Climate Change Communications

Final Report:

Resource Innovations

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Introduction

Background

In winter 2005, Resource Innovations initiated a project designed to identify the most effective means to communicate with local populations about climate change. The project is intended to identify speakers and messages that will resonate with Lane County residents as well as business, civic, and government leaders to help them understand what climate change is, what the impacts may be, and what can be done about it. Specifically, the project aims to identify effective language and communication styles as well as who should carry them. Resource Innovations contracted with Community Planning Workshop (CPW) at the University of Oregon to conduct four focus groups in Lane County, Oregon as part of the first phase of this project. Focus group populations included: residents of South Eugene, residents of Cottage Grove, business leaders from Eugene, and business leaders from Springfield and rural Lane County.

Methodology

The focus group discussions centered on four communication issues related to climate change: (1) Issue Framing; (2) Communications Channels; (3) Motivation and Behavior Modification; and (4) Local Government Roles. Focus groups were held in a casual environment, and participants were encouraged to speak their minds openly on the various issues and questions presented.

In the first section of the discussion, Issue Framing, CPW facilitators used a "snow card" process to elicit participants' feelings about different ways to frame the issue of climate change. Using small pieces of paper that were then taped to the wall, participants wrote the first three things that came to mind when the facilitator stated the terms "global warming" and "abrupt climate change." In the focus group with business leaders from Springfield and rural Lane County, the term "climate change" was also tested. Participants discussed themes and associations among the words they produced through the snow card process.

The second section of the focus group, Communications Channels, focused on discovering what messengers and communication channels could serve as trusted sources of information about climate change. CPW facilitators asked how participants learned about climate change and the perceived trustworthiness of these communication channels.

The third section of the discussion, Motivation and Behavior Modification, explored the types of messages that may motivate people to support and contribute to responsible actions related to mitigating climate change. The facilitators presented the participants with specific topics and phrases to understand which messages would inspire or resonate well with them. Some of the phrases were adapted from the work of George Lakoff and others who write about issues of message "framing." The tested phrases were revised slightly after each focus group to incorporate what was learned from prior

discussions. Therefore, each focus group examined somewhat different wording, while the overall messages remained the same.

Lastly, participants were asked what, if any, role they would want their local governments to play in addressing climate change, as well as any additional information they wanted to share regarding their motivations to mitigate climate change.

Limitations

It is important to note that the findings of this report cannot be generalized with any accuracy to represent the larger targeted populations. This is due primarily to the small sample size (6-9 participants) and probable self-selection issues that were demonstrated within each focus group. Caution should also be used when making comparisons across the focus groups because of the variability of test questions and phrases applied from one group to the next. Nevertheless, this study provides a valuable baseline for future research on the subject of climate change communications in Lane County, Oregon and elsewhere.

Organization of the Report

Key Findings from Focus Groups summarizes the results from all four of the climate change communication focus groups.

Relation to FrameWorks Institute Study compares the focus group findings to recommendations about communication strategies made by the FrameWorks Institute.

Recommendations provide a set of communication recommendations based on the four Lane County focus group findings.

Focus Group Summary Reports provide more details about each of the four focus groups—South Eugene residents, Cottage Grove residents, Eugene business leaders, and Springfield and rural Lane County business leaders.

Demographic Characteristics summarizes characteristics of the four focus groups' participants.

Key Findings from Focus Groups

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	Issue	Communication	Behavioral	Local Government
	Framing	Channels	Modifications	Involvement
SOUTH EUGENE RESIDENTS	"Global Warming": Term was associated with various causes, processes, and effects; considered to have a longer timescale than "abrupt climate change"; brought on feelings of "helplessness" for some. "Abrupt Climate Change": Term was associated primarily with effects; connoted immediacy and severity; brought on feelings of incapacitating "hopelessness" for a few participants.	 Most Trusted Sources: N.Y. Times, National Public Radio (NPR), scientific magazines, Internet, family, friends, colleagues, and respected personalities. Least Trusted Sources: More mainstream media (including Fox News, local newspaper) and elected officials. Desired Sources: Local panel of lay-speaking experts, Discovery Channel, documentaries. 	Motivational: Specific and effective "common sense" examples of actions, complete with instructions; messages that imply collective action; messages that invoke responsibility, as long as it is "defined by government." Not Motivational: Anything saying "People should," and messages that do not carry specific directions or practical examples.	Level Desired: All but one participant said they wanted local government to be involved. Means Desired: Through education on the issue; some participants said regulation; others said encouragement but not regulation.
COTTAGE GROVE RESIDENTS	"Global Warming": Term was associated with causes, effects, fear, and controversy; considered on a longer-term timescale than "abrupt climate change." "Abrupt Climate Change": Term evoked mainly effects and fear; connoted immediacy and severity.	 Most Trusted Sources: Oregon Public Broadcasting, NPR, classes, selective Internet sites, scientific journals, magazines, documentaries, Associated Press, University of Oregon. Least Trusted Sources: Mainstream media outlets and government sources. Desired Sources: Those providing a variety of sources and perspectives. 	Motivational: Participants were willing to do their part, but desired enforcement of equity in efforts; specific solutions and the term "future prosperity" resonated well. Not Motivational: The term "greenhouse gas emissions" was considered too nebulous, not well understood.	 Level Desired: All but one participant said they wanted local government to be involved. Means Desired: Most participants wanted some government involvement through economic incentives, research on local effects, and education.

	Issue Framing	Communication Channels	Behavioral Modifications	Local Government Involvement
Eugene Business Leaders	"Global Warming": Term elicited a variety of questions, causes, and effects, primarily negative. "Abrupt Climate Change": Term elicited a wide variety of questions, causes, and effects with emphasis on human role; caught the attention of participants and generated some feelings of fear.	 Most Trusted Sources: Sources that provide a range of perspectives, environmental-related business owners, Register-Guard, Eugene Weekly, NPR. Least Trusted Sources: Those that only provide one perspective. Desired Sources: Those providing multiple perspectives. 	Motivational: Terms "protect," "key assets," and "prosperity"; specific information on tangible actions; financially-based and viable arguments that benefit pocketbook and environment. Not Motivational: The term "greenhouse gas emissions" was discounted by some as empty rhetoric and implied a partisan stance.	 Level Desired: Not discussed. Means Desired: Not discussed.
SPRINGFIELD AND RURAL LANE COUNTY BUSINESS LEADERS	"Global Warming": Term was associated with effects. Considered by some as natural process with limited-to-no human influence. "Climate Change": Same response as "global warming." "Abrupt Climate Change": Term elicited impacts with severe connotations.	 Most Trusted Sources: Those providing a range of opinions, Oregon Public Broadcasting, University of Oregon researchers, National Oceanic and Atmospheric Administration. Least Trusted Sources: Those providing only one perspective. Desired Sources: Many perspectives. 	Motivational: "Quality of life" concepts; immediate returns; specific examples of effective actions. Not Motivational: Term "greenhouse gas emissions" was not well-understood and other phrases were considered too "warm and fuzzy."	Level Desired: Group was split from high involvement to no involvement. Means Desired: Wanted government to "push the market" through some regulations, ensure some level of equity amongst efforts to counteract problem.

Relation to FrameWorks Institute Study

In January of 2004, the FrameWorks Institute released a CD-ROM entitled *Talking Global Warming*, which was the culmination of an intense research project on climate change communications. The CD-ROM discusses a number of their findings and provides the following seven basic recommendations on how to communicate with the general public about climate change issues:

- 1. The message needs to attach to responsibility and planning.
- 2. Bring global warming down to earth; make it manageable.
- 3. Give the public a simplifying model of global warming.
- 4. Use reasonable, not rhetorical, tone to engage listening.
- 5. Give solutions high priority.
- 6. Use messengers associated with suggested frames.
- 7. Be strategic in the order of presentation.

Below, we offer a comparison of the FrameWorks recommendations to some of the key findings from the four focus groups conducted by Community Planning Workshop. Some of the recommendations were not directly testable in the focus group format, and therefore some conclusions have been inferred from contextual discussion. Again, a more detailed analysis is available in the individual focus group report summaries.

- The message needs to attach to responsibility and planning: Broadscaled, higher-level concepts and values (i.e. stewardship, responsibility, ingenuity, as opposed to problems or specific issues) engage listeners and connect with their sense of ownership.
 - South Eugene: Generally, messages that appealed to broad values were not found to be motivational or inspiring; rather, participants felt that the vague nature of these statements made the messages trite. The group generally agreed that "personal sacrifices" ought to be made on part of the general public. One participant specifically suggested that government define responsibility through incentives and regulation. This finding contrasts with recommendation #1 to present broad value-based messages.
 - Cottage Grove: Participants said that they were willing to "do (their) part" and generally agreed with the idea of "responsibility."
 Throughout the focus group, participants placed emphasis on ensuring that equity of effort would occur, so that their community would not be expected to do something others were not. This

- suggests that if appeals to mutual responsibility are used as suggested by recommendation #1, they should be coupled with messages on how equity will be enforced.
- Eugene Businesses: Some participants from this group did not react well to phrases involving "responsibility" because it sounded too "preachy." There was not evident disagreement with the idea of responsibility for climate change, but participants were not enthusiastic about messages that were designed to suggest values and what individuals were responsible for. Thus, if recommendation #1 is followed, messages must be carefully constructed to avoid a didactic sentence structure.
- Springfield/Rural Lane County Businesses: Some participants from this group rejected responsibility-invoking messages as overly generic "warm and fuzzy" platitudes; those who were skeptical about climate change were most vocal in this regard. "Quality of life" was one higher-level concept that was suggested as an engaging term by a participant who was concerned about climate change. The concept of personal responsibility was rejected by those in the group who felt that industry should bear the brunt of the responsibility for addressing global warming. The discussion of this group highlighted the difficulty of implementing recommendation #1 when there is not agreement about humans' role in climate change, but some seemed amenable to the potential benefits of government intervention—such as market innovations and ensuring equal participation in counteracting the problem.
- 2. **Bring global warming down to earth, make it manageable:** Public reactions to climate change often deem the problem as "too big" or "too dire." Messages should put the focus on human roles in climate change and reduce timelines to more tangible periods (i.e. one lifetime or less). FrameWorks also recommends a shift from scientists proving global warming to scientists explaining global warming.
 - South Eugene: In the course of discussing their associations with climate change and global warming, at least one participant said that the issue was "bigger than me." The question of how much one person can do was also discussed. Participants wanted "common sense" solutions that they can implement as individuals. These findings support recommendation #2 to present global warming at a human scale.
 - Cottage Grove: At times, participants were fixated with timescales that stretched back hundreds of thousands of years and the evidence of historic climate change. This overwhelmed people, and they felt the issue was out of their control. One person stated the virtues of bringing the issues "down to everyday life." The group was generally willing to accept much of what they received as truth and do something about it if they felt that they were improving their own community and acting as part of a larger effort where everyone did their share. This underscores the importance of presenting scaled down, localized messages as suggested in recommendation #2.

- Eugene Businesses: Participants clearly understood the global nature of climate change and their concern with the issue hinged on its personal relevance to their lives. They indicated that they would pay greater attention to- and act to mitigate- climate change, if they understood how it directly impacts their lives, financially and otherwise. This also supports recommendation #2 to present global warming at a human scale.
- Springfield/Rural Lane County Businesses: Some participants in
 this group were skeptical that humans play a large role in global
 warming. Participants' emphasis of the natural process of climate
 change suggests that recommendation #2 might be particularly
 relevant for this group. Messages focusing on humans' contribution
 could help clarify the difference between natural and human induced
 climate change. Furthermore, participants suggested that they would
 be more compelled to address what will affect them now than
 something that relates to the distant future.
- 3. **Give the public a simplifying model of global warming:** The public has a poor grasp of the concept of global warming. The use of easily understood, non-partisan metaphorical images (i.e., blanket of CO2 surrounding the Earth, or the Earth as a greenhouse) facilitates understanding.
 - **South Eugene:** Participants expressed frustration with scientific presentations of information on global warming. They felt that most of the scientific reporting is unintelligible. They desired clear and contextual presentation of information (e.g., through television documentaries). Participants mentioned a fondness for television programs and magazine/newspaper features that emphasize visual imagery. The desire for clearer presentations of information suggests that the simplified models of recommendation #3 might be appropriately used with this group.
 - Cottage Grove: Nearly all the participants in this group expressed a
 desire to have more information on climate change that would
 provide them with a level of certainty about human impacts. A
 traditional image-inducing term "greenhouse gases" was not well
 understood by this group. (The facilitators did not attempt to explain
 this model.) This suggests that the traditional image has not been
 effective at increasing the understanding of this group. It would be
 helpful to test another more simplified model as suggested by
 recommendation #3.
 - Eugene Businesses: The term "greenhouse gases" connoted a partisan position for some in the group. Actual understanding of and reaction to greenhouse gases was mixed. "Self-sustaining climate" was also hard for some participants to conceptualize, suggesting that it could have been helpful to test another more simplified image to convey the process, as suggested in recommendation #3.
 - Springfield/Rural Lane County Businesses: The term "greenhouse gases" was not well understood by everyone in this group. Some participants who were familiar with the term did not associate its relevance to climate change. (Again, the facilitators did not attempt to explain the model.) This particular model has not been effective to

- increase understanding among this group. Another model, as recommended by #3, should be pursued.
- 4. **Use reasonable, not rhetorical, tone to engage listening:** By avoiding extremist and inflammatory language and arguments, messages can appeal to the public's more practical sensibilities.
 - South Eugene: The group was generally wary of "hype" (over excitement) around the issue of climate change and the influence of hidden agendas (i.e., politics, profit) on messages that they might receive. One participant mentioned how the movie *The Day After Tomorrow* brought up interesting points but was extreme in nature. Participants desired non-partisan documentaries that appealed to their scientific and visual reason. This supports recommendation #4 to avoid inflammatory language on this topic.
 - Cottage Grove: The group responded well to specific lines of reasoning used in motivational phases. Participants wanted to hear results about short- and long-term effects of global warming. Even the participant who disavowed humans' contribution to climate change seemed to understand and resonate with the reasoned argument of why hybrid vehicles are better than gas-guzzlers. One participant in the group stated that he did not want to be "scream[ed] at" for using his wood-burning stove when factories in Albany (a city in another county) are burning much more. The finding that people are adverse to extreme messages and responsive to practical solutions underscores recommendation #4.
 - Eugene Businesses: This group preferred messages that suggest positive, practical solutions. They also appreciated balanced presentations of information that avoid an argumentative tone. Use of the term "abrupt climate change" was a point of debate for the group because it conveyed different meanings to the participants. These findings suggest that rhetorical devices and polarized presentations of information are not as useful as practical information, as suggested by recommendation #4.
 - Springfield/Rural Lane County Businesses: One participant who had not had a discussion about climate change in four or five years said that the only time he hears about climate change is when the media covers radical protest groups; for him the issue was in the domain of extremists. Participants with different beliefs about the role of humans in climate change were unified by their respect for balanced presentations of information that allowed them to make decisions about the issue. Their disdain for sources that try to argue one perspective or another underscores recommendation #4 to use a reasonable, non-argumentative tone when discussing climate change.
- 5. **Give solutions high priority:** To engage the public, any discussion about climate change should quickly introduce effective solutions. Discussions should emphasize positive, solution-based images over negative, problem-laden images, whenever possible.

- South Eugene: "Common sense" solutions were received quite positively. Participants mentioned a desire for "practical instructions" and a focus on "where the rubber meets the road." When the facilitators tested messages that focused on values, participants were quick to point out that the messages must be coupled with practical strategies. This group strongly validated recommendation #5 to quickly introduce effective solutions.
- Cottage Grove: Nearly all the participants were receptive to ideas such as hybrid cars and wood pellet stoves. They also mentioned a desire for economic incentives to purchase those items. Other practical solutions, such as recycling, were also supported. In testing messages, participants responded more positively the more specific the line of reasoning used by facilitators. This finding also supports recommendation #5.
- Eugene Businesses: Specific examples of simple solutions to climate change were highly appreciated and sought after by this group. One participant suggested that the potential for implementation was key to his interest in any topic. Participants especially desired actions that could lead to win-win solutions where environmental and financial goals can be achieved through a single effort. The emphasis on practical solutions from this group also strongly supports recommendation #5.
- Springfield/Rural Lane County Businesses: A few of the
 participants expressed interest in learning personal strategies for
 mitigating climate change, and others expressed interest in what
 industry could do. These responses indicate support for
 recommendation #5. For those participants who did not believe that
 humans play a large role in climate change, however, it is important
 to consider what types of solutions they are open to supporting (e.g.
 those that are directed at industrial pollutants but not individual auto
 emissions).
- 6. **Use messengers associated with suggested frames:** In order to appeal to a wide variety of values, the current messenger base should be expanded to include business planners and innovators, religious leaders, environmentalists, scientists, and others.
 - South Eugene: One participant suggested utilizing a panel of local experts to address questions on climate change (in a non-technical manner). Assumedly, these experts would come from a wide array of backgrounds and interests. Other participants wanted to get information from sources that shared their political disposition. The value of a variety of messengers, as suggested by recommendation #6, was not directly discussed. However, the comments that were made seem to suggest that implementation of this recommendation would be supported.
 - Cottage Grove: One participant mentioned that different messengers were ideal for different kinds of messages (e.g. scientists for scientific explanations, politicians for political explanations, and religious leaders for moral explanations). The group also desired communication channels that provide a variety of perspectives. Several within this group mentioned their religious

- lives, perhaps indicating a need to reach out to religious leaders. This group provided the clearest indication of support for recommendation #6.
- Eugene Businesses: Participants felt that sources that provide a
 range of perspectives on the topic of climate change more credible.
 This group also indicated trust in the assertions of owners of
 environmentally-related business. Participants' comfort with
 environmentalists providing information and the group's general
 interest in a range of perspectives may be interpreted as support for
 recommendation #6.
- Springfield/Rural Lane County Businesses: Work-related discussions were a primary source of information on global warming for participants of this group. Comments about colleagues suggest that known sources are the ones that people listen to the most. This group also showed a desire for sources that provide a range of perspectives. These findings provide indirect support for recommendation #6.
- 7. **Be strategic in the order of presentation:** Before discussing the consequences of climate change, discourse should begin by addressing universal concepts and values (i.e. stewardship, responsibility, ingenuity, etc.) followed by the greater environmental issues of concern. By first engaging the public in this way, they are more receptive to solutions that are presented and consequences are given more meaningful context.
 - This concept was not specifically addressed in our methodology.

FrameWorks Analysis Conclusion

This analysis of the focus group findings shows support for most of the FrameWorks' communication strategy recommendations, namely numbers 2 through 6.

- 1. The message needs to attach to responsibility and planning. Though not completely refuted, this recommendation was not aptly supported, either. When we tested the term "responsibility," for instance, the reception was lukewarm, at best. Other "higher-level" values and phrases were rhetorical to some and overly "warm and fuzzy" to others. Though they did not specifically turn people off, parties were not overly enthusiastic. One of the basic challenges to this angle was that people would become concerned with the equity of responsibility from individuals to companies.
- 2. Bring global warming down to earth, make it manageable. This recommendation was supported by repeated requests throughout the focus groups for scientists and others to "bring it down to everyday life" and make both the consequences and mechanisms easier to understand, as well as more personal. This would explain why documentaries seemed popular as a means of communication with

- some, because of their ability to blend visual graphics with clear descriptions.
- 3. Give the public a simplifying model of global warming. Though not specifically tested, this recommendation would seem to help many of the participants by giving a visual model to better understand how human activities are impacting climate change. Such mental models may counteract the lack of understanding about what greenhouse gases are and what they do.
- 4. Use reasonable, not rhetorical, tone to engage listening. Though we did not test "extremist" language or tones, it became obvious through the process that the majority of participants responded best to reasoned arguments and practical concepts, all of which aligns with this recommendation. Furthermore, people were relatively turned off by didactic or provoking statements such as "People should."
- 5. Give solutions high priority. The expressed desires of participants closely matched the intent of this recommendation, as they wanted specific examples of effective solutions told to them. These solutions should be financially viable and full of common sense such recycling or the purchase of more fuel-efficient vehicles and cleaner-burning technology. These solutions could also change behavior of even the most skeptical persons.
- 6. Use messengers associated with suggested frames. This recommendation was supported to varying degrees among the different groups. Although most people currently received information about climate change from mainstream sources, like traditional media channels, they expressed a strong desire to hear from multiple perspectives and enlarge the conversation around the issue.
- 7. Be strategic in the order of presentation. This final recommendation was not addressed in our methodology, making it difficult to draw any legitimate conclusions from the focus groups. However, it is possible that by being more strategic in the order of presentation, we may have found more support for recommendation #1. The message needs to attach to responsibility and planning.

Recommendations

The following recommendations are based on the findings from the four focus groups and may help in more effective communication about climate change.

Presentation Style

- To engage an audience and avoid alienation, use a reasonable, nonargumentative tone, avoid didactics, and connect with the audience's practical sensibilities.
- Use the term "abrupt" with "climate change" to catch people's attention by conveying a sense of immediacy and severity. Due to the extreme nature of the term, its use should be immediately followed by positive and practical solutions to the problem.
- In educating the public, use simple models and provide frames of reference to aid understanding. Visual presentations may be helpful.
- To build public trust in information being presented, acknowledge areas of debate but highlight areas of consensus.

Content

- Use successful real-life examples whenever possible to illustrate practical solutions to mitigating climate change.
- Many people do not make the connection between climate change and greenhouse gases. Clarify what greenhouse gases are in specific terms and relate them to activities or processes people know well, including their more immediate personal effects (e.g., smog, respiratory disorders, etc.).
- Provide information that clarifies the time scale involved in experiencing effects from climate change, and explain the contribution that individuals have on accelerating the process as compared to industrial or natural contributors.
- In general, the focus on government involvement and regulations should be framed as a way to incentivize behavior, push the market, and ensure equity so that no community, industry, or individual is required to do more than others.

Messengers

- When providing information to the general public, the scientific community must be clearer in its language and make their concerns better known.
- Local experts should work in teams, such as panels, to educate the public about the issues.

Focus Group Summary Reports

South Eugene Residents Focus Group

Background

The Community Planning Workshop held the first of the four focus groups on Tuesday, February 15, 2005 from 7:00 to 8:30 pm at the University of Oregon. The targeted population for this group was high-income residents of Eugene. Using voter registration lists, 150 randomly selected households from South Eugene were sent letters inviting them to participate in the focus group. South Eugene residents were chosen because of the higher housing costs in that part of town. A \$25 gift certificate to Down to Earth, a local business, was offered as an incentive.

Participants

Six people attended the focus group. A couple of the participants admitted that the gift certificate had served as their primary incentive for attending. All but one of the participants cited specific interest in the topic as their reason for attending. One participant was a middle school educator who expressed interest in learning more about climate change in order to teach her students. Another participant who expressed professional interest had recently obtained a degree in geology and was planning to be a middle school science teacher.

Two Community Planning Workshop personnel served as co-facilitators for the dialogue, and two served as note takers. Two staff persons from Research Innovations also attended the focus group as observers.

Demographic Profile

The six participants' ages ranged from 39-57 years. Four participants had children under the age of 18 living in their homes. The participant's income range, from under \$10,000 to over \$75,000, indicates that CPW's sampling methodology resulted in participation from outside the targeted population.

<u>Sex</u>			Estimated Household In	come	
Male	1		\$75,000 - \$99,999	2	
Female	5		\$60,000 - \$74,999	1	
			\$50,000 - \$59,000	1	
Political Affilia	ation_		\$30,000 - \$39,000	1	
Democrat	3		under \$10,000	1	
Republican	2				
Independent	1		Category of Occupation	*	
aoponaone	•				
maopomaom	·		Education, Training, and I	_ibrary	2
Religious Affi	liation			•	2 2
·	liation	2	Education, Training, and I	ure	2 2 1
Religious Affi		2 2	Education, Training, and I Art, Design, and Architect	ure	2 2 1 1
Religious Affi Protestant		_	Education, Training, and I Art, Design, and Architect Computer and Engineerin	ure	2 2 1 1

*Note: Some participants selected more than one category.

Key Findings From South Eugene Group

Below is a summary of several important themes and concepts that emerged during the focus group.

Issue Framing

- Participants' associations with "global warming" included causes, processes, and effects of the phenomenon, whereas associations with "abrupt climate change" were almost exclusively effects.
- The term "abrupt climate change" was unfamiliar and carried a more immediate, severe connotation than the more familiar framing of "global warming." Abrupt climate change suggested an event that could be observed on a human time scale and thus grabbed people's attention. Two participants felt however, that the term "abrupt climate change" implied that it was too late to do anything about the phenomenon and thus provoked a feeling of hopelessness.

Messengers and Communication Channels

 Participants expressed a desire for clear, contextual presentation of information on climate change. The scale and scope of climate change and human contributions to the phenomenon need to be presented with references to known quantities in order for people to understand the implications. Scientists' presentation of information is often found dense and unintelligible. Participants were skeptical of local news media and politicians as conveyors of global warming information. However, participants indicated some trust in media sources and politicians that share their personal political disposition. These sources included *National Public Radio* and *The New York Times*.

Motivation and Behavior Modification

- Examples of effective, "common sense" actions that address climate change are motivational. Not knowing what to do is a main inhibitor of action. Newspaper stories, for instance, that highlight a replicable initiative taken by others would be a motivation for participants to take similar actions.
- Couching messages in terms of what people "should" do elicits a negative reaction because people feel that they are being talked down to. Messages that avoid a didactic sentence structure are received better.
- One participant suggested that a panel of local experts who could present different perspectives on the issue could serve as a credible source of information on climate change. It was not entirely clear, though, whom participants would acknowledge and appreciate as an expert on the topic.
- A majority of the participants were in favor of regulations that would mitigate climate change if they address imminent problems.
 Participants were skeptical of the idea that people could be trusted to change their behavior without a regulatory incentive.

Issue Framing/Snow Card Process

Methodology

The first component of the focus group discussion used a snow card process to elicit the participants' feelings about two different ways of framing the issue of climate change. Participants were asked to write down the first three things that came to mind when the facilitator used the term "global warming" and subsequently, on a different color of paper, the things that came to mind with use of the term "abrupt climate change." All of the responses were posted on the wall and subsequently served as the basis for discussion.

Results & Analysis

The following list documents the participants' responses to the snow card process.

Global Warming

- More rain?
- Economic disruption
- Antarctica
- Polar change
- Water level rising
- Hot and dry
- Warming climate
- Deforestation
- Less rain/snow
- Water, Heat
- Greenhouse gases
- Cycle (part of)
- Gases effect
- Weather
- Scientific certainty- govt. resistance, corporate....
- Controversy
- Climate
- Hole in the ozone layer

Abrupt Climate Change

- Drought
- Death of living things
- Food shortage
- Floods
- Flood
- Environmental devastation
- Melting
- Social aspects
- Affect on housing costs
- Production
- Famine
- Flooding
- Climate
- Drought
- Freezing
- Food supply
- Sea level change

The range of associations generated from this process showed that the group had at least a moderate level of familiarity with the topic. The associations with "global warming" included words related to the cause, process, and effects of the phenomenon, whereas the associations with "abrupt climate change" were almost exclusively effects. There was also more intensity in the words used to describe the effects of "abrupt climate change" than those used to describe the effects of "global warming." For example, "water level rising" was associated with global warming, whereas "flooding" and "floods" came up for "abrupt climate change."

The participants also noted significant differences between the associations that they had with the two terms. One woman said that she found the idea of "abrupt climate change" "surprising." Others agreed that this message framing was unfamiliar. They were used to thinking in terms of "global warming" as a process. They said "abrupt climate change" sounded "more immediate" and "more severe" than "global warming." The term "abrupt climate change" resonated with them as something that is happening on a human scale, unlike "global warming" which seems slow and therefore more remote.

The immediacy conveyed by "abrupt climate change" produced a negative reaction for a couple of participants. They said that while "global warming" elicits fear and a sense that the issue is "bigger than me," "abrupt climate change" sounded particularly futile, as if it were too late to do anything. One woman summarized this contrast as a feeling of "helplessness" in response to "global warming" and a sense of "hopelessness" in response to "abrupt climate change."

Messengers & Communication Channels

Methodology

The second component of the focus group was directed towards discovering what messengers and communication channels could serve as trusted sources of information on climate change. The facilitators asked a series of questions about purveyors of information and perceptions of the trustworthiness of these communication channels.

Results & Analysis

The group agreed that the topic is dense and that clarity in communication is critical. They would like the detailed information on the topic distilled for them. They also suggested that putting information in a context that helps them understand the scale of the phenomenon was important. The participants wanted to obtain information from knowledgeable sources. However, many felt that scientists, the people with the best information, do not communicate in a manner accessible to them. Instead, they present the information in a highly technical fashion that is above people's understanding. One woman was skeptical of the idea that there are any reliable sources of information, saying, "Who really knows? Who really honestly knows? That's my question." The group was generally wary of "hype" around the issue and the influence of hidden agendas (i.e. politics, profit) on messages that they might receive.

Among media sources, there was a general trend among the participants to consume more national than local news. The *New York Times*, *National Public Radio*, and various national magazines were all cited more than once as trusted sources of information on climate change. The *New York Times* and the *Discovery Channel* were appreciated for their ability to organize information in an accessible, even entertaining format, through the use of visuals. Participants liked the idea of using documentaries to convey climate change information. They were also open to seeking out information themselves on the Internet. They were more likely to trust a website if someone they knew recommended it. They also looked to the sponsor of the information and preferred academic and scientific institutions over politically affiliated institutions. On a local level, participants considered colleagues, friends, and family whom they knew to be engaged with the topic trustworthy sources of information.

The participants were skeptical of the information presented through many mainstream media sources because they perceived the sources to be motivated by profit and therefore biased and unreliable. Fox News was singled out as particularly unreliable. Participants brought up the idea that fear is used to sell media. Because of their disdain for this technique, some participants felt that fear was a poor strategy for engaging them in the topic. Local sources of information, including local newspapers, did not evoke high regard from the participants.

The group expressed skepticism over the trustworthiness of elected officials speaking about the topic. They felt that their inclination to trust an elected official would depend largely on the context—what background in the subject the person has and what their politics are. There was an agreement on the need for credible personalities to present the information.

One woman suggested that a panel of local experts who could present different perspectives on the issue would provide a credible source of information. It was not entirely clear, though, whom participants would acknowledge as an expert. One person reacted negatively to the idea of experts, because he associated them with the delivery of purposively dense (and therefore unintelligible) information.

Motivation & Behavior Modification

Methodology

The last section of the discussion focused on what might motivate people to support and contribute to actions that mitigate climate change. The facilitators presented specific phrases to determine which messages would inspire the participants to take action. The participants were also asked to consider the appropriate role of government in addressing climate change.

Results & Analysis

The facilitators began this portion of the discussion by asking what could be said to inspire the participants to change their behavior to address climate change. The suggestion of changed behavior immediately brought to mind the issue of "sacrifice" for at least one participant. As the idea of making small personal sacrifices, such as not driving a car, was discussed there were initial expressions of futility, because participants found it hard to completely believe that small actions can address such a complex, global problem. However, participants were generally interested in obtaining practical instructions on how to most effectively modify their behavior, as one woman put it, "where the rubber meets the road."

There was a sense that not knowing what to do was a main inhibitor of action. The role of "common sense," small but cumulative actions, and education were main themes that emerged in the conversation. Some participants were encouraged by the example of recycling and how simple instructions have enabled people to make a difference. They suggested that similar examples of effective action to address climate change would be motivational. Participants also discussed the schools' role as promising in motivating young people by teaching values such as "earth day, every day."

During the message testing section of the discussion, there was a strong negative reaction to the phrase "people should." Dislike of this statement dominated the participants' attention at times. They thought a more direct sentence construction, such as "we should" or "I should" resonated more effectively. The educator expressed her feeling that "should" is not a word that adults will respond to, though children will. There was not particular enthusiasm for any of the messages because they were generally perceived as platitudes that would not make a lasting impression. Reactions to specific phrases follow.

 People have a mutual responsibility to address global warming and abrupt climate change. This statement brought up questions on what appropriate responsibility is and how we recognize it. One woman said that responsibility needs to be defined by government. Three participants stated that they did not find this phrase to be motivational. One woman said that she resonated with the idea of "personal responsibility."

- People should protect key investments, such as a clean, functioning environment and a self-sustaining climate, by acting today to address global warming and abrupt climate change. One woman resonated with the term "key investment" but felt distanced by the vague idea of a "self-sustaining climate." She said this phrasing struck her as "jargony." A few people said that they were unclear what "investments" referred to, so they did not resonate with the statement. The word "assets" was suggested by one participant as a term with a more precise meaning.
- People should protect future prosperity by acting today to address global warming and abrupt climate change. One woman focused in on the term "future prosperity," which she found vague and did not know how to respond. At this juncture, the discussion focused on the word "should," and little was elicited about the participants' response to the key phrase.
- People should create a better future for our children by acting today to address global warming and abrupt climate change.
 Two mothers in the group felt that this statement would not be motivational because children are already invoked in relation to many other issues. Participants felt this motivation is overused and would therefore not be taken seriously.
- People should cooperate and contribute community service to address global warming and abrupt climate change. This statement received the most favorable, though still tepid, response. Those who liked it are believers in collective action, and they also attributed their reaction to the fact that "community service" suggested practical action. However, they said that the statement was too vague to have any lasting motivational impact.

The focus group concluded with a discussion about the role of government. There was a general sense that government should be involved in the role of educating citizens about the effect of their actions on climate change. Participants expressed frustration over the fact that government, individual Americans, and corporations are not already mobilizing around this issue. The inadequacy of present government responses to the problem made some participants skeptical of the government's real commitment to the issue.

One woman, a Master Gardener, suggested the Master Gardener organization as a model of government-organized extension of information. Participants debated regulation versus voluntary action as a strategy for effective change. Most participants were in favor of regulation if the effects of climate change are truly problematic and imminent. People expressed distrust in the idea that people will operate on the honor system to change

their behavior. One woman was more hesitant about regulation though and expressed strong distrust in government's ability to regulate efficiently. Everyone agreed that, if they knew climate change was adversely affecting Lane County, they would support local policies and regulations that reduce polluting emissions, require higher energy efficiency standards in buildings or vehicles, and prepare communities for significant reductions of available water.

Cottage Grove Residents Focus Group

Background

The second of four focus groups was held on Tuesday, February 22nd, from 7:00-8:30pm at the Cottage Grove Community Center. The targeted population for this group was working-class residents from rural Lane County. Using voter registration lists, 150 randomly selected households in Cottage Grove, a rural community approximately 15 miles south of Eugene, were sent letters inviting them to participate in the focus group. A \$25 gift certificate to Bi-Mart, a local business, was offered as an incentive.

Participants

Nine people attended the focus group. Most people in the group cited interest in the topic or curiosity in what others had to say about it as the main motivation for attending the focus group. Some participants cited personal experiences with changing weather as a source of their interests, while others discussed concerns with the current administration's handling of the issue. Others cited an overlap in their current or past professions with concerns about global warming.

Two CPW personnel served as co-facilitators of the dialogue and two served as note takers. One staff person from Resource Innovation Group also attended the focus group as an observer.

Demographic Profile

The participants' ages ranged from 32-74 years. Three participants had children under the age of 18 living in their homes.

<u>Sex</u>		Estimated Household Income	
Male 4		\$75,000 - \$99,999 1	
Female 5		\$60,000 - \$74,999 1	
		\$50,000 - \$59,000 1	
Political Affiliation		\$40,000 - \$49,000 3	
Democrat 3		\$30,000 - \$39,000 2	
Republican 3		No Response 1	
Independent 2		·	
No Response 1		Category of Occupation	
		Business and Financial Operation	ns 1
Religious Affiliation		Computer and Engineering	1
Protestant	4	Community & Social Services	1
Non-denominational	1	Sciences	
Not Religious	1	Education, Training, & Library	2
Evangelical	2	Food Preparation & Serving	1
No Response	1	Construction	1
•		Transportation & Material Moving	1

Key Findings From Cottage Grove Group

Below is a summary of several important themes and concepts that emerged from the meeting and were identified by the CPW research team.

Issue Framing

- The term "global warming" elicited a variety of issue-driven images and feelings, including potential causes, political and scientific controversy, international implications, and fear, among others.
 Focus group participants associated the term with having more distant, longer-term effects than the term "abrupt climate change."
- The images and feelings elicited by the term "abrupt climate change"
 were more analogous to each other than those elicited by "global
 warming," and included potential effects, natural areas or features
 prone to change, and feelings of fear. Participants associated the
 term with more immediacy than "global warming."

Messengers and Communication Channels

- Participants received information on climate change from a wide range of sources, including public radio and television, scientific magazines, newspapers, books, the Internet, and friends.
- Participants expressed mistrust with many media outlets and government sources due to perceived inherent agendas. Scientific journals and magazines held more trust, yet these were still questioned based on the sources of funding for particular studies.
- Some members of this focus group noted that, in an ideal world, they
 would seek out different sources (i.e. scientists, politicians, pastors)
 to acquire different types of information (i.e. scientific, political, moral)
 on climate change.

Motivation and Behavior Modification

- Participants seemed willing to take the information they have heard in regards to climate change and act upon it, if it meant that they were improving their own community's character or acting as part of a larger (global) coalition. They expressed preference for all parties (including fellow residents and businesses) taking similar and equitable actions.
- Participants found the term "greenhouse gas emissions" to be vague or nebulous when used in motivational phrasing, primarily because they did not fully understand the definition.
- The more specific the line of reasoning used in motivational phrasing, the more effective the phrases seemed to be (e.g. "higher energy efficiency standards in buildings or vehicles" brought about a clearer understanding of the message).

Government Roles

- Most group members want their local governments to play roles in climate change issues. They feel that local governments could have positive local influences, though they doubt their effectiveness on the global scale. They feel that this could best be accomplished through research, education, and the use of economic incentives.
- On the whole, participants seemed to favor certain regulations that would ensure equitable amounts of responsibility for reducing human contributions to climate change at both the personal level and the industrial level.

Issue Framing/Snow Card Process

Methodology

The first component of the focus group discussion used a snow card process to elicit the participants' feelings about two different ways of framing the issue of climate change. Participants were asked to write down the first three things that came to mind when the facilitator used the term "global warming" and subsequently, on a different color of paper, the things that came to mind with use of the term "abrupt climate change."

Results & Analysis

The following list documents the participants' responses to the snow card process.

Global Warming

- Air Pollution
- Now
- Man's effect on environment
- Changes in weather
- Recycle
- Hot
- Controversy
- Government issue
- Weather patterns changing
- Power play
- Climate changes
- Scary
- Uncertain of facts
- World cooperation
- An urgent concern for our planet's future
- Unsure
- Climate change from man's activities
- Audacious
- Scientific community
- Third World countries
- Children
- Third world?
- Science vs. politics

Abrupt Climate Change

- El Nino
- Floods
- Polar icecap changes
- Polar ice caps
- Weather patterns
- Beach tidal erosion
- Snow storms
- Floods
- Very hot
- Historic context
- Volcano
- Glacier in Puget Sound
- El Nino
- Need for definition
- Lake Missoula
- Panic
- O-zone
- Why... what happened
- What do we do now?
- Fear
- "Day After Tomorrow"
- Dinosaurs

The term "global warming" evoked a variety of ideas, images and feelings covering a broad array of topics including political and scientific controversy and uncertainty, potential environmental effects, international implications, and feelings of fear, among others. By comparison, the term "abrupt climate change" elicited a more consistent pattern of severe environmental effects (floods, erosion, storms, etc.), potentially affected natural features (beach, ice caps, glacier, ozone, etc.) and more feelings of fear. When asked to reflect upon associations the group had made, several participants acknowledged a level of severity and immediacy that was connected to the term "abrupt climate change," whereas "global warming" seemed like something "much farther off."

Overall, the group was relatively familiar with the subject and was genuinely concerned about current and potential effects of climate change. Conversation often drifted in this section from talk about elicited feelings to the science behind climate change. When pressed to focus on their feelings, however, several expressed a sense of "powerlessness for what's going on globally." The majority of participants agreed that climate change is likely happening, and that humans are having a measurable impact upon

that change. One dissenting participant stated that it was "audacious to presume that man can affect the global ecosystem to a large degree." Nearly all participants desired additional information on the subject that would provide a level of certainty. There was also some disagreement over whether or not the local region is currently feeling the effects of climate change.

Messengers & Communication Channels

Methodology

The second component of the focus group was directed towards discovering what messengers and communication channels could serve as trusted sources of information on climate change. A series of questions were asked about purveyors of information and perceptions of the trustworthiness of these communication channels.

Results & Analysis

The group listed a wide array of sources from which they receive information on climate change. These included *National Public Radio*, *Oregon Public Broadcasting* (television), scientific journals and magazines such as *National Geographic* and *Scientific American*, the *Register-Guard* (local newspaper), university classes, *McLean's* newsmagazine, the Internet, books, and friends. With the possible exception of scientific journals, however, there was an overwhelming mistrust of most of the above sources. Participants felt that these sources were biased and mentioned such things as "media writes from their point of view," and "everyone has an agenda." Scientific sources such as journals, magazines and news shows received a little more credibility, though one participant suggested that he would be apt to "question (the study's) source of funding." They also felt that more consistency in findings would aid their trust, implying that there is a fair amount of inconsistency in the information reported among these sources.

When asked specifically about the trustworthiness of the government in communicating climate change issues, the group responded with a forceful laugh. One participant mentioned that he was "brought up to believe that the government is right," but recent actions (or inactions) on the part of government has given him reason to question that logic.

The group agreed that it was useful to use different *sources* of information for different *types* of information—"If I wanted scientific information, I wouldn't go to a pastor. I'd go to a scientist. But I would go to (my pastor) if I wanted moral information and to a politician if I wanted political information." All felt that a certain level of information "filtering" was required in any case.

Motivation & Behavior Modification

Methodology

The last section of the discussion focused on what might motivate people to support and contribute to responsible actions. The facilitators presented

specific phrases to determine which messages would inspire the participants. The participants were also asked to consider the appropriate role of government in addressing climate change.

Results & Analysis

When asked what messages participants would need to hear in order to change personal behaviors that may have an effect on climate change. some said that they already were taking such steps (e.g. recycling). All agreed, however, that there were further things they could be doing (e.g. riding their bike more, changing their wood stove to a more efficient pellet stove, driving an electric/hybrid car, etc.). There was considerable discussion regarding whether it is best to wait until climate change has been undeniably proven as fact to take personal action or to accept the evidence presented to date and do something now. One participant compared accepting evidence of climate change to taking vitamin C to ward off a cold—"I'm not sure if I totally believe that vitamin C can help a cold, but when others are around me and tell me I should take it, I do." Despite expressing a desire to hear more certainty, the group was willing to accept much of what they received as truth and do something about it if they felt that they were improving their own community or acting as part of a larger coalition.

As for actual motivating factors, most of the group said that economic incentives would be the most effective, "(I'd buy an) electric hybrid car, except it costs more than what I pay for my house. If University people want to get gas guzzlers off the road, then give them economic opportunities." During the course of the discussion, a few others voiced their opinion that legislation on such things as fuel efficiency and wood stoves would also be effective measures.

Reactions to specific phrases follow:

- I have a personal responsibility to reduce greenhouse gas
 emissions. The term "greenhouse gas emissions" was not well
 understood. Several participants seemed to become mired in the
 definition of this term and desired that it be brought "down to
 everyday life." One person suggested jokingly that the phrase made
 him want to commit suicide, presumably because he doubted heavily
 that others would take that responsibility, and therefore there is no
 hope.
- People in our community have a mutual responsibility to reduce greenhouse gas emissions. Again, the term "greenhouse gas emissions" caused confusion. When defined by the focus group facilitators as those emissions "coming from the tailpipe of your car," there seemed to be general approval with the statement. The term "mutual responsibility" evoked comments from one participant about the need for government regulation "so that everyone has to do it", to which others mostly agreed. The term "mutual responsibility" also induced questions about economic feasibility and equity between personal efforts and corporate efforts. Participants seemed to mistrust that corporations would voluntarily reduce their emissions, or

that government would ever take the initiative to force those sorts of actions.

- People in our community can protect key assets, such as a clean, functioning environment and a self-sustaining climate, by reducing greenhouse gas emissions. Again, much of the group found the terms "greenhouse gas emissions" and "self-sustaining climate" somewhat nebulous. However, the group did agree that a clean, functioning environment is desirable, and the phrase "clean, functioning environment" conjured specific images and issues important to them, such as industrial pollution around Eugene.
- People in our community can protect future prosperity by reducing greenhouse gas emissions. This statement was better received than others. One person stated that if a politician used this language, they would likely get his vote. Another said that the word "requiring" should be inserted into the phrase, but overall it was tangible and clear.
- People in our community can create a better future for our children by reducing greenhouse gas emissions (preparing communities for significant reductions of available water / requiring higher energy efficiency standards in buildings or vehicles). The moderator inserted the secondary phrases to address people's confusion with the term "greenhouse gas emissions." Participants argued some as to whether preparing communities for significant reductions of available water was a preferable choice. The "efficient building" phrase elicited more tangible understanding and agreement.
- People in our community can demonstrate their care for family and friends by requiring higher energy efficiency standards in buildings or vehicles. The term "family and friends" didn't seem to elicit any specific reactions. Energy efficiency did, however, spur conversation about government and corporate practices of shipping Alaskan oil overseas to be refined and returned to the U.S. The group agreed that there are some inefficient practices that could be improved through better standards and processing local resources locally.

Towards the end of the discussion, participants were asked what role they would want their local governments to play in affecting climate change. One man countered, "Who wants government to play *any* role?" To this, all of the other participants raised his or her hand, connoting that participants of this group very much do want local government to have an influence in this issue. Subsequent conversation, however, elicited doubts as to what effect local governments might have on global climate change. The group did agree, at least, that there remained some promise on the effects the governments could have locally. They felt that the best roles were through researching potential short-term and long-term local effects of climate change, educating the public on these matters, and providing economic incentives.

Eugene Business Leaders Focus Group

Background

The Community Planning Workshop held the third of four focus groups on Thursday, February 24, 2005 from 12:00- 1:30pm at the Atrium Building in downtown Eugene. The targeted population for this group was owners of small- to medium-sized Eugene businesses. Using a list from the Eugene Area Chamber of Commerce, 150 randomly selected businesses in Eugene were sent letters inviting them to participate in the focus group. When this produced a low response, follow up phone calls were made to the recipients of the letters. This method also failed to generate a sufficient number of participants; therefore a third strategy was used. Emails were sent to every member of the Chamber with an email address in the membership directory. This produced a satisfactory response rate of nine people. A \$25 gift certificate to Down to Earth, a local business, was offered as an incentive, and a complimentary lunch was provided during the focus group.

Participants

Nine people attended the focus group. All of the participants were business owners, but the type of business varied considerably and included a law firm, a storage company, a modeling company, a screen printing and embroidery business, a market and consulting firm, a computer training and consulting business, a graphic design firm, a landscaping company, and a photo business. People attended the focus group for different reasons. Five of the participants cited concern for the environment and/or particular interest in the topic as their reason for attending. One participant mentioned that he had extensive background in the issue from research that he had conducted on desertification as a graduate student. Others said that they attended because of the project's focus on communication, an area that is relevant to their work as business leaders.

Two Community Planning Workshop personnel served as co-facilitators of the dialogue and two served as note takers. One staff person from Resource Innovations also attended the focus group as an observer.

Demographic Profile

The participants' age ranged from 35 to 65 years. Four participants had children under the age of 18 living in their homes.

<u>Sex</u>			Estimated Household In	<u>ncome</u>	
Male	6		\$150,000 or more	2	
Female	3		\$75,000 - \$99,999	2	
			\$60,000 - \$74,999	2	
Political Affiliation		\$50,000 - \$59,000	1		
Democrat	5		\$30,000 - \$39,000	1	
Republican	2		No Response	1	
Independer	nt 2				
			Category of Occupation	<u>1</u>	
Religious A	Affiliation*		Business and Financial C	perations	3
Protestant		2	Legal		1
Jewish		1	Art, Design, & Architectur	e	2
Non-denominational 2		2	Computer and Engineering	ng	1
Not Religious 4		4	Construction		1
Other: Buddhist 1		Other: Business Consulta	ant	1	
Other: Uns	pecified	1			

Key Findings From Eugene Business Leaders Group

Below is a summary of several important themes and concepts that emerged during the focus group.

Issue Framing

*Note: Some participants selected

more than one category.

- Some participants had positive, or at least neutral, associations with "global warming," such as "sunshine" and "warmer weather." The terms "global warming" and "abrupt climate change" both elicited predominantly negative associations.
- The word "abrupt" caught the attention of participants. One person had a negative reaction to it because she related the word to crisis. Others, however, felt that the word "abrupt" was already associated with short-term weather patterns and was therefore not alarming.
- When compared to "global warming," the term "abrupt climate change" elicited more responses that reflected a consideration of the role that humans play in the phenomenon. "Abrupt climate change" also elicited slightly more comments that related to feelings, such as "scary."

Messengers and Communication Channels

 Participants felt that information sources that present a range of opinions on climate change are more credible than sources that present only one opinion. Participants were suspicious of sources

- that present only one interpretation of the facts; they perceive them to have a bias or agenda.
- Participants trusted owners of local, environmentally-related businesses as sources of information on climate change. This may be due to the personal relationships that the participants had with these types of business owners.
- Participants had a negative response to messages that sound didactic or "preachy." These are statements that attempt to tell people what they should do. This group preferred messages that are suggestive and encouraging.
- Some participants discounted references to "greenhouse gas emissions" as empty rhetoric. Using this phrase will dissuade these people from listening to a message.

Motivation and Behavior Modification

- Participants said that they would pay greater attention to the issue of climate change if they understand how it personally relates to and impacts their lives.
- Participants had a negative response to use of the term "greenhouse gases." Participants felt that this term is used by messengers that have an agenda. Consequentially, they were inclined to tune out a message that referenced "greenhouse gases."
- Participants suggested that they would be motivated to address climate change if they are provided with examples of tangible actions that have been taken by others. These examples provide a model of action to follow that has demonstrated success.
- Participants wanted to know the economic consequences of taking action to address climate change. They were particularly interested in the effect to their personal finances. Participants suggested that economic incentives that also provide an opportunity to address climate change are particularly motivational. The concept of a winwin solution, where environmental and financial goals can be achieved through a single effort, is especially appealing to this group.

Issue Framing/Snow Card Process

Methodology

The first component of the focus group discussion used a snow card process to elicit the participants' feelings about two different ways of framing the issue of climate change. Participants were asked to write down the first three things that came to mind when the facilitator used the term "global warming" and subsequently, on a different color of paper, the things that came to mind with use of the term "abrupt climate change." All of the responses were posted on the wall and subsequently served as the basis for discussion

Results & Analysis

The following list documents the participants' responses to the snow card process.

Global Warming

- Scary bad
- Happening faster than expect
- Unproven
- Ignorance
- Bad science?
- Fossil fuel
- Weather changes
- Rising sea level
- Desertification
- Disaster
- Kyoto
- Warmer weather
- Flooding
- Crisis
- Panic
- Economics
- Problem for planet
- Change
- Climate change
- Do what?
- Distant
- Environmentalist
- Sunshine
- Species extinction
- Political conflict
- Bleak future

Abrupt Climate Change

- Solutions
- Storms
- Confusion
- Media
- Massive economic effects
- Manmade interference
- Disaster (movie)
- Doom
- Disaster
- Global warming
- New?
- Human influence
- So?
- May be too late to stop
- Habitat effects
- I should've been paying attention
- Dangerous
- Scarv
- Effect on people?
- Reaction
- Some climate affecting systems are close to a tipping point
- Ecological consequence
- How to prepare? Possible?
- Urgency

The terms "global warming" and "abrupt climate change" both produced a range of associations, including feelings, questions, causes, and effects of the phenomenon. The majority of responses to both terms were very negative, but some words, like "sunshine" sounded positive. Other words, such as "weather changes," did not clearly connote a positive or negative association. The questions that were included in the brainstorming process indicate an uncertainty about the causes, effects, and available responses. Both terms elicited responses that suggested urgency, such as "crisis," "happening faster than expect," "may be too late to stop," and "urgency."

The term "abrupt climate change" elicited more responses that reflected the human role in the process, such as "Manmade interference" and "I should've been paying attention." Their responses to abrupt climate change were also more focused on their feelings. As one participant said, "Interesting that those words (associated with abrupt climate change) seem overall more emotional than the first set of words." One of the participants noted that it was the word "abrupt" that she reacted to in the phrase "abrupt"

climate change." For her, the word "abrupt" raised questions of how to react and respond, because she associated it with other emergencies that demand responses. Other participants took issue with the word "abrupt" because the meaning was unclear and could be applied to short-term weather patterns that are naturally abrupt.

Messengers & Communication Channels

Methodology

The second component of the focus group was directed towards discovering what messengers and communication channels could serve as trusted sources of information on climate change. The facilitators asked a series of questions about purveyors of information and perceptions of the trustworthiness of these communication channels.

Results & Analysis

Participants cited national media, such as National Public Radio, popular science magazines, and television programs as prominent sources of information on climate change. Local sources of information on the topic that were mentioned included the University of Oregon's Planning, Public Policy, and Management Department and a participant's client who runs a bio-fuel production business. When the facilitators asked what local sources could serve as trustworthy sources of information on the topic, Josh Proudfoot with Good Company was mentioned once as was Citizens for Public Accountability; the Eugene Water and Electric Board publication *Pipeline* was mentioned twice. Other proposed channels included the *Oregon Quarterly* magazine for UO alumni, the *Register Guard*, and the 'What's Happening' section in the *Eugene Weekly*.

Several of the participants expressed the importance of a balanced presentation of information on climate change, and this theme returned in later parts of the discussion. They desired information sources that presented multiple perspectives and felt that sources that operate in this way deliver more credible information. When there are convergent points of agreement between the different perspectives, the shared points are especially potent. One man felt that the scientific debate presenting multiple perspectives on the issue had not taken place in a public forum. He said that he was more aware of the hype around the issue and remained skeptical of the severity of the problem.

One man said that his scrutiny of an information source was dependent on whether or not the information would affect him—the more it affects him, the more likely he is to analyze both the source and the message. As a busy business owner inundated by information, he scans for information that stands out as an opportunity. He asks himself, "Is there something (from this information) that I'm going to implement?" He added that if there is an opportunity with a quick return, it will have a better chance of grabbing his attention than something that will only pay off in the long run.

Others also spoke about the importance that personal relevance plays in how much attention they give an issue. Economic impacts were mentioned

several times as a personally relevant effect that would engage them in a topic. As business owners, they are already attuned to what will impact the bottom line. If climate change is relevant to their business, they will be more interested in learning more. In addition, one woman, a mother, said that impact on children is something that motivates her to make changes in her life.

Motivation & Behavior Modification

Methodology

The last section of the discussion focused on what might motivate people to support and contribute to actions that mitigate climate change. The facilitators presented specific phrases to determine which messages would inspire the participants to take action. The focus group did not explore the participants' perspectives on the appropriate role of government in addressing climate change.

Results & Analysis

Some of the participants had a tendency to speak to what they thought would motivate others, rather than themselves. The facilitators emphasized that the participants' personal reactions were desired, rather than their conjectures about others, but this perspective still played a role in the ensuing conversation. Due to strong reactions to the first message, the facilitators asked the participants to ignore the closing phrase, "reduce greenhouse gas emissions," for all of the remaining statements, and other actions were occasionally substituted as closing phrases, as noted below. However, the original statements remained on the flip chart for the participants to refer to. Reactions to specific phrases follow:

• I have a personal responsibility to reduce greenhouse gas emissions. Responses to this statement varied dramatically. One person took it to be an instruction and said that his initial response was "Don't tell me what to do," while another immediately asked, "What about India?" suggesting that the emphasis on "I" was misplaced. Two others had the opposite response and immediately asked what they could personally do to reduce greenhouse gas emissions. Still, a third said that the statement was not personal enough to be engaging.

Another comment related to the specific inclusion of the phrase "greenhouse gas emissions" in the statement. One person said that he would "buy into that" statement only if the reference to greenhouse gases was not included, because it "flags a position" that puts him on his guard. Another participant followed up with the observation that even if you rephrase the statement to simply state "emission reductions" without mention of greenhouse gases, it could still be equally effective in getting people to act in a desired way to address climate change.

 People in our community have a mutual responsibility (to reduce greenhouse gas emissions). This statement was perceived to be too "preachy," or in other words, too righteous or moralizing. Some people felt that both this and the previous statement were too preachy, whereas others appreciated the former statement in comparison to this statement because they perceived this one to be the worse of the two statements. "I'm tired of people telling me what to do," said one participant who felt that this statement would turn him off to anything that followed. Another participant suggested starting the statement with "If..." in order to improve the tone. A different participant suggested using the phrase "let's all do our part" to avoid the moralizing tone of the tested statement.

- People in our community can protect key assets, such as a clean, functioning environment and a self-sustaining climate (by reducing greenhouse gas emissions). The words protect and key assets were received favorably by most in the group and were seen for some as more motivating than previous statements. Participants felt that the examples of key assets provided in the statement "a clean, functioning environment and a self-sustaining climate" are only some of the assets that need protection. One participant elaborated and said that, for her, key assets relate more to the economy and her position in the world. Another felt that use of the word assets is a popular ploy used by people who don't work with money to speak to those who do. For this person the statement was not motivational. A self-sustaining or non-self-sustaining climate was hard for people to conceptualize. Use of the phrase "such as" was disliked by one participant, and a couple of people felt that the sentence was simply too long to digest.
- People in our community can protect future prosperity (by reducing greenhouse gas emissions). One person said that the term "prosperity" was more appealing than "assets" and said the statement provoked interest in obtaining more information on how to protect future prosperity. Another person noted that the statement seemed to be designed for business owners and thought that it would be a turn-off for others. Someone else felt that the business community would be particularly suspicious of this statement because of their concern with growth and the perception that growth and emission reductions are antithetical. When the facilitators suggested that the statement conclude with, "requiring more energy efficient homes," the response was much more positive. The difference seemed to be that with this example of what could be done, the action did not overtly imply sacrifice or giving something up. Reducing greenhouse gas emissions on the other hand, suggests limiting car and airplane travel, which entails a sacrifice of convenience or luxury.

One man noted that as a business owner, who provides solutions to people, he needs "a pathway to action," and with this statement, "It's easy for me to take the message to the next level." There was general agreement on the appeal of "concrete steps" for action. One person explained that, in his old age, he is suspicious of all

statements that suggest he should do something but that do not specify exactly what. Another person commented that she felt more comfortable because of the explicit nature of the adjusted statement. Without that specificity, she felt that there was an implication that she should already know what to do.

 People in our community can create a better future for our children (by reducing greenhouse gas emissions). This statement elicited mixed reactions. One person felt that it might work as a first sentence, but that it needs to be followed up with specific examples of how it would affect his children. Another parent said that it did not engage her, and that the imagery was not effective enough. One person commented that all of the statements seemed to be appropriate for different contexts, and this one might work in a parenting newsletter.

In concluding, several of the participants emphasized their desire for more specific information on tangible actions that can address climate change. Examples of effective tangible actions that others have taken were considered especially engaging. A newsletter story that presented the economic returns from investments in solar heaters for businesses was given as a model of how to frame such examples. It was received positively because it showed how an ecological investment could pay off financially. Although the idea of action that required sacrifice was met with some uncertainty, the majority of the group was definitely interested in taking actions that could produce net wins or at least, no losses. Participants suggested that messages focusing on opportunities for these types of action would be the best way to engage them.

Lane County/Springfield Business Leaders Focus Group

Background

Community Planning Workshop held the last of the four focus groups on Tuesday, March 1, 2005 from 12:00- 1:30pm at the Springfield City Hall. The targeted population for this group was Lane County and Springfield business leaders. Using the Springfield Area Chamber of Commerce membership list, 150 randomly selected businesses were sent letters inviting them to participate in the focus group. When this method produced a low response, businesses on the list were telephoned in an alphabetical order until a quota of ten participants had been obtained. A \$25 gift certificate to Bi-Mart, a local business, was offered as an incentive and a complimentary lunch was provided at the focus group.

Participants

Eight people attended the focus group. Some of the participants indicated that they had come because of a personal interest in the topic of climate change. Others cited their respect for the University of Oregon and curiosity about the project as motivations to attend. Several participants had professional interests in the topic—one was employed as an environmental manager for a local company; another had a position with a local utility; and another participant who had formerly worked in the ski industry commented that it was a good time to leave the industry because of declining snow pack.

Two Community Planning Workshop personnel served as co-facilitators of the dialogue, and one served as note taker. One staff person from Resource Innovations also attended the focus group as an observer.

Demographic Profile

The participants' ages ranged from 27 to 65 years. Only one participant had children under the age of 18 living in his home.

<u>Sex</u>		Estimated Household Income		
Male 6		\$100,000 - \$149,000	1	
Female 2		\$75,000 - \$99,999	1	
		\$60,000 - \$74,999	1	
Political Affiliation		\$50,000 - \$59,000	1	
Democrat 1		\$40,000 - \$49,000	2	
Republican 2		\$30,000 - \$39,000	1	
Independent 3		\$10,000 - \$19,999	1	
Libertarian 1				
		Category of Occupation	<u>1</u>	
Religious Affiliation	<u>*</u>	Category of Occupation Business and Financial C		4
Religious Affiliation Catholic	<u>*</u> 1		perations	4 1
	<u>*</u> 1 2	Business and Financial C	perations	4 1 1
Catholic	1	Business and Financial C Art, Design, & Architectur	perations	4 1 1 1
Catholic Protestant	1	Business and Financial C Art, Design, & Architectur Entertainment & Sports	perations e	4 1 1 1
Catholic Protestant Non-denominational	1 2 1	Business and Financial C Art, Design, & Architectur Entertainment & Sports Other: Retail	perations re nager	4 1 1 1

Key Findings From Lane County/Springfield Business Leaders Group

Below is a summary of several important themes and concepts that emerged during the focus group.

Issue Framing

- Some participants were skeptical that humans are affecting climate change no matter what the phenomenon is called (i.e. "global warming," "climate change," "abrupt climate change"). The process is largely seen as a natural process in which humans have a limited role.
- Some participants believed that the changes in weather patterns in Oregon were a result of climate change. For these individuals, their personal observations were a powerful source of evidence that climate change is happening.
- Participants did not make initial associations with a human role in "climate change" or "abrupt climate change." However, one person did associate the term "global warming" with "fuel" (a greenhouse gas contributor).
- The phrase "abrupt climate change" carried a more severe connotation than "global warming" or "climate change." This is evidenced by the fact that it prompted participants to think of more extreme words, such as "extinction" and "violent."

Messengers and Communication Channels

- A few of the participants learned about climate change because of its relevance to their work. These people were more likely to discuss climate change within and outside of the workplace. For those without a similar connection, climate change was rarely if ever a topic of discussion among friends and co-workers.
- Participants felt that information sources that present a range of opinions on climate change are more credible than sources that present only one opinion. Participants expressed resentment towards sources that present only one perspective for trying to sway public opinion in a certain direction Participants expressed an appreciation for balanced presentations of information that allow them to come to their own conclusions about the issue.
- Participants considered Oregon Public Broadcasting (OPB) and the University of Oregon to be trustworthy local sources of information on climate change. One person also felt that the National Oceanic and Atmospheric Administration is a trustworthy source. Participants expressed interest in hearing about the research of different scientists through OPB programming or University conferences.

Motivation and Behavior Modification

- Statements that referred to "reducing greenhouse gas emissions" did not engage participants. Some participants did not know what greenhouse gases are, and some who did were not convinced of their relevance to climate change.
- The perceived role of government divided the group. About half the
 participants believed that regulations have to push the market in
 certain instances to produce socially responsible outcomes. A couple
 of the participants did not believe that regulations had the potential to
 mitigate climate change—one was generally disenchanted with the
 potential of government regulations, and the other was concerned
 because they would not be enforced worldwide.
- Participants suggested that the phrase "quality of life" may be a more engaging concept than "future prosperity" because it conveys immediacy. Participants suggested that they would be more compelled to address what will affect them now than something that relates to the distant future.
- Participants who were open to the idea of mitigating climate change would need examples of effective action taken by others to inspire them to take action themselves.

Issue Framing/Snow Card Process

Methodology

The first component of the focus group discussion used a snow card process to elicit the participants' feelings about three different ways of framing the issue of climate change. Participants were asked to write down the first three things that came to mind when the facilitator used the term

"global warming." Then, using two different colors of paper, the facilitator asked participants to write down three associations with the term "climate change" and three associations with the term "abrupt climate change." All of the responses were posted on the wall and subsequently served as the basis for discussion.

Results & Analysis

The following list documents the participants' responses to the snow card process.

Global Warming

- Seems real
- Hype
- Weather patterns
- Fuel
- Livelihood
- Moisture Change
- Short Sightedness
- Crops/Farming
- Different Growing Patterns
- Legacy
- Adaption (sic)
- No snow in the vallev
- Ozone condition
- Change In recreation
- Ongoing
- Crop production
- Sea level
- Dry summers
- Change
- PC
- Temperature
- Population shift
- Drought

Climate Change

- Forests dving
- Population shift
- Somebody loses, Somebody wins
- I fear change
- Always has happened, always will happen
- Diversity
- Need for change
- Real
- Food resources
- Recreation
- Glaciers
- Global warming
- Water temperature
- Unpredictable Storms
- Drought
- Good
- Water levels
- Moderate
- Flooding
- Evolution
- Farming Changes
- Unpredictable Weather

Abrupt Climate Change

- Out of our control mostly
- Extreme moisture/rain storms
- Economy
- Agriculture
- Which species can adapt, which will not?
- · Radical weather
- Economic impact
- Glacier movement
- Water
- Economic disruption
- Flood
- Alarm
- Extinction
- Loss of productivity
- Habitat
- Landslides
- Has happened before, will happen again
- Natural disaster
- CO2
- Deforestation
- Violent
- Extreme wind forces

When asked to reflect on the words that had been generated, the participants noted that most of the associations that had been made were with the anticipated effects of climate change. The majority of these projected outcomes were negative, but some had a neutral connotation, such as "Evolution," "Somebody Loses, Somebody Wins," and "Has Happened Before, Will Happen Again." In response to the term "climate change," there was even one explicitly positive association, "Good." This distinction corresponds with subsequent comments by participants suggesting that "climate change" refers to a long-term natural phenomenon that results in global temperature rises and declines.

"Global warming," on the other hand, was understood as the human induced phenomenon of rising temperatures.

One man said that he perceived "global warming" and "abrupt climate change" as the same thing—the result of human activity on the climate—but it was not clear if others shared his understanding. At least one person had an opposite perception of the terms, stating that he understood "global warming" as something that had happened throughout the earth's history and that is not affected by humans. In contrast, he felt that humans do have more control over climate change.

One person felt that "global warming" was hard to understand whereas "climate change" implied temperature fluctuations that were not necessarily bad. While the amount and variety of words generated make it difficult to generalize across the group, there are more words that suggest severity associated with "abrupt climate change" than with the other terms, such as "Alarm," "Radical," "Extreme," and "Violent." Thus, the phrase "abrupt climate change" appears to be the most alarming of all three phrases.

Both "climate change" and "abrupt climate change" elicited responses suggesting that the phenomenon is natural (such as, "Always has happened, always will happen"). "Global warming" was notable as the only term that elicited a response that referenced the role that people play in climate change, but this was limited to one word, "fuel." One person attributed the lack of participants' associations with the causes of climate change to the media. He felt that the media presented the issue exclusively in terms of effects.

In the discussion that followed the snow card exercise, several of the participants mentioned their individual observations of local weather changes, such as less snow and earlier signs of spring. For some, these personal observations were strong sources of evidence that climate change is happening. However, the cause of the change was not agreed upon. The participants had heard conflicting opinions about the role of humans in climate change, and there seemed to be a mixture of beliefs among the group. One man stated that he was not convinced that gasoline usage had any effect on the climate, but he believed that deforestation of the rain forests does have a real impact. Another said that reports suggesting humans are the sole contributor to climate change are "pseudo-science" and that the truth likely lies somewhere between human and natural causation theories.

Messengers & Communication Channels

Methodology

The second component of the focus group was directed towards discovering what messengers and communication channels could serve as trusted sources of information on climate change. The facilitators asked a series of questions about purveyors of information and perceptions of the trustworthiness of these communication channels.

Results & Analysis

Oregon Public Broadcasting (OPB) was a source of information on the topic of climate change for a large percent of the group. (As one participant noted, the fact that seven out of eight people reported listening to OPB suggests that self-selection probably played a large role in their participation in the focus group.) One person noted that the OPB programming on the subject was trustworthy because it presented multiple perspectives on the issue, and it allowed the viewer to judge what to believe. The importance attributed to the presentation of multiple perspectives on the issue also resonated with others in the group.

Other sources of information that were cited related to the participants' line of work. For instance, one man learned about climate change in the course of his work with the state climatologist, and another learned about the topic in the course of research on energy sources for his work with the local Utility Board.

One participant said he felt that the only time he hears about the subject of climate change is when the media covers radical action, such as a protest. He said that he had not had a conversation about climate change in the last four to five years. Another participant demonstrated a different level of fluency in the subject when he remarked that it was surprising that the term greenhouse gases had not yet come up in the discussion since they are integrally related to climate change.

When asked what sources could be trusted to provide information on climate change, the participants gave a range of responses. One person felt that no one could be trusted. Another person revealed a lack of trust with the comment that, every source has its theory and its disclaimers. The state climatologist was cited as a trusted source by the man who had worked with him. Two people also stated that they had trust in the National Oceanic and Atmospheric Administration because of their history of good science and the scope of their studies. The University of Oregon was also mentioned as a trustworthy source of information via the conferences that it sponsors.

Motivation & Behavior Modification

Methodology

The last section of the discussion focused on what might motivate people to support and contribute to actions that mitigate climate change. The facilitators presented specific phrases to determine which messages would inspire the participants to take action. The participants were also asked to consider the appropriate role of government in addressing climate change.

Results & Analysis

At the outset of the discussion about motivations for making lifestyle change to mitigate climate change, one of the participants stressed the need to present a debate on the issue that represented multiple perspectives. He felt that any proposed change in behavior would need to hold up under the scrutiny of such a debate in order for him to adopt the changes personally. Others expressed skepticism that anything would be

sufficient to capture the public's attention on this issue. One man who agreed that people "live in a bubble" felt that policy changes that effect people actually do have the power to capture the public's attention and provoke a response. For instance, enforced emission standards for automobiles would force the public to act and consider what they are paying for. Reactions to specific phrases follow:

- I have a personal responsibility to reduce greenhouse gas emissions. The participants had substantial criticisms of this message. One of the participants pointed out that this statement would be meaningless if you did not know what greenhouse gases are, let alone how one should reduce them. Another person suggested reducing automobile reliance, suggesting that the concept did have a logical connection in his mind. Someone else suggested that the statement was misdirected because he felt that industry should bear the greater responsibility for changing behaviors that contribute to climate change. For others in the group, this statement simply sounded too "warm and fuzzy," and it would not inspire them to change their behavior.
- People in our community have a mutual responsibility to reduce greenhouse gas emissions. This statement also sounded "warm and fuzzy" and undeserving of serious consideration. One person likened it to saying that we should eat vegetables—a truism that doesn't effect much change. For others, it was perceived as being too generic, lacking a fuller explanation of how and why this change should be made.
- People in our community can protect key assets, such as a clean, functioning environment and a self-sustaining climate, by reducing greenhouse gas emissions. This statement produced a flat response of "I don't care" from one person. Another person reacted positively, however, and said he liked how the statements directly relate to lifestyle. Relating to the previous comment about the eating vegetables, he said that he does eat more vegetables because of information he has read about their benefits to health.
- People in our community can protect key assets, such as a clean, functioning environment and a self-sustaining climate, by supporting policies and regulations that require higher energy efficiency standards in buildings and vehicles. Some participants supported the idea of using policies and regulations to protect key assets. Several of the participants believed that government regulations have to push the market in certain instances to produce socially responsible outcomes. For example, participants did not expect the auto industry to change their emissions standards unless it is legislated. It was also noted that legislation can help minimize initial financial burdens that are associated with improving energy efficiency. In the long run, these investments may pay off, but it is the implementation of regulations that will push people to make the initial investment.

Participants felt that one of the benefits of government regulations is their ability to ensure equity. No one wanted to make efforts to mitigate climate change by themselves, because this was perceived as futile. Government regulations could overcome this barrier by mandating that everyone has to contribute to the effort of mitigating climate change.

Other participants were hesitant to endorse government regulations. They qualified their support with the belief that regulations should be minimally invasive and coupled with consumer education that allows individuals to make good choices on their own. They also felt that the cost factor of a given regulation should be included with any proposed regulation. Others felt strongly that regulations are generally poorly implemented and that the market is a more reliable director of change. One person was concerned with the idea of regulations because of the disadvantage that they put on companies competing with businesses in less regulated countries.

- People in our community can protect future prosperity by reducing greenhouse gas emissions. This statement did not resonate well with anyone in the group. For some, it was perceived as another "warm and fuzzy" but meaningless statement. For others, it seemed to present an oxymoron, because reductions in greenhouse gas emissions are believed to be antithetical to growth and financial prosperity. One person suggested that "quality of life" be substituted for "future prosperity" because it would make the statement more immediately relevant and compelling. Another person agreed that this would be an improvement because "quality of life" is something that affects them right now, which is more motivational. The reference to future prosperity, on the other hand, suggested that the issue is one that can be dealt with later.
- People in our community can create a better future for our children by reducing greenhouse gas emissions. This statement did not generate much conversation nor, would it seem, much motivation for change. One person said that they liked the statement; another thought it sounded like a true/false question.

In concluding the focus group, the participants were asked if there was anything additional that could be said to them that would motivate them to change their behavior to address climate change. While the majority of the group did not offer suggestions that expanded upon what they had addressed above, two participants expressed interest in learning about examples of viable actions to address climate change. They suggested that knowing what would effectively make a difference would be the key to their personal motivation to take action.

Focus Group Demographic Characteristics

	South Eugene	Cottage Grove	Eugene Businesses	Springfield/Rural Lane County Businesses
Total Participants	6	9	9	8
Age				
Range	39-57	32-74	35-65	27-65
Average	47	53	50	49
Gender				
Male	1	4	6	6
Female	5	5	3	2
Yearly Income				
Less than \$10,000	1	_	_	_
\$10,000 to 19,999	_	_	_	1
\$20,000 to 29,000	_	_	_	_
\$30,000 to 39,000	1	2	1	1
\$40,000 to 49,000	_	3	_	2
\$50,000 to 59,000	1	1	1	1
\$60,000 to 74,999	1	1	2	1
\$75,000 to 99,999	2	1	2	1
\$100,000 to 149,999	_	_	_	1
\$150,000 or more			2	_
Political Affiliation				
Republican	2	3	2	2
Democrat	3	3	5	1
Independent	1	2	2	3
Libertarian	1	_	_	1
Religious Affiliation				
Catholic	_	_	_	1
Evangelical		2	_	_
Protestant	2	4	2	2
Jewish	<u> </u>	_	1	_
Nondenominational	2	1	2	1
Not religious	1	1	4	3
Other	1	_	2	2