

# Valley AIRNow-Air Quality Outreach

for the Northern Shenandoah Valley Air Quality Improvement Task Force

Air Quality Improvement Task Force Meeting  
June 7<sup>th</sup>, 2006



# Today's Agenda

- Events: Past
- Outreach Output
- Task Force Input
- Events: Upcoming
- General Comments/Input



# Events: Past

- Apple Blossom Festival bookmark inserts for Kids Bloomin' Mile and 10K Runner's Packets: May 5-6
- VHS Employee Health & Fitness Fair: May 11
- 2nd Winchester Star Forum piece: May 17
- Clean Commute/AIRCorps Recognition Event: May 19
- Commute Smart Virginia meeting: June 1



# Outreach Output

- Media packets distributed
- AIRCorps advertisement/recruitment poster
- AIRCorps educational display posters
- LFCC Survey Analysis

Businesses helping to maintain . . .

# AIRCorps

. . . clean air and blue skies

## Who We Are

Valley AirCorps is a diverse network of organizations and individuals dedicated to working with the Shenandoah Valley business community to address environmental quality challenges and create vibrant public health outcomes. The success of the program is measured by the Valley Quality Index (VQI) and the number of hours the public health professionals at Valley AirCorps spend on and in the field to reduce and prevent air pollution.

More important, clean air and blue skies are things that affect the very way of life that makes Shenandoah Valley a special place. The Shenandoah Valley is a beautiful and healthy place to live, work and play. The Valley AirCorps is a proud member of the community and we are committed to helping you and your employees and customers enjoy the best of the Shenandoah Valley. We hope you will join us in our mission to create a cleaner, healthier, and more vibrant Valley for all.

## Our Program

When you join Valley AirCorps (VAC) you become a member of a special team. As a member, you will have access to a variety of services and resources that will help you and your employees and customers enjoy the best of the Shenandoah Valley. We hope you will join us in our mission to create a cleaner, healthier, and more vibrant Valley for all.

Help us promote your positive steps by demonstrating that you're serious about the environment and the community.

- Encourage employees to take biking, walking, or driving to work
- Encourage employees to take recycling, energy conservation, and other green steps to help reduce air pollution
- Participate in environmental filing programs
- Donate your waste for recycling initiatives
- Participate in air quality monitoring, sampling, and other activities
- Encourage your employees to take biking, walking, or driving to work

We highlight participating programs on the Valley Quality Index (VQI) and the Valley Quality Index (VQI) and the number of hours the public health professionals at Valley AirCorps spend on and in the field to reduce and prevent air pollution.

## Become a Member

- It's a fun way to join and take little steps to change.
- You become part of a large and vibrant community of the Shenandoah Valley.
- The Shenandoah Valley AirCorps is a special place to work.
- Company programs and initiatives are more fun and more successful when you participate.

## Affiliates

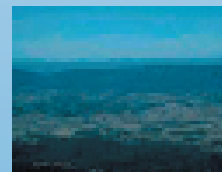
Affiliate organizations of the VQI include: The Shenandoah Valley AirCorps and organizations in the Shenandoah Valley.

## Contributors

Contributors are members of the VQI who are participating in education and research programs and provide material financial support.

## Partners

Partners include VAC and other organizations and individuals who help us promote your positive steps by demonstrating that you're serious about the environment and the community.



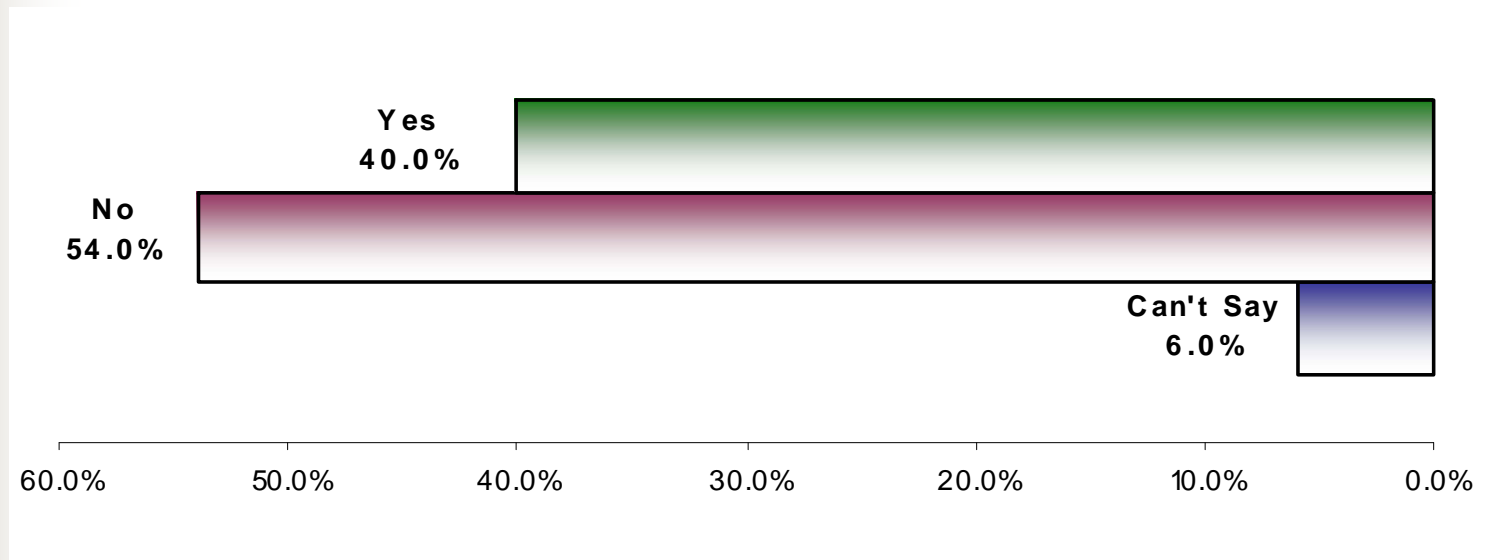
Shenandoah National Park is shown under your left and right county websites. The website maps under your members is not on either the website maps in either your counties or VQI. Please visit our Shenandoah National Park.

# LFCC Post-Ozone Season Survey Analysis

- Survey Respondents

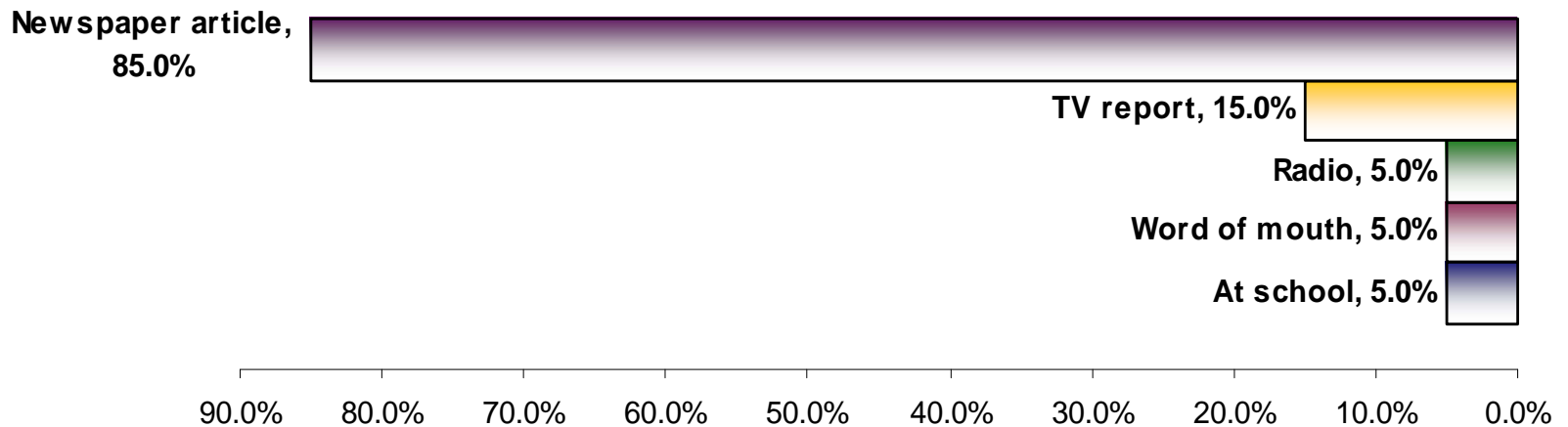
	Count	Percentage
Accepted	49	29.9%
Declined	115	70.1%
Total	164	

# Q1: Have you heard or seen anything in the last six months about air quality in Winchester-Frederick County?



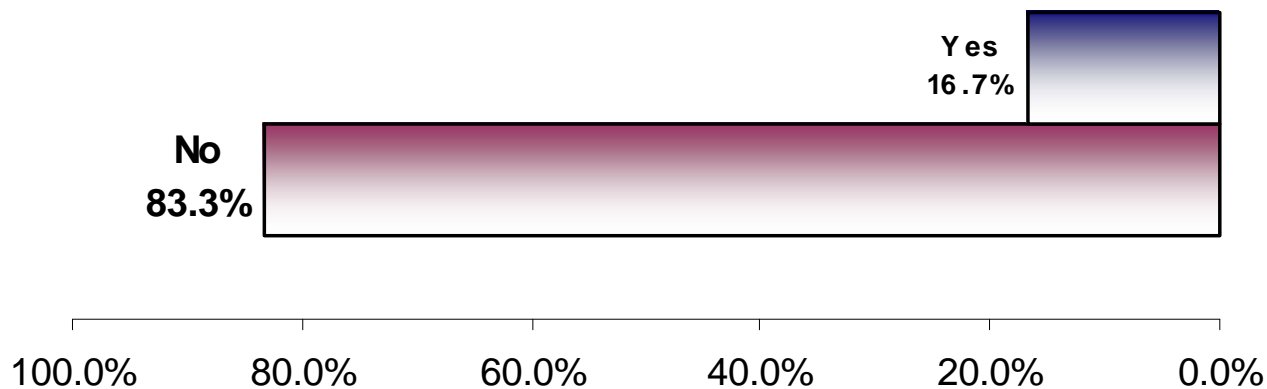
N = 50

# A1: What did you hear or see? (Newspaper, Article, TV Report, Radio Report, Poster, Presentation, Other)



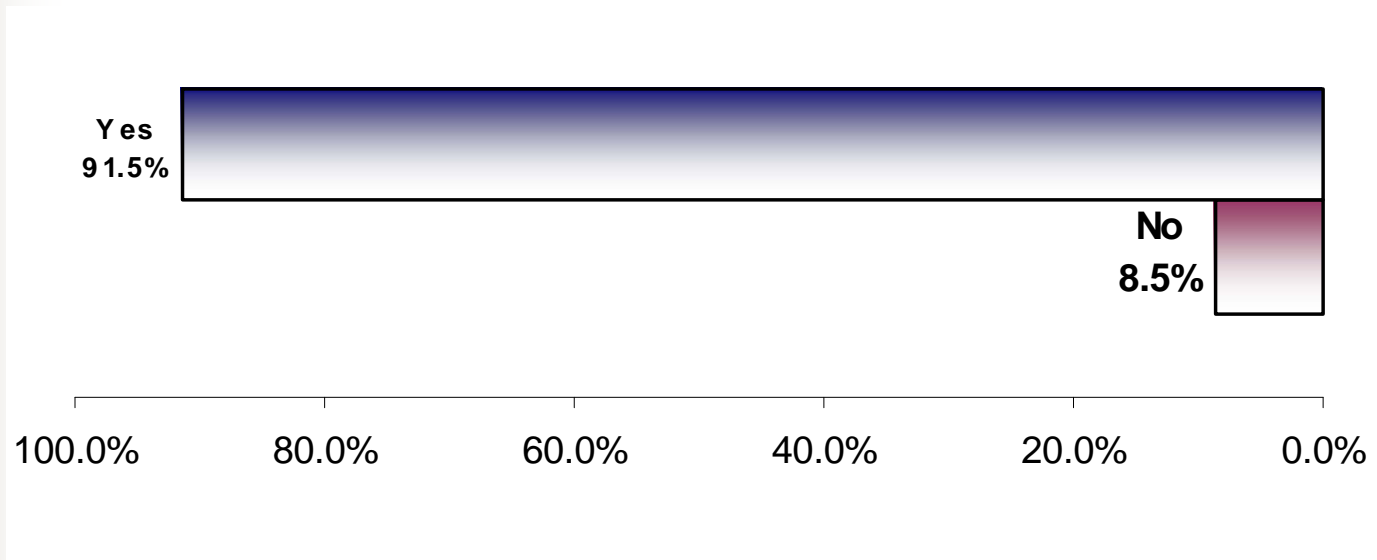
N = 20

**Q2: In the last six months, have you changed any of your driving habits because of what you've learned about air quality—maybe started ride-sharing more often, or riding your bike, or refueling after dark, or trip-chaining?**



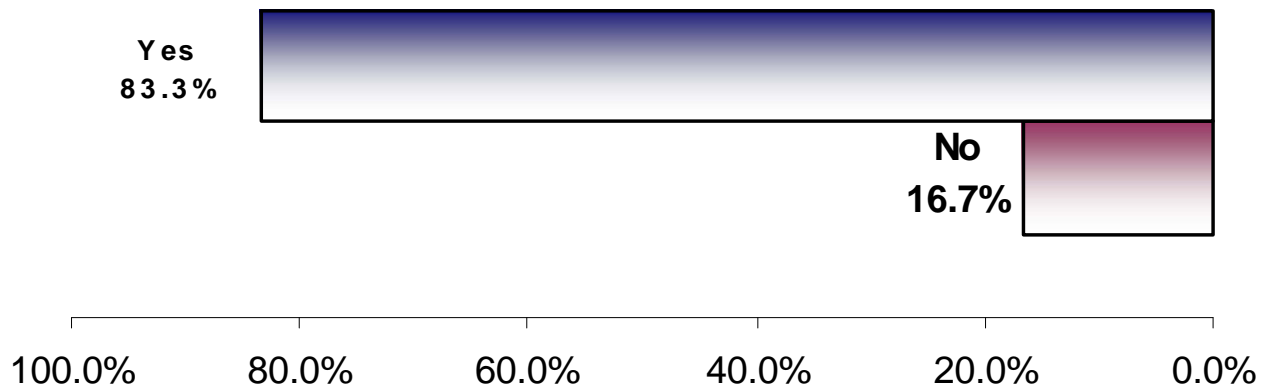
N = 42

**Q3: Did you know that ozone is a colorless gas that occurs in the Earth's atmosphere?**



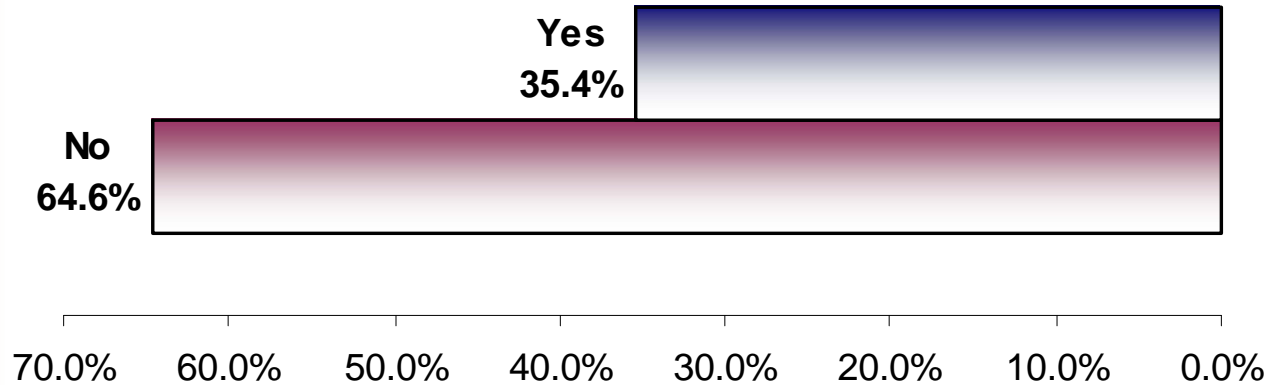
N = 47

# Q4: Did you know the Air Quality Index is a scale used to report levels of pollutants in the air?



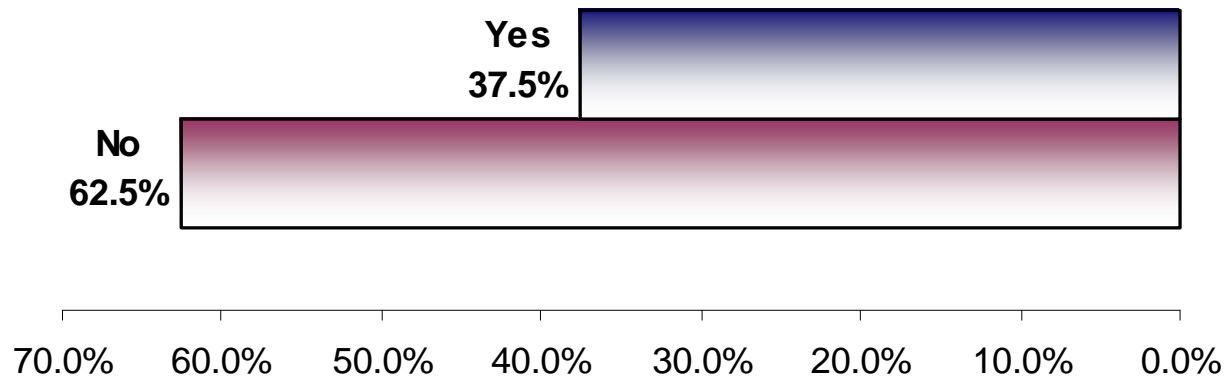
N = 48

**Q5: Did you know good ozone occurs 10-30 miles above the Earth's surface, in the upper atmosphere, and bad ozone, also called ground-level ozone, occurs from ground level up to 10 miles?**



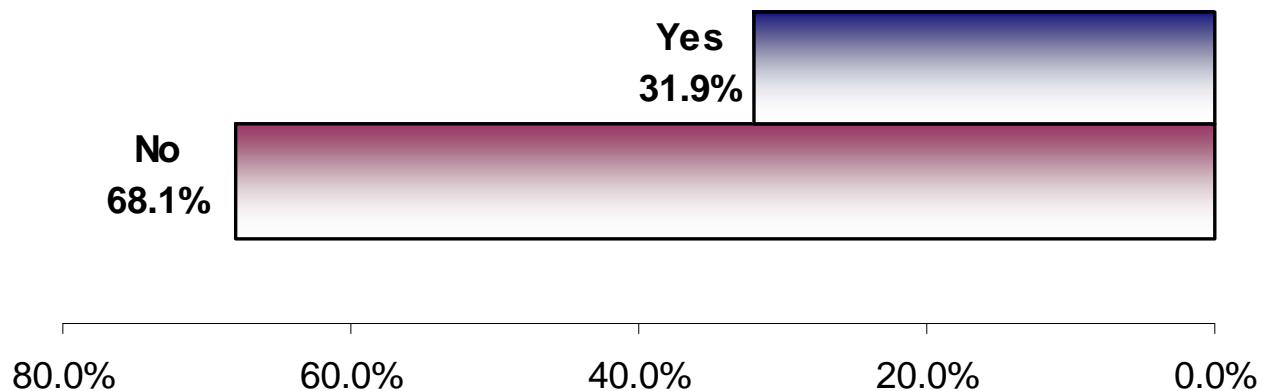
N = 48

**Q6: Did you know that ground-level ozone does not come out of smokestacks or tailpipes? It forms when sunlight and warm temperatures cook chemicals from sources such as car exhaust, consumer solvents, and industry.**



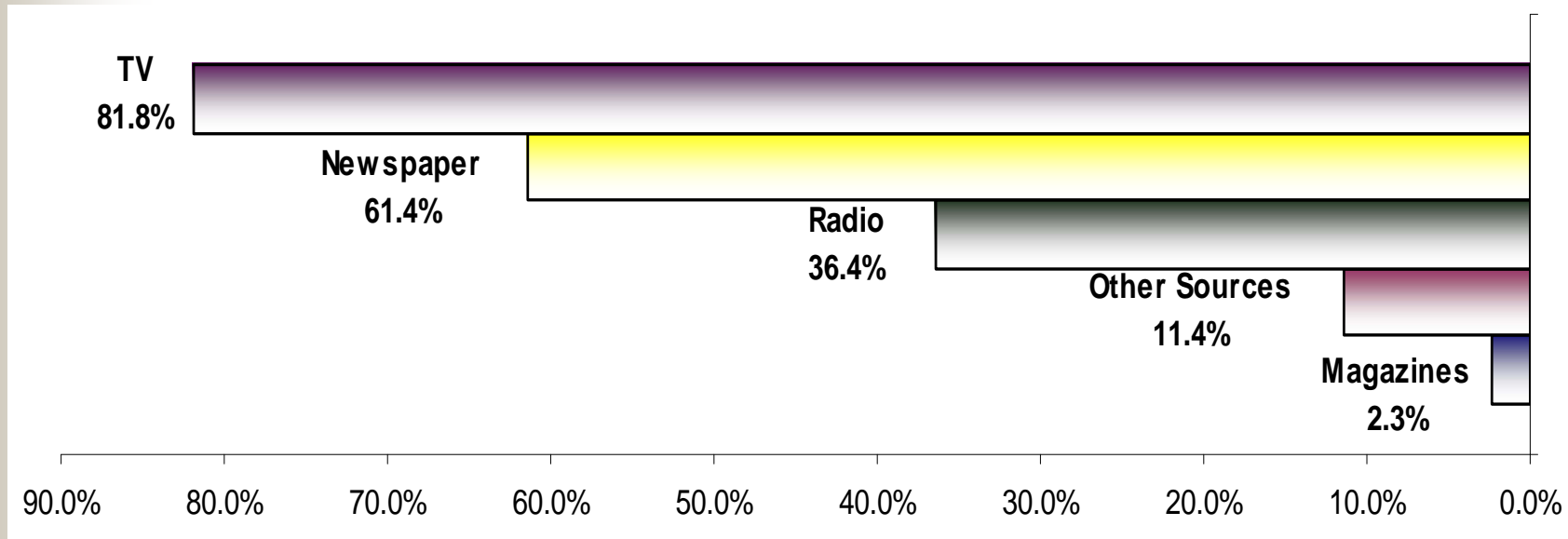
N = 48

**Q7: Did you know that ground-level ozone is bad for our health? It inflames and damages cells in our lungs. Children are especially vulnerable, and plants are vulnerable, too. In the U.S., crop damage from ozone is estimated to be over \$500 million a year.**



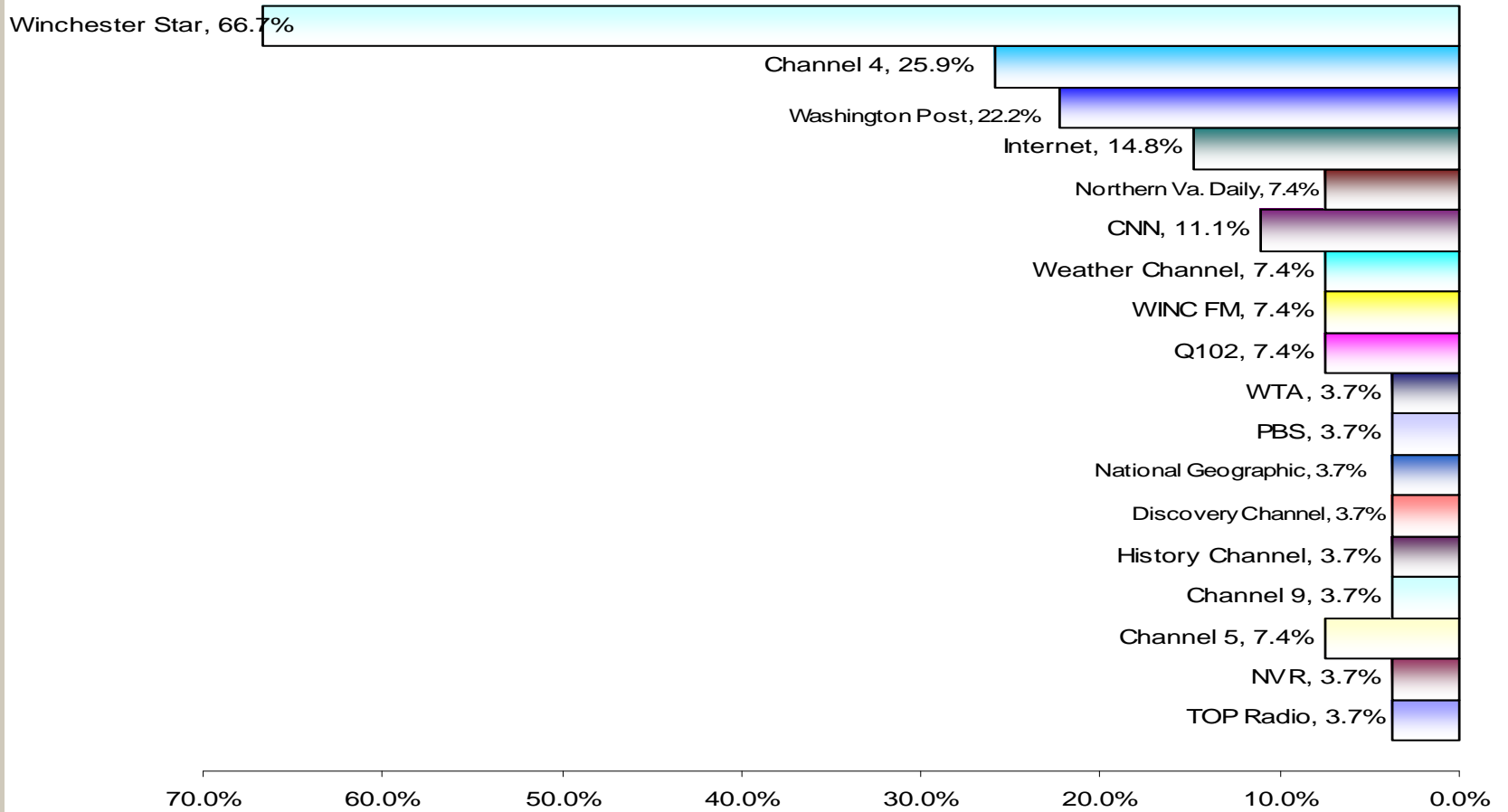
N = 47

# Q8: Top two sources where you get your news?



N = 47

# A8: Named Sources.



N = 30



# Survey Conclusions

1. Our target population has a general knowledge about ozone, but lacks specificity in their knowledge
2. Our target population is amenable to education but we need to get our message out more effectively
3. TV is the preferred media, yet most of the respondents knowledge of AQ comes from the newspaper.
  - Need to develop stronger presence in TV news outlets,
  - While concurrently improving our presence in The Winchester Star



# Task Force Input

- Overview of Biodiesel Initiative
- American Lung Association Asthma Camp – Camp Superkids
  - June 19 – 21, 2006
  - Hunting Ridge Retreat, Winchester
- GLOBE equipment

# GLOBE Equipment

## 1. Enviro-Safe® “Easy Read” Armor Case Thermometer

- Precision thermometer (-5°C to 50°C in .5° increments)
- Filled with an environmentally safe, citrus-based liquid.
- Features a protective plastic jacket with window opening and perforations.
- 6” long
- NIST certified
- Protocols: Aerosols, Water Vapor, Relative Humidity, Surface Ozone, Max/Min/Current Temperature
- Quantity: 1
- Price: \$9.95 each



## 2. Instrument Shelter

- Constructed of wood, painted white
  - Houses thermometer, digital hygrometer
  - Bottom panel has holes to increase natural ventilation
  - Security: includes lock and key
  - Inside dimensions: 9"W x 6"D x 17-3/4"H
  - Meets GLOBE specifications
- **Protocols: Relative Humidity, Surface Ozone, Max/Min/Current Temperature**
  - **Quantity: 2**
  - **Price: \$135.00 each**



### 3. All-Weather Rain Gauge

- Collects rain in top, funnels it to removable inner tube
- Overflow chamber catches excess for later measurement
- Made to U.S. Weather Bureau specifications
- Protocol: Precipitation
- Quantity: 10
- Price: \$27.45 each



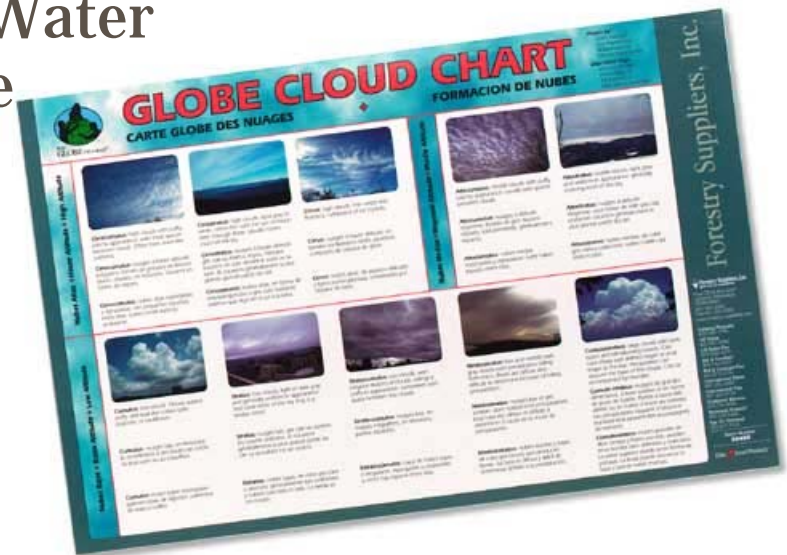
## 4. Ozone Test Cards & Reader

- Test Cards come in packs of 10
  - provided at no cost from GLOBE
- Test Card Reader
  - handheld optical reader provides fast, accurate ozone readings using Test Cards
  - To determine the ozone level, simply expose a test card to the air for one hour, and then insert it into the test card reader. The ozone reading is then displayed in ppb. Additional data with each reading can be recorded and uploaded to your computer
  - Protocol: Surface Ozone
  - **Quantity: 10**
  - **Price: \$154.95 each**



## 5. GLOBE Cloud Chart

- Provides descriptions and visual examples of the ten basic cloud types: cirrus, cirrostratus, cirrocumulus, altostratus, altocumulus, cumulus, nimbostratus, stratus, cumulonimbus, and stratocumulus
- Protocols: Aerosols, Water Vapor, Surface Ozone
- Quantity: 10
- Price: \$9.95 each



## 6. Sun® Pocket Altimeter/Barometer

- Shows barometric pressure
- Ranges: 550 to 1,100 hPa
- Features a weather trend indicator which predicts fair or stormy weather
- **Protocols: Aerosols, Water Vapor, Barometric Pressure**
- **Quantity: 10**
- **Price: \$51.25 each**



## 7. Garmin® GPS 12

- Fast position fixes in tough conditions including tree canopy and urban obstructions
- 500 user waypoints with alphanumeric name and user comment
- Used for site definition: Latitude/longitude, position averaging, etc...
- **Protocols: Aerosols, Water Vapor**
- **Quantity: 5**
- **Price: \$159.95 each**



## 8. Digital Hygro-Thermometer

- Meets GLOBE Protocols for air temperature, relative humidity, soil temperature and maximum-minimum and current temperatures
- **Protocols: Aerosols, Water Vapor, Relative Humidity, Surface Ozone**
- **Quantity: 5**
- **Price: \$22.30 each**



# GLOBE Equipment, cont...

<b>Quantity</b>	<b>Description</b>	<b>Price</b>	<b>Total</b>
1	Thermometer	9.95	\$9.95
2	Thermometer Shelter	135.00	\$270.00
10	Rain Gauge	27.45	\$274.50
10	Ozone Test Card Reader	154.95	\$1,549.50
10	GLOBE Cloud Chart	9.95	\$99.50
10	Altimeter/Barometer	51.25	\$512.50
5	GPS 12	159.95	\$799.75
5	Digital Hygro-Thermometer	22.30	\$111.50
			<b>\$3,627.20</b>



# Events: Upcoming

- Next Task Force meeting: July 5<sup>th</sup>, 2006
- Teacher Air Quality Workshop, JMU: June 26 - 30
- EAC Progress Report submittal deadline: June 30

# General Comments/Input

