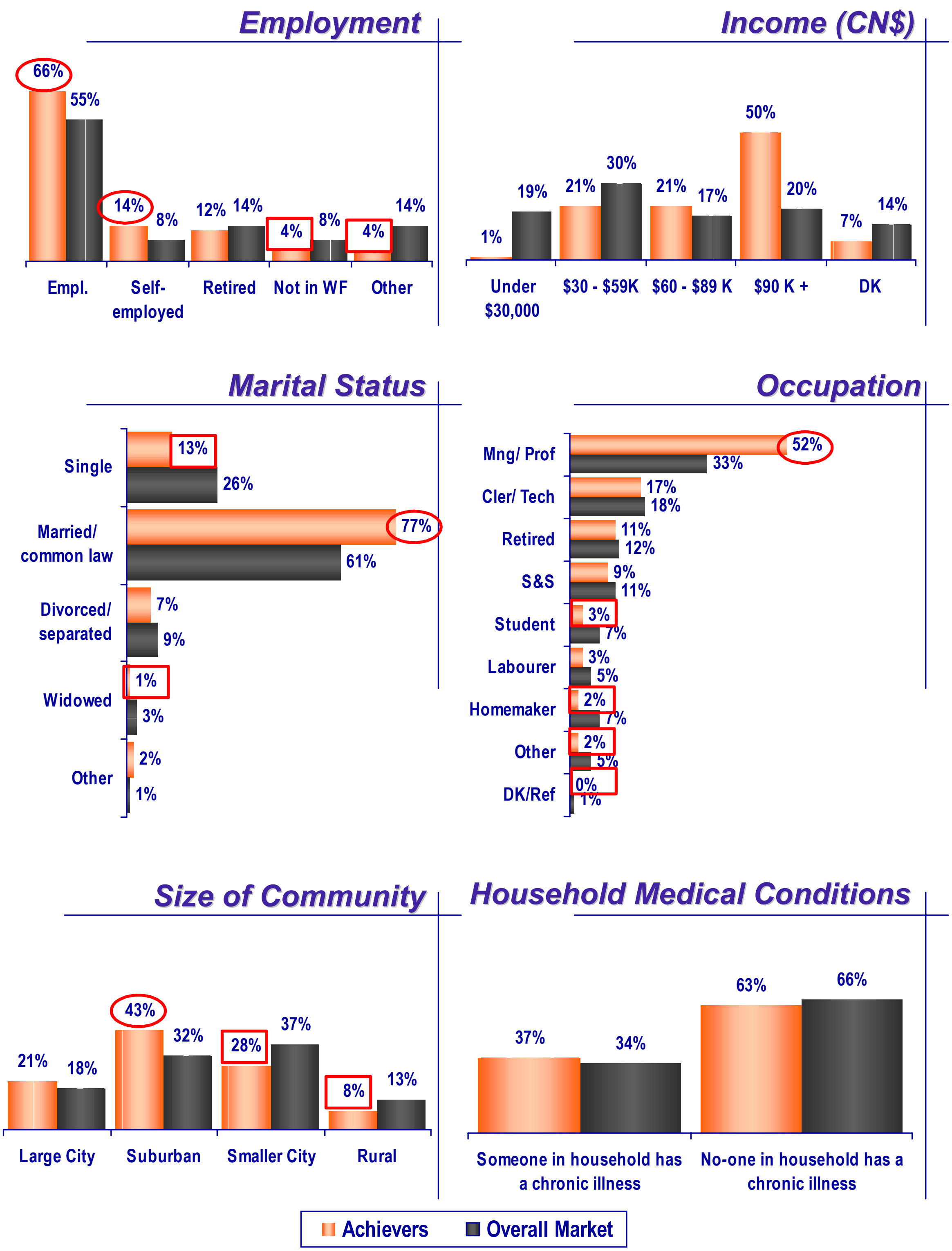
Tech"sters": Information Sources



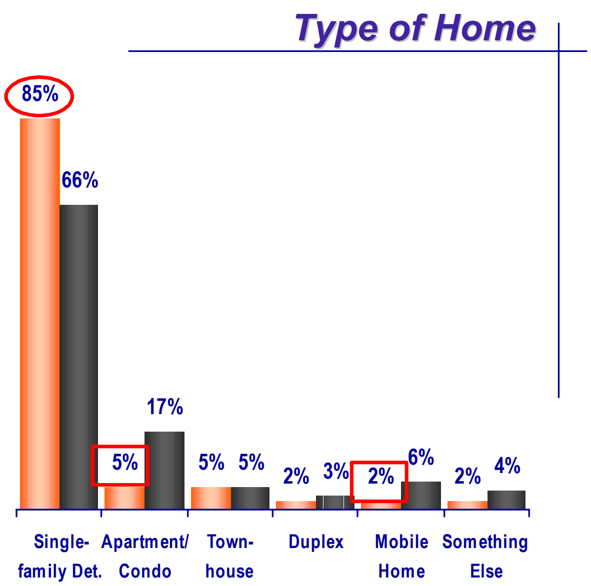
Achievers: Demographic Profile

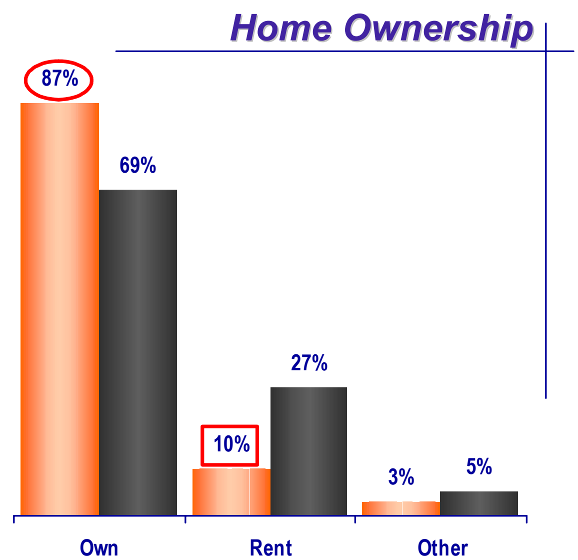


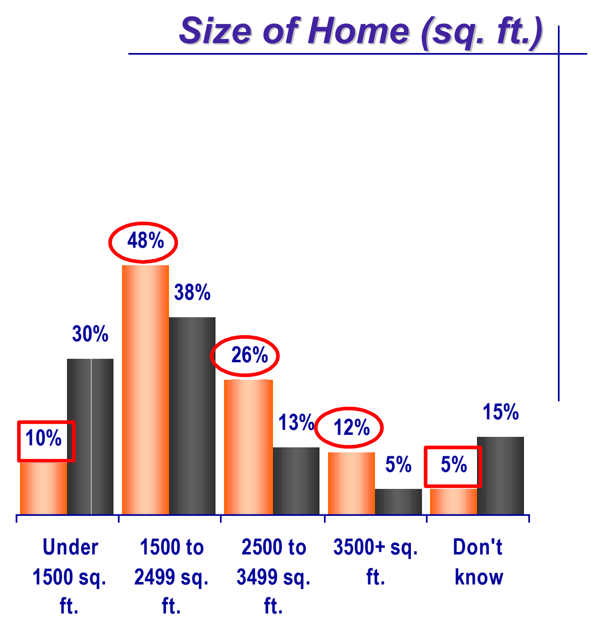
Achievers: Demographic Profile

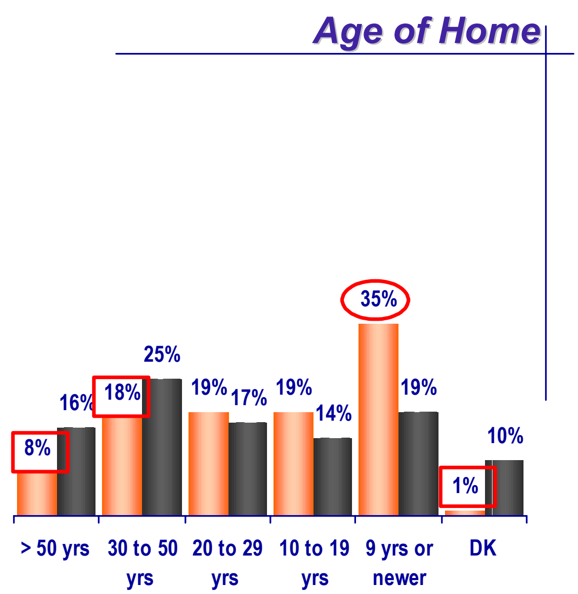


Achievers: Home Profile



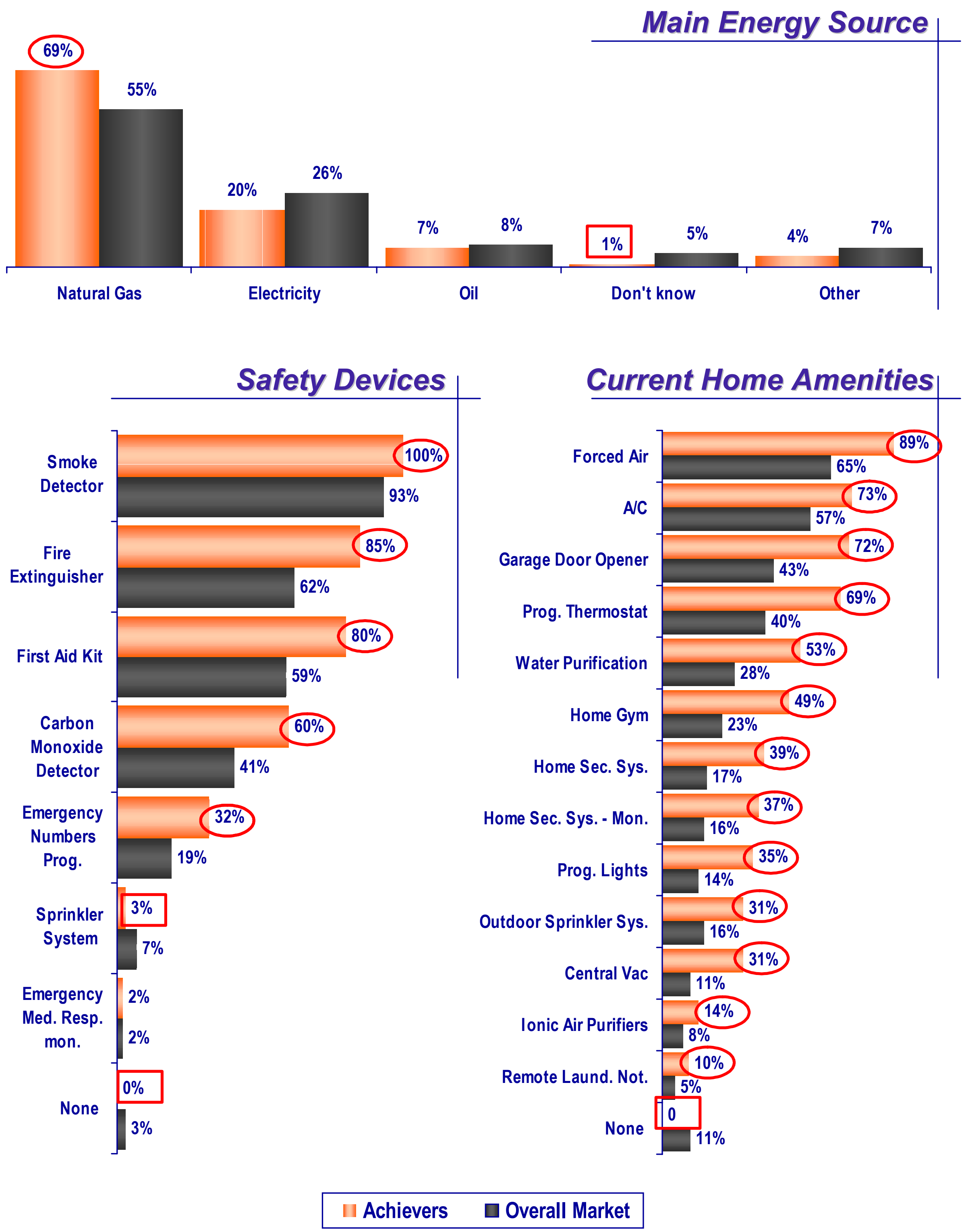




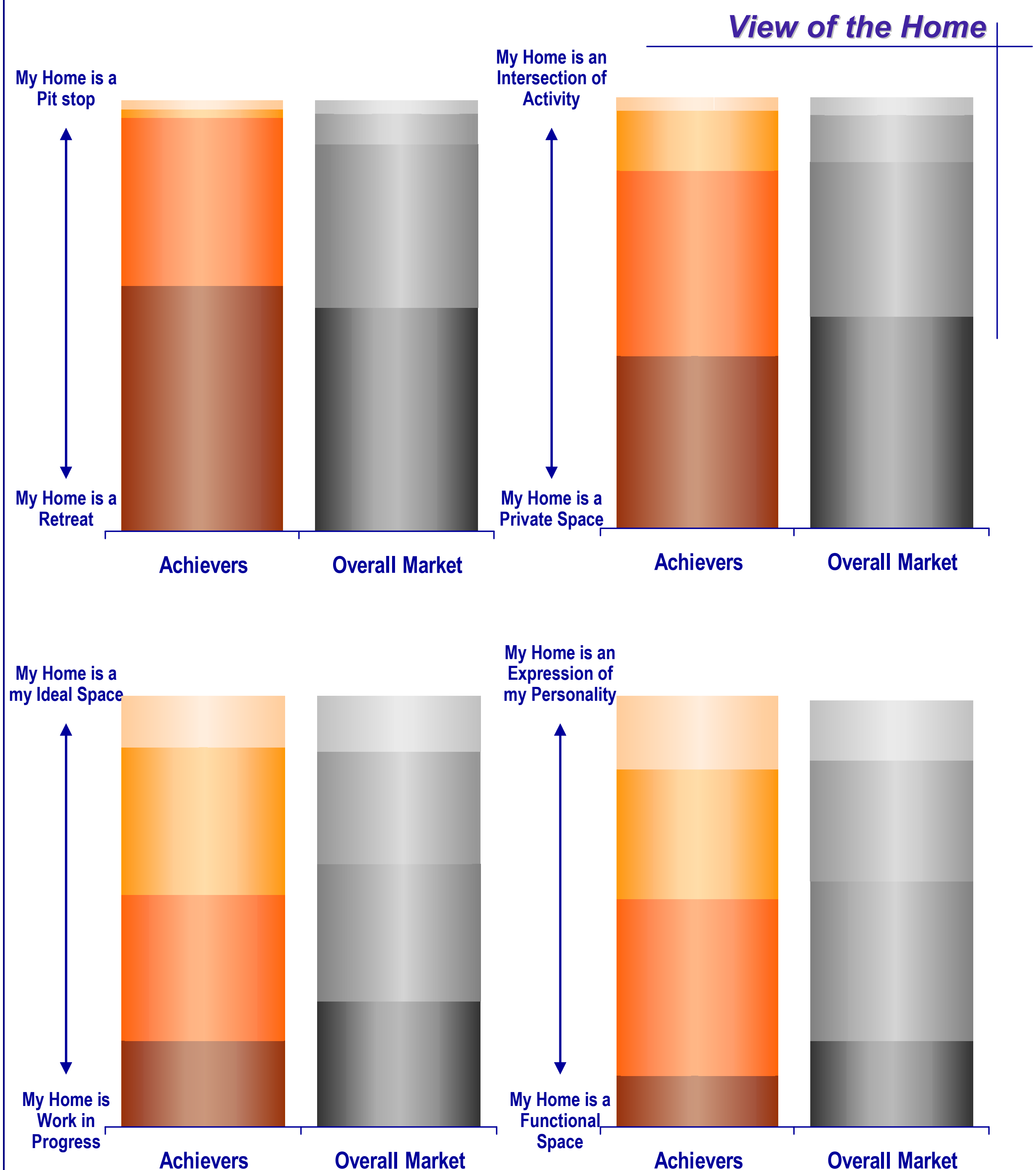


Achievers ■ Overall Market

Achievers: Home Profile

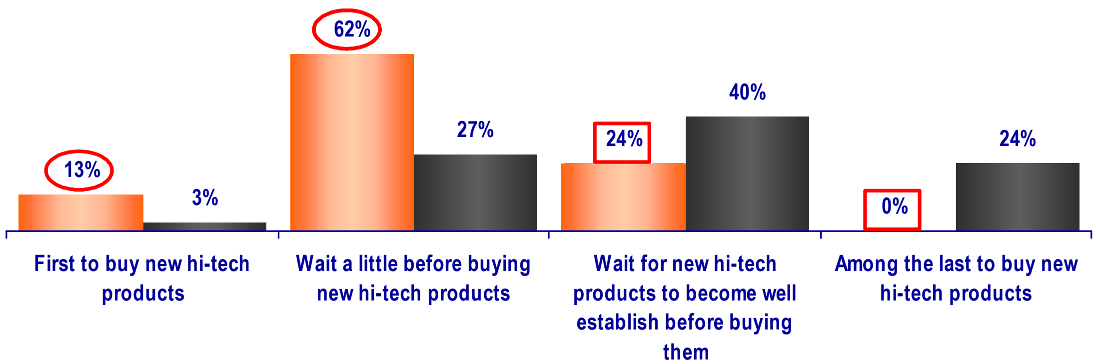


Achievers: Home Profile

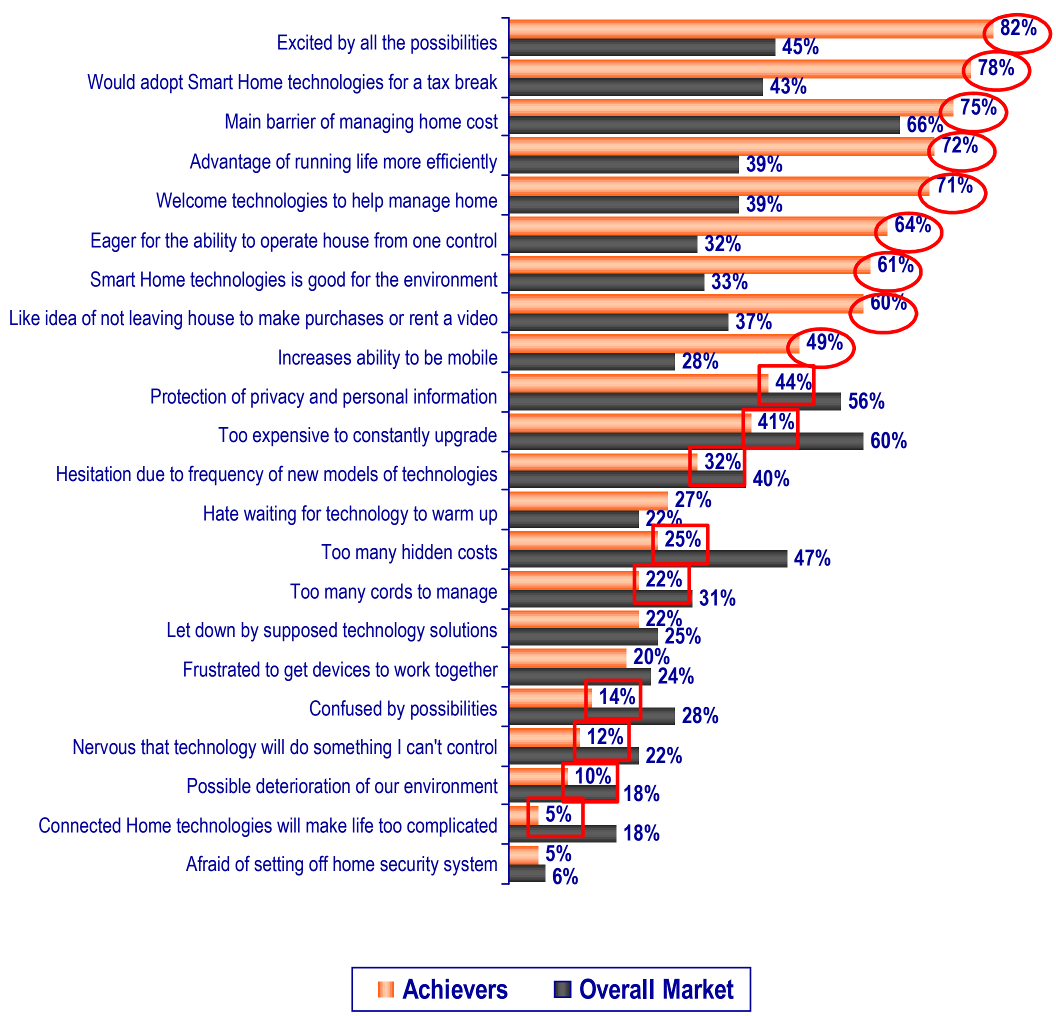


Achievers: Technology Profile

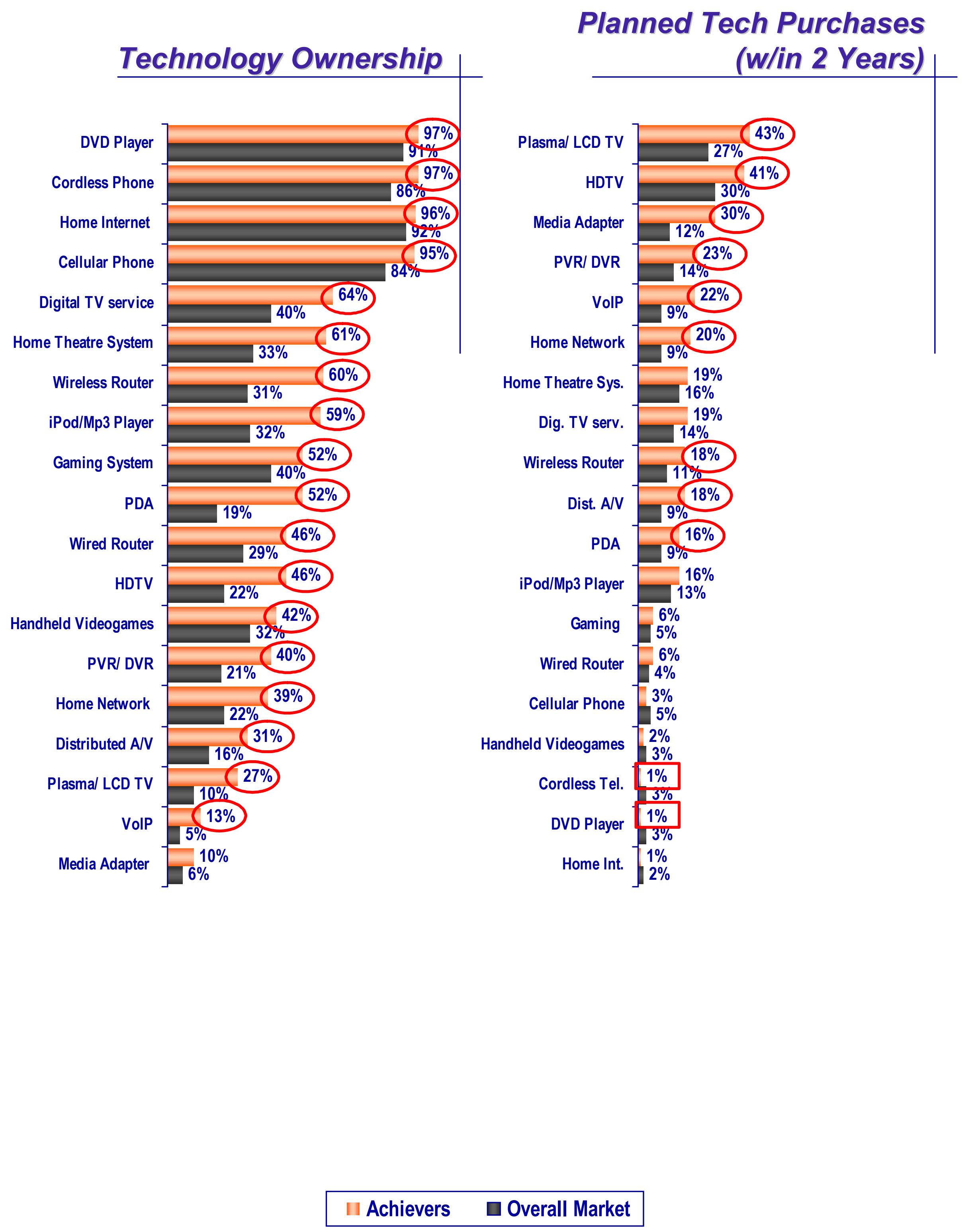
Tech Adoption



Attitudes Towards Technology

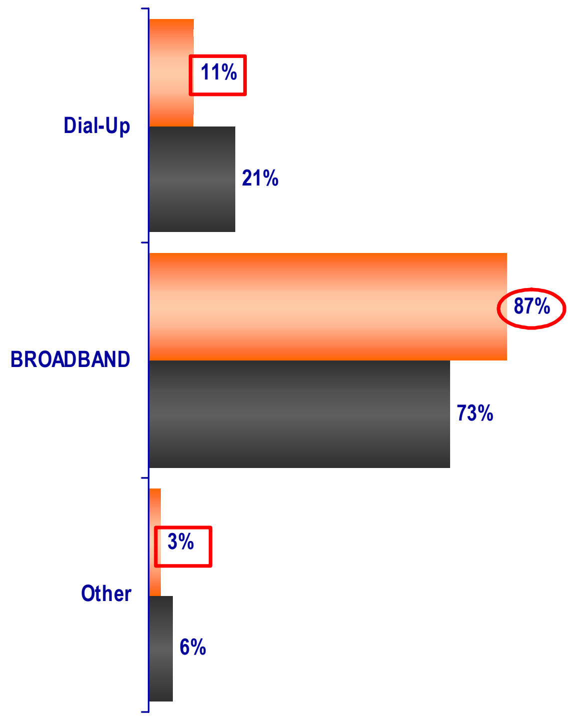


Achievers: Technology Profile

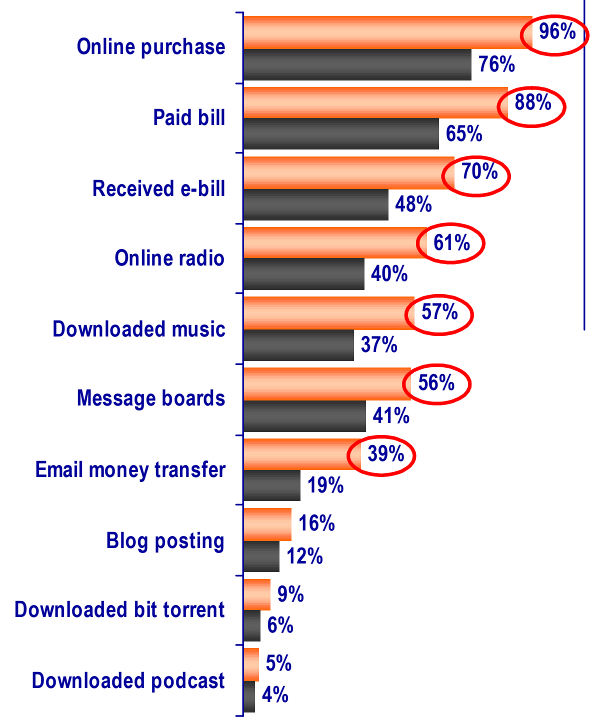


Achievers: Technology Profile

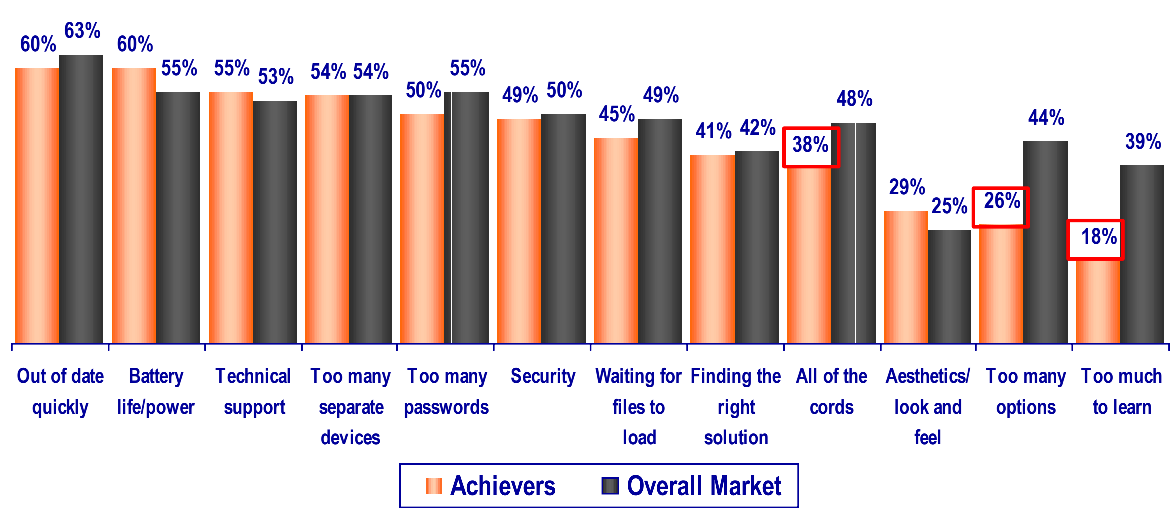
Type of Internet Service



Internet Activities

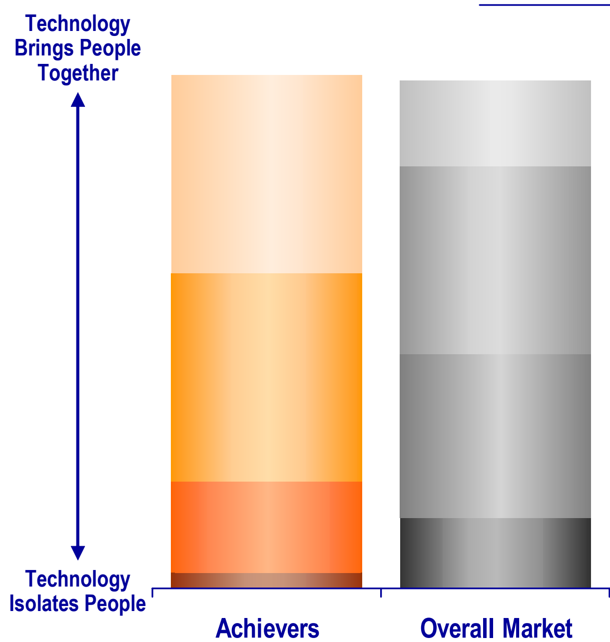


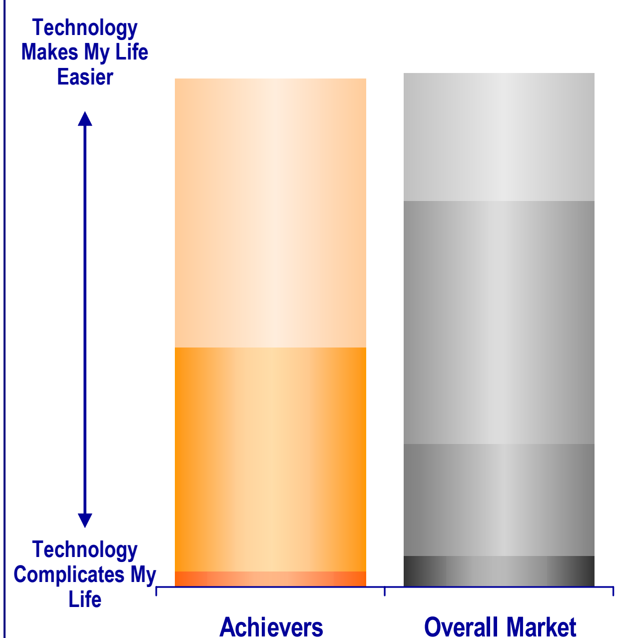
Technology Micro-stresses

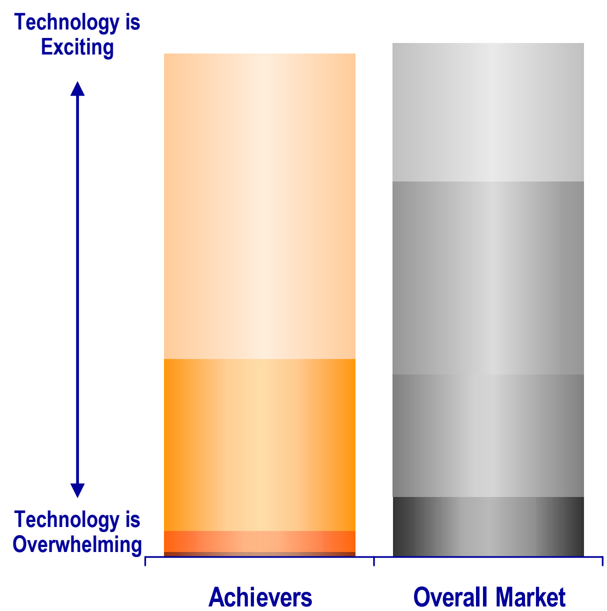


Achievers: Technology Profile

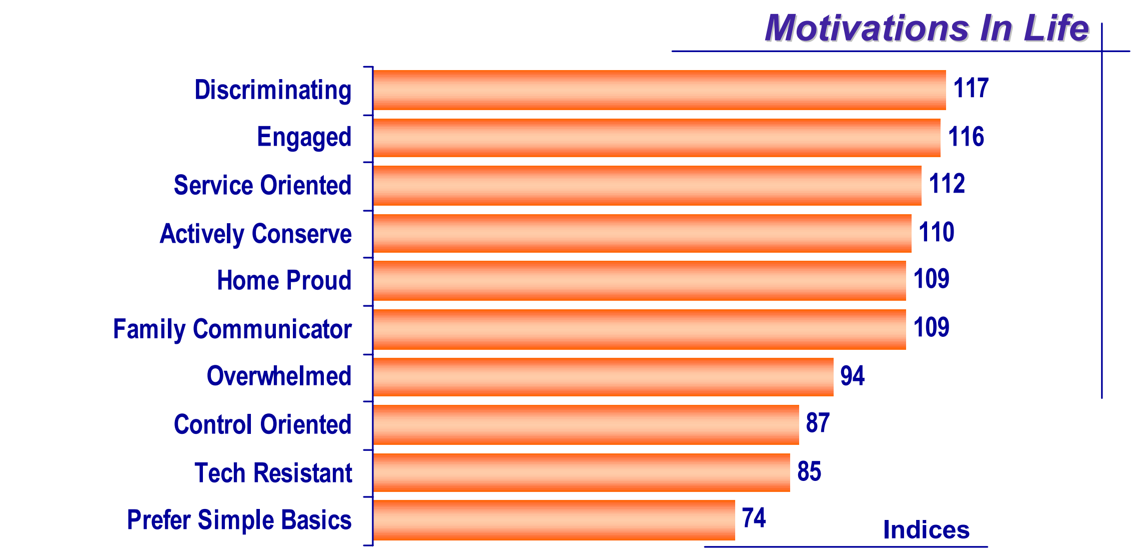
View of Technology

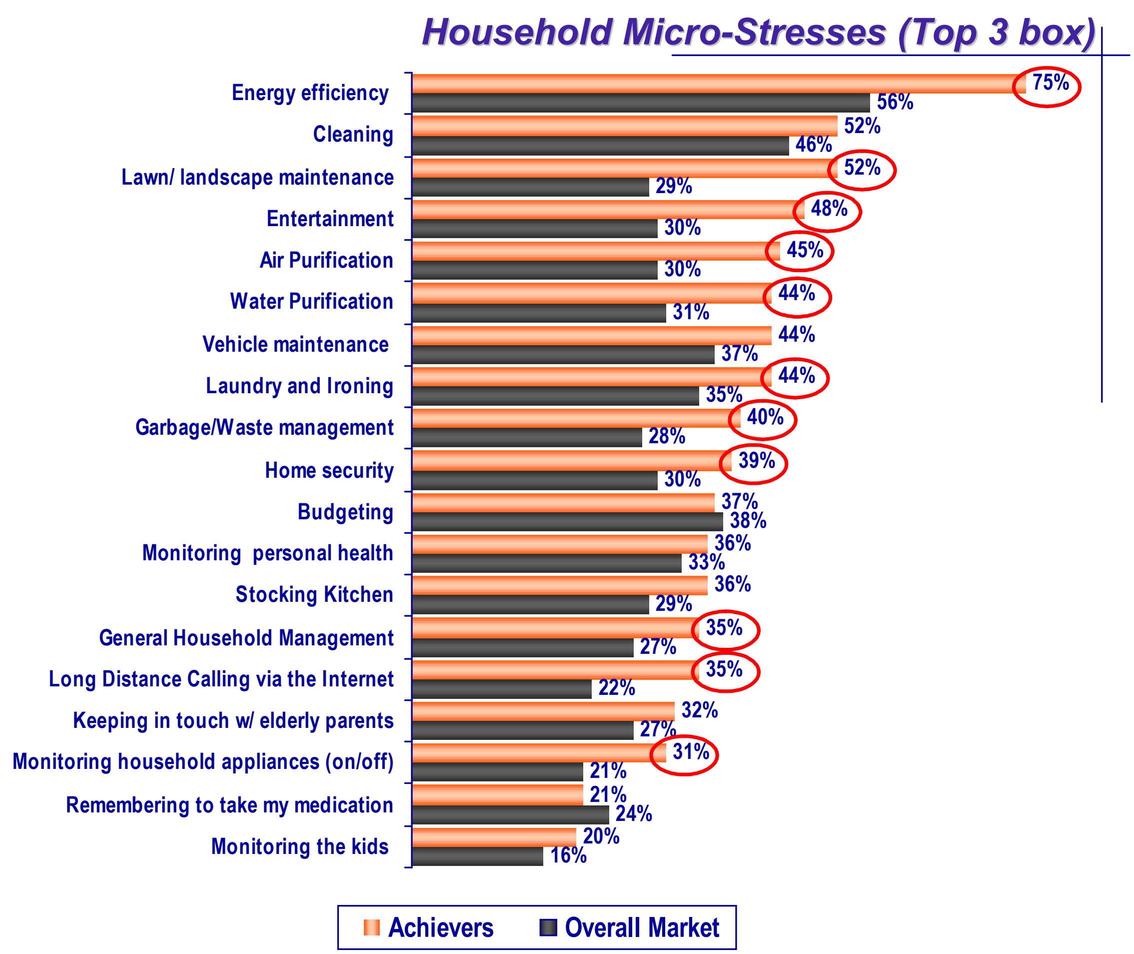




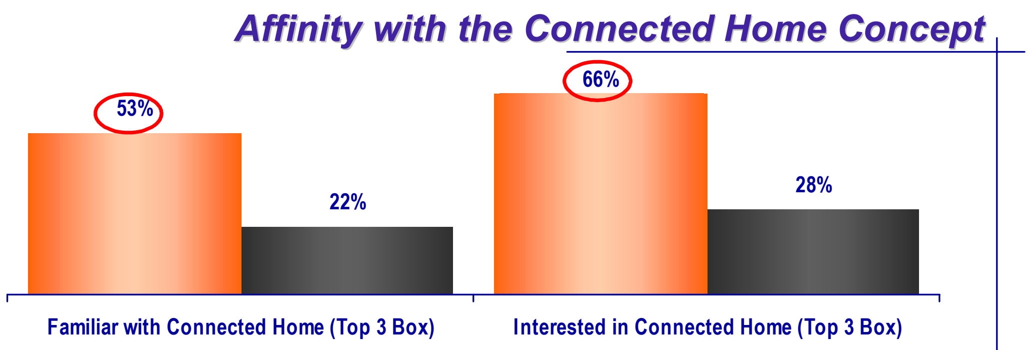


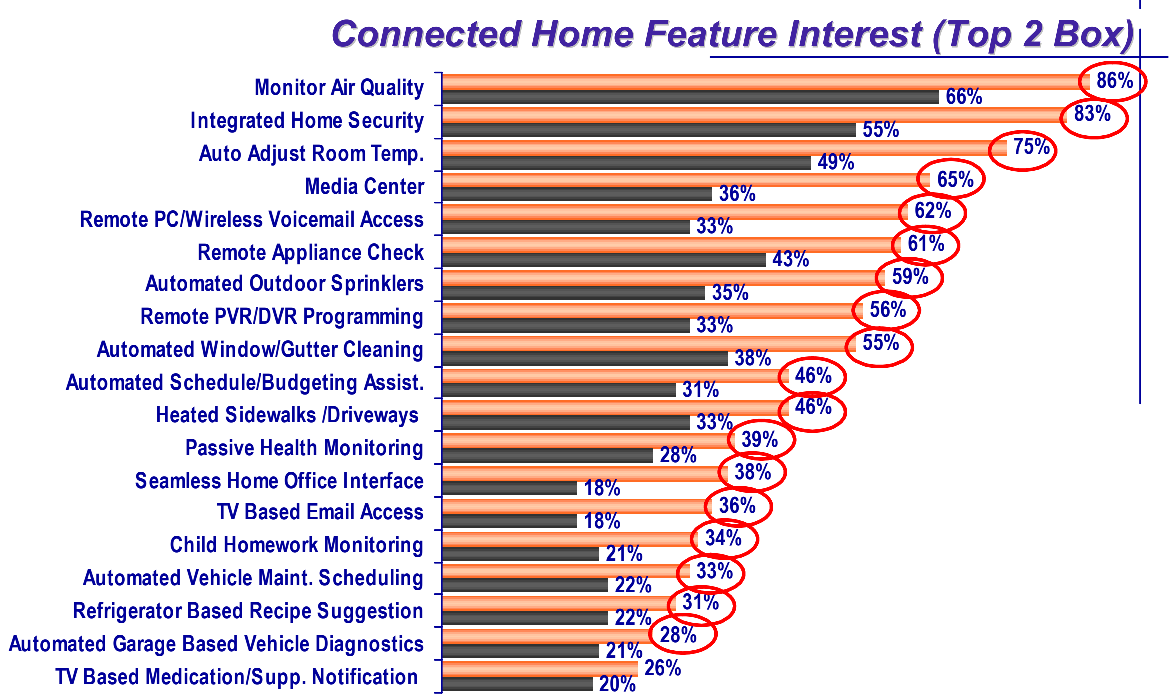
Achievers: Needs & Wants/Micro-Stresses

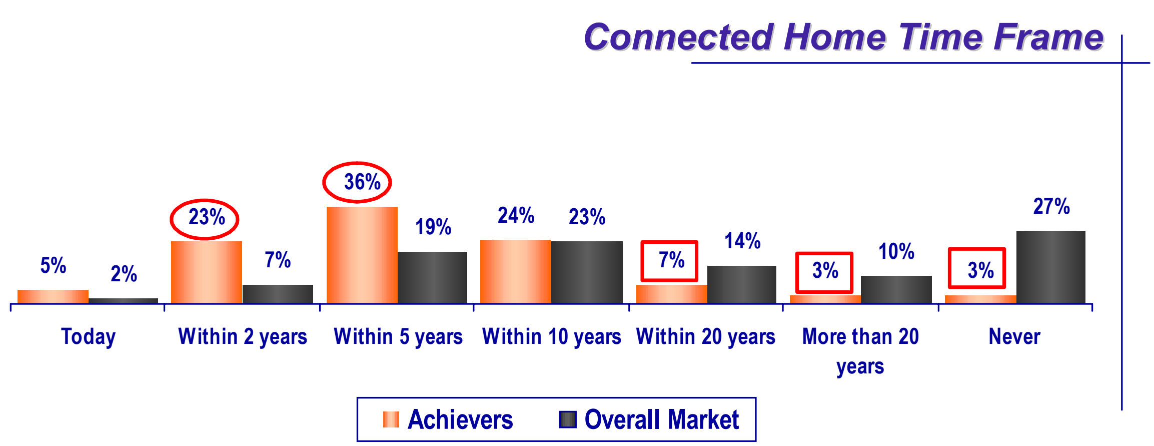




Achievers: Relationship with the Connected Home

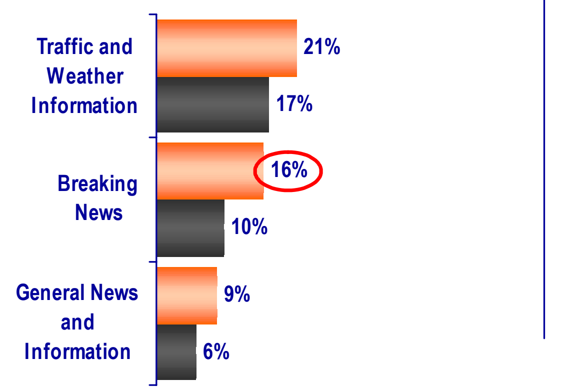




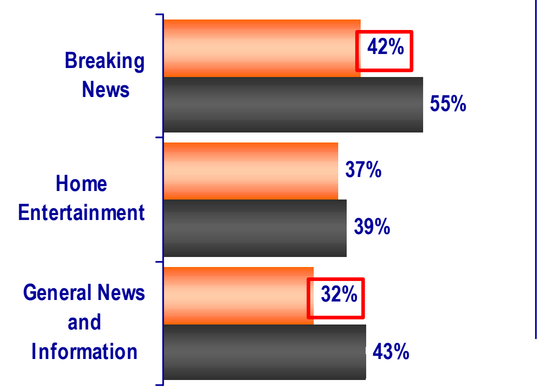


Achievers: Information Sources

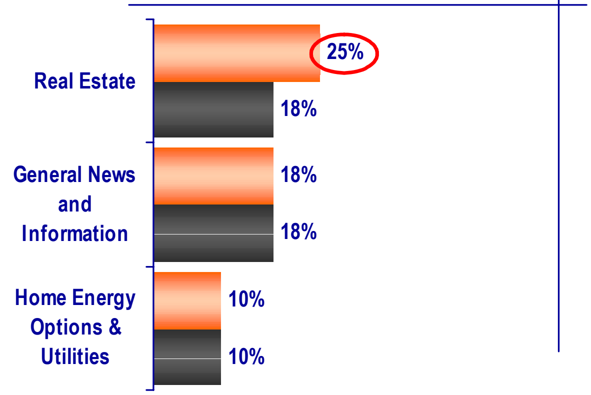
Top 3 Types of Information Received from Radio



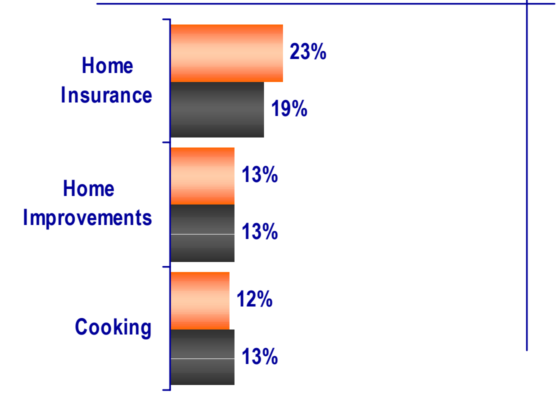
Top 3 Types of Information Received from Television



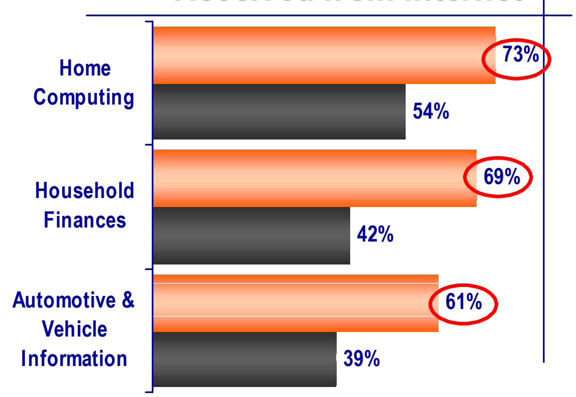
Top 3 Types of Information Received from Newspaper



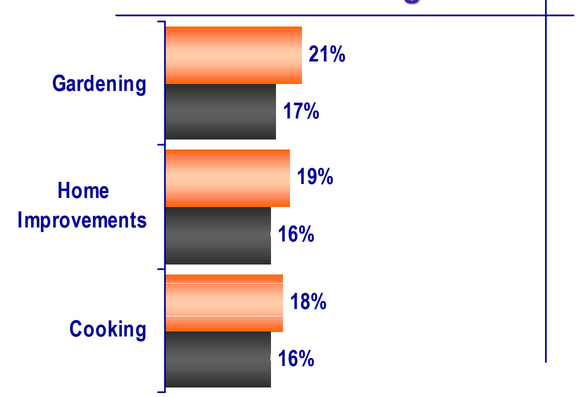
Top 3 Types of Information Received from Friends and Family



Top 3 Types of Information Received from Internet

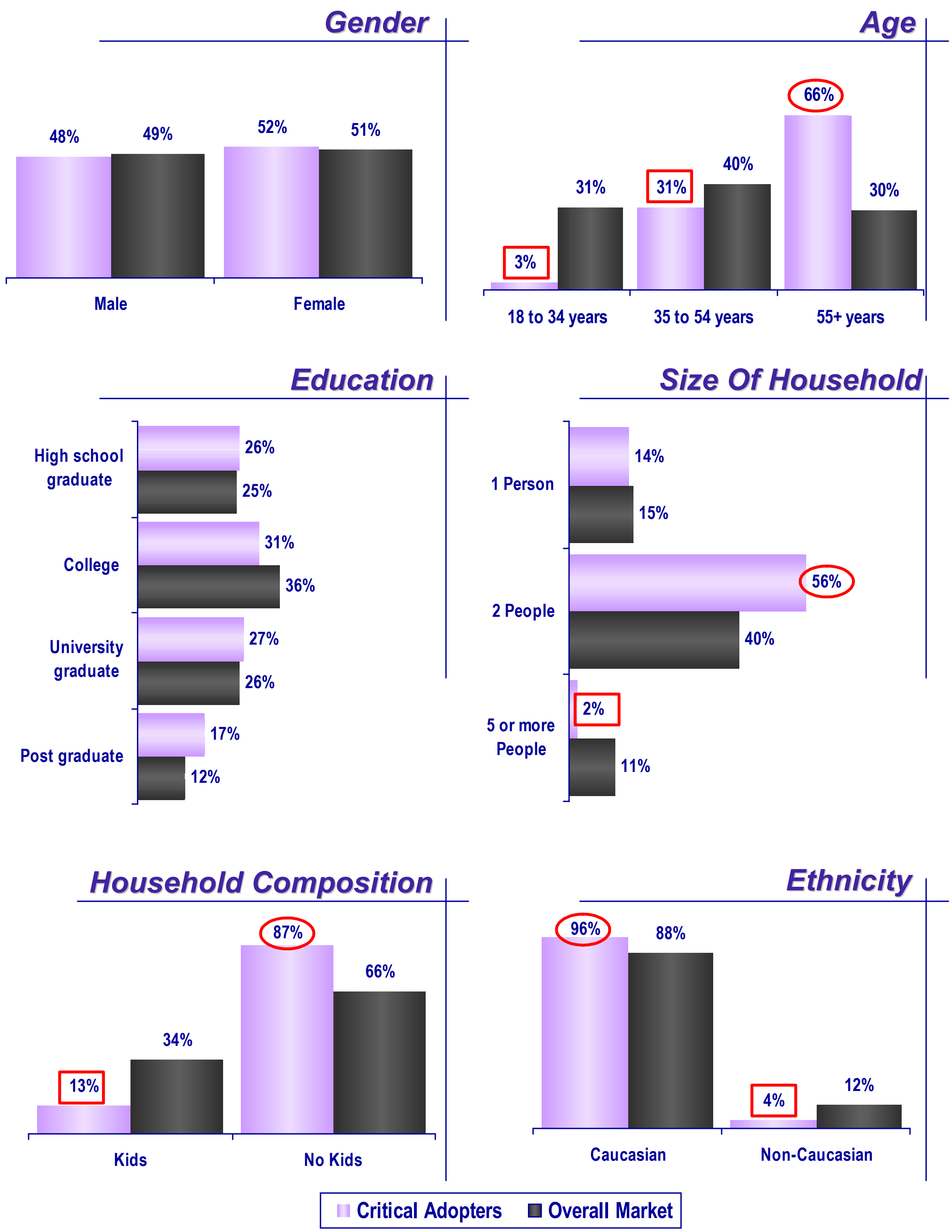


Top 3 Types of Information Received from Magazines

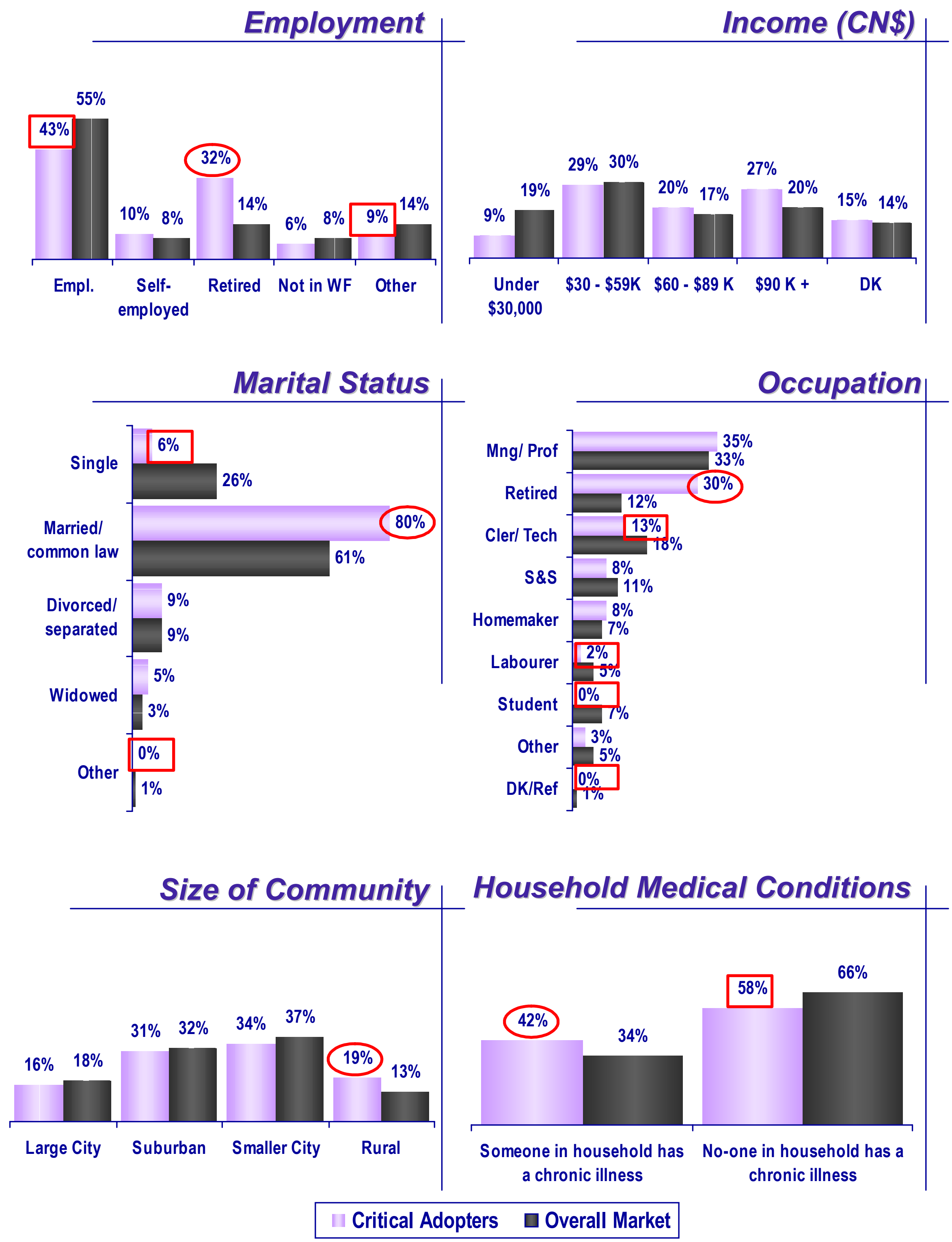


Achievers Overall Market

Critical Adopters: Demographic Profile

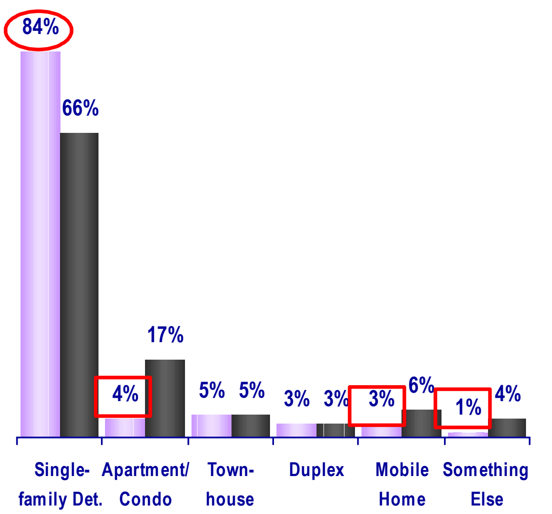


Critical Adopters: Demographic Profile

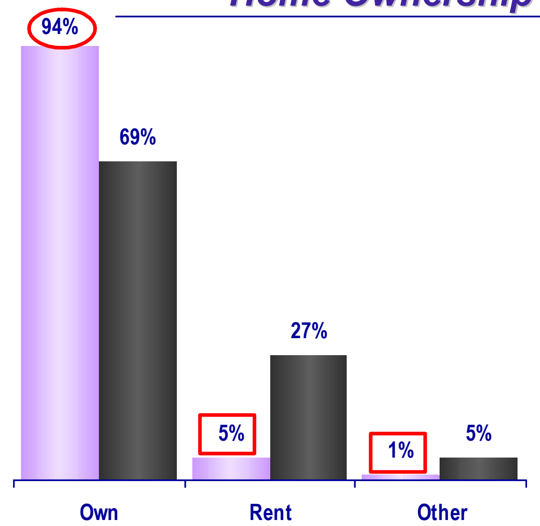


Critical Adopters: Home Profile

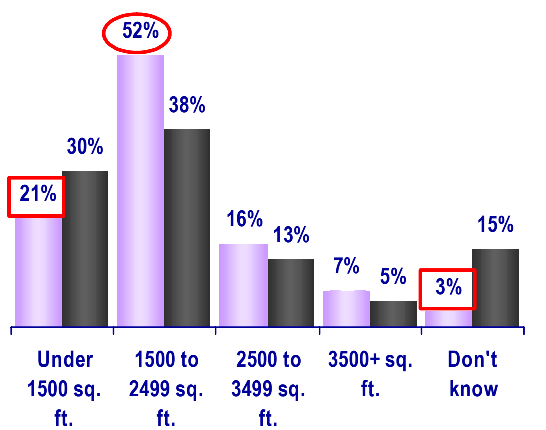
Type of Home



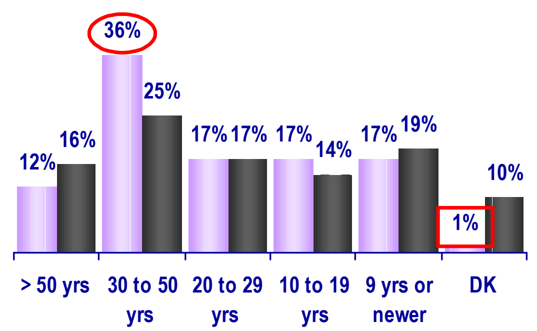
Home Ownership



Size of Home (sq. ft.)

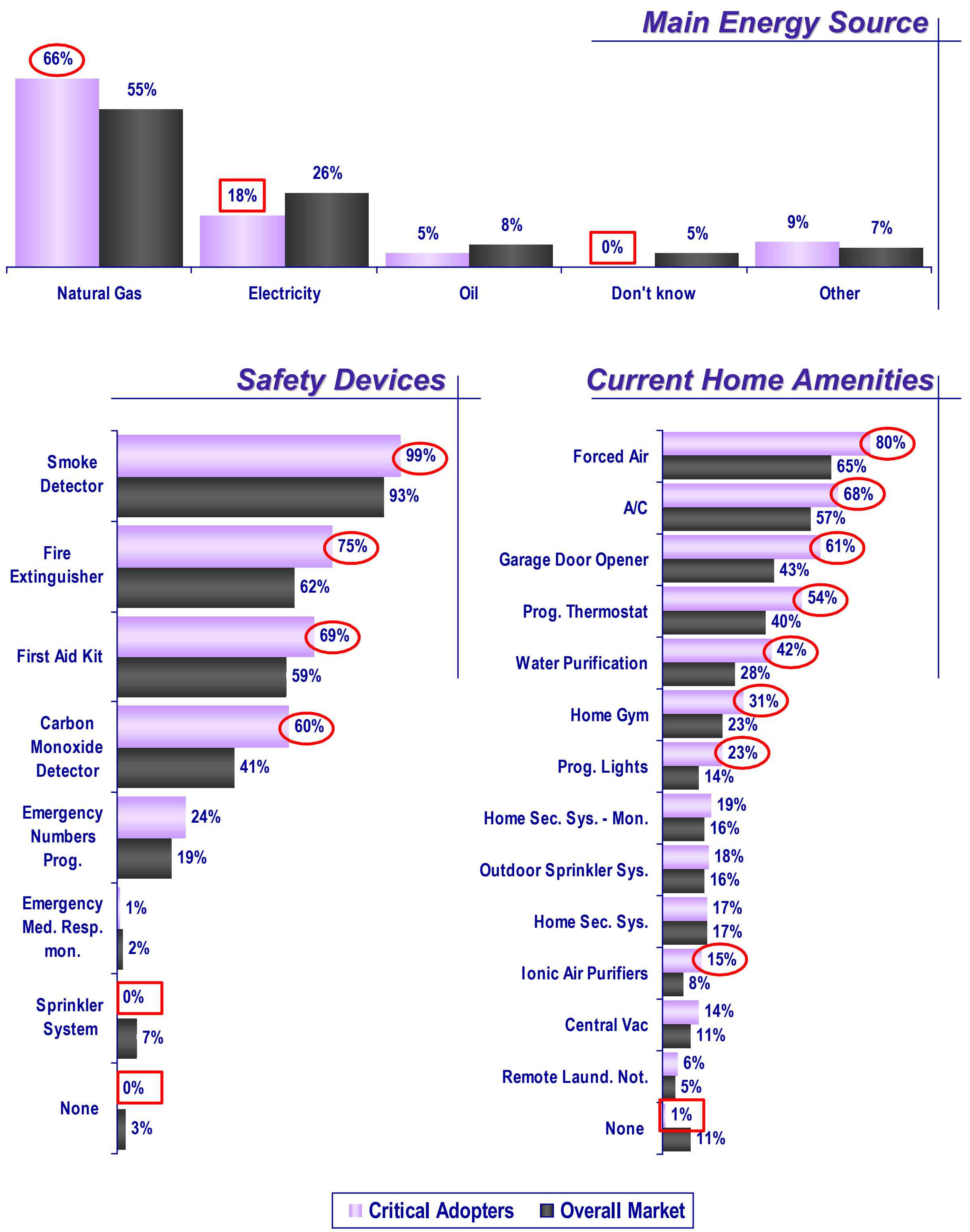


Age of Home

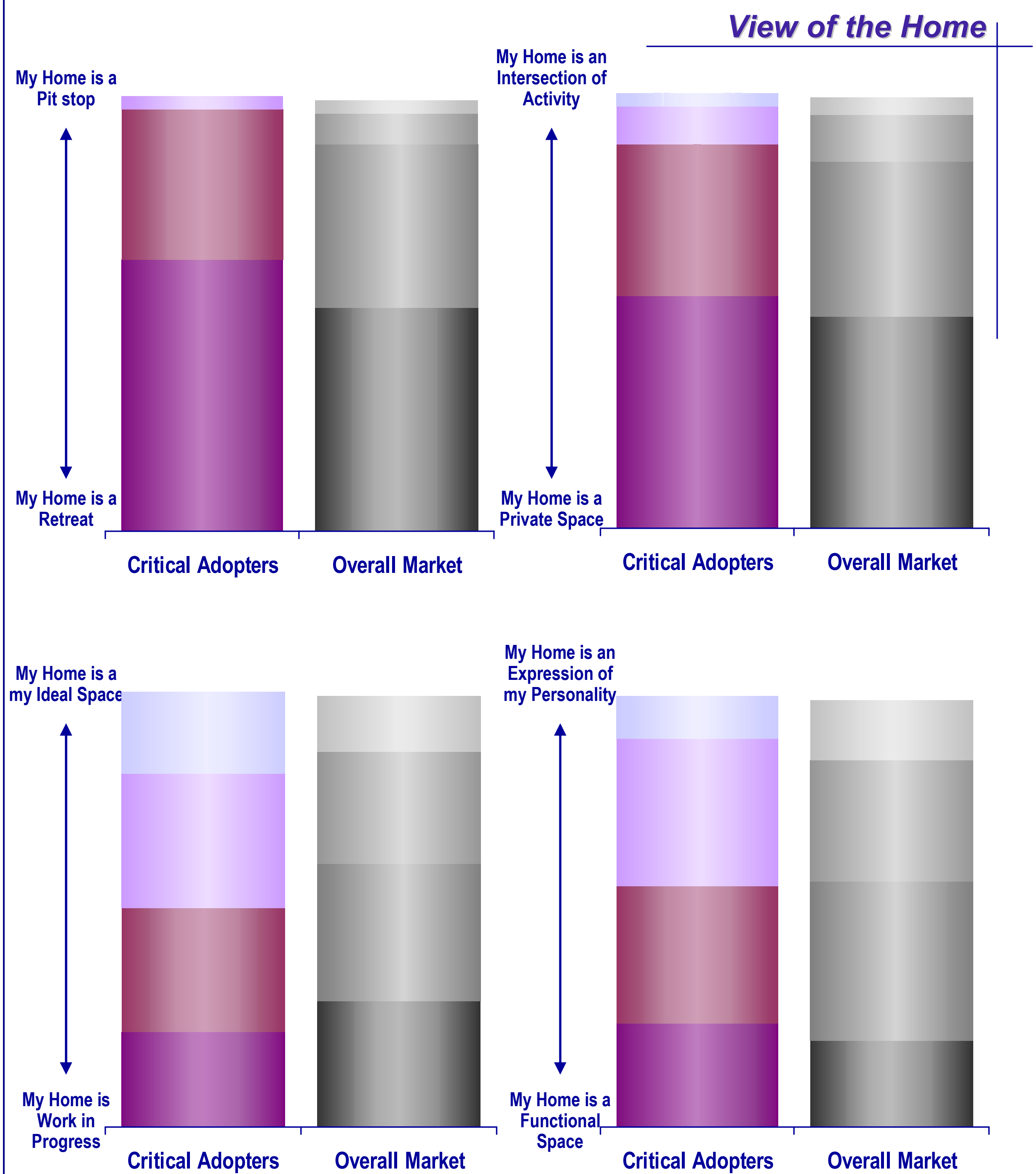


Critical Adopters ■ Overall Market

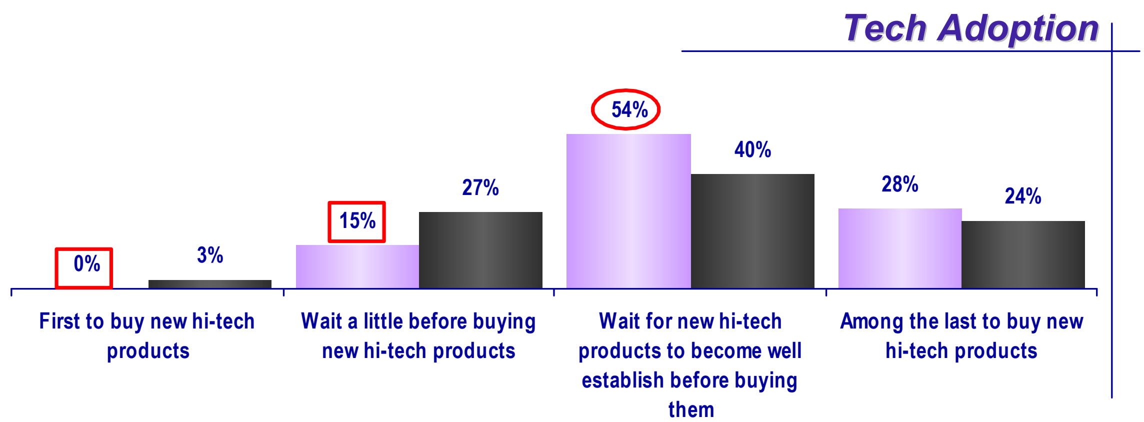
Critical Adopters: Home Profile

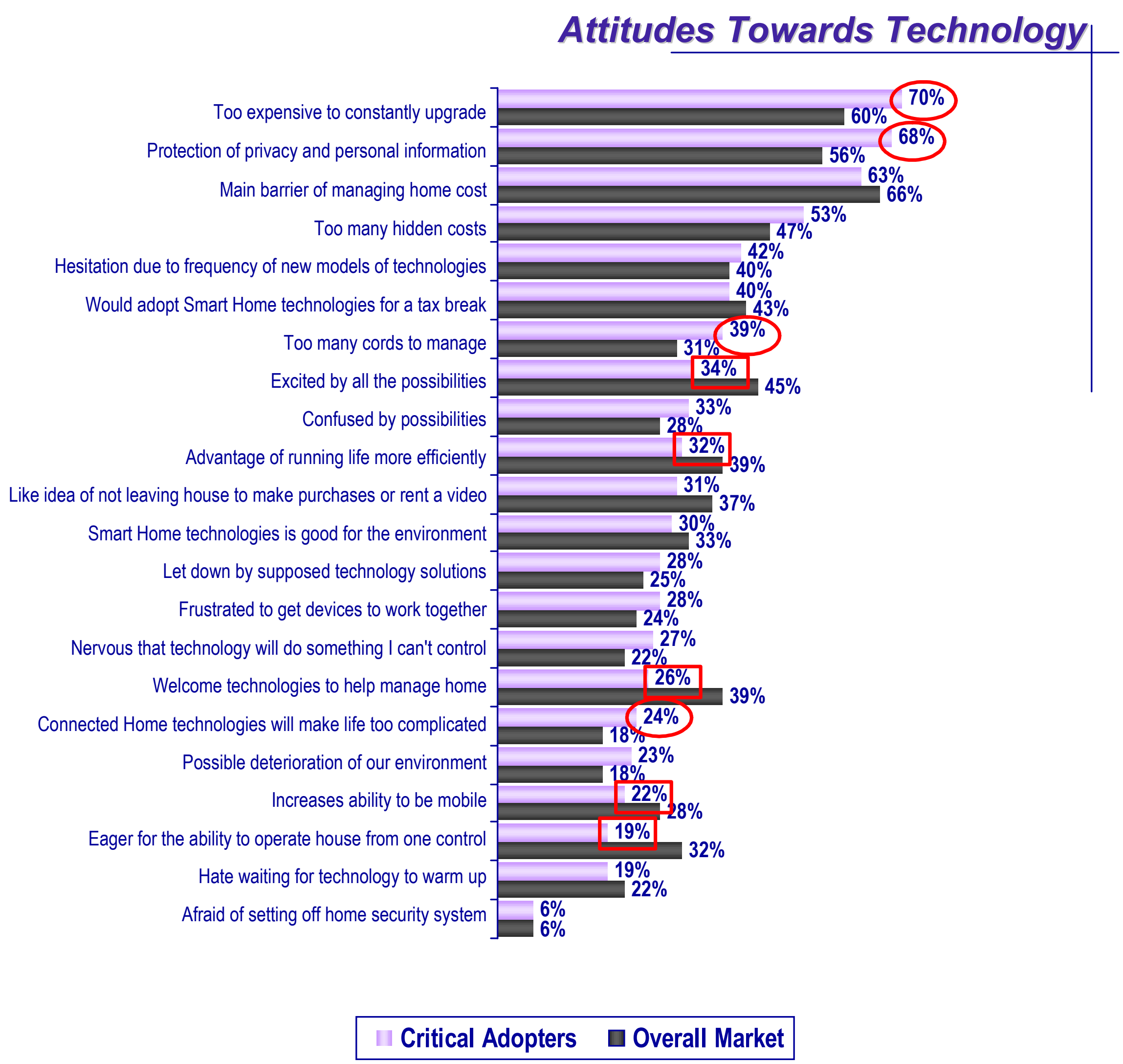


Critical Adopters: Home Profile

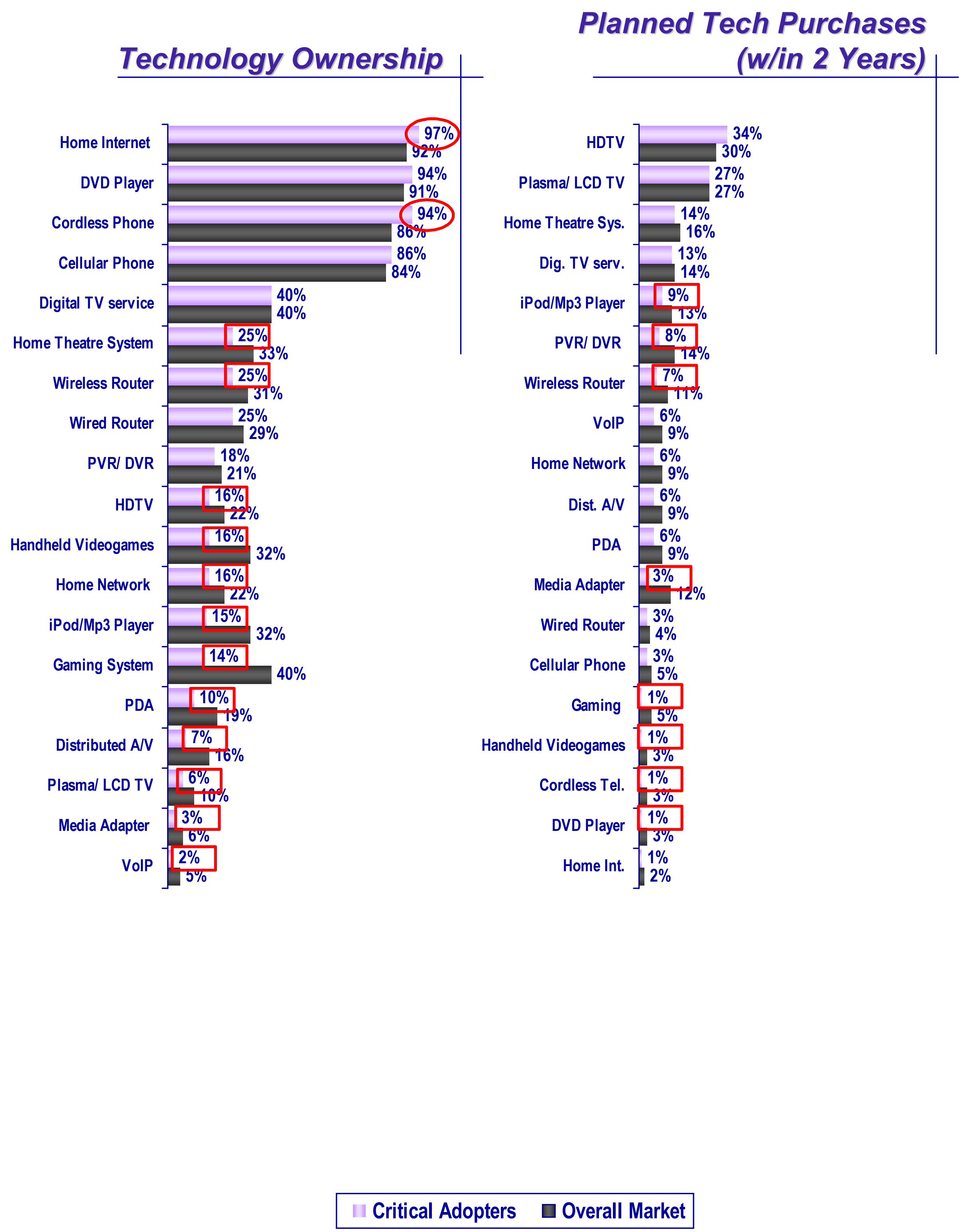


Critical Adopters: Technology Profile

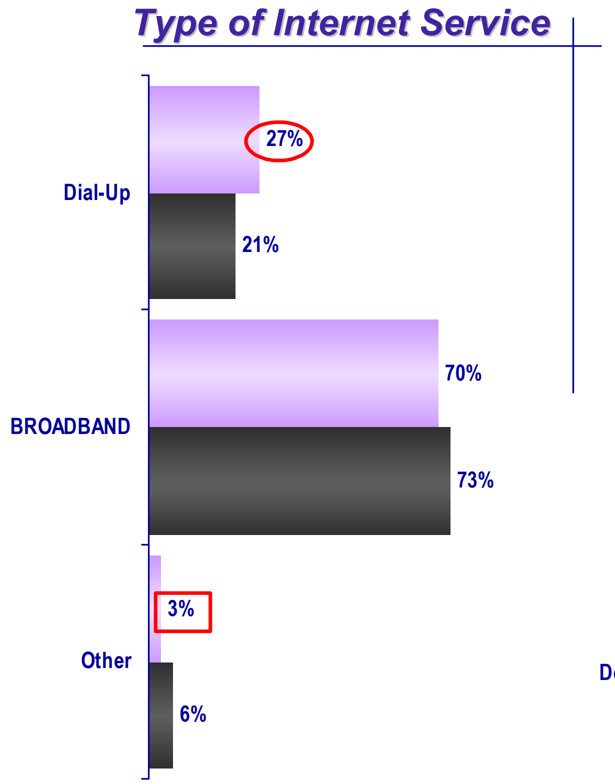


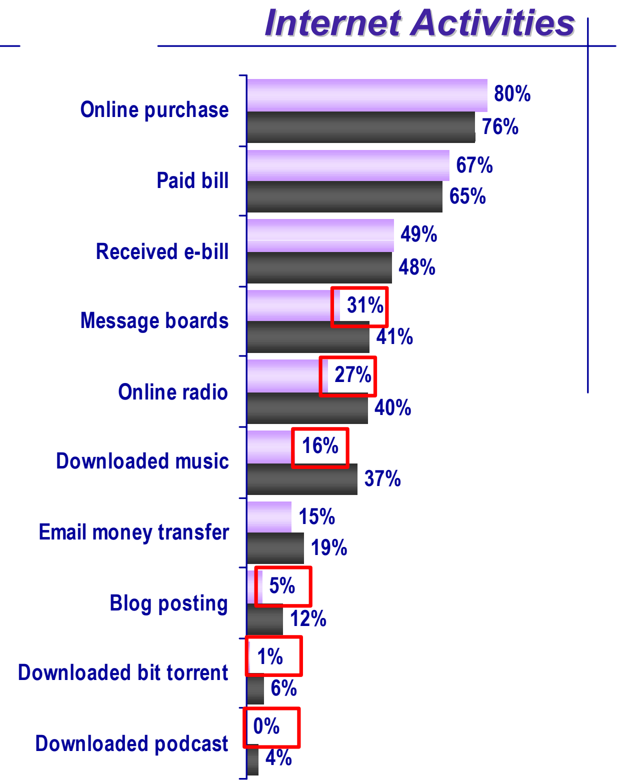


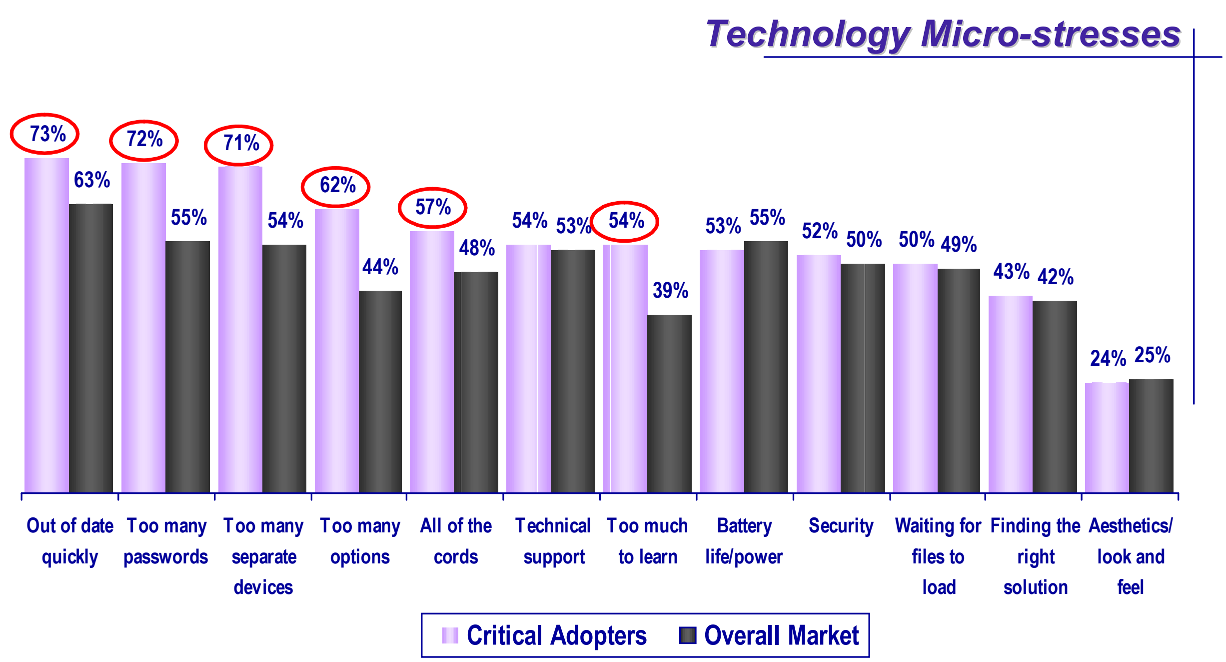
Critical Adopters: Technology Profile



Critical Adopters: Technology Profile

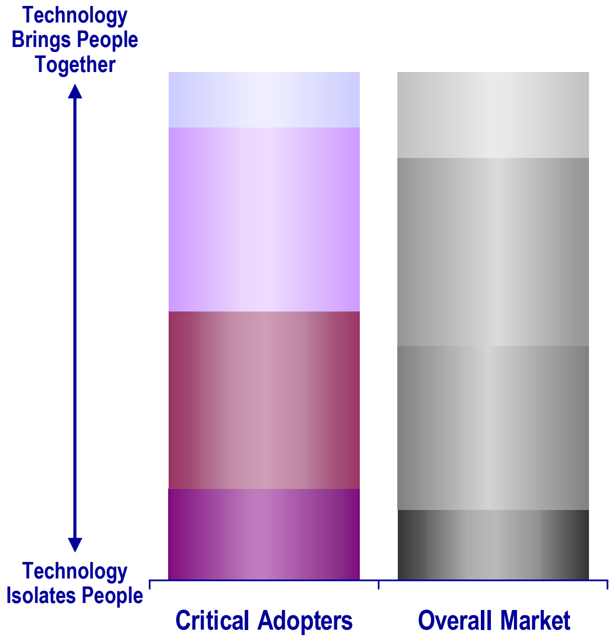


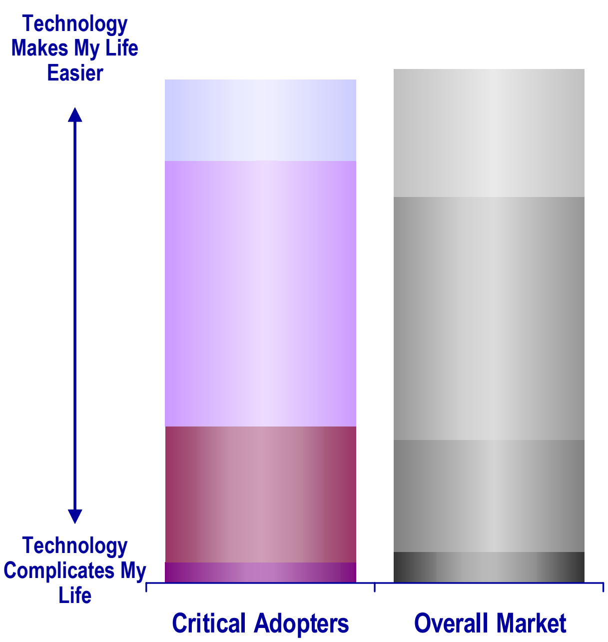


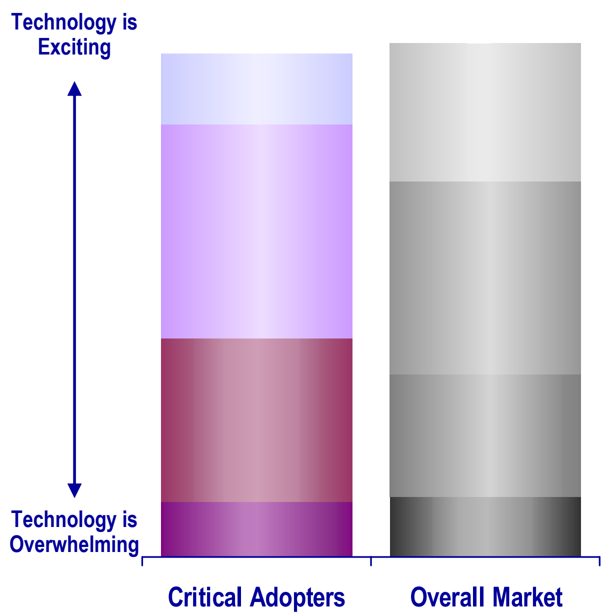


Critical Adopters: Technology Profile

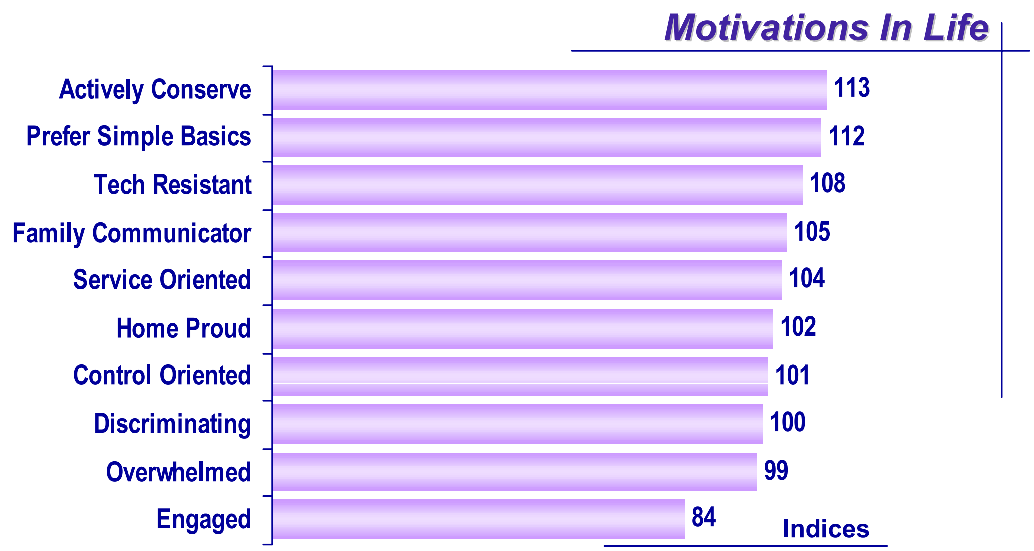
View of Technology

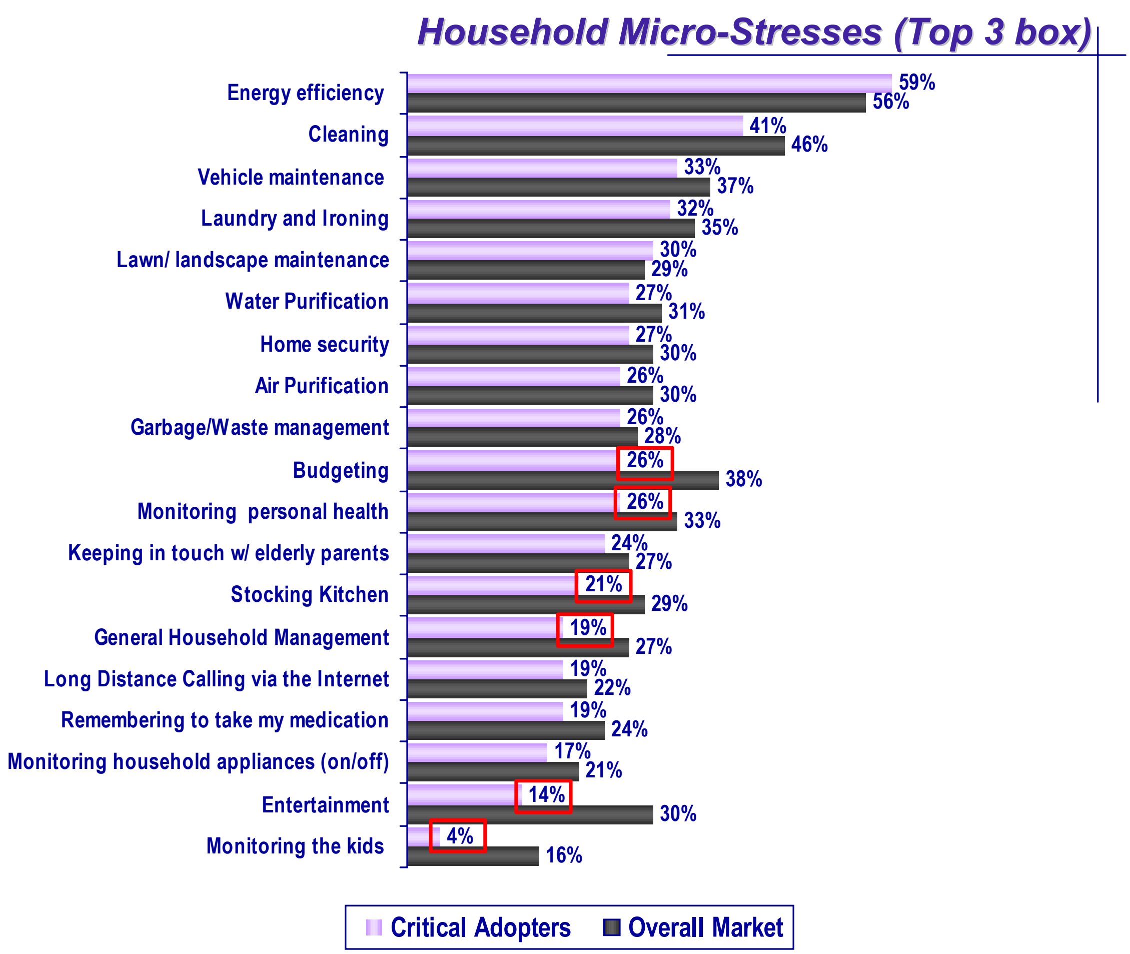




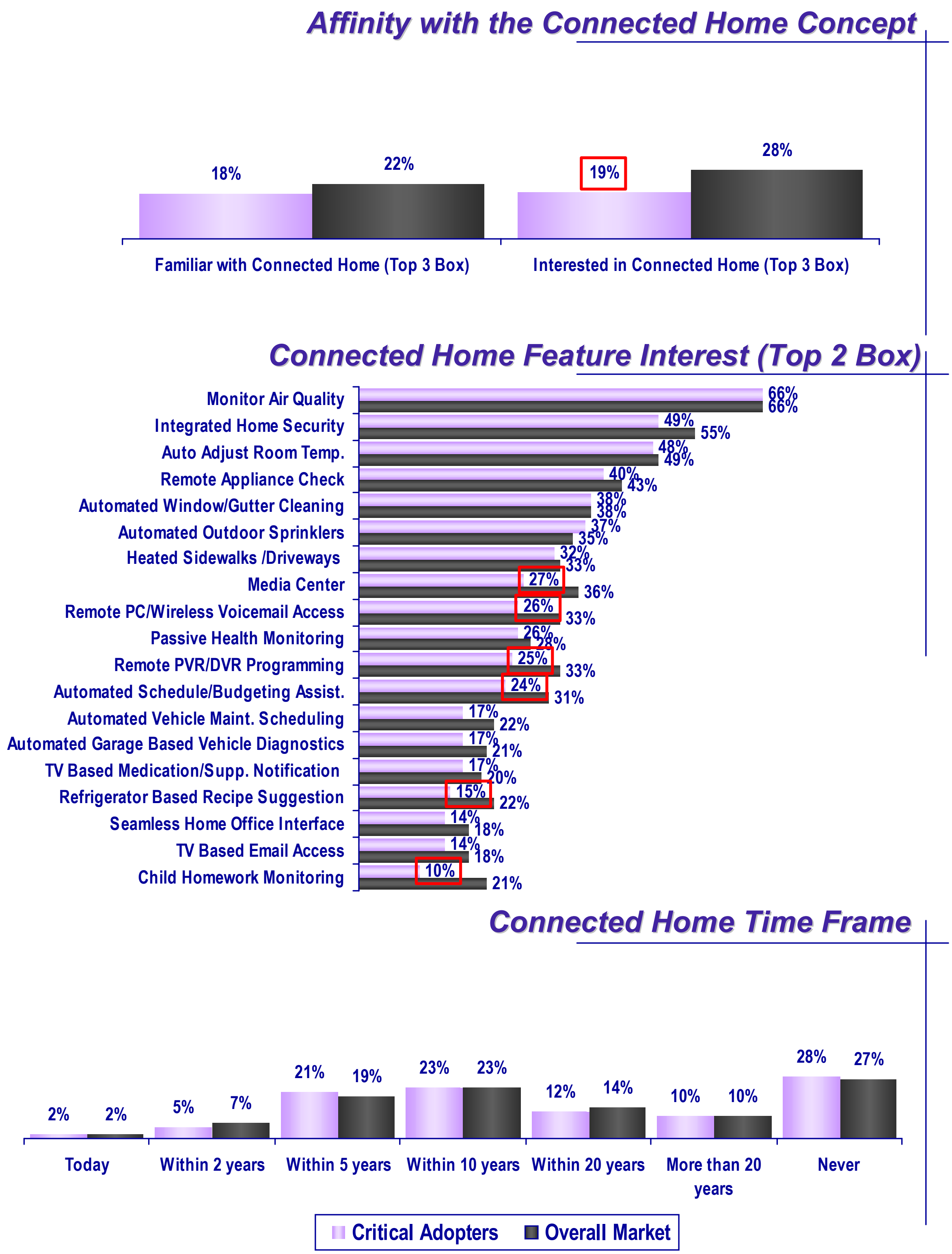


Critical Adopters: Needs & Wants/Micro-Stresses

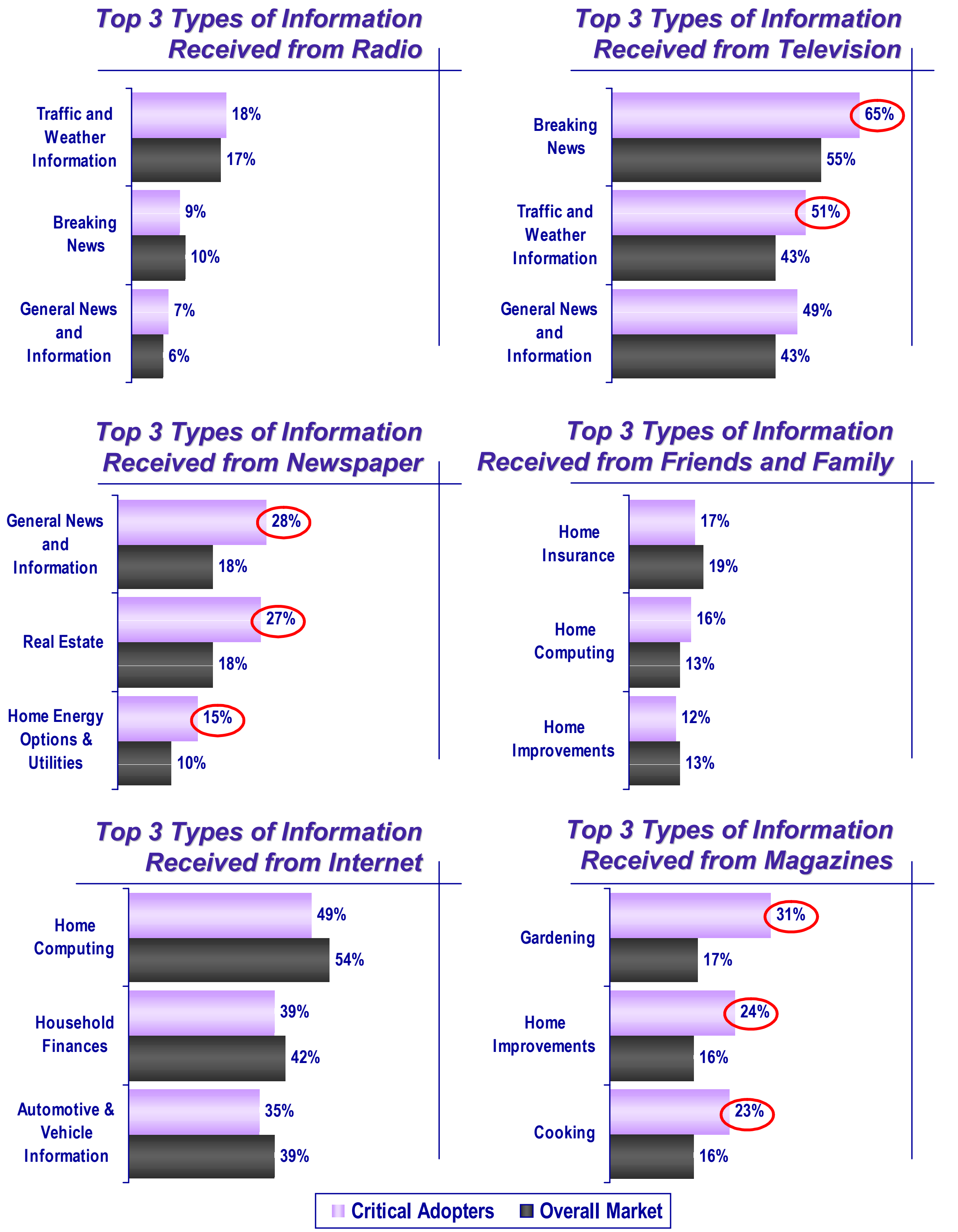




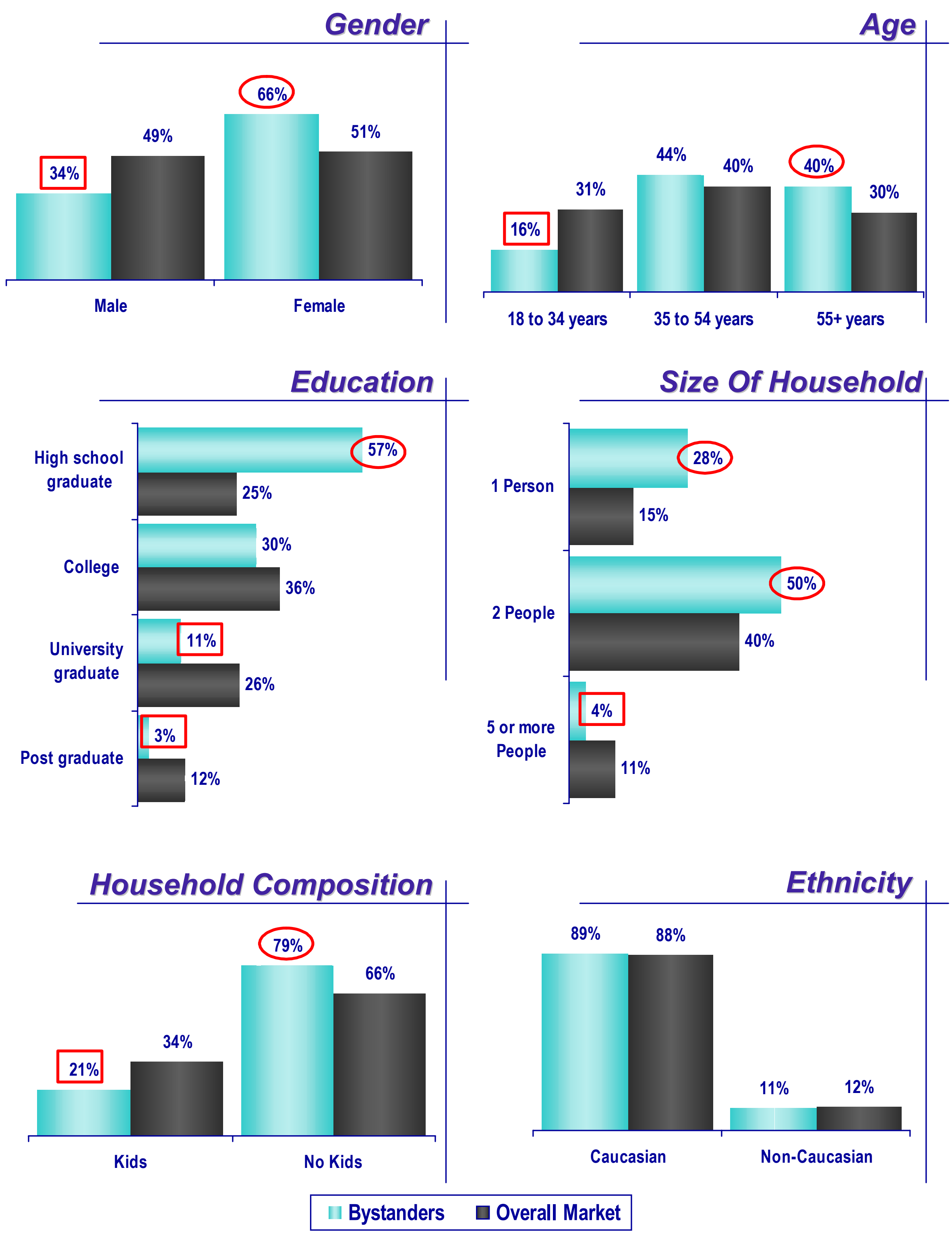
Critical Adopters: Relationship with the Connected Home



Critical Adopters: Information Sources

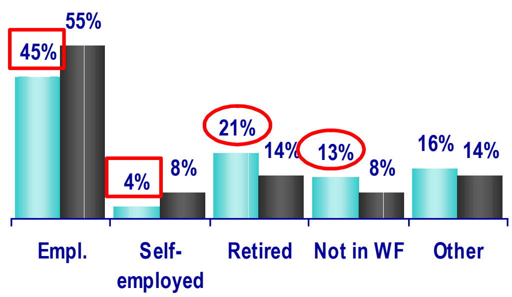


Bystanders: Demographic Profile

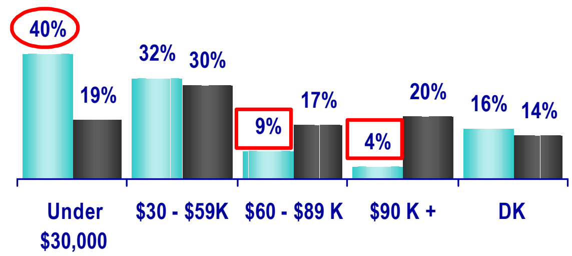


Bystanders: Demographic Profile

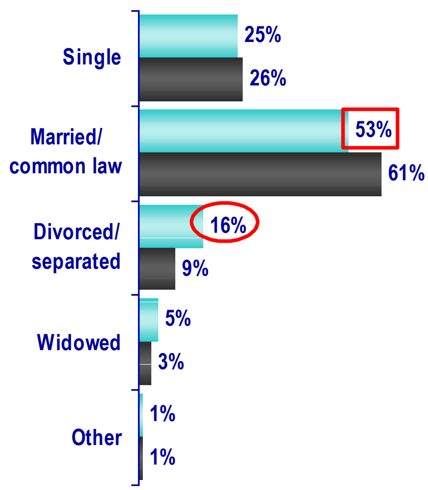
Employment



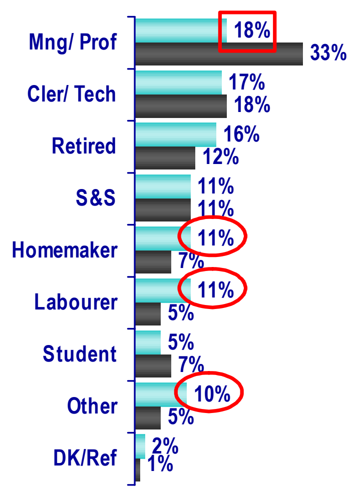
Income (CN$$)



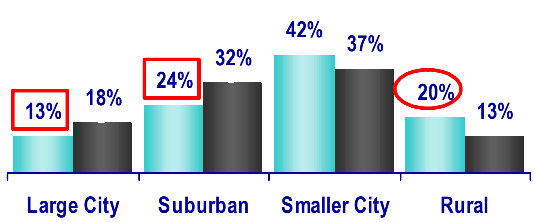
Marital Status



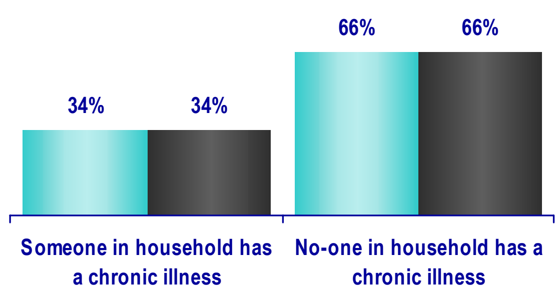
Occupation



Size of Community

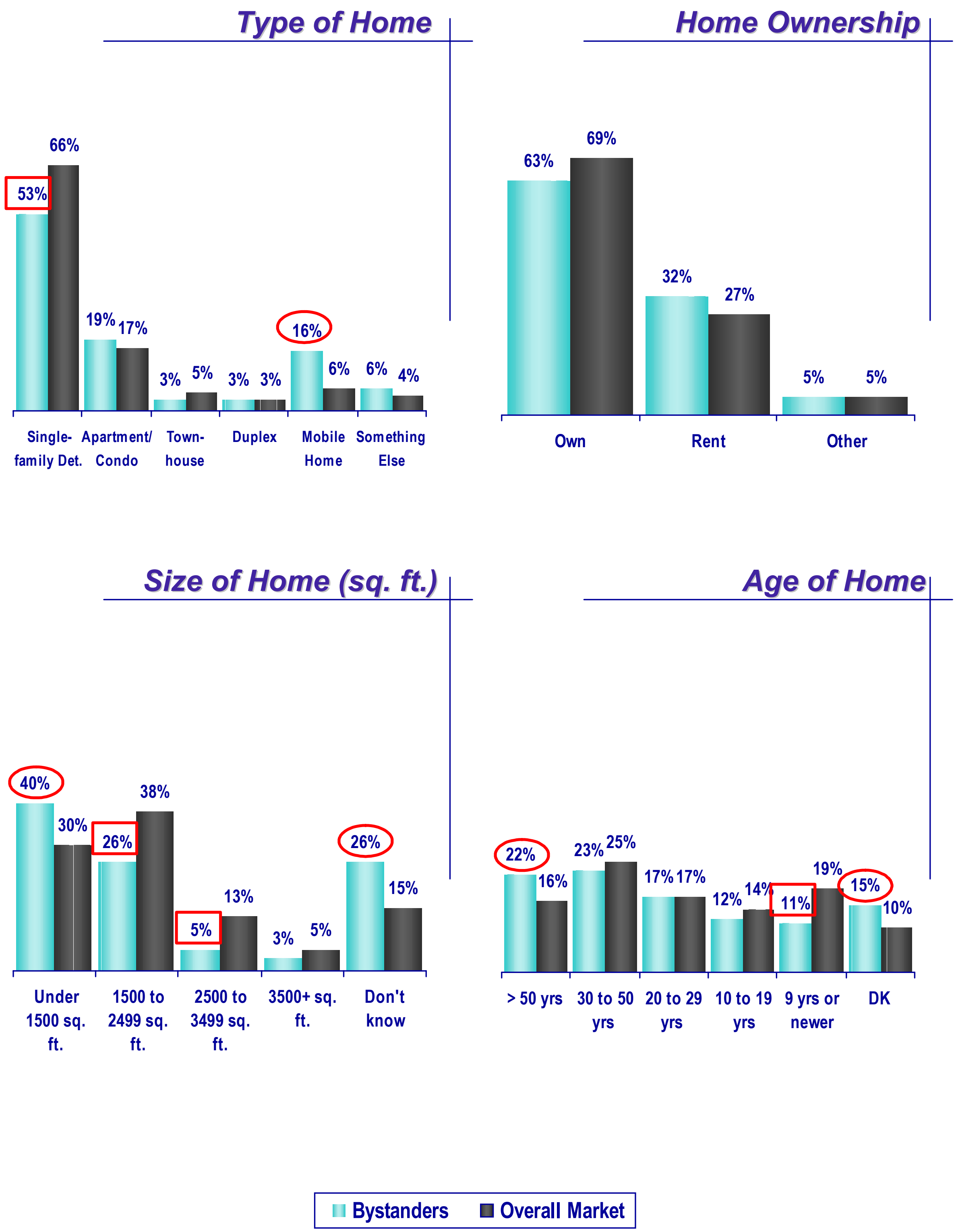


Household Medical Conditions

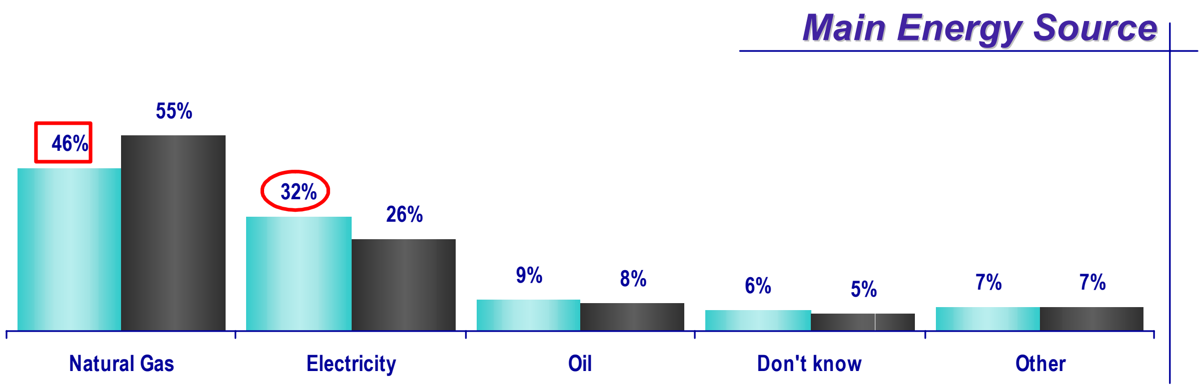


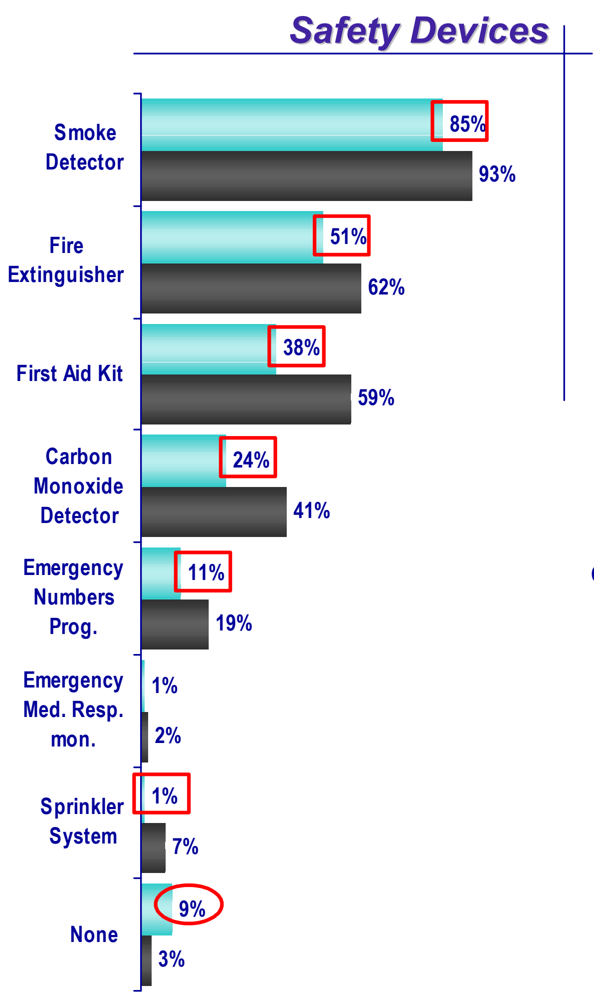
Bystanders Overall Market

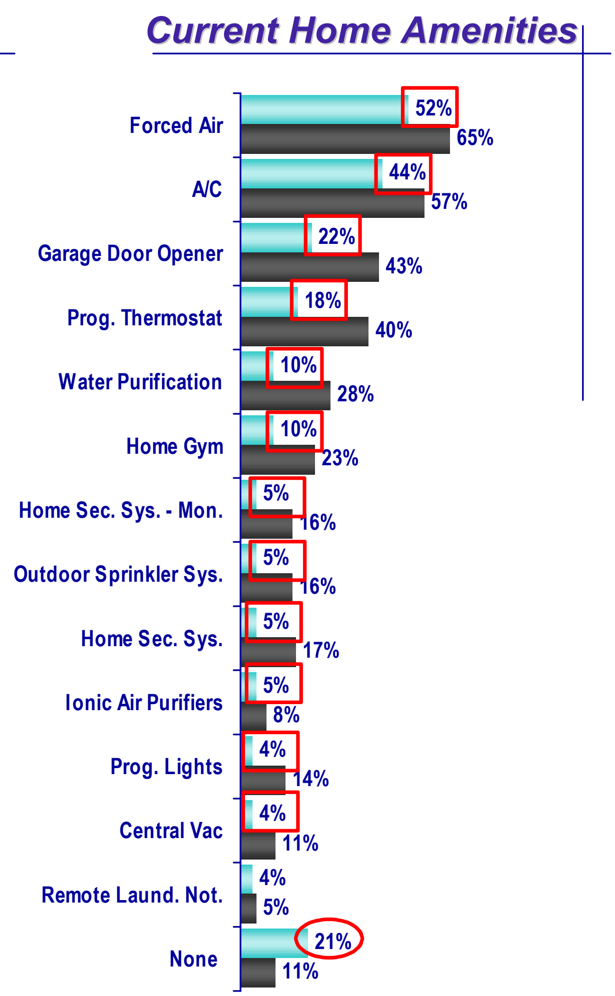
Bystanders: Home Profile



Bystanders: Home Profile

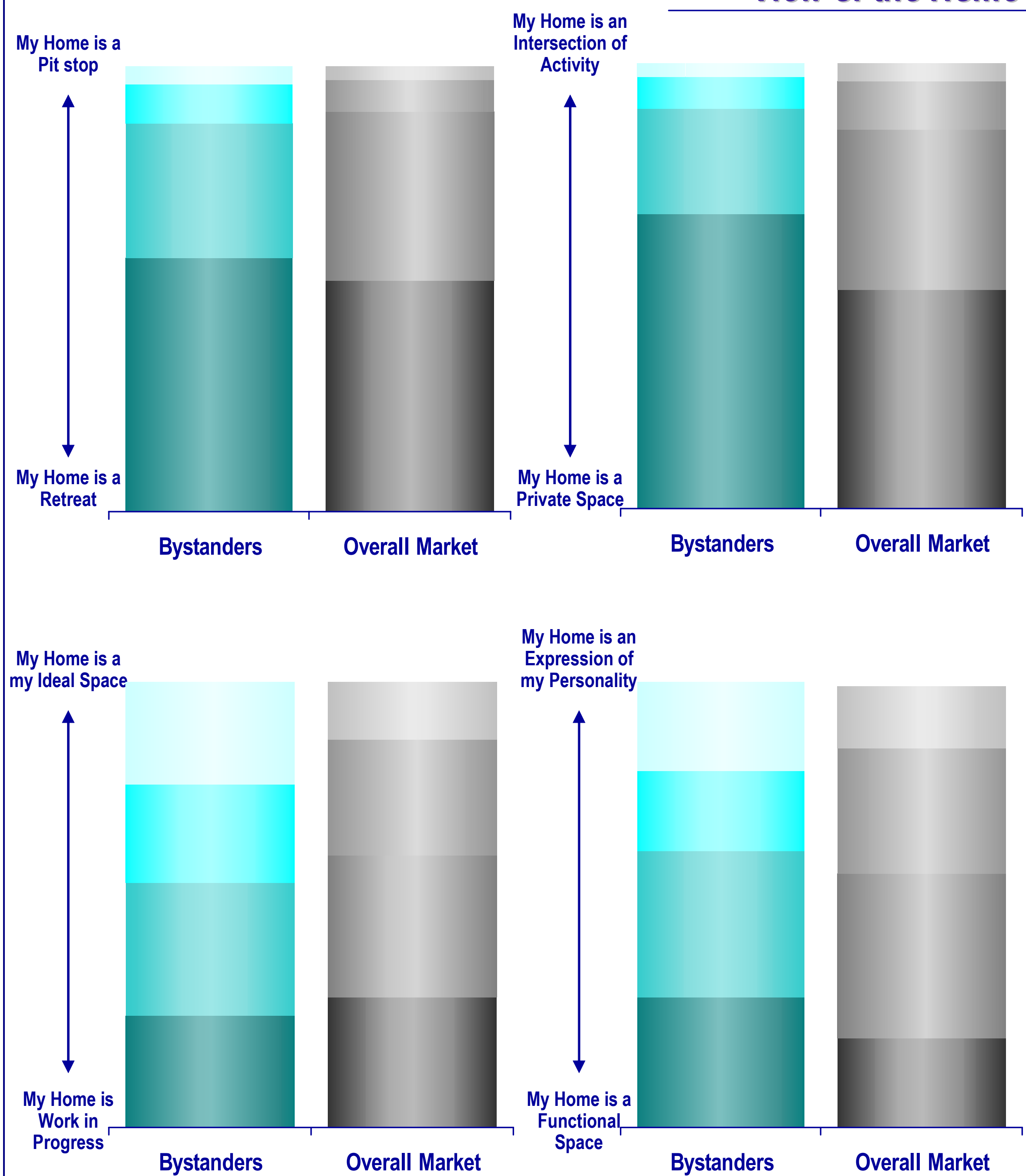






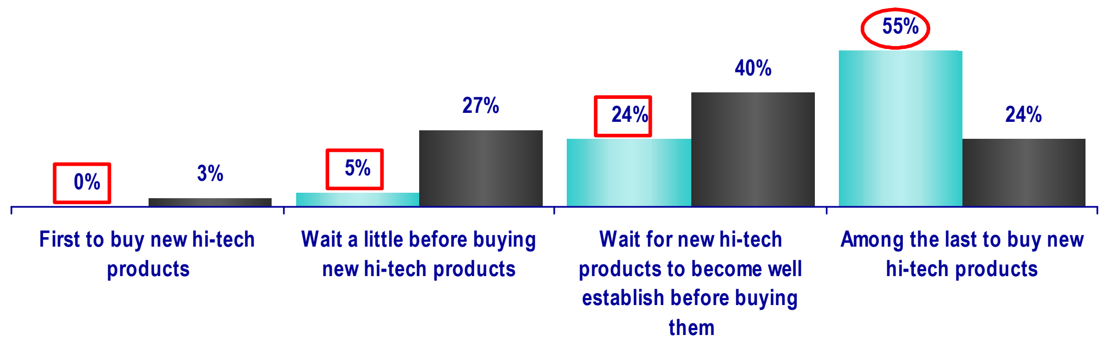
Bystanders: Home Profile

View of the Home

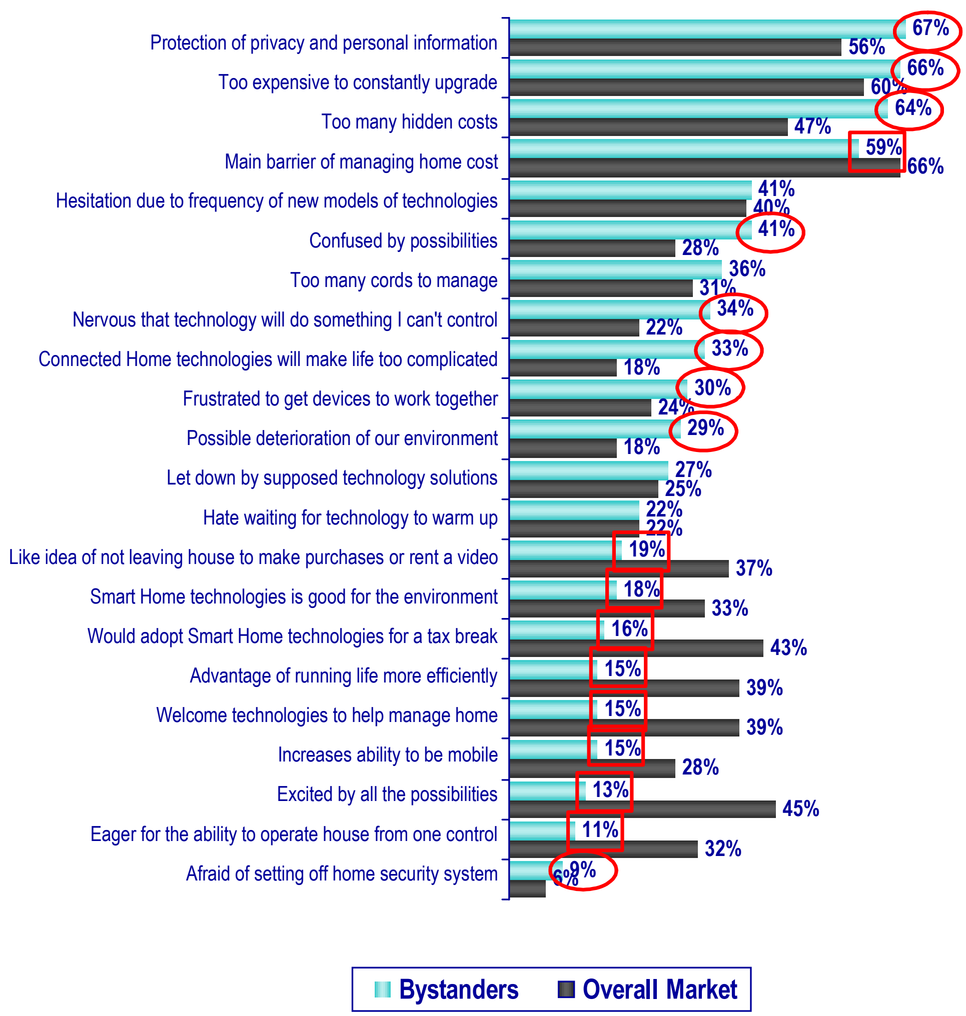


Bystanders: Technology Profile

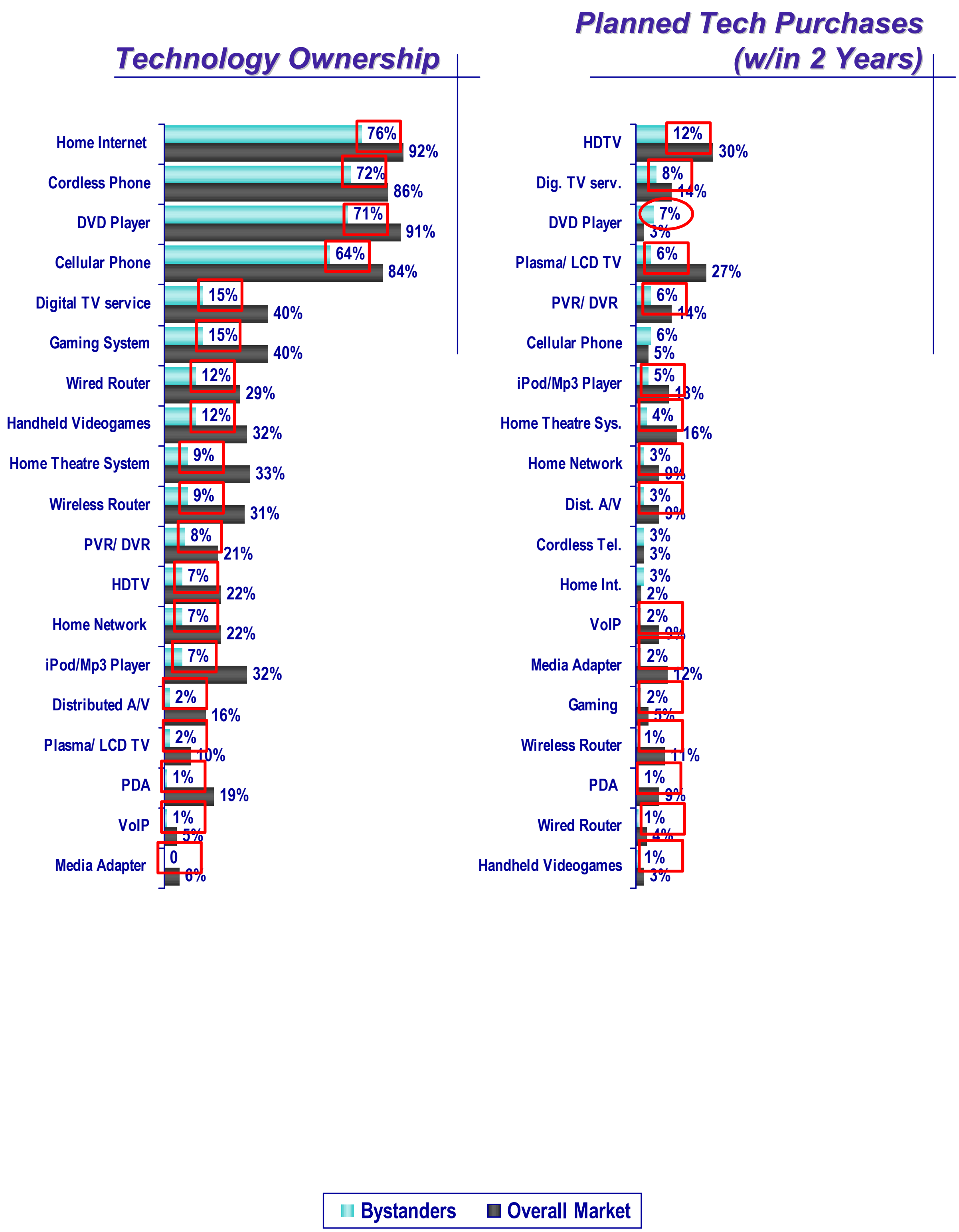
Tech Adoption



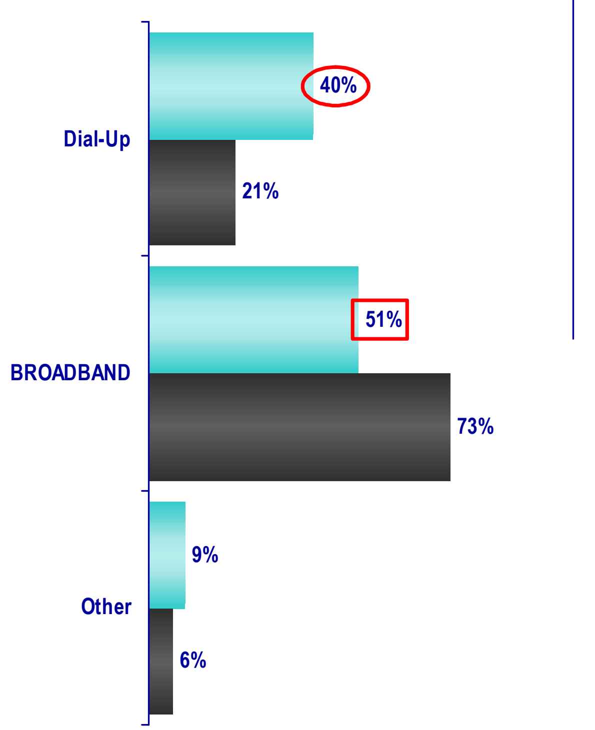
Attitudes Towards Technology

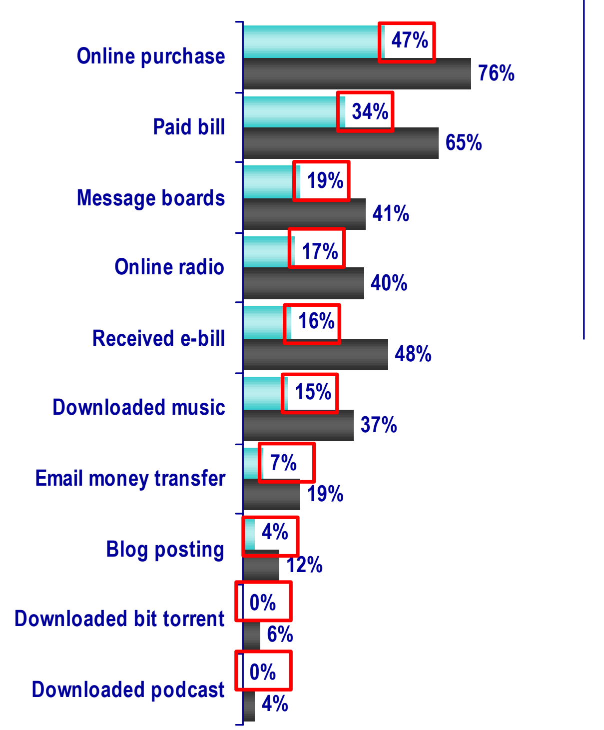


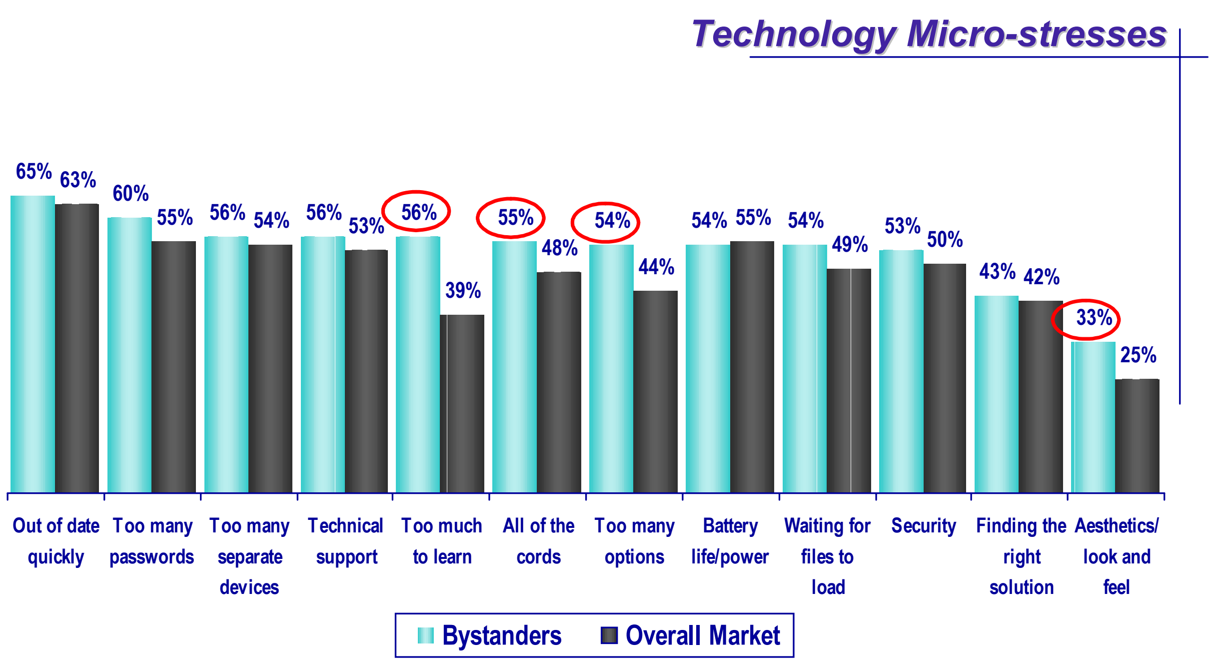
Bystanders: Technology Profile



Bystanders: Technology Profile

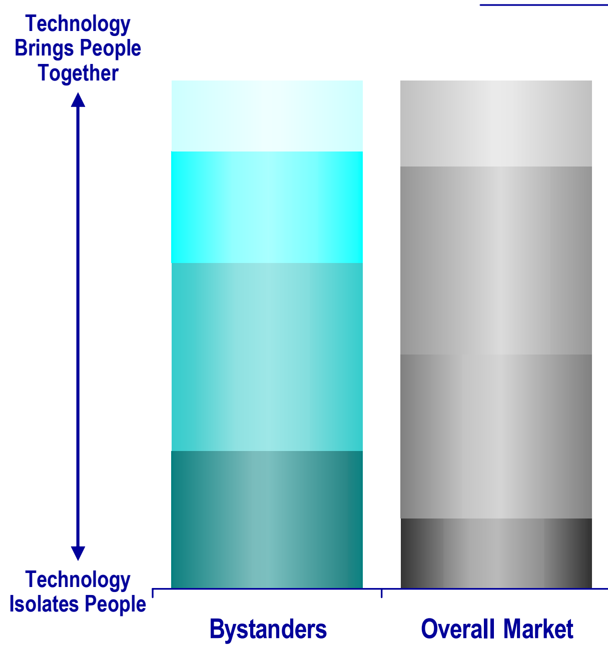


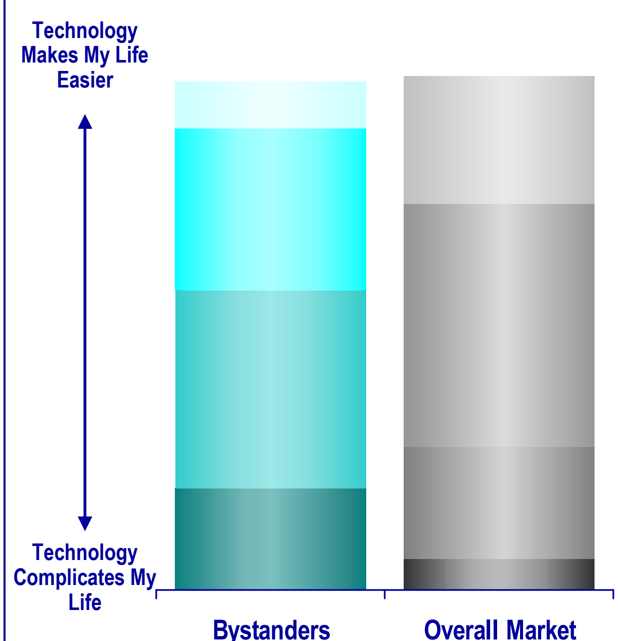


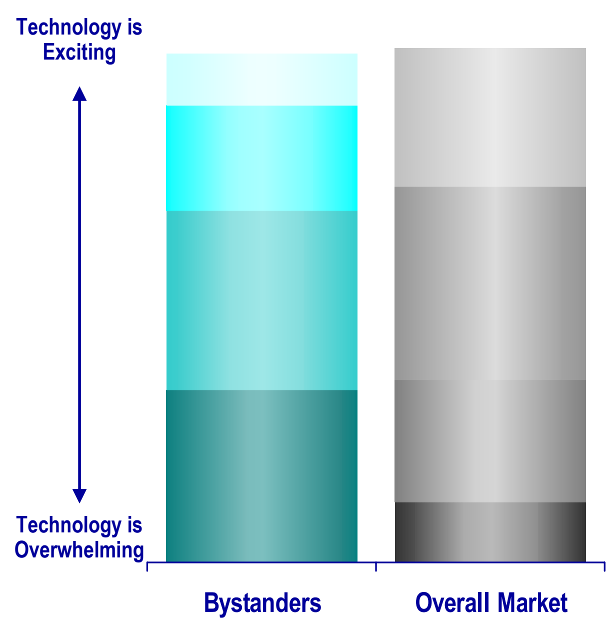


Bystanders: Technology Profile

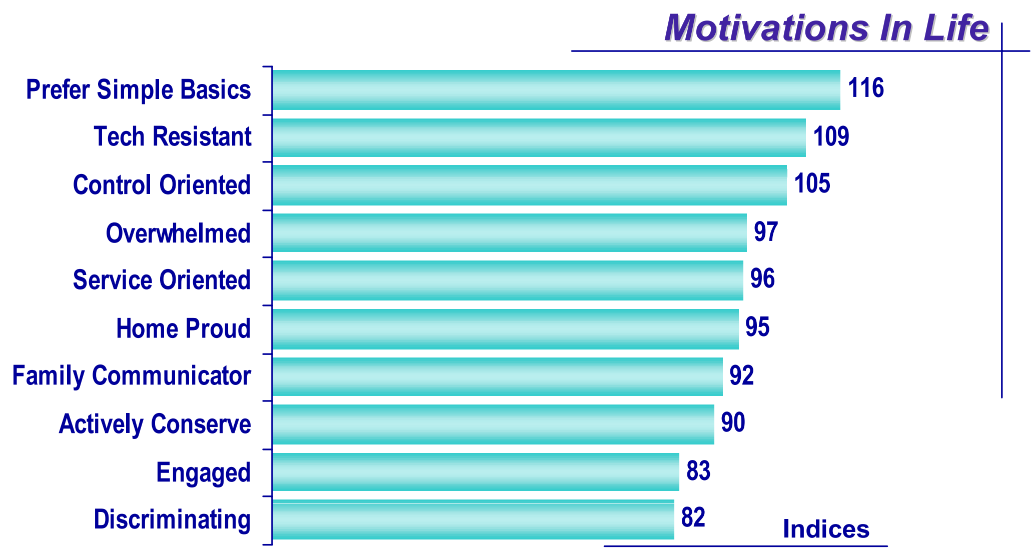
View of Technology

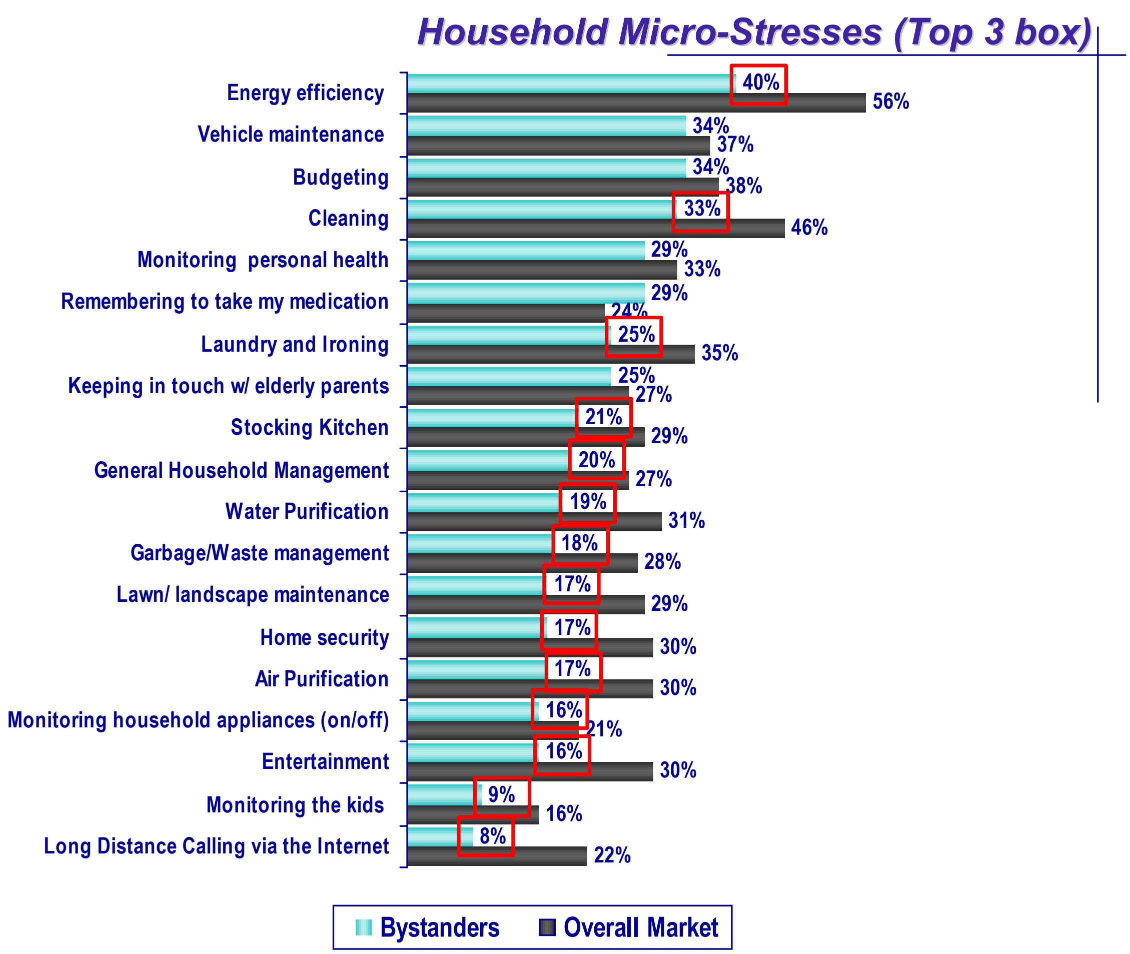






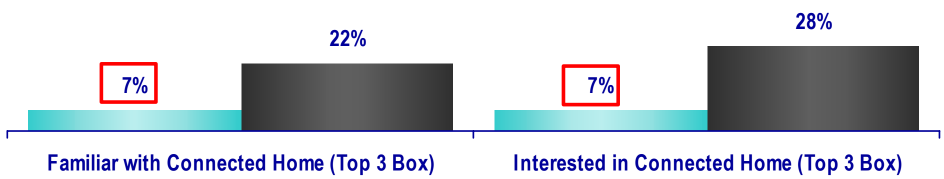
Bystanders: Needs & Wants/Micro-Stresses



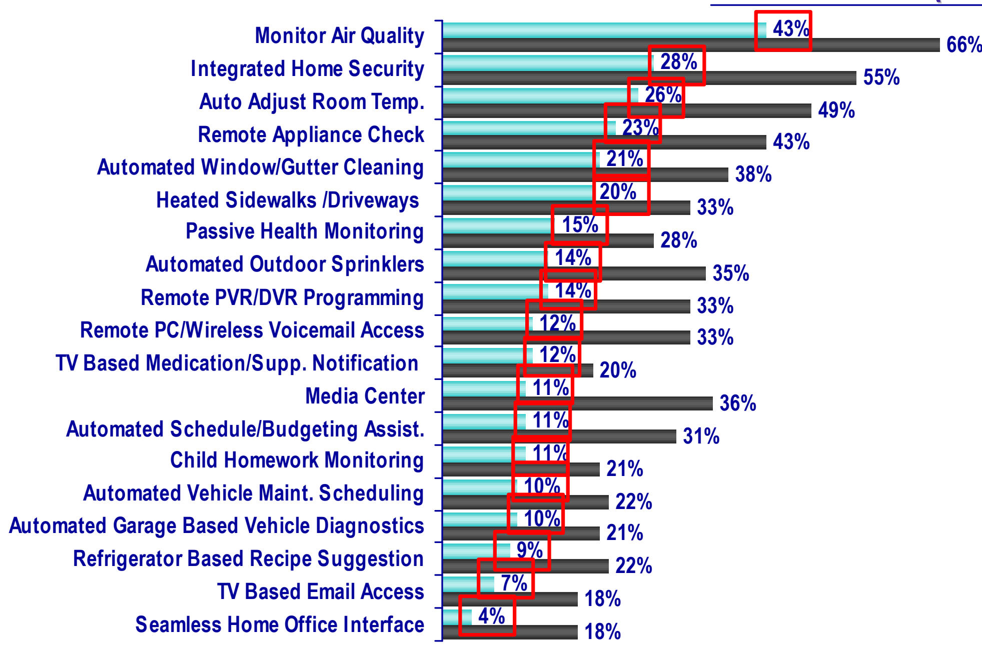


Bystanders: Relationship with the Connected Home

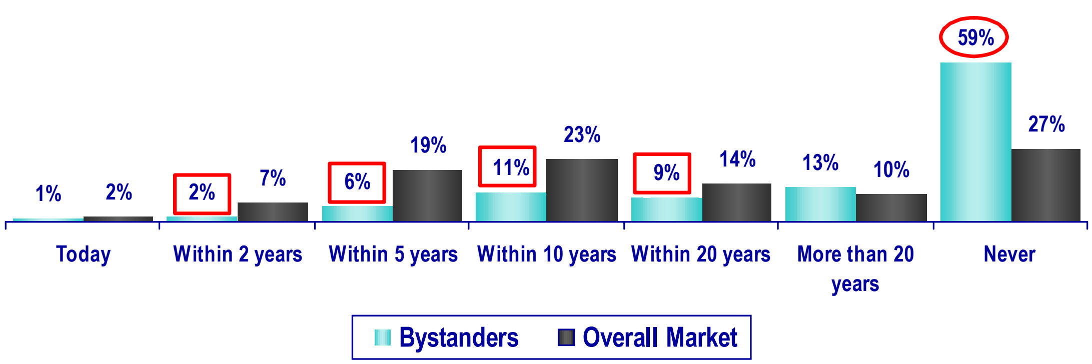
Affinity with the Connected Home Concept



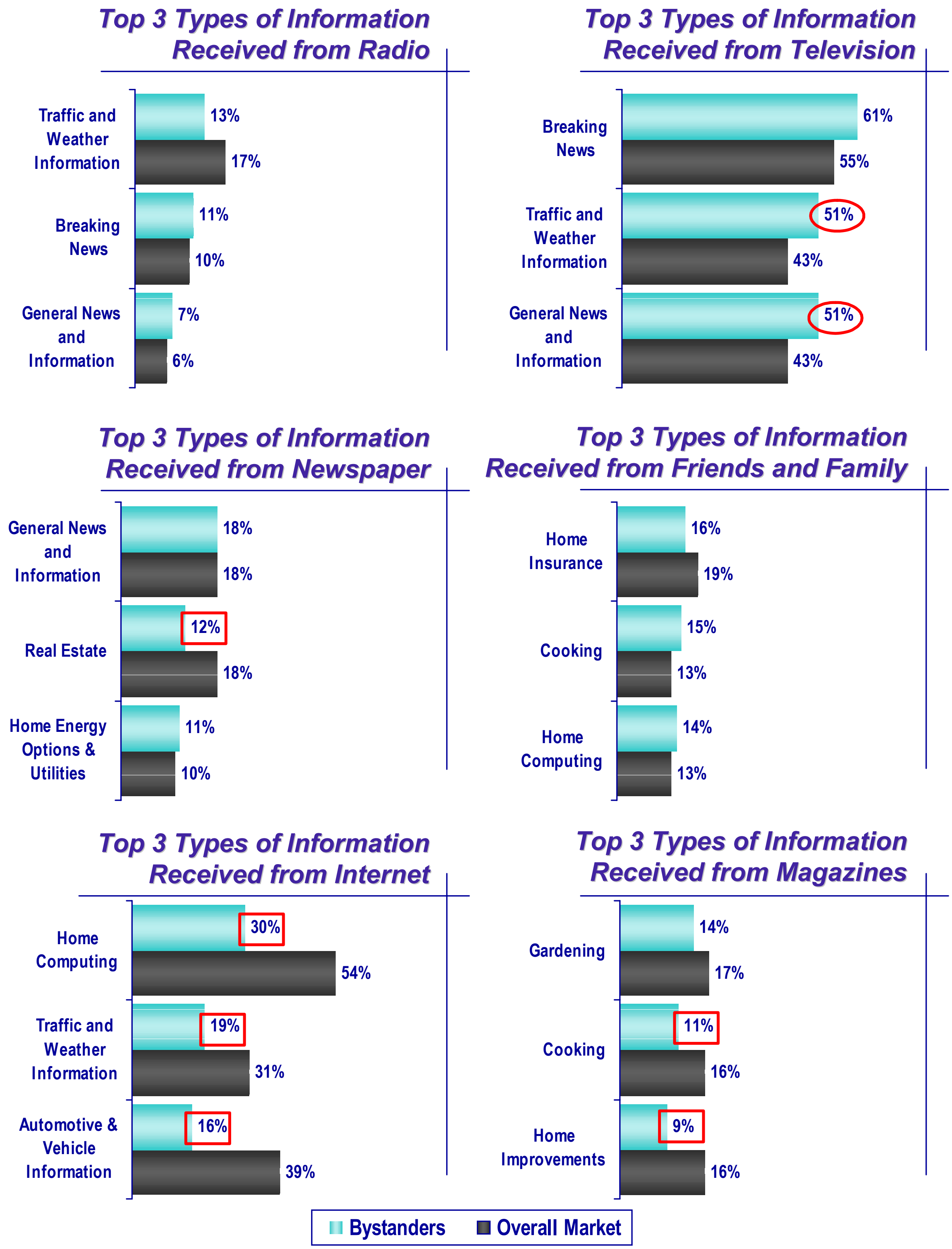
Connected Home Feature Interest (Top 2 Box)



Connected Home Time Frame



Bystanders: Information Sources



Appendix B

Daily Micro-stresses

	Home Heroes (n=303)	Dreamers (n=172)	Mobi-Politans (n=103)	Tech 'sters' (n=224)	Achievers (n=191)	Critical Adopters (n=243)	Bystanders (n=264)
Energy efficiency	56%	68%	47%	52%	75%	59%	40%
Cleaning	47%	61%	55%	40%	52%	41%	33%
Budgeting	42%	56%	41%	37%	37%	26%	34%
Vehicle maintenance	35%	51%	35%	31%	44%	33%	34%
Laundry and Ironing	34%	49%	36%	30%	44%	32%	25%
Monitoring personal health	30%	50%	36%	30%	36%	26%	29%
Water Purification	31%	37%	34%	34%	44%	27%	19%
Air Purification	31%	38%	36%	30%	45%	26%	17%
Home security	30%	40%	32%	30%	39%	27%	17%
Entertainment	29%	40%	34%	38%	48%	14%	16%
Stocking Kitchen	33%	44%	23%	27%	36%	21%	21%
Lawn/ landscape maintenance	27%	34%	20%	25%	52%	30%	17%
Garbage/Waste management	28%	36%	32%	26%	40%	26%	18%
General Household Management	26%	42%	29%	26%	35%	19%	20%
Keeping in touch w/ elderly parents	29%	22%	31%	28%	32%	24%	25%
Remembering to take my medication	21%	35%	22%	23%	21%	19%	29%
Long Distance Calling via the Internet	19%	29%	27%	26%	35%	19%	8%
Monitoring household appliances (on/off)	19%	29%	28%	19%	31%	17%	16%
Monitoring the kids	29%	5%	20%	24%	20%	4%	9%

Significantly higher than the overall market at a 90% level of confidence

Significantly lower than the overall market at a 90% level of confidence

Consumer Interest in Connected Home Technologies

	Home Heroes (n=303)	Dreamers (n=172)	Mobi-Politans (n=103)	Tech 'sters' (n=224)	Achievers (n=191)	Critical Adopters (n=243)	Bystanders (n=264)
Monitor Air Quality	66%	78%	70%	67%	86%	66%	43%
Integrated Home Security	54%	65%	65%	56%	83%	49%	28%
Auto Adjust Room Temp.	45%	61%	47%	50%	75%	48%	26%
Remote Appliance Check	44%	53%	48%	41%	61%	40%	23%
Automated Window/Gutter Cleaning	34%	45%	47%	36%	55%	38%	21%
Central Media Center	30%	50%	41%	46%	65%	27%	11%
Automated Outdoor Sprinklers	32%	42%	42%	30%	59%	37%	14%
Remote PC/Wireless Voicemail Access	27%	46%	34%	40%	62%	26%	12%
Remote PVR/DVR Programming	33%	42%	32%	41%	56%	25%	14%
Heated Sidewalks /Driveways	32%	41%	31%	32%	46%	32%	20%
Automated Schedule/Budgeting Assist.	35%	47%	30%	35%	46%	24%	11%
Passive Health Monitoring	30%	38%	30%	28%	39%	26%	15%
Refrigerator Based Recipe Suggestion	26%	28%	31%	25%	31%	15%	9%
Automated Vehicle Maint. Scheduling	23%	26%	26%	25%	33%	17%	10%
Child Homework Monitoring	30%	22%	23%	22%	34%	10%	11%
Automated Garage Based Vehicle Diagnostics	23%	29%	23%	21%	28%	17%	10%
TV Based Medication/Supp. Notification	19%	27%	24%	19%	26%	17%	12%
TV Based Email Access	15%	27%	18%	20%	36%	14%	7%
Seamless Home Office Interface	11%	24%	25%	26%	38%	14%	4%

Significantly higher than the overall market at a 90% level of confidence

Significantly lower than the overall market at a 90% level of confidence

Appendix C

Survey Stats: Online interview, Consumer Segmentation, 20 minutes in length

Study Objectives:

- Segment consumers based on interest in and adoption of technology, involvement in the home & motivations in life
- Pinpoint underlying themes influencing consumer adoption
- Identify key consumer targets
- Use consumer aggravations to uncover opportunities
- Differentiate consumers based on their potential value to the industry

Sample & Quotas Stats:

	Definition	Sampling Specifications	Sample Size
Group 1	US Consumer Market	Nationally representative of the Gen Pop 18+ / 100% Qualify	1,000
Group 2	Canadian Consumer Market	Nationally representative of the Gen Pop 18+ / 100% Qualify *English or Bilingual ONLY*	500
			1,500

Email Invite

Invite Subject: Ipsos i-Say Online Survey Invitation

Dear I-Say Member,

We have a new survey waiting for you at our survey site. Your personalized URL for this survey can be found at the bottom of this message.

We appreciate your continued participation & dedication to Ipsos i-Say. As always, your responses will be kept confidential.

Sincerely,

Ipsos i-Say Panel Team

Survey Introduction

Thank you for your participation in our i-Say online surveys. Your opinions are very important to us. Please fill out the following survey, which should take approximately 20 minutes to complete.

Once we receive your completed survey, you will automatically be entered into our draw for a chance to win one of five (5) prizes of $100 each (see the sweepstakes rules page for more information).

Remember, all the information you provide us is kept strictly confidential. It is used for classification purposes only. Your specific information will never be given to anyone outside of Ipsos i-Say.

Please use the arrow keys at the bottom of the page to take the survey instead of using the browser back button.

Good luck and thanks again!

Qualifiers

Are you or is any member of your household employed in … *(Select all that apply)*

A market research company
The media including newspapers, magazines, radio or television
None of the above

[ALL "None of the above" at QA CONTINUE, ELSE SKIP TO DEMOS]

Section 1: House-o-graphics

Lets begin with a few questions about your home…

1. Which of the following best reflects the area where you live? *(Select only one)*

   A large metropolitan city
   A suburban community of a larger city
   A smaller city or town
   A rural or farming area

2. Which of the following best describes your home? *(Select only one)*

   Single-family detached house
   Apartment or Condo
   Townhouse
   Duplex
   Mobile Home
   Something Else

3. Do you own or rent your home? *(Select one only)*

   Own
   Rent
   Other

4. Approximately when was this house built? *(Select only one)*

   Before 1950
   1950-1975
   1976-1985
   1986-1990
   1991-1994
   1995 or after
   Don't know

5. What is the approximate square footage of your home, including your basement (if you have one), but not your garage? *(Select one only)*

   Under 1500 sq. ft.
   1500 to 2499 sq. ft.
   2500 to 3499 sq. ft.
   3500+ sq. ft.
   Don't know

6. Please select which of the following you currently have and use in your home. *(Select all that apply)* [RANDOMIZE]

   Garage door opener
   Air conditioning system
   Home security/alarm system
   Home security/alarm system monitored by a security company
   Outdoor sprinkler system

Central Vac system
Forced air (heat and or air conditioning comes through vents in your floors or walls)
Smart electricity meter
Solar panels
Remote window blinds
Heated floors
Programmable thermostat
Programmable lights (timer)
Remote notification of clothing washer/dryer cycles
Ionic air purifiers
Water purification system (on tap or portable container, on refrigerator)
Home gym (treadmill, rower, Olympus weights)

7. What is the main energy source you use to **heat** your home? (Select one only)

Oil
Propane
Natural Gas
Electricity
Solar
Wood
Other (Please Specify)
Don't know

8. Which of the following, if any, safety devices do you currently have in your home? *(Select all that apply)*

[RANDOMIZE]
Smoke detector
Sprinkler system
Carbon monoxide detector
Fire extinguisher
First aid kit
Emergency medical response monitor
Emergency numbers programmed into telephone speed dial
None of the above

9. Following are some general tasks associated with your home. For each, please indicate how interested you would be in an easier solution to performing this household task. Please use a 10-point scale, with 10 indicating you are "Extremely interested in a solution for this household task" and 1indicating you are "not at all interested in a solution for this household task".

[ACROSS]

10 – Extremely interested in a solution for this household task
9
8 …
1 – Not at all interested in a solution for this household task

[DOWN]

a. General Household Management Issues
b. Garbage/Waste management
c. Energy efficiency of my home
d. Laundry and Ironing

e. Vehicle maintenance i.e. oil changes
f. Monitoring my personal health
g. Remembering to take my medication/ supplements
h. Monitoring the kids when I'm not around
i. Keeping in touch with elderly parents
j. Monitoring household appliances (on/off)
k. Air Purification
l. Water Purification
m. Budgeting
n. Home security
o. Stocking Kitchen
p. Entertainment
q. Cleaning
r. Long Distance Calling via the Internet
s. Lawn and landscape maintenance

10. Is there any other household task you wish could be made easier?

    [OPEN END]

11. What follows are a series of statements people have made about life in general. For each, please indicate the extent to which the statement reflects your own view using a 10-point scale, with 10 indicating you "completely agree" and 1indicating you "completely disagree". *(Select only one)*

    [RANDOMIZED]
    [ACROSS]
    10 – Completely Agree
    9
    8 …
    2
    1 – Completely Disagree

    [DOWN]
    a. I don't spend a lot of time or energy on my home
    b. My home is my retreat from the outside world
    c. Technology is an indispensable part of life today
    d. Technology changes too fast; it is too difficult to keep up
    e. I enjoy owning things that impress friends and family
    f. Men make most of the tech-related (entertainment) purchasing decisions
    g. I often buy technology only because I need to keep up with my friends and family
    h. I'm always buying the latest gadget, even if they have no practical use
    i. We should return to the simple ways of the past
    j. The design, colors and types of materials are as important as the specific features of a product
    k. I often feel overwhelmed by all that I need to get done
    l. Products with basic features appeal to me, all of the extras are just unnecessary
    m. In my home, I take many small measures to conserve energy
    n. Taking care of my home is a never-ending chore
    o. When I can, I use technology to save money and time
    p. Before I make decisions, I usually take the time to research the issues thoroughly
    q. I make great efforts to sort my garbage for recycling
    r. When something needs to be done around the house, I usually hire someone
    s. I almost always have some home renovation project on the go
    t. I don't tend to spend a lot of time at home, I am always on the go

12. What follows are another series of statements people have made about life in general. Once again, please indicate the extent to which the statement reflects your own view using a 10-point scale, with 10 indicating you "completely agree" and 1indicating you "completely disagree". *(Select One Only)*

[RANDOMIZE]

[ACROSS]

10 – Completely Agree
9
8 …
2
1 – Completely Disagree

a. I look to the government for advice on energy and conservation
b. When it comes to my home furnishings I make do with what I have rather than trying to stay in fashion
c. It is important to me that my home looks impressive when company comes to visit
d. I will use any technology that will help me protect my home and family from danger
e. It is not safe to purchase things from the Internet
f. I am uncomfortable knowing that people can access my personal information
g. I prefer to prepare a home-cooked meal rather than go out to a restaurant
h. When others see my home the first thing they notice is how neat and orderly it is
i. It concerns me that with so much technology children might loose the skills necessary for social interaction
j. The Internet helps our family keep in touch with members who don't live near by
k. I enjoy playing with new products to see how they work
l. I look for products and services that help manage my everyday life
m. I have a daily routine that I try to stick to
n. I feel the need to check in regularly on family members who are away from me
o. Even when I am on vacation, I like to maintain regular contact with my work
p. I am the person in my family who works to keep everyone in touch
q. Products with basic features appeal to me, all of the extras just add unnecessary cost and complexity
r. Anything in life that forces me to change my habits or routines is uncomfortable
s. I rely on technology to help me control how my children use TV and the Internet
t. I take many small measures to conserve energy
u. I am excited by the potentials technology offers to enrich the education of children at home

Next we would like to show you a description of a new idea for your home. Please read carefully in order to accurately answer the questions that follow.

The Connected Home will bring together a number of new technologies allowing you to manage all aspects of your home in more convenient ways.

- A Connected Home might include automation, connection of home electronics and appliances both within the home and over the Internet, wireless networking, entertainment, energy and water conservation, and information access.
- Connected Homes can also perform operations such as controlling lighting, heating, air conditioning, watering systems, monitoring changes in health and wellness, or arming/disarming the security system.
- With a Connected Home it becomes possible control many aspects of your home automatically or from a remote location.

13. Generally speaking, how familiar are you with the concept of the Connected Home? Please use a 10-point scale, with 10 indicating you are "very familiar" and 1 indicating you are "not at all familiar". *(Select one only)*

    10 – Very familiar
    9
    8
    …
    1 – Not at all familiar

14. And how interested are you in the capabilities of the Connected Home? Please use a 10-point scale, with 10 indicating you are "very interested" and 1 indicating you are "not at all interested". *(Select one only)*

    10 – Very interested
    9
    8
    …
    1– Not at all interested

15. What follows are a series of capabilities that a Connected Home would be able to perform.

    We would like you to assume for the purposes of this exercise you currently live in a fully operational Connected Home. Please use the following scale to indicate how important it is for your Connected Home to have each of the following capabilities.

    Is the capability …

    Absolutely essential (this is so important, I would not have a Connected Home without this capability)
    A must have (while this capability is important, I would still have a Connected Home even if it could not perform this capability)
    A nice to have (this capability is interesting, but if this capability was not possible, it would not affect the value I receive from my Connected Home)
    Not at all necessary (I am not interested in this capability, and in no way would affect the value I receive from a Connected Home)

    [ACROSS]

    Absolutely essential
    A must have
    A nice to have
    Not at all necessary

    [RANDOMIZE]

    [DOWN]
    a. Ability to check and respond to email using the television
    b. Ability to receive notification or listen to voicemail messages left at home phone number from a PC or wireless device
    c. Remotely check if household appliances (such as an iron, stove, lights) have been turned off using a cell phone or the Internet
    d. Ability for room temperatures to automatically adjust based on occupants, using pre-set preferences
    e. A refrigerator with the ability to search the internet for recipes using ingredients available in the household
    f. Ability to monitor children's homework assignments and completion

g. Have the ability to program your VCR or PVR (personal video recorder) to record a TV program when away from your home using a cell phone, portable device or the Internet
h. A central media centre where you can access all of your home entertainment, whether live or recorded television programs, music or movies
i. A notification on your television screen that lets you know when to take your medication, vitamins or supplements
j. Home passively monitors life signs of occupants such as heart rate and blood pressure
k. A system that monitors the home's air quality, sounding an alarm and notifying the security company when smoke or carbon monoxide is detected
l. An integrated home security system that monitors the home when you away, notifying you of any disturbance through an email, voicemail, text message or other customized alert
m. Seamless interface with clients and colleagues for your home office
n. Automated assistant to schedule appointments and track bills
o. Automated garage system can notify you when your car is scheduled for a tune up or oil change
p. Automated garage system can check tire pressure and the need for tire rotation or replacement
q. Have an automated outside sprinkler system that monitors the weather (temperature and precipitation) and waters your grass and plants automatically
r. Automated gutter and window cleaning systems
s. Heated sidewalks and driveways will eliminate the need to shovel snow

16. Please describe below other capabilities that will be essential in your Connected Home?

    [OPEN END]

17. How soon do you think your own home may incorporate some of these Connected Home technologies? *(Select one only)*

    Today
    Within 2 years
    Within 5 years
    Within 10 years
    Within 20 years
    More than 20 years
    Never

Section 2: Tech Adoption

18. Which **one** of the following statements best describes you? Would you say that compared to your circle of friends, relatives and neighbours… *(Select only one)*

    You are always the first to buy new hi-tech products that appear on the market
    You usually wait a little before buying new hi-tech products, taking time to see if they work well
    You usually wait for new hi-tech products to become well established before buying them
    You are usually among the last to buy new hi-tech products
    Don't know

19. What follows is a series of statements related to technology. For each, please indicate the extent to which the statement reflects your own view using a 10-point scale, with 10 indicating you "completely agree" and 1indicating you "completely disagree". *(Select One Only)*

    [ACROSS]

    10 – Completely agree

9
8 …
1 – Completely disagree

[DOWN]

[RANDOMIZE]

a. I am confused by all of the possibilities when it comes to upgrading my home with technology
b. I am often frustrated trying to get devices in my home to work together
c. I like that I don't have to leave my home to make purchases or even rent a video
d. I hesitate to buy new technologies because something better is often just around the corner
e. I am eager for the time when I can operate the main functions in my home through a universal control (Entertainment, Telephone, Heating/cooling)
f. With technology, there are too many cords to manage
g. In the past I've been let down by supposed technology solutions
h. There are too many hidden costs with technology
i. It is simply too expensive to keep up with technology developments
j. A key advantage of technology is that it helps me run my life more efficiently
k. I hate waiting for technology to warm up
l. I would adopt Connected Home technologies if the government gave me a tax credit
m. Connected Home technologies are good for the environment
n. The proliferation of home-based technologies will only add to our environmental deterioration
o. For me the most important thing is that technology increases my ability to be mobile
p. I am always nervous that the technology in my home will do something that I can't control
q. With so much technology, I worry about protecting my privacy and personal information
r. I am afraid of setting my home security system off, so I don't use it often
s. I would welcome technologies that would help me manage my home~~.~~
t. The main barrier to increasing technology in my home is cost
u. Connected Home technologies will make my life too complicated
v. I am excited by all of the new possibilities technology offers

20. What follows are a series of statement pairs people have expressed regarding technology and their homes. For each pair, please select the response that most closely represents your view. *(Select One Only for Each)*

My home is….
[ACROSS]

A.	1 - a retreat	2	3	4 – a pit stop
B.	1 - a private space	2	3	4 – an intersection of activity
C.	1 - a work in progress	2	3	4 – my ideal space
D.	1 - a functional space	2	3	4 – an expression of my personality

Technology….

A.	1 - isolates people	2	3	4 – brings people together
B.	1 - is overwhelming	2	3	4 – is exciting
C.	1 - complicates my life	2	3	4 – makes my life easier

21. Below are a series of small irritations that people have expressed regarding technology. For each, please indicate the extent to which the statement reflects your own view using a 10-point scale, with 10 indicating you "completely agree" and 1indicating you "completely disagree". *(Select One Only)*

    [ACROSS]

    10 – Completely agree
    9
    8 …
    1 – Completely disagree

    [RANDOMIZE]

    [DOWN]
    a. Battery life/power
    b. Aesthetics/ look and feel
    c. Out of date quickly
    d. Too many options to choose from
    e. All of the cords
    f. Too much to learn
    g. Too many separate devices
    h. Too many passwords
    i. Technical support
    j. Waiting for files to load/system to start
    k. Security
    l. Finding the right solution for my needs

22. Is there anything else about technology that irritates you that we have not mentioned?

    [OPEN END] – Small open end space
    [OPEN END] – Small open end space
    [OPEN END] – Small open end space

23. Thinking about your home, which of the following entertainment and communications devices and services do you currently own or subscribe to? Which of the following do you expect to purchase in the next two years? *(Select one only)*

    INSERT GRID

    [ACROSS]
    Currently Own
    Plan to purchase within next two years
    Neither

    [DOWN]
    [RANDOMIZE]
    Distributed Audio/Video
    DVD Player
    Gaming System such as Xbox, Game Cube, or PlayStation 2
    Handheld Videogames
    Home Network (links computers or appliances in household)
    Home Theatre System
    High Definition Television

Plasma/LCD Television
PDA (Palm Pilot/Blackberry)
Wireless Router
Wired Router
Digital Television service
Media Adapter (A media adapter is a set top box that connects to your TV & allows you to view or listen to media files stored on your PC)
PVR (Personal Video Recorder)
iPod/Mp3 Player
VoIP (Voice over IP)
Cellular Phone
Cordless Telephone
Home Internet Access

[ASK Q.24 IF HOME INTERNET SERVICE WAS SELECTED AT Q.23]
24. How many computers do you have in your home connected to an Internet service?
XX [RANGE -

[ASK Q.25 IF HOME INTERNET SERVICE WAS SELECTED AT Q.23]
25. What type of Internet service do you currently subscribe to? *(Select one only)*

Dial-Up
Enhanced Dial-Up
Regular Broadband Service - DSL or Cable
Enhanced Broadband Service – DSL or Cable
T1/T3 Connection
Don't know

[ALL RESPONDENTS]
26. Please indicate which of the following Internet related activities you have participated in during the past six months? *(Select all that apply)*

Made an online purchase
Received an electronic bill
Paid a bill online
Sent an email money transfer
Read or posted to an online message board
Listened to an online radio station
Downloaded music
Downloaded bit torrent files
Contributed to a blog
Downloaded a podcast

27. Which of the following statements best applies to your household..? *(Select one only)*

I do not have music or other media files such as pictures, video, movies or television shows stored on my PC
I have music or other media files such as pictures, video, movies or television shows stored on my PC and I only play or watch these files through my PC
I have music or other media files such as pictures, video, movies or television shows stored on my PC and I am able to play or watch these files using my TV or home stereo

28. Consider the following sources of information: radio, television, newspapers, magazines, friends & family, and the Internet. Please indicate which is your primary source for: *(Select one response across for each)*

[ACROSS]

a. Radio
b. Television
c. Newspapers
d. Magazines
e. Friends & Family
f. Internet
g. None/ Don't look for info

[DOWN]
[RANDOMIZE]
h. General News and Information
i. Traffic and Weather Information
j. Breaking News
k. Automotive & Vehicle Information
l. Home Energy Options & Utilities
m. Home Computing i.e. computers, Internet, home networks
n. Real Estate
o. Home Insurance
p. Household Finances (banking, mortgages etc)
q. Home Improvements
r. Home Entertainment
s. Gardening
t. Cooking

Section 6: Family-o-graphics

And finally a few questions about you and your family …

29. Please indicate to which ethnic group you most closely identify with?

[U.S.]
African American
Alaska Native
American Indian
Asian American
Black
Hispanic
Latino
Native Hawaiian
Pacific Islander
Multi-racial
White/Caucasian
Other

[CANADA]
Aboriginal
Arab
Black

Chinese
Filipino
Japanese
Latin American
Korean
Multi-racial
South Asian
Southeast Asian
West Asian
White/Caucasian
Other

30. What is your marital status? *(Select one only)*

Single
Married/common law
Divorced/separated
Widowed
Other

31. Which of the following categories best describes your current occupation? *(Select one only)*

Managerial/Administrative/Business Owner
Professional
Clerical
Sales
Service
Farming/Fishing
Technical/Skilled
Labourer
Other (please specify

32. Into which of the following age categories do you fall? *(Select one only)*

Under the age of 18
18 to 24 years old
25 to 34 years old
35 to 44 years old
45 to 54 years old
55 to 64 years old
65 and over

33. Please indicate your gender? *(Select one only)*

Male
Female

34. Including yourself, how many people live in your home?

XX [RANGE 1-20]

35. For each member other than yourself, please indicate their age?

[ACROSS– LIST BASED ON RESPONSE TO Q4.0]
Member 2
Member 3
Etc.

[DOWN]
AGE
Under 6
6 to 9
10 to 13
14 to 17
18 to 24
25 to 34
35 to 44
45 to 54
55 to 64
65 and over
Do not know/refuse

36. Do you, or does anyone in your household suffer from a chronic or ongoing illness that requires 3 or more visits to a physician, clinic, hospital or emergency room per year? *(Select One Only)*

Yes
No

37. What is your current employment status? *(Select One Only)*

Employed full time (> 35 hours a week)
Employed part time (< 35 hours a week)
Self-employed
Temporarily unemployed
Retired
Homemaker
Full time student
Not in labour force

38. What is the highest level of education completed a member of your household? Is it…*(Select One Only)*

Some high school or less
High school graduate
Some college or technical school/CEGEP
College or technical school/ CEGEP graduate
Some university
University graduate
Post graduate degree (Masters/Doctoral)

39. Which of the following categories best reflects the total household income before taxes? Is it… *(Select One Only)*

Under $20,000
$20,000 to just under $30,000
$30,000 to just under $40,000
$40,000 to just under $50,000
$50,000 to just under $60,000
$60,000 to just under $70,000
$70,000 to just under $80,000
$80,000 to just under $90,000
$90,000 to just under $100,000
More than $100,000
Don't know/Refused

Thank you for your time. That completes the survey for today.