

# You'll pay dearly for this!

Analysis of radon kit use by distribution method through the Georgia Radon Program from Jan 2020 to Jun 2023

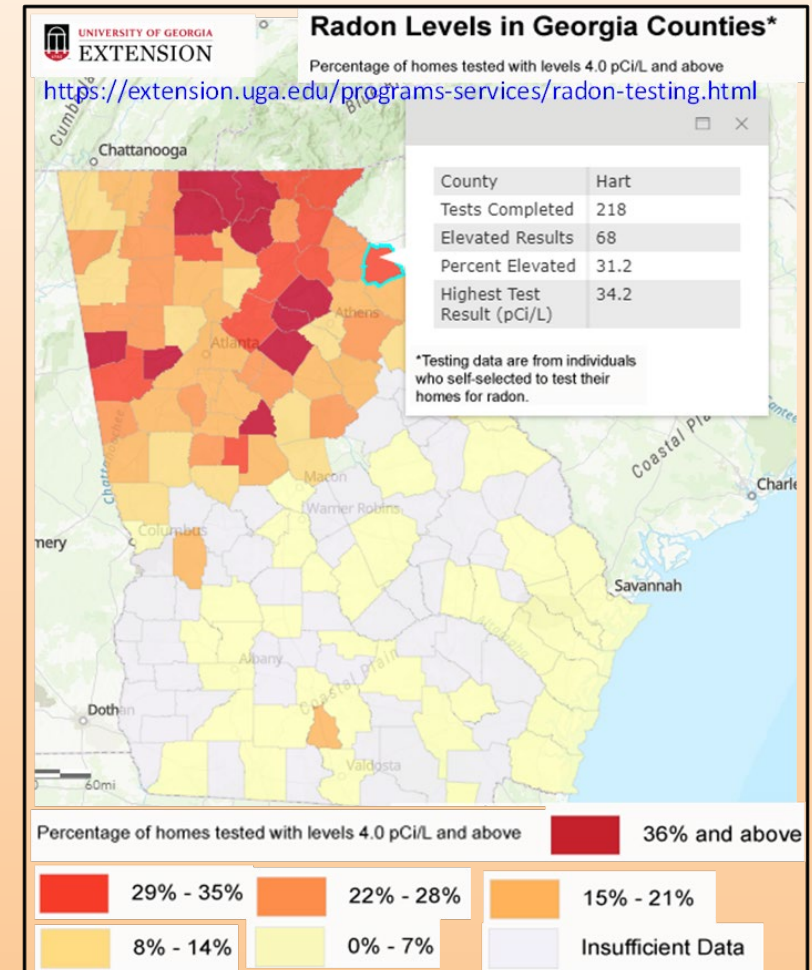
**Derek Cooper<sup>1</sup>, Pamela Turner<sup>1</sup>, and Uttam Saha<sup>2</sup>**

<sup>1</sup>Department of Financial Planning, Housing and Consumer Economics, College of Family and Consumer Sciences, The University of Georgia, Athens, GA

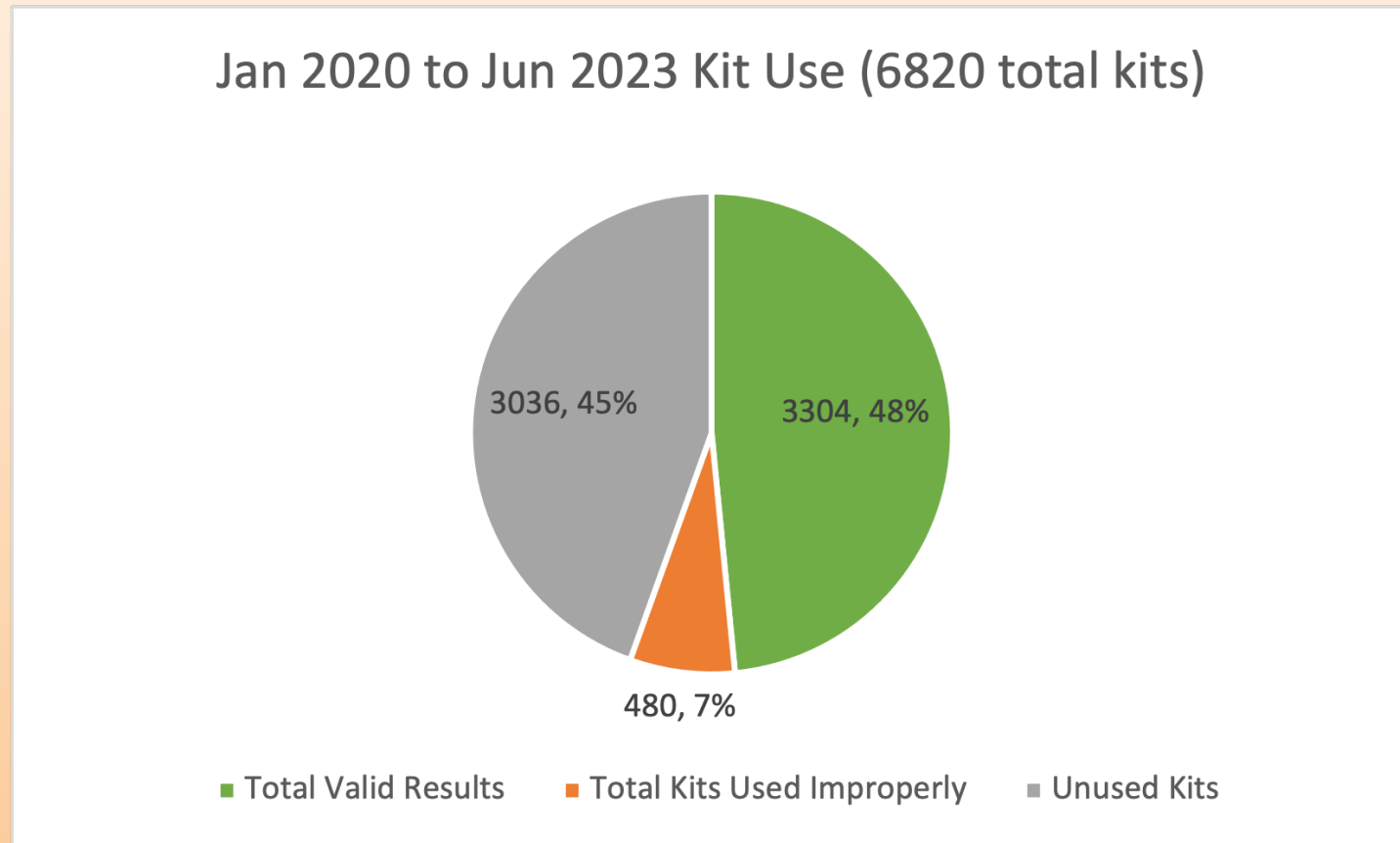
<sup>2</sup>Agricultural and Environmental Services Laboratories, College of Agricultural and Environmental Sciences, The University of Georgia, Athens, GA

# UGA Radon Kit Distribution Summary

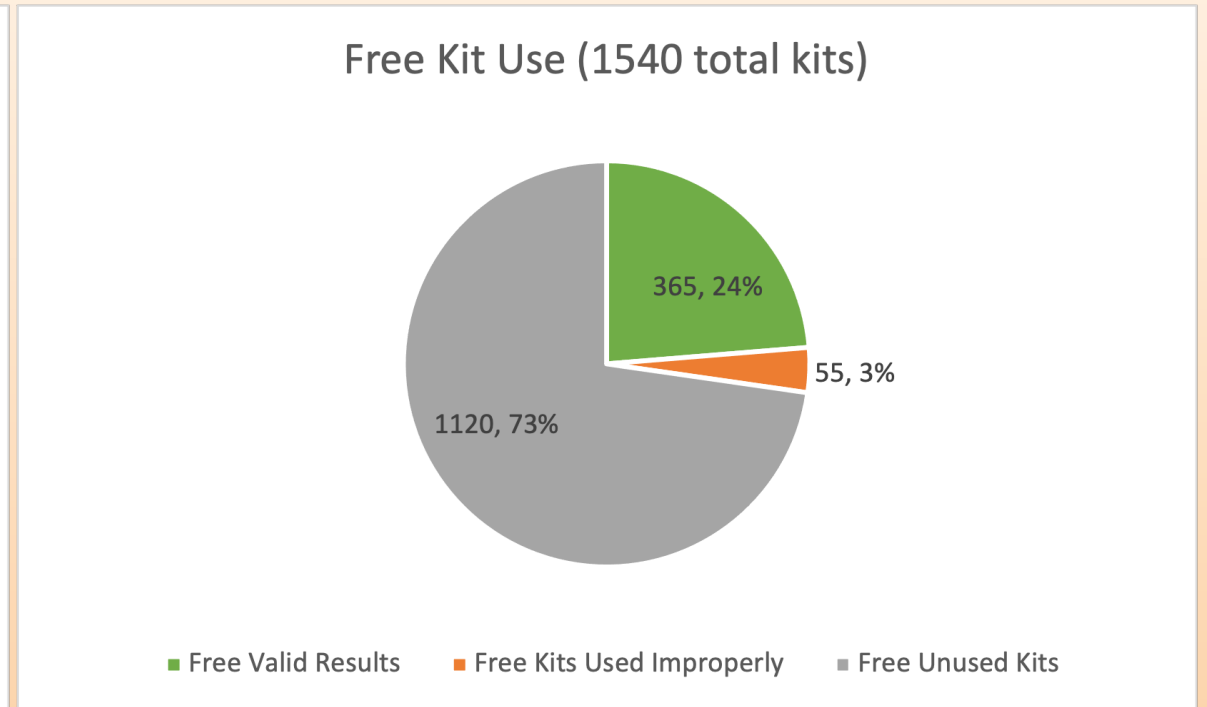
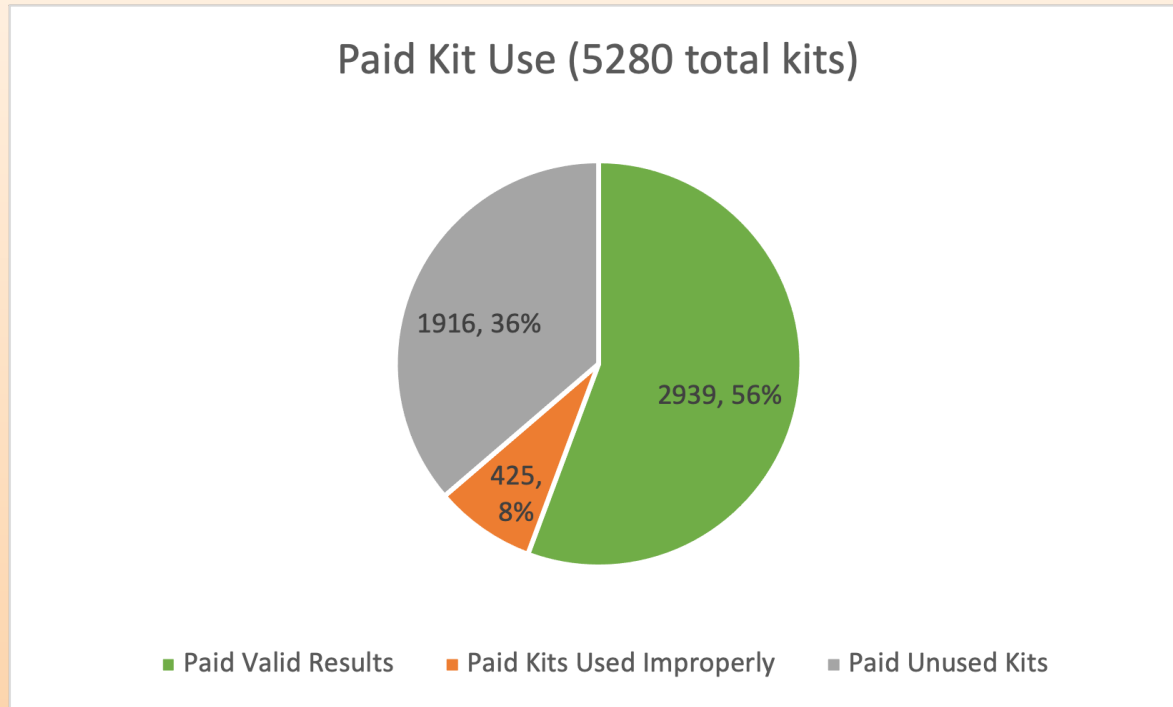
- Operates through UGA Extension
- Offers radon in water and air testing
- Kits sold online and extension offices
- Free kits offered experimentally during pandemic shutdowns to increase program participation
- 6,820 short term kits distributed from January 2020 to June 2023



# Big Picture Kit Use



# Paid Kit Use



- Beyond paid versus free, are there any parameters that increase the utilization of kits?

# Kit distribution method by category

Class (3-4 Hours)

Class (30-60 Minutes)

Class (5-10 Minutes)

Extension Office

Health Fair

Kits for Extension Employees

Lion Club Kit Sales

Mail Order

Online Order

Promo Code Mail In

Replacement

Rockdale Fire Dept Project

Special Project

# Data Categorized...

Distribution Method	Kits Distributed	Kits Used	Valid Results	Kits Used Improperly	Unused Kits	Utilization Rate	Percent of Used Kits Improperly
Class (3-4 Hours) Free	63	11	10	1	52	17.46%	9.09%
Class (30-60 Minutes) Free	635	209	181	28	426	32.91%	13.40%
Class (30-60 Minutes) Paid	48	22	20	2	26	45.83%	9.09%
Class (5-10 Minutes) Free	32	1	0	1	31	3.13%	100.00%
Extension Office Free	12	6	5	1	6	50.00%	16.67%
Extension Office Paid	407	278	244	34	129	68.30%	12.23%
Health Fair Free	557	64	56	8	493	11.49%	12.50%
Health Fair Paid	17	10	9	1	7	58.82%	10.00%
Kits for Extension Employees Free	71	22	19	3	49	30.99%	13.64%
Lion Club Kit Sales Free	2	2	1	1	0	100.00%	50.00%
Lion Club Kit Sales Paid	94	50	41	9	44	53.19%	18.00%
Mail Order Free	1	0	0	0	1	0.00%	
Mail Order Paid	130	95	84	11	35	73.08%	11.58%
Online Order Free	2	0	0	0	2	0.00%	
Online Order Paid	4365	2758	2408	350	1607	63.18%	12.69%
Promo Code Mail In Free	19	5	5	0	14	26.32%	0.00%
Replacement Free	107	72	67	5	35	67.29%	6.94%
Rockdale Fire Dept Project Free	26	22	16	6	4	84.62%	27.27%
Special Project Free	13	6	5	1	7	46.15%	16.67%
Special Project Paid	219	151	133	18	68	68.95%	11.92%
	6820	3784	3304	480	3036	55.48%	12.68%

# Sorted by utilization rate

Distribution Method	Kits		Kits Used			Utilization Rate	Percentage of Used Kits Improperly
	Distributed	Kits Used	Valid Results	Improperly	Unused Kits		
Rockdale Fire Dept Project Free	26	22	16	6	4	<b>84.62%</b>	27.27%
Mail Order Paid	130	95	84	11	35	<b>73.08%</b>	11.58%
Special Project Paid	219	151	133	18	68	<b>68.95%</b>	11.92%
Extension Office Paid	407	278	244	34	129	<b>68.30%</b>	12.23%
Replacement Free	107	72	67	5	35	<b>67.29%</b>	6.94%
Online Order Paid	4365	2758	2408	350	1607	<b>63.18%</b>	12.69%
Health Fair Paid	17	10	9	1	7	<b>58.82%</b>	10.00%
Lion Club Kit Sales Paid	94	50	41	9	44	<b>53.19%</b>	18.00%
Class (30-60 Minutes) Paid	48	22	20	2	26	<b>45.83%</b>	9.09%
Class (30-60 Minutes) Free	635	209	181	28	426	<b>32.91%</b>	13.40%
Kits for Extension Employees Free	71	22	19	3	49	<b>30.99%</b>	13.64%
Promo Code Mail In Free	19	5	5	0	14	<b>26.32%</b>	0.00%
Class (3-4 Hours) Free	63	11	10	1	52	<b>17.46%</b>	9.09%
Health Fair Free	557	64	56	8	493	<b>11.49%</b>	12.50%
Class (5-10 Minutes) Free	32	1	0	1	31	<b>3.13%</b>	100.00%

Free

Paid

# Rockdale Fire Education Kits

Distribution Method	Kits Distributed	Kits Used	Valid Results	Kits Used Improperly	Unused Kits	Utilization Rate	Percentage of Used Kits Improperly
Rockdale Fire Dept Project Free	26	22	16	6	4	84.62%	27.27%

- Fire safety educators place radon kits when doing smoke detector placement in homes
- Very early in program, but highest kit utilization rate of any method analyzed
- Kit error is also high, so fire safety educators may need to give better instruction on sending kits to lab

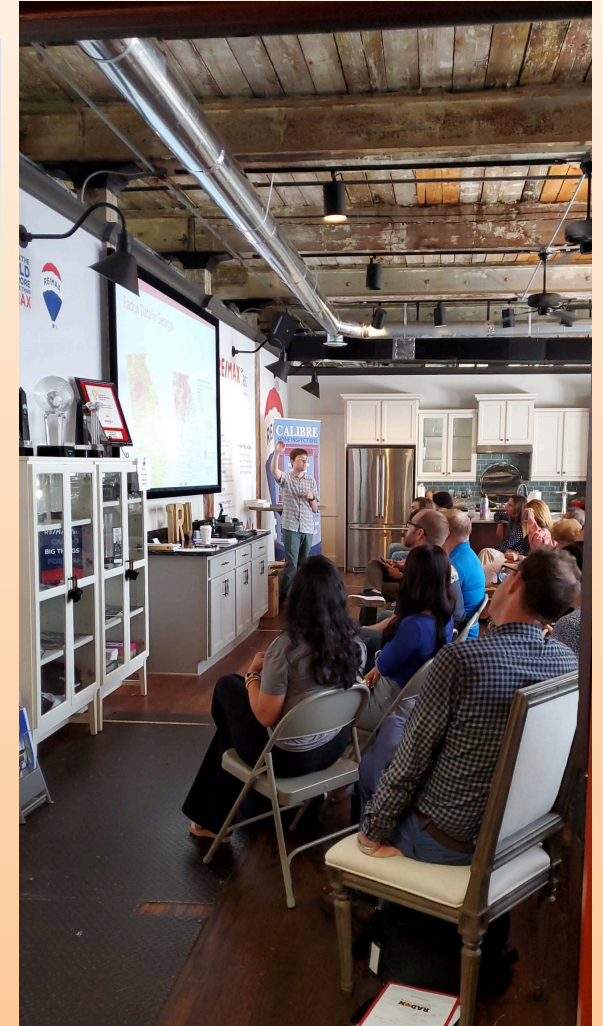




# Kits given at radon education classes

Distribution Method	Kits		Kits Used			Utilization Rate	Percentage of Used Kits Improperly
	Distributed	Kits Used	Valid Results	Improperly	Unused Kits		
Class (30-60 Minutes) Free	635	209	181	28	426	<b>32.91%</b>	13.40%
Class (3-4 Hours) Free	63	11	10	1	52	<b>17.46%</b>	9.09%
Class (5-10 Minutes) Free	32	1	0	1	31	<b>3.13%</b>	100.00%

- 30–60 minute classes are the sweet spot
- 3-4 hour classes were mostly aimed at real estate agents, who are there for business rather than health
- 5-10 minutes not enough time to express the importance of testing
- Wide variance in utilization between class types



# Kits given to extension employees

Distribution Method	Kits		Valid Results	Kits Used		Unused Kits	Utilization Rate	Percentage of Used Kits Improperly
	Distributed	Kits Used		Improperly				
Kits for Extension Employees Free	71	22	19	3	49	30.99%	13.64%	

- Very low utilization for members of our own organization, but high compared to some other distribution methods like health fairs
- Without financial motivation still difficult to increase testing



UNIVERSITY OF GEORGIA  
EXTENSION

# Health fairs with weak kit use

Distribution Method	Kits Distributed	Kits Used	Valid Results	Kits Used Improperly	Unused Kits	Utilization Rate	Percentage of Used Kits Improperly
Health Fair Free	557	64	56	8	493	11.49%	12.50%

- Very low free kit utilization at health fairs
- Limited time to educate on radon
- Kits mailed to participants after fair, so there is a delay before fairgoers can use kits
- At health fairs prior to these free kits, I would sell only a few kits at each fair



# Takeaways and future questions

- When people invest money in a kit, they are significantly more likely to use the kit
- Placement of kits by safety officials like fire educators could be extremely viable and effective, but more data is needed
- Giving kits at health fairs has high travel costs and low pickup for our program
- Every program is different so results may vary state to state
- Can we increase messaging and reminders after kits are distributed to increase kit utilization?
- How much money is needed to keep utilization high? Would charging \$3 be as effective at \$15? Where is the sweet spot?