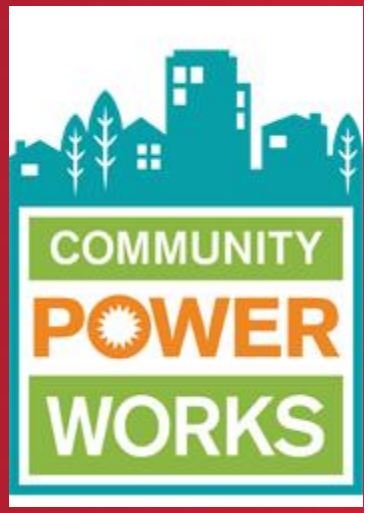
Home Program Non-Participant Survey

Seattle Community Power Works



WSU Energy Program
Evaluation Team
WSUEEP13-010

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WASHINGTON STATE UNIVERSITY
EXTENSION ENERGY PROGRAM

The Demographics of Owner and Renter-Occupied Households in Seattle Differ Significantly

- Compared to renter-occupied households owner-occupied householders
  - have greater incomes
  - have children
  - are older and
  - have higher levels of education.
- Owner-occupied households in Seattle are highly educated and have high incomes compared to other areas of Washington.
- About 10% of owner-occupied units are multi-family (condominiums) and 69% of renter-occupied units are multi-family.

	City of Seattle 2010	
American Community Survey (Table Number)	Owner-Occupied Household	Renter-Occupied Households
Income (2503)		
Under $25K	8.2%	32.2%
$25K-50K	13.6%	28.6%
$50-75K	16.4%	18.2%
$75-100K	15.7%	10.0%
$100-150K	22.4%	7.4%
$150,000 or more	23.7%	3.5%
Age (25007)		
Under 45	36.8%	65.9%
45-54	23.2%	12.9%
55-64	20.6%	9.9%
65-74	9.4%	5.0%
Over 75	10.0%	6.4%
Persons Under 18 (250012)	26.9%	12.1%
Race/Ethnicity - White Only	73.0%	66.7%
Education (25013)		
High School or Less	12.9%	22.6%
Some College	20.2%	33.6%
College Graduate	66.9%	48.3%
Heating Fuel (25117)		
Natural Gas	57.3%	19.6%
Electric	26.9%	73.0%
Oil	13.8%	3.9%
Other	2.0%	3.5%

Community Power Works for Home
Non-Participant Survey Methods and Limits

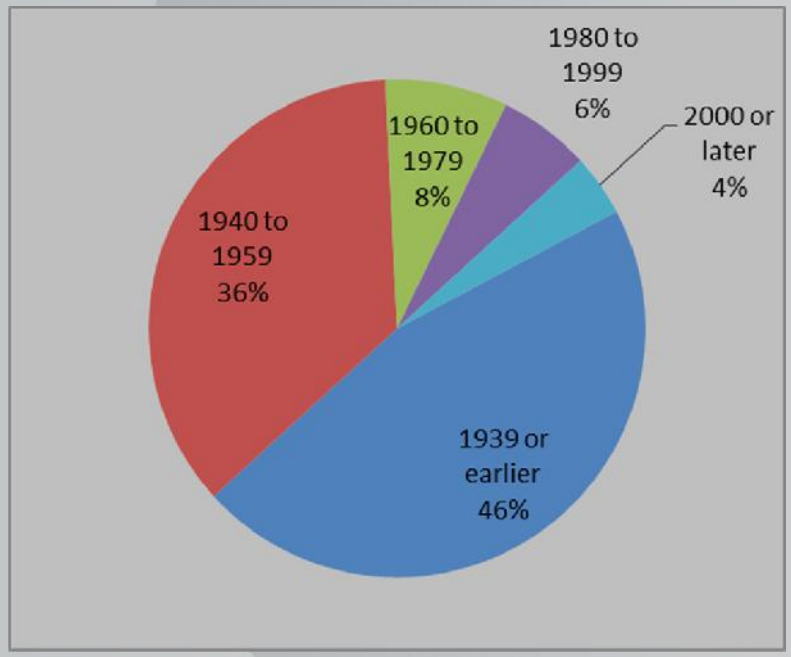
- Administered Fall 2012 to a random sample of addresses in the Seattle city limits.
- Mixed mode survey
  - Mail invitation with link to web survey
  - Three follow-up calls to land-line listings
  - Phone or web-based completion
- Total Reponses (n=399)
- Survey sample is broadly comparable to the profile of Seattle owner-occupied households from the US Census Bureau.
- Compared to the US Census Bureau profile the survey sample is
  - significantly older age
  - has somewhat higher education levels,
  - fewer electrically-heated homes.
- 52% male and 48% female

	City of Seattle	
	Owner-Occupied Households (2010 Census)	CPW for Home Non-Participant Survey
Income (2503)		n=333
Under $25K	8.2%	6.9%
$25K-50K	13.6%	14.4%
$50-75K	16.4%	15.6%
$75-100K	15.7%	18.6%
$100-150K	22.4%	26.1%
$150,000 or more	23.7%	18.3%
Age (25007)		n=375
Under 45	36.8%	12.5%
45-54	23.2%	21.1%
55-64	20.6%	28.8%
65-74	9.4%	26.1%
Over 75	10.0%	11.5%
Persons Under 18 (250012)	26.9%	24.9%
Race/Ethnicity - White Only	73.0%	87.9%
Education (25013)		n=395
High School or Less	12.9%	8.1%
Some College	20.2%	14.7%
College Graduate	66.9%	77.2%
Heating Fuel (25117)		n=396
Natural Gas	57.3%	64.1%
Electric	26.9%	14.1%
Oil	13.8%	19.7%
Other	2.0%	2.0%

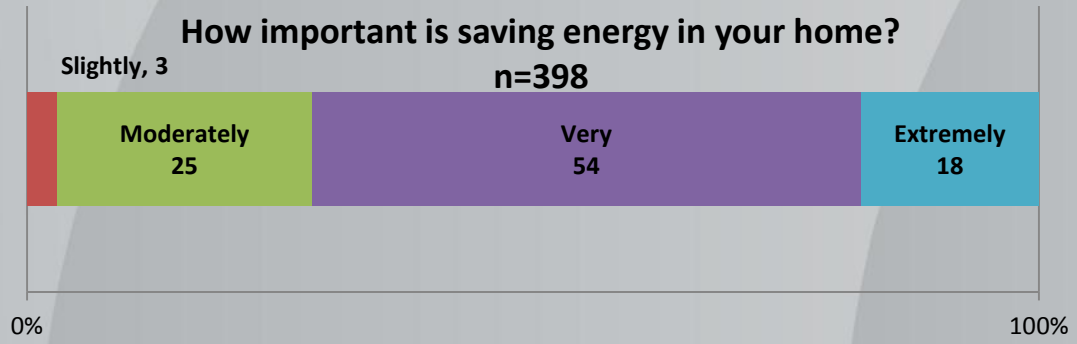
Seattle's Single Family Homes – An Older Housing Stock - With Stable Occupants and More Oil-Heated Homes

- Almost half the homes were built before 1940, 82% before 1960.
- 91% of those surveyed had lived in their homes for more than five years, 6% two to five years.
  - 68% of those under 45 have lived in their home over 5 years
  - Over 95% of those 45 and over have lived in their home more than 5 years
- Heating fuels reflect the older housing stock
  - 64.1% natural gas
  - 19.7% oil heat
  - 34% primary or back-up electric space heat
    - 14.1% electric only
  - 2% Solar or other
- Older householders are more likely to have oil heat (11% under 45, 16% 45-64, 26% 65 or over).

Year Home was Built

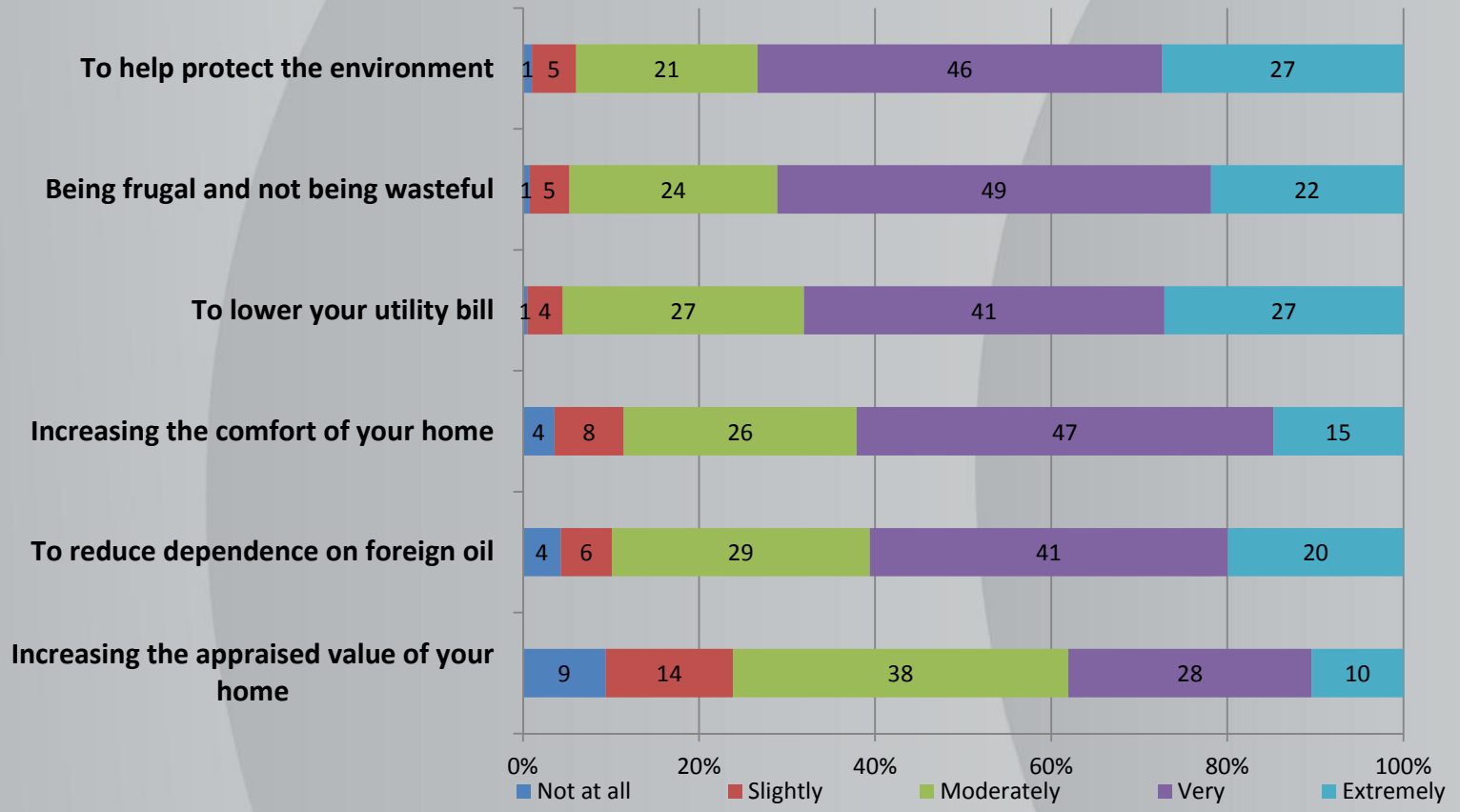


Saving Energy is Extremely or Very Important for 72% of Seattle Households



- None indicated saving energy was not important at all
- Saving energy was more likely to be rated as extremely or very important by:
  - Females (80% vs. 66%)
  - Those with oil-heated homes (75% vs. 69%)
  - Those under age 45 (68% vs. 72%)
- Respondents were asked to rate why saving energy in the home was important
  - Environmental and conservation (frugality) messages had the strongest ratings
  - Comfort, cost savings and increased property values (self-interest) were not as strong
- This pattern was consistent across age, gender, ethnicity and income

Why is Saving Energy Important?



N=399

Awareness of Energy Efficiency Programs in Seattle

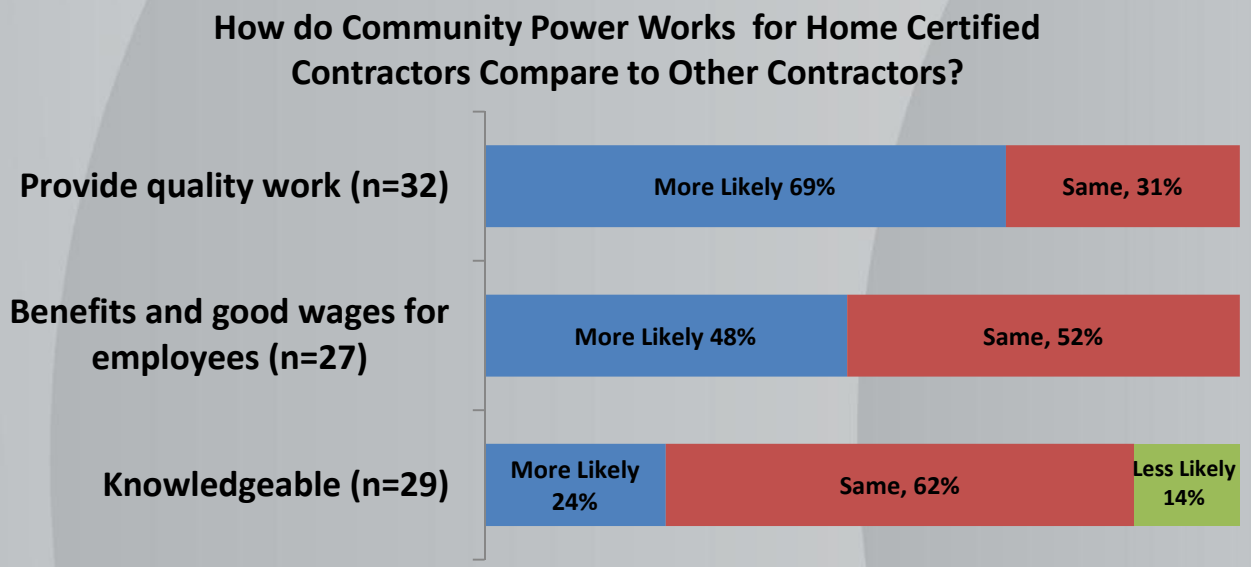
Program/Organization	%
Seattle City Light	99
Energy Star	79
Yellow Appliance Labels	67
Puget Sound Energy and HomePrint	66
Energy Performance Score	28
Seattle Office of Housing and Homewise	27
Community Power Works	9
Other	19

- The visibility Community Power Works as a separate brand was low (9%). This reflects
  - A focus on targeted direct mail for outreach. Over half (54%) of those who aware of the program had direct experience as applicants or friends and family had.
  - Identity overlap with Seattle City Light and the Energy Performance Score (who provides energy assessment for the Homes Program).
- Visibility was higher among those under age 45 (15%) and those with children in the home (14%)
- Those aware of the program were less likely to recall financing and quality assurance program features. These are not featured prominently in marketing.

If heard of CPW, how	%
Insert in SCL bill	67
Insert in other utility bill	53
Letter	47
Friends or family mentioned	42
Friends or family participated	33
Applied to participate	32
Website or blog	23
Radio or TV ad	19
Yard sign	17
Newspaper ad	11
n=37	

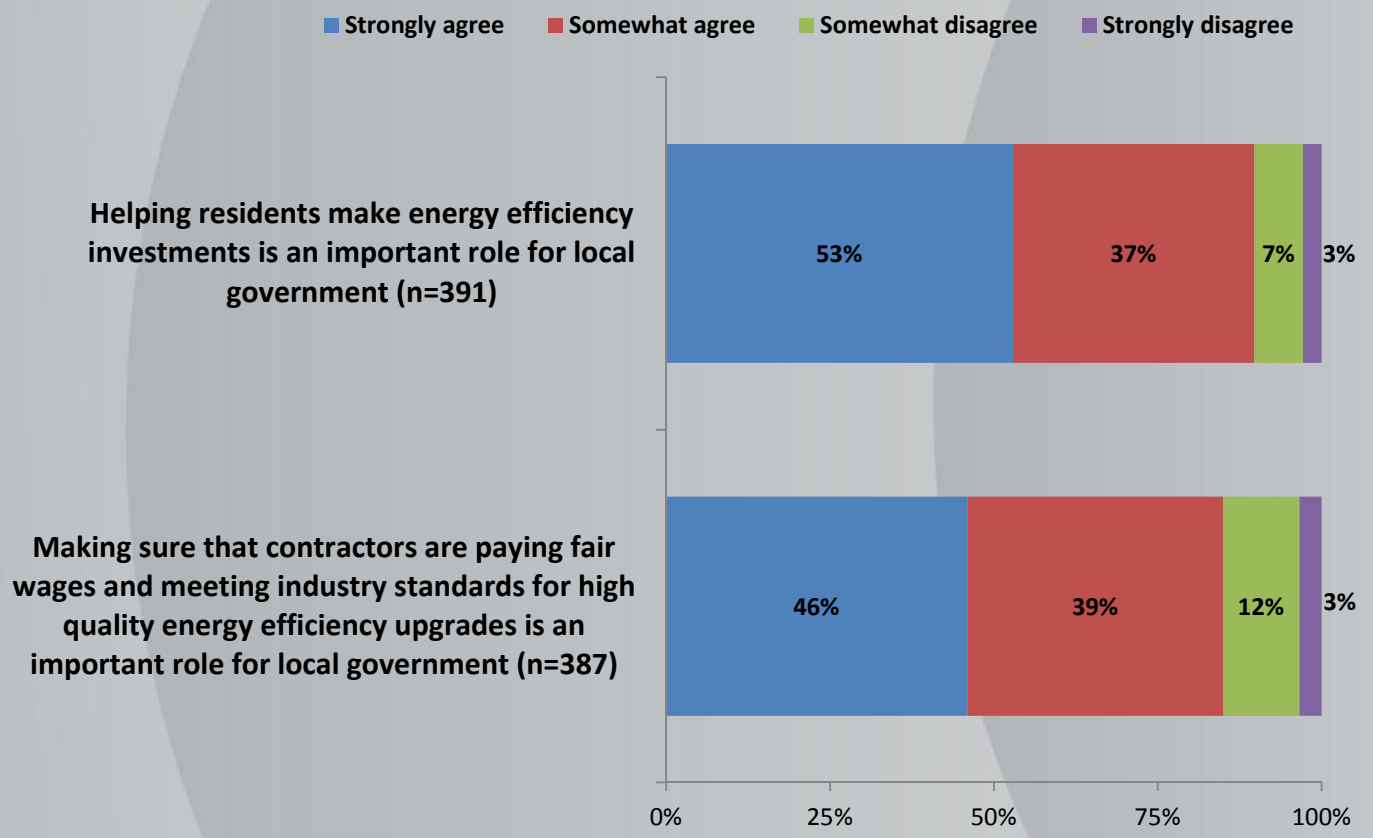
CPW Program Characteristics Awareness	
Rebates for upgrades	75%
Referrals to approved contractors	75%
Access to financing and loans	50%
Quality assurance	28%
n=37	

Community Power Works Contractors Are Viewed As Providing Quality Services and Good Benefits and Wages for Employees



- Only those who were aware of Community Power Works (n=37) were asked to rate contractors.
- Lower ratings on knowledge may be associated with a belief that Homes contractors are experts in energy efficiency but not in all areas of contracting.

Seattle Homeowner's Strongly Agreed that the City has a Role Helping Residents with Energy Efficiency



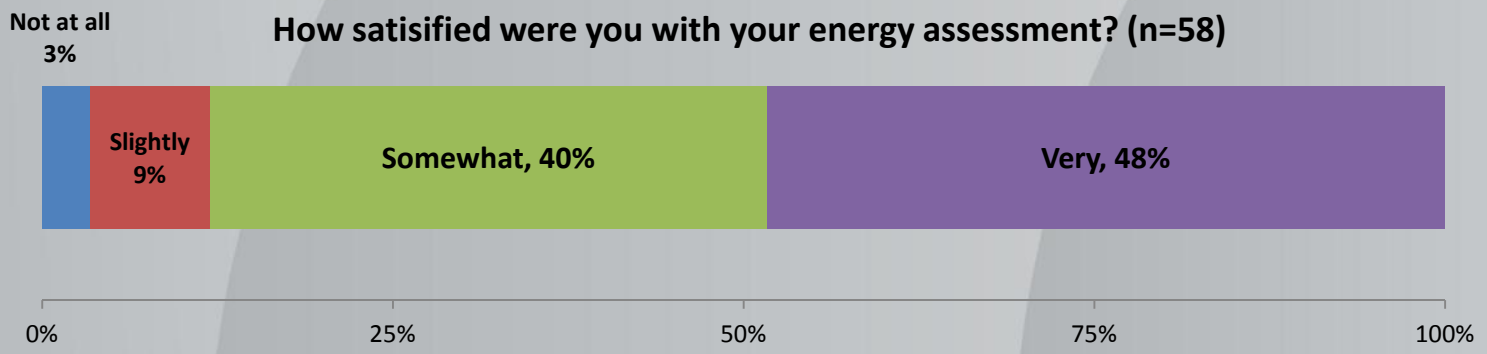
N approximately 391

Energy Efficiency Program Engagement in Seattle

Program	Aware	Applied	Received
EPS Assessment	**NA**	**11.5%**	**9.8%**
Seattle City Light EPS Assessment	27.5%	9.8%	8.0%
Community Power Works EPS Assessment	9.3%	2.5%	2.2%
Other Assessment			9.2%
Incentives	**NA**	**33.1%**	**29.8%**
Seattle City Light Residential Rebates	**NA**	26.6%	23.8%
Puget Sound Energy Residential Rebates	**NA**	10.5%	9.8%
Community Power Works for Home	**NA**	1.3%	1.3%
Low - Income Homewise	26.8%	2.0%	1.3%

- Two out of five respondents (41%) reported they applied or received services from an energy efficiency program .
- Awareness of specific utility incentive programs was not captured.

Energy Assessments



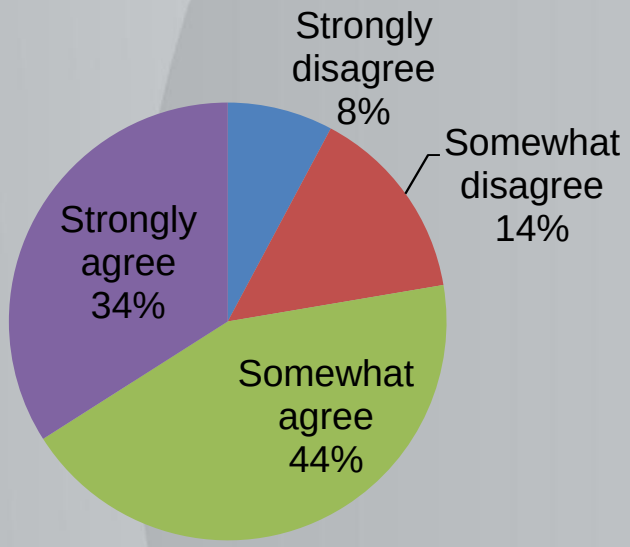
- 18.5% reported receiving an Energy Assessment.
  - Of these, 53% (or 9.8%) of all respondents said they had an EPS assessment.
  - Most of the other assessments were completed more than three years ago.
- Satisfaction with assessments was fairly high.
  - 94% of those receiving an Energy Performance Score were very or somewhat satisfied
  - 79% of those receiving other assessments were very or somewhat satisfied.
- 20% said they followed all of the recommendations, 68% said the followed some of them. There was no difference in % taking action on recommendations between EPS and non-EPS audits – even though most of the non-EPS audits had occurred over three years ago and the rate of acting on recommendations generally increases with time.

Most of Those Who Have Energy Assessments Take Action

	Installed	Yes Audit Rec	Yes On Own	Not Installed	Not Recm'd
Behavior Actions	100%	NA	100%	0%	0%
Install CFLs	85%	58%	27%	8%	7%
Air leakage	78%	67%	12%	18%	3%
Water Heat	67%	47%	20%	22%	12%
Programable thermostat	67%	45%	22%	22%	12%
Insulation	65%	53%	12%	33%	2%
Efficient Appliances	63%	38%	25%	27%	10%
Furnace/Boiler/Heat Pump	62%	48%	13%	22%	17%
Windows/Door	60%	45%	15%	33%	7%
Low Flow Showerhead	52%	52%	0%	33%	15%
Air Conditioner	12%	12%	0%	NA	NA
Solar	3%	2%	2%	0%	0%

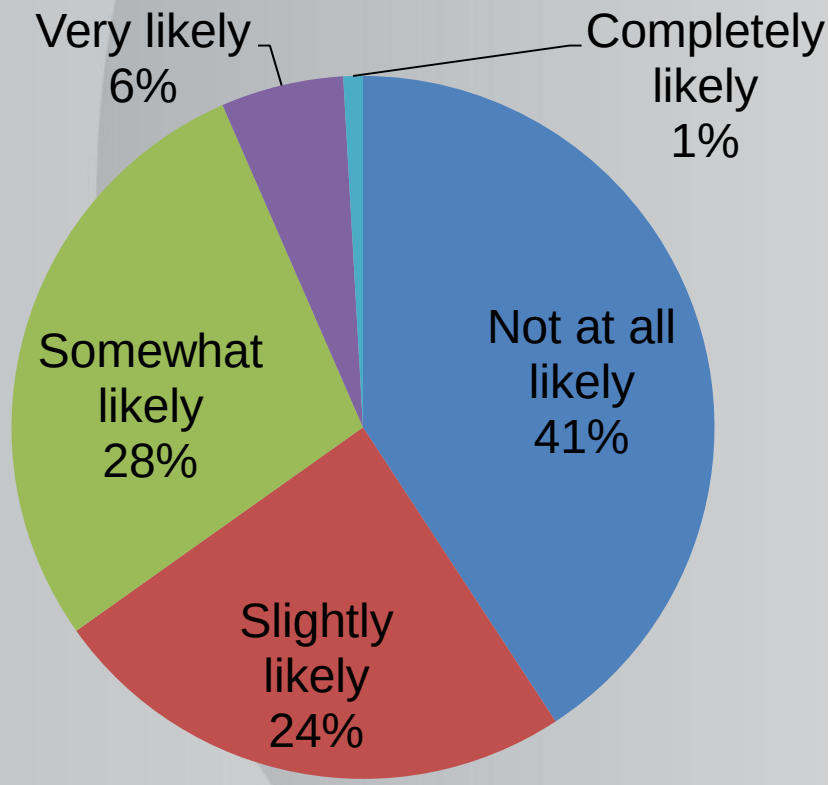
- Close to 100% reported that they had taken low cost or behavioral actions.
- Over two-thirds reported making significant investments in heating systems and shell measures.

I am interested in making energy-saving improvements to my home within the next five years.



N=388

How likely would you be to sign up for a $95 HEA?



N=338 homeowners who had never had an HEA

The Value Proposition for Energy Assessments is Not Clear

Reason why not likely to sign up for an assessment	
n= 206	
I already know what to do	27.7%
I've done all there is to do	21.8%
Don't want to pay $95/fee not worth it	19.4%
Can not afford measures	15.5%
Will not pay back (moving or no measures make sense)	13.1%
I'm to busy - no time	6.8%
Architectural issues (old or new construction)	5.8%
Recent renovation	3.9%

- More than a quarter of those not interested felt they "knew" what they needed do. This was not associated with education level.
- One-fifth indicated they had done all there was to do. Most provided sufficient detail to indicate that the most cost-effective measures had been done.
- One-fifth did not want to pay $95 dollars for an assessment. Many of these were also likely to indicate they did not have money to implement measures.
- Architectural issues included historical structures or homes built within the last decade that were presumed efficient.

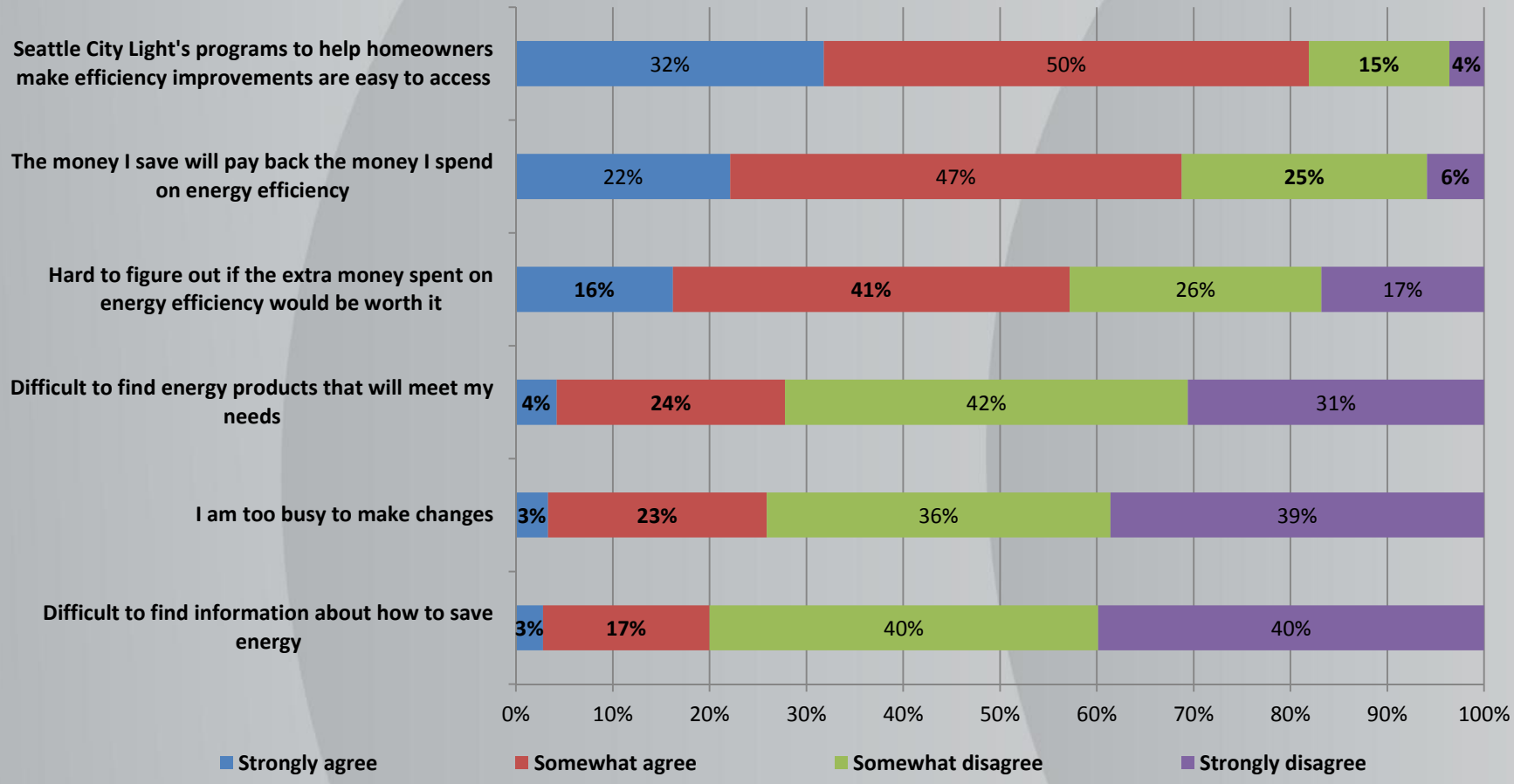
Barriers to Home Energy Efficiency Projects

- Respondents were asked whether they agreed or disagreed with the following statements:
  - I am too busy to make the changes necessary to save energy in my home.
  - It is difficult to find information about how to save energy in my home.
  - It is difficult to find energy products for my home that meet my needs.
  - It is hard to figure out if the extra money I would spend on an energy efficient product is really worth it. This addresses the broader question of assessing the overall value and benefits of a project.
  - The money I can save on energy bills will pay back the money I spent for energy saving improvements to my home. This question focuses on financial payback.
  - Seattle City Light programs to help homeowners improve the energy efficiency of their homes are easy to access if I need them.

- Almost three of five strongly or somewhat agreed that it was hard to assess whether the investment in energy efficiency would be worth the cost (in money or time). This appears to be a broader concern with establishing overall costs and values since over two-thirds agreed with the statement that costs are likely to pay back investments.

- One in five agreed with statements concerning access to information:
  - Finding information on products was difficult
  - Finding information on how to save energy was difficult
  - Utility programs were easy to access (one in five disagreed)

Barriers to Home Energy Efficiency



N approximately 382

Conclusions

- Seattle homeowners are older, stable, higher income, well educated and concerned with the environment.
- Two of five report they have taken substantive energy efficiency actions.
- Although there is general interest in energy efficiency, only 7% were completely or very ready to invest in an Energy Assessment, the first step in the Community Power Works delivery model.
    - About one in five of those surveyed reported they had an energy assessment. About half of these occurred over three years ago.
    - The biggest barriers to entry may be that homeowners believe they already know what to do and an audit would not have value. Respondents were less frequently likely to agree that getting information about what to do was hard. They were more likely to agree that it was hard to weigh the pro's and cons on whether the effort would be worthwhile.
- Those over 65 are more likely to live in oil heated homes. This population is difficult to reach and less likely to be ready to take action or make longer term investments.

Conclusions

- While there were some variations across gender, age and income, differences barriers to and motivations for pursuing efficiency were not dramatic.
- Awareness of the Community Power Works brand was low (9%). It was higher among those under 45 (15%) and lowest among those 75 or older (2%). The sample is likely to underestimate the visibility of the Community Power Works brand in the Fall of 2012 but it is not likely to be over 20%.
  - Lower visibility in part reflects the direct marketing approach and limited investments in broadcast media.
  - There is also some brand confusion with the City of Seattle, Seattle City Light and the Energy Performance Score.
  - Those who were aware of the brand associated Community Power Works contractors with higher quality work, paying good wages and benefits and being knowledgeable.
- There was strong support of the City of Seattle having a role in helping homeowners upgrade their homes and assure contractors provided good wages and benefits.

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