

May 9, 2007

Project #7052

## **Final Report**

# **EPA Wood Stove Focus Groups: Dayton, Ohio**

**Prepared by  
Richard Stock  
Director  
and  
Sara McFarland  
Research Assistant**

**Business Research Group  
University of Dayton**

## EPA Wood Stove Focus Groups, Dayton, Ohio Final Report

### Introduction and Executive Summary

The Business Research Group held two focus groups sponsored by the Regional Air Pollution Control Agency (RAPCA) and its partner, the U.S. Environmental Protection Agency (EPA). The purpose of the focus groups was to understand barriers to use of the coupons offered as part of the Greater Dayton Woodstove Changeout Program. The groups were held on Tuesday, April 24, 2007 at the University of Dayton. The first focus group consisted of nine participants that heard about the change-out program but chose not to use the coupon. The second group consisted of ten participants who also heard about the change-out program and decided to use their coupon to purchase a new stove.

This report summarizes the discussions of the two groups. Verbatim responses of participants are included to highlight important information. Also, tables which list written responses are included where silent work was completed by the participants. Topics discussed with only one group are so noted.

### Executive Summary

**Participant Demographics:** Six of the nine participants in the non-coupon users group are retired. All but one of the participants in the non-coupon users group had the same wood stove they had a year ago. Four of the ten participants in the coupon users group are retired. Occupations as described by participants suggested that income levels of the non-coupon users are lower on average.

**Strengths and Weaknesses of Older Wood Stoves:** The majority of the participants from both groups felt that one of the biggest strengths of their old wood stove was that it would heat their homes cheaply. The coupon users were much more concerned with safety and health issues than the non-coupon users when weaknesses were discussed. Several of the participants in the non-coupon users group were skeptical of claims linking health problems to wood stoves.

**Initial Impetus to Shop for New Stove:** Seeing the rebate was the primary reason non-coupon users began thinking about getting a new stove. While this was also true for coupon users, a few of them were already in the market because their stove was getting old and was not working the way it used to.

**Source of Information on the Program:** The great majority of the participants indicated that they heard about the program through an article or ad in the Dayton Daily News. One participant in the non-coupon users group mentioned that he recalled thinking that the coupon offered through the program would only cover the installation of a new stove. The majority of the rest of the respondents in the non-coupon users group agreed with this comment. In the coupon users group, the participants recalled things related to efficiency, age of the stove, and that only certain companies were involved in the program.

**Issue of Program Linkage to Government:** Only one person in the non-coupon users group had a positive reaction to government association with the program, whereas several people in the coupon users group had a positive reaction.

**Awareness of Program Brochure:** When shown the "Greater Dayton Wood Stove Changeout Program" brochure, only a few people in the coupon users group recalled seeing the brochure; no one in the non-coupon users group indicated they had seen the brochure.

**Purchase Decision:** Four people in the non-coupon users group indicated that the "sticker shock of the stove itself" was an important factor in their decision not to buy a new stove. There was frustration as well with the cost of professional installation and what participants felt were "add-ons". Five non-coupon users indicated that they would have been close to buying if the cost of installation was included in the program. Five people in the non-coupon users group indicated they thought it would cost them less than \$1,000 to get a new stove. The participants in the non-coupon group thought they should receive discounts ranging from 25%-50% off or \$1,500 off a new stove.

About half of the participants in the coupon users group said that they would have purchased a new stove within a year without the coupon. Most of the people in the coupon users group said the coupon "pushed them over the line" in their decision to get a new stove. Eight people in the coupon users group indicated that cleaner air was an important factor in their decision to buy a new stove; about half the people in the coupon users group felt that an important factor was that the new stove created a safer home.

The majority of the participants in the non-coupon users group indicated that there should be some kind of tax rebate; however, the tax rebate did not seem to be as attractive to the participants in the coupon users group.

When discussing how to market a new program, non-coupon users recommended an emphasis on efficiency, environment, and cost. Coupon users suggested places the program should be advertised: (by the classified ads for firewood, doctor's offices, and the radio).

## I. Introductions

Participants introduced themselves and shared their occupations. Then, participants were asked: *How many of you still have the wood stove you had a year ago? I would like to hear just a little bit about your old wood stove and your experiences of heating with wood. How long had/have you had your old wood stove? What did/do you use it for?*

**Non-Coupon Users:** Six of the nine participants are retired. One participant use to work for the federal government; he also worked as a marketing manager, was a liaison for a company, and was a pastor at a small church for 39 years. Another participant is a retired automobile mechanic. One participant is retired car salesman. Another retiree still does some part-time merchandising and retail work. One participant is retired from law

enforcement. One participant works in telecommunications and public service. One participant still works for a local foundation and another is employed at the Air Force Base.

The retired car salesman is the only participant who has purchased a new stove. He bought a corn stove.

All but one of the participants had the wood stove they had a year ago. Of those participants that mentioned how long they had their stove, the youngest stove was fifteen years old and the oldest stove was twenty-seven years old. The majority of the participants use their wood stove to heat their homes; they commented on the wood stove's efficiency in doing so.

- "... had [the stove] for 27 years... love it because it's the kind of heat that gets in your bones."
- "Efficiently circulates the warm air through the house."

**Coupon Users:** Four of the ten participants are retired. Two are retired school teachers; one is retired from the Air Force and financial planning; another was a retired school custodian but still does some farming. One participant is a semi-retired facility management consultant. One participant currently works for Danis Construction. Another participant is employed at Delphi. The Dayton Marriott employees another participant. One participant owns a small exporting business.

Of those participants that mentioned how long they had their old wood stove, the youngest stove was twenty to twenty-five years old and the oldest stove was twenty-seven years old. Two participants switched to an Appalachian stove; one bought a corn stove; another participant mentioned replacing their old stove with a pellet stove. Some participants commented that their old wood stoves were simply too dirty. One participant explained that the smoke in the house was a big issue for his family because he had a son with asthma.

- "It was a pain in the neck to keep clean... I don't miss it. This one now is a lot nicer stuff."

## II. Strengths of Old Wood Stove

Participants were told: *Please take a piece of paper and list what you would say are or were the strengths of your old wood stove.*

The participants completed silent work and then discussed their opinions. A summary of the group discussion is followed by a table listing written responses from the silent work.

**Both groups:** Almost all participants mentioned the cost effective nature of heating with wood stoves and the high quality of the radiant heat from them. Ease of use was also a

strength recognized by many participants. One participant described a strength of the stove as making her feel “self-sufficient.” Others liked it as an emergency backup system in the case of grid failure. Two participants mentioned the “ambiance.” Another noted it was “kind of fun”.

- “I never looked at it in any other way except to keep that bill down.”
- “Easy loading.”

**Table 1a. Non-Coupon Users, Written Responses - Strengths of Old Wood Stove**

Emergency heat.	Hot heat.
High heat.	Cheap fuel.
Not dependent on electric or gas.	Great heat.
Great heat!	Cheap to operate.
Attractive.	Adds ambiance.
Efficient.	Adds value to the house.
Kind of fun.	Backup emergency heat in case of power failure.
Makes me feel self-sufficient.	No cost.
Cheap to run.	has a relatively small area to heat compared to main floor.
Renewable resource.	Heat efficient.
Warm, radiant heat.	Use as needed.
Saves on gas.	Great heat.
Thermostat irrelevant.	Ease of use.
Quiet.	I live in a wooded area Lots of trees available.
No air rushing around.	Efficient.
Very efficient heat.	
Very comfortable heat.	
Good way to get rid of trash.	
Very reliable.	
Comfortable.	

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants

Fast heat.	Quick fire - actually too hot.
Three times a day load if desired.	Cat sat on it when it was cooling.
Very little smoke in house.	Put out heat all night when banked.
Flue control that could be set and left. No constant changing the flue to control heat.	Heated living room and two upstairs bedrooms.
Heated at 80-85 degrees most of the time.	Pipes were relatively easy to clean.
Easy loading.	Saved money.
Saved cost of fuel oil.	Radiant heat and lots of it.
No blower.	Cheaper than the heat pump.
Screen front.	Heat the house cheaply.
Easy clean.	House felt warm.
Heated the whole house.	Nice to watch fire burn.
Easy to start.	Heat if electric went out.
Easy to load.	Variable blower.
Got good draft (no smoke).	Heated most of the house cheap.
Enjoy fire with screen.	Nice glass door.
Easy to load.	Blower equipped.
No problems.	Put out a lot of heat.
Easy to regulate.	Good heat.
Warm home.	Held fire overnight.
Cheap heat.	Nice size ash pan.
	Easy to load (top-loading).
	Compact - not much floor space.
	Good looking.
	Easy ash removal.

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants

### III. Weaknesses of Old Wood Stove

Participants were told: *Please take a piece of paper and list what you would say are or were the weaknesses of your old wood stove.*

A summary of the group discussion is followed by a table listing written responses from the silent work.

**Non-coupon Users:** Three participants mentioned air pollution as a weakness of their wood stove. Several people noted that the wood stove burned a lot of wood. One participant wrote down “concern about breathing smoke over long term” as a weakness. Only two people acknowledged health concerns with their wood stove; one explained that she was not concerned however “...until this year.” Several participants mentioned weaknesses related to cleaning the stove, buildup, and the amount of space the wood stove occupies. Three participants mentioned pollution as a weakness. None of the respondents indicated they had noticed any problems with wood smoke in their area.

Needs auxillary power for blower.	Creosote buildup.
Some odors.	Dust in home.
Ash removal.	Cutting wood = work.
Monitored periodically.	Fire risk.
Have wood cost.	Consumes a lot of wood.
Dirty job.	Labor intensive.
Takes up space.	Small firebox.
Requires planning and effort.	No blower.
Could be a danger.	Air pollution.
Messy log pile out back invites insects.	Possible pollutions.
Air polluting (We didn't know that 27 years ago!)	Cleaning.
Carry wood in.	Hauling of the wood.
Carry ashes out.	Needs electricity to run fan.
	Need to run an additional fan to circulate heat.
	I have a heat pump for central heat. When it gets below 10 degrees there is no heat to pump.
	All electric house.
Dust in air.	
No heat with extended leaves.	
Dirty.	
Something have to regulate.	
Have to clean.	
Flue on back of stove.	
Sometimes brings in some bugs.	

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants.

**Coupon Users:** The coupon users were much more concerned with safety and health issues than the non-coupon users. Three people acknowledged that health concerns for their family were a weakness of their old wood stove. Eight participants mentioned that they had safety concerns. While most participants felt that dust issues were a weakness, only five people thought it was a major weakness. Seven participants acknowledged feeling a little bit of guilt about having their wood stove and knowing about the air pollution consequences. One man explained that his wife knew about the air pollution and it was one of the main reasons they switched stoves.

- “The concern about breathing smoke and health concerns related to that.”
- “A lot of dust in the house... It was a film that my wife wasn’t happy about.”

I do not know of any weaknesses.	Chimney fire.
Lots of cleaning - chimney, stove.	Carry ashes out.
Had to dig out ashes.	Carry logs in.
Wood had to be well-seasoned.	Had to tend to fires.
Blower was loud.	Concern about breathing smoke over long-term.
Burned lots of wood.	Glass blackens.
Lot of dust in house.	Clean chimney annually.
Glass in front black.	Noisy blower.
Pain to clean.	Fire hazard.
Burned lots of wood.	Well-seasoned wood.
Ash pan was filled after every fire.	Used a lot of wood.
Took up too much space.	Creosote formation.
Ashes went through grate into pan making it difficult to restart a cool fire.	Runaway heating.
Blower burned out after three years.	Noisy blower.
No fire to see.	Shut down to clean.
No ash tray.	Smelled like hot metal.
Let smoke in house.	No ash pan.
Had to get up at 4:00 to put wood in.	Glass hard to keep clean.
Cleaning chimney; lots of creosote.	Somewhat awkward to load.
Had one chimney fire.	Frequent emptying of ashes.
Carrying in wood created mess.	Small fire box.
Had thirty feet of log racks in front yard.	Took up floor space.
Walk out into snow to get more wood.	Poor durability - started deteriorating too soon, in my estimation.
	Poor heat output compared with new stove.
	No blower.

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants

#### IV. Appearance

Participants were asked: *Did/do you have any concerns about the appearance of your old/current wood stove?*

**Non-Coupon Users:** No one expressed a concern with the appearance of their wood stove. One participant did mention that he would enjoy seeing more of the fire; however, another participant countered indicating he did not want to see much of the fire.

**Coupon Users:** Four of the ten participants expressed concern with the appearance of their old wood stove. One person commented, "That was one of the reasons we looked for a new one...the glass front was always coated and we couldn't keep that clean."

## V. Important Factors in Decision to Start Looking for a New Stove

Participants were asked: *What were the most important factors in your decision to start looking for a new stove?*

The participants were asked to complete silent work to list the important factors prior to a group discussion. A summary of the group discussion is followed by a table listing their written responses from the silent work.

**Non-Coupon Users:** The rebate “triggered” the thought of replacing their wood stove for six people. Seeing the rebate was the primary reason people began thinking about getting a new stove; a few participants had thought about replacing the stove before seeing the rebate because of decorating, cleaning, and emission issues. One person explained that the rebate would not have made a difference in their decision to buy a new stove; it was part of the reason they began looking, but they would have been looking anyways.

- “The rebate triggered it... but the other was a catalytic system... the one in the basement didn’t have a catalytic system and I thought this is an opportunity to improve the emissions from the wood burning.”
- “What the rebate did at our house was open the conversation.”
- “It was definitely the coupon... but before that I was thinking I want to be able to see the fire... kind of like a redecorating thing.”

The non-coupon users were asked a follow-up question about what kind of stove they were interested in purchasing: *Were you interested in a wood, natural gas, propane, pellet or any other type of stove?*

**Non-Coupon Users:** One participant said they were interested in a corn stove. Two participants indicated they were looking for a wood stove. Two other participants were interested in a pellet stove.

Rebate.	Reputation.
Non-dependence on electricity (utility) available.	Efficiency and BTU output.
Wanted to be able to see fire - mine was not viewable.	Appearance.
Concern about air - thought new stove would be cleaner.	Cost.
Hey, it's a coupon!	Rebate.
Redecorating possibilities.	Stove is old and does not have catalytic system that improves quality of emissions from burning wood.
Less pollution.	Something more modern.
Longer controlled burn.	Less cumbersome than wood.
Financial incentive.	Rebate.
Safety.	Ours is old - it will have to be replaced (someday).
Because of the \$300 trade-in, until found out the cost to install a new one.	Although it is a buck stove it is probably not as efficient as it could be.
More efficient.	Rebate.
Easier to use.	
Better heat.	
Wanted to stop cutting wood.	
Rebate started our thinking.	

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants

**Coupon Users:** Several participants explained that they were in need of a new stove and would be purchasing one no matter what. For some it was simply because their stove was getting old and was not working the way it used to; for one participant it was the appearance of the old stove. Two people mentioned that they needed to replace their old stove due to allergies or other health problems in their family. Air pollution was an important factor for more than half the participants. A desire for continued independence was an important factor for four members of the group. Seven people mentioned dust in the house as motivation to replace the wood stove; only two of those said it was a cleaning issue related to dust and several people said it was both dust and allergy issues related to dust.

- “Mine was getting rid of the smoke in the house... Tied to the asthma in the family... [my son] hasn’t had nearly as many episodes in the winter as he had with the old stove.”
- “I had a dust allergy and it is significantly less this winter than it has been in the past... that was an important factor.”
- “It was getting old. It needed a replacement. I already had a corn stove in another part of the house and that’s why I went with a corn stove.”
- “The environment thing got us... we were really concerned about the smoke and what you didn’t burn.”

Better burning of wood and smoke.	Asthma problems - wanted smokeless.
Fumes.	Wood was messy - wanted cleaner fuel.
Environment.	Lower effort to clean.
Safety.	Trade-in offer.
Amount of wood.	Efficiency.
Lessen the effort.	Low cost operation.
Convenience.	Aesthetics.
Environmental issues.	Cleaner.
EPA Announcement.	Healthier.
More efficient stove.	A lot less labor intensive.
Less polluting.	Suspected a crack in the tube, heat exchanger, or weld damaged or corroded exchange tube.
Be able to enjoy fire burning - glass.	Very dirty and smelly to use.
Appearance of old stove (couldn't see fire).	Pain to use.
Inefficiency of old stove.	Ugly.
Improvement in pollution control.	Efficiency.
Cost of wood was going up.	Appearance.
Size of old wood stove.	Safety.
	Floor space.
	Cleaner.
	Old stove was nearly "shot " Didn't expect it to last much longer.

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants

## VI. Informed of Program

Participants were asked: *When did you first hear about the possibility of the Coupon? How did you hear about it?*

**Both groups:** Most participants heard about the program through an article or ad in the newspaper in the Dayton Daily News. Two respondents mentioned that they were informed of the program while using the Internet; the program came up in their search results. Two people heard about the program on the radio. Four people in the “Coupon Users” group explained that their wife saw the article and informed them of it. No one mentioned seeing anything on television about the change-out program.

- “I was googling something and I think it popped up.”
- “It was basically a headline... Focused in on it.”

## VII. Recall/Understanding of the Program

Participants were asked: *Let’s talk about the changeout program. What is your understanding of how that would have worked?*

**Non-Coupon Users:** Only a few participants shared their understanding of the program. They indicated they understood that they would give up the stove they currently had. One person mentioned that he felt the coupon would simply cover the installation cost of a new stove. The majority of the rest of the respondents in the non-coupon users group agreed with this comment.

- “You turn in a stove that puts out bad emissions and you get one that puts out better emissions.”
- “Coupon would cover the installation, that’s what I figured.”

**Coupon Users:** Only a few participants shared what they recalled about the program. One participant mentioned that he just remembered that they would give you a trade-in discount; he also said he recalled the program pushing efficiency. Another participant recalled that one had to go to a certain company to participate in the program. One other participant explained that he remembered that one had to have a stove that was older than a certain year.

- “...they will give you a trade in discount if you turned that in and got a better stove... it was an efficiency thing that they were kind of pushing.

## VIII. Awareness of and Attitude toward Government Association

*Probe for feelings about Federal Government and EPA involvement and any apprehension about involvement.*

**Non-Coupon Users:** Most participants knew that the government was associated with the change-out program. One participant believed that Cargill was associated with it in part to compensate for some prior pollution violation. Only one person indicated they knew RAPCA was associated with the program as well. One participant (who works for the local county government) commented:

- “They put it out there before they checked in their own area to see who (retailers) and what was available. They had all these people with high hopes of something new and being a good citizen, . . . and then you get out there and you’re doing it all yourself, researching and everything.”

Only one person indicated they had a positive reaction when they found out the government was associated with the program but most participants indicated no negative feelings about the government association. One expressed the idea they are cautious with anything associated with the government.

- “No negative in terms of the government running it. . . . They didn’t really understand what the costs were really going to be to the homeowner who was trying to take advantage of the program.”
- “The way I look at it, I didn’t have any feelings one way or the other. . . . but I think they did a lousy job of getting the word out that they were offering this.”

**Coupon Users:** Several people viewed it as a good thing that the government was associated with the program. One participant seemed a little apprehensive to government involvement.

- “I think it’s a good thing. [The EPA, RAPCA] try to look out for everybody’s health.
- “The EPA can be very difficult.”

## IX. Shopping for a New Stove

Participants were asked: *How did you go about shopping for a new stove?*

**Non-Coupon Users:** Some of the participants used the list of participating dealers in the ad/article in the newspaper to begin their shopping. One participant went straight to a dealer he had a relationship with in the past. One person went to the yellow pages to find wood stove dealers. Another participant knew of a local dealer she had always seen in the Yellow Springs News and she went directly there.

- “. . . I think in that article it listed specific names of vendors that had these coupons and those are the ones I called.”

**Coupon Users:** Six participants indicated that they used the Internet to shop for a new stove. Three people went to the EPA website and they all felt that website was useful, especially to get the list of participating dealers. Several people indicated they knew what kind of stove they wanted so they used the Internet to find someone who carried it. Four people mentioned that their spouse was “intimately involved” in the process of shopping for a new stove.

- “I think the EPA had a site, I went to that site first. I tried to get everything I could there and then I started to do my shopping on the internet a little bit.”
- “We knew what brand we wanted . . . so then it was a matter of finding someone who sold it.” (This participant used the Internet.)

## X. Brochure

Participants were asked: *Do you recall receiving a brochure from the retailer?*

As a follow-up question, respondents were shown the “Greater Dayton Woodstove Changeout Program” brochure and were asked: *Do you recall this brochure?*

**Non-Coupon Users:** Most of the participants recalled receiving brochures. No one stated that they had recalled “Greater Dayton Woodstove Changeout Program” brochure. When shown the brochure, only one respondent indicated they had seen the brochure previously.

**Coupon Users:** Two participants acknowledged that they received some brochures when they went to dealers. A few people indicated that they remembered seeing the “Greater Dayton Woodstove Changeout Program” brochure.

### XI. Important Factors in Decision Not to Buy a New Stove: Non-Coupon Users

Non-Coupon Participants were asked: *What were the most important factors in your decision to NOT buy a new stove?*

The participants were asked to complete silent work to list the important factors in their decision not to buy a new stove. They then discussed their opinions. A summary of the group discussion is followed by a table listing their written responses from the silent work.

**Non-Coupon Users:** Seven of the participants mentioned aspects of cost in their decision not to purchase (in the silent work). In the group discussion, four people indicated that the “sticker shock of the stove itself” was an important factor in their decision. Others were concerned with space, availability of suppliers for “service or assistance”, and “long-term maintenance”. Two participants mentioned that extra costs due to the need to put in a chimney insert or remodel were important in the decision not to purchase a new stove.

- “Every installer I talked to, the [price] range was all over the place.”
- “You had to have a professional installer put the stove in. So whatever I would save on the stove was eaten up with the installer stuff.”
- “Space because it was going to have to come out so far into this very small room that the room could not function the way it does now.”

Auxillary power supply.	Price, price, price.
Fuel cost/BTU (pellets).	Installation.
Maintenance costs (long-run).	Cost vs. Improved Efficiency
Cost!	I was advised I HAD to buy a chimney insert - I knew those were expensive.
Major adjustment to living room, bringing stove up to code - would need to run tile up to ceiling.	I was very suspicious about buying something from the vendor that benefits from that advice.
Space - the new plan would take up most of the living room.	Cost.
The requirement to use professional installer, which knocked out of the discount.	Not having more than one supplier close to home for service and assistance.
In process of moving, next heat stove area unknown.	Our heat pump is 30 years old I would replace that first.
Price was the last straw.	Buckstove still works.
People didn't have many stoves to look at.	
Inside was very small compared to old stove.	

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants

## XII. Important Factors in Decision to Buy New Stove: Coupon Users

Participants were asked: *What were the most important factors in your decision to buy a new stove?*

The participants were asked to complete silent work to list the important factors in their decision to buy a new stove. They then discussed their opinions. A summary of the group discussion is followed by a table listing their written responses from the silent work.

**Coupon Users:** There were several important factors driving participants to purchase a new stove. The following factors were all mentioned: “low fuel usage”, appearance, efficiency related to cost, “burning efficiency”, and less smoke in the house. Eight people indicated that cleaner air was an important factor; about half the people felt that an important factor was that the new stove created a safer home.

- “No smoke in the house so we went with a pellet. We can load that without ever getting smoke in the house.”
- “Mine was looks. The new one is smaller, more powerful, you can see the fire.”

Propoerted burning efficiency.	Efficiency - ventless.
Cost.	Product guarantee.
Salesperson recommended.	Features - remote with thermostat.
Looks.	Low fuel usage (20 cents per hour).
Fit and installation of insert.	Cleaner air.
Aesthetics.	Healthy.
Efficiency - less pollution, less dust, more	Rebate.
Cost.	Value.
Efficiency - lots of hours per wood.	Environment impact.
Improvement in pollution.	Appearance.
Looks - smaller, more powerful, see the fire, easy clean.	Ash pan - ease of cleaning.
Delivery and installation.	Construction of stove - sturdy.
Savings of money on wood.	Burn time.
No smoke in house.	Cooking feature.
No mess.	Ease of loading.
Minimal cleaning.	More compact.
Long run time between loads.	Appearance.
Easier storage.	Ease of ash cleaning.
Appearance.	Size (big - takes long logs, and a lot of them).
Quality.	Blower.
Features (thermostat).	End loading (prefer top loading but it is rare).

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants.

### XIII. Importance of Coupon in Purchase Decision

Participants in the coupon users group were asked: *How important was the Coupon in your decision to get a new stove? How long had you been thinking about getting a new stove?*

**Coupon Users:** One person indicated that the coupon was “real important” and another mentioned that “it helps”. About half of the participants said that they would have purchased a new stove within a year without the coupon. Most of the people said the coupon “pushed them over the line” in their decision to get a new stove.

There was a wide time range of answers when the participants were asked how long they had been considering getting a new stove; one participant said “the day I saw the article in the newspaper”, while another had been thinking about it for five years. A couple of participants indicated they had been thinking about buying a new stove for a year. For one person it was a budgeted purchase, for another it was more of an impulse buy. One person did say that if it had not been for the coupon, they would have kept the old wood stove for as long as they could and then used the heat pump.

- “We were about half way there [to saving for the wood stove] so we had to put about half of it on a credit card to close the deal.”
- “Mine was a lot of impulse because I did not shop. I went to one store, looked at what they had and made the decision right then.”

### XIV. What Would it Have Taken? Non-Coupon Users

Participants in the non-coupon user group were asked: *Is there anything you could have been offered that would have made you decide to go with a unit that had the coupon attached to it?*

The participants were asked to complete silent work to list what it would have taken to make them decide to buy a new stove. They then discussed their opinions. A summary of the group discussion is followed by a table listing their written responses from the silent work.

**Non-Coupon Users:** The majority of the group expressed concerns that their new stove would have to be installed by a professional. Several participants felt that the amount of the coupon was simply covering the cost of installation when they would have felt comfortable doing the installation themselves. At the same time, five people indicated that they would have been close to buying if the cost of installation was included in the program. (Note that the silent work indicating the importance of the installation issue (see below) was done prior to the group discussion). One man explained that he would have felt more comfortable having someone independent, such as RAPCA, telling him he had to install a chimney liner instead of the vendor that was going to benefit from the cost of that liner.

- “More of a discount, fewer restrictions. I don’t want a professional having to install it.”

Auxillary power supply.	Free installation.
A great deal more money, frankly - or free installation - but, it still would have been a major purchase.	Independent assessment - do you really have to have a chimney liner installed to take advantage of change-out?
More discount.	A better cost on the stove and free installation where no up to code issues were needed.
Fewer conditions.	Installation included.
If could have stove installed by property owner.	One years worth of pellets.

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants

### **XV. EPA/Dayton Air Program Website**

Participants were asked if they had used the EPA or Dayton Air Program website.

**Non-Coupon Users:** Only one participant indicated that he had found a website that “... was dealing with the change out. It gave me some more information about what this was all about.”

**Coupon Users:** As mentioned in a previous discussion, three people went to the EPA website and they all felt that website was useful, especially to get the list of participating dealers.

### **XVI. Impression of Energy Efficiency (Old vs. New Stoves)**

Both groups were asked about their awareness of efficiency differences between old and new stoves.

**Non-Coupon Users:** There were several different responses to the question of energy efficiency of the new and old stoves. One participant felt that the new and old stoves were about the same. Another participant thought the new stoves were twice as efficient as the old stoves. A couple of people mentioned that they felt there are too many factors, (including the “dryness and caliber of the wood you use”) which would make it hard to

tell which stove would be more efficient. There was the clear sense that the group was unlikely to simply accept marketing statements about increased efficiency

**Coupon Users:** It seemed as if most of the participants were unaware of the greater efficiency of the new stoves at the time they purchased their new stove. Most of the participants acknowledged that it would have mattered if they would have known about the higher efficiency. The participants thought that efficiency is a hard message to get across and that one only really realizes it when they experience it.

- “I realize it now that I’ve got the new stove, but I don’t think just reading that before... I thought my stove was doing a good job at the time.” (Referring to higher efficiency)
- “The burn time you might get out of a more efficient stove on a load of wood versus the older ones.” (Recommendation on how to get efficiency point across)

## XVII. Potential Incentives

*Would a different type of incentive work? For example would you be interested in a tax rebate or proof that heating bills would be lower?*

### A. Initial Thoughts

**Non-Coupon Users:** Participants again voiced concerns about additional unexpected costs involved beyond the stove cost. One participant explained that she was overwhelmed with all the information that was presented to her when she began looking for a new stove. Another participant felt that more details should be revealed to inform owners of the danger their wood stoves create.

- “Well honestly, I could be shamed into doing almost anything. I’ve only burned a little bit this winter because I was embarrassed that it was having an effect on other people.”
- “I think if there was some type of regulation on the people that sell and install them to make sure they don’t try to make you get something that you don’t need to have... You should be able to be confident that they are suggesting to you because of the safety factor and the regulations and not to pad their bill.”
- “If they are going to sell a stove then what they need to do is make it a package. People don’t like surprises...it’s too much to handle. They need to make it a package... it has to be the whole thing.”

**Coupon Users:** The only other incentive that was mentioned by the participants was free installation. Most participants were glad that the stove was professionally installed, but they felt offering free installation would be a big incentive. Several participants thought that they should have received free installation and no charge to remove the old stove.

- “Not just free installation, but remove the other one too.”

- “Well, since you had to have it professionally installed, I would have installed it myself. For us, it was basically ended up being free installation... installed faster than we could have done it... you could offer free installation if you wanted more value.”

## **B. Tax Rebate**

**Non-Coupon Users:** The majority of the participants indicated that there should be some kind of tax rebate.

- “Absolutely.”
- “It should be there.”

**Coupon Users:** The tax rebate did not seem to be as attractive to this group as it was to the non-coupon users. Some showed interest in it but not a strong interest.

- “It’s not as immediate, so it’s probably not as immediately attractive... it doesn’t show up and look you in the face like a coupon does.”

## **C. Proof that it would be Cheaper to Heat with New Stove**

**Non-Coupon Users:** Only a couple of the participants commented on this topic. They both now seemed to be aware that the new stoves would be more efficient. However, there were still other factors that inhibit their desire to purchase a new stove, such as the cost and the size of the logs that will fit into a new stove.

- “...it probably would be [cheaper to heat with a new stove]. But is it going to take care of what extra it is going to cost me to get this new stove?”

**Coupon Users:** Participants indicated this was unlikely to motivate purchase.

- “Not for me. I have a small house; it wouldn’t have made a difference.”
- “I think our overall cost went up with the pellet stove.”
- “If you’re cutting your own wood and you already have a wood stove it would be hard to convince me [that it would be cheaper to heat with a new stove].”

### XVIII. Importance of Coupon Amount: Non-Coupon Users

The non-coupon users were asked: *The coupon was worth \$300 for a wood or pellet stove and \$400 for a gas stove. What were your feelings about the amount offered? In contrast to the amount of the cost of a new stove, what coupon amount would have made a difference?*

**Non-Coupon Users:** Five people indicated they thought it would cost them less than \$1,000 to get a new stove. Three people mentioned that they would expect a 50% off the cost of the stove. One participant mentioned 40% off the stove and another mentioned 25% off the stove. Only one member expressed an actual dollar amount, which was \$1,500. One participant explained that the tax rebate would be more meaningful than a discount on the stove. Another participant said she would have just liked money to shut her old stove off, because it would have been too expensive to get a new stove and bring it up to code.

- “If you were just talking about the stove itself, you wouldn’t even get my attention until you start talking 50% off.”
- “25% [of the stove price] for me. That would have been the kicker.”
- “I would be thinking more about the tax deduction. Something worthwhile... I don’t want 10%, that means nothing.”

The discussion suggested again the surprise these participants experienced when they went shopping for a new stove.

**XIX. Messages Regarded as Important in Booklet**

Participants were asked to look at the marketing brochure: *What messages do you regard as important?*

The participants were asked to complete silent work to list the messages in the booklet that they regarded as important. They then discussed their opinions. A summary of the group discussion is followed by a table listing their written responses from the silent work.

**Non-Coupon Users:** For one person, an important message was simply that there was a wood stove change-out program. Three people indicated that the important message to them was that the old stoves pollute. Two people mentioned the message about health concerns for other people. Another participant felt the important messages were related to better efficiency and burning cleaner. Several participants wrote down comments related to efficiency during silent work.

- “It makes it sound like it is definitely going to affect people’s health.”
- “...it would be the 50% efficiency and burns cleaner.”

Energy Efficiency.	Old stoves pollute - particle pollution.
Health concerns.	Energy efficiency.
Information about pollution from old wood stoves.	Efficiency.
Woodstove Change-out	Safety.
50% efficient.	Replace other "traditional" stoves.
Safety.	Higher energy efficiency.
	Particle pollution.

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants.

**Coupon Users:** The messages the coupon users regarded as important included the \$300 coupon and the continual improvement in efficiency of stoves. Several participants also wrote down comments related to health during silent work.

- “In essence, it’s a great time to upgrade your wood burning equipment.”
- “It made some reference to that over a 20 year, 15 year time frame efficiency has been improved in boilers, gas furnaces... things are improved constantly and wood burning stoves are no different.”

Health.	Reduce pollution (i.e. particles in the air).
Energy efficiency.	Healthier.
Safety.	Improve efficiency with new stove.
Health.	Safer to use.
75% of stoves older - pollution, health issues.	Health.
Reduction of wood smoke by 70%.	Energy efficient.
50% more efficient.	Safety.
Old wood stove - significant amount of pollution.	Save money.
Smoke pollution.	Upgrade now?
Energy efficiency - about 50% more efficient.	Chimney stays cleaner.
Health issues.	Significant polluters.
Dust.	More efficient - more heat from your wood.
\$300 trade-in for old stove.	The change-out will reduce pollution.
Significant less pollution.	The \$300 coupon.
	Qualifications for participation.

The dashed line separates comments written by the same participant; the bold line separates comments written by different participants.

## XX. Health Concerns

The non-coupon users were read a portion of another version of the brochure which discussed the potential health problems that can develop from wood smoke. The non-coupon user participants expressed their reactions to the reading and were also asked: *Would knowing that the wood smoke from an old stove can be a health problem indoors, impact your decision? What about the impacts from smoke outdoors? Or what about the potential safety issues from the stove? What evidence would make a difference in your beliefs about the impact of wood smoke on health?*

### Non-Coupon Users:

Several of the participants were skeptical of the claims that were being made about health problems related to wood stoves. Six people said health issues are certainly not present for people in their home. When asked about their reaction to information that would prove that wood stoves were causing health problems for people in their general area, one participant said he would "...take [the wood stove] out in an instant." However, he did not believe that the information presented was true. Five people were unaware that there were chemicals, such as formaldehyde, carbon monoxide, etc. in the wood smoke. Knowing that now, it would only make a difference for one person.

In order to present the evidence that wood smoke is harmful, one participant recommended making a chart showing wood stove pollution compared to other types of pollution from cars, etc. On the other hand, one participant said, "I don't think there is anything or any statistics that is going to have any impact on people like me whatsoever."

There was substantial discussion about health concerns at various points in the coupon users focus group. Below is a summary of the participants' comments regarding health concerns.

**Coupon Users:** As discussed in earlier conversations, seven people felt a little guilty about air pollution. Air pollution was an important factor for more than half the group when they started looking for a new stove. Three people had health concerns for their family. Only one person was aware there were chemicals such as formaldehyde, carbon monoxide, etc. in the wood smoke.

## **XXI. Thoughts about How the Program Functioned**

Participants in the coupon users group were asked a series of questions regarding their feelings about the way the changeout program functioned:

*What was your reaction to how the program functioned?*

*What did you like about the program?*

*What did you not like about the program?*

*What was your belief about the impacts of wood smoke before the program? What about after the program?*

**Coupon Users (Overall Reaction):** Participants felt that the program functioned well.

- "I think it went pretty smoothly because we didn't have to do anything. The vendor took care of all the paperwork, we got the discount; there was no hassle on our end."
- "The guy at RAPCA seemed to respond well, it happened fast, we got the coupon fast, he was friendly and I was pleased with how they handled it."

**Coupon Users (Likes):** Four people were glad they did not have to deal with the old unit. One participant mentioned the instant rebate and another mentioned that the new stove would be reducing air pollution in the neighborhood.

**Coupon Users (Dislikes):** Participants mentioned the deadline and the lack of advertising.

- "The deadline. I would have liked to see more opportunity for word of mouth."
- "There didn't seem to be a lot of advertising. Somebody clipped it out and gave it to us or we would have never known about it."

**Coupon Users (Change attitudes about the impact of wood smoke):** Most participants were not aware of how big of a problem wood smoke was. One even acknowledged that knowing those facts would have led them to purchase a new stove sooner.

- “If I had seen this brochure, it probably would have pushed us a lot sooner to get it taken care of.”
- “I didn’t realize how significant of a problem it was.”

## XXII. Certified vs. Uncertified Wood Stoves

Coupon user participants were asked: *As it pertains to wood stoves, is there a distinction in your mind between certified and uncertified wood stoves?*

**Coupon Users:** Five participants were aware of a distinction between certified and uncertified stoves. One person explained the EPA’s involvement in certifying stoves. Four people had not heard of certified versus uncertified stoves.

- “The EPA has checked out the stove... if it doesn’t pass requirements doesn’t get certification.”

## XXIII. Aware of Clean Burning Technologies before Purchasing New Stove

Participants were asked: *Did you know before that there were clean burning technologies out there?*

**Coupon Users:** One participant’s wife had awareness of the clean burning technologies. Most participants knew that there was probably a cleaner wood burning stove out there than the one they had.

## XXIV. Reaction to Facts About Wood Stove Pollution: Coupon Users

Coupon users were read a series of facts and asked to give their reaction to the statements.

**“Throughout the United States, wood stoves and fireplaces emit more particle pollutants than.....”**

Most of the participants were very surprised by this statement.

**“One old wood stove emits as much particle pollutants as seven old diesel buses.”**

This statement seemed to make it easier for the participants to understand the effect old wood stoves have on the environment. “That’s something you can grasp... it’s always hard to make that connection.”

**“The benefits of replacing an old wood stove with a new one reduces the particle pollution by about 70%.”** Most of the participants said this fact mattered to them.

## XXV. Satisfaction with New Stove

Participants were asked: *What would you tell people about your new stove, today? Are you satisfied with it?*

**Coupon Users:** Most participants expressed satisfaction with their new stove. One commented on its efficiency related to the amount of wood it uses; another commented that there is less smoke in the house now. One participant did mention that the new stove took time to get used to because it became much hotter than his old stove. Several people commented that they would tell others how much cleaner their new stove is and that it is easier to clean. One person said they would tell people that the new stove is “better for the environment”.

- “Yes, I’m very satisfied. It hasn’t taken as much wood...it’s done well. It burns down and has very little ash left.”
- “No smoke in the house...no mess.”
- “Cleaner, more efficient, better for your health.”
- “Burns less wood.”
- “A lot cleaner itself...and clean it less frequently.”

## XXVI. How Would You Market the Program?

Participants were asked: *If you were going to try and create a program that would get people to purchase these new types of stoves, whether gas, wood or pellet, how would you go about it? What would you do to market the program?*

**Non-Coupon Users:** A few participants recommended ideas linked to environmental conscience and “self-sufficient”. A few participants again mentioned the cost issue. One said there should be some type of information showing the cost of the stove and how long it’s going to take to pay back the cost of a new stove. Another participant suggested presenting information and actual measurements of the amount of pollutants from the stoves that are getting into the atmosphere.

- “...Hit on the fact that you can help the environment, you can help the globe... Also, there has to be the financial help for us to do that.”
- “I would talk about... citizenship and self-sufficiency. Being a good citizen and being able to look after yourself...”
- “Play on people’s fears. Try to strike a cord with people’s most deeply held concerns at this particular moment in time and some of that is about terrorism and safety and security.”

**Coupon Users:** These participants had numerous recommendations on how to market this program. A few participants suggested posting things in Doctors, Pediatricians, and Allergists’ offices. There were also ideas to have the media market the program through the use of radio (Country Western stations and Talk Radio) and the local news on

television. One participant suggested posting an ad in the classifieds next to ads selling firewood. Home improvement stores and farm bureau newsletters were also recommended.

- “Media.”
- “Definitely the dealers, the wood stove dealers... They are going to be able to help promote it quickly.”
- “Classified ads. Right where people are looking for firewood.”

## **XXVII. Credible Organization/Person to Disseminate Information**

Participants were asked: *If you were going to try and create a program that would get people to purchase these new types of stoves, whether gas, wood or pellet, how would you go about it? What organization or type of person would be the most credible to disseminate the information? Would you trust a chimney sweep? The Fire Department?*

**Non-Coupon Users:** One person mentioned RAPCA; another said a University would be credible. Several people said the Fire Department would not be credible, while one person said it would be. The majority of the participants said a chimney sweep would not be a credible source. One participant mentioned the idea of a Hollywood spokesperson.

**Coupon Users:** One person mentioned the EPA; several people agreed that a hospital or group of doctors would be a credible source. Another person mentioned heating and air specialists that work with furnaces all the time. This group of participants seemed more willing to trust a chimney sweep than the non-coupon users group. Most of the participants indicated that the Fire Department would be a credible source.

## **XXVIII. Reactions to New Brochures**

The participants were shown an example of a new brochure. They were asked to give some feedback about the brochure.

**Non-Coupon Users:** The majority of the participants were very skeptical of the actual pictures on the brochure; the pictures were giving them a negative feeling about the stove itself. For example, one participant mentioned that there were plants very close to the stove; this insinuates that there is not much heat coming from the stove. One participant recognized that the brochure was being made by a group that was pushing cleaner air; she felt that this may be a wrong approach to take.

- “It needs to be depicted accurately.”
- “This is obviously being pushed by the people who are concerned about cleaner air. They’re assuming that’s what we’re concerned about and we may be, but it’s not the number one thing.”