

No Idling



Alabama Asthma Program

Intervention Evaluation Report

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Acronyms

AAC	Alabama Asthma Coalition
AAP	Alabama Asthma Program
ADEM	Alabama Department of Environmental Management
ADPH	Alabama Department of Public Health
ALSDE	Alabama State Department of Education
AQ	Air quality
CDC	Centers for Disease Control and Prevention
IEP	Individual Evaluation Plan
PM	Particulate matter

Overview

The “No Idling” campaign is an intervention focused on persuading parents and school bus drivers not to idle their vehicles while waiting to pick up or drop off schoolchildren. It is one component of the larger Alabama Asthma Program (AAP), established with funding from the CDC’s National Asthma Control Plan. It is primarily a promotional campaign consisting of signs posted in school pick up/drop-off zones, pamphlets, and awareness promotion for idling as a health risk.

“No Idling” is a joint effort by the Alabama Department of Public Health (ADPH), Alabama State Department of Education (ALSDE), and Alabama Department of Environmental Management (ADEM). It is intended to reduce the environmental triggers of asthma by improving the outdoor air quality (AQ) near children and those with compromised lung function. Idling produces excessive vehicle exhaust, releasing airborne particulate matter (PM) which can cause nasal, throat, respiratory, and eye problems, and can be a harmful trigger to people with asthma.

Children are particularly sensitive to the impacts of poor AQ, as their lungs are still in development and they breathe about 50 percent more air per pound of body weight than adults (EPA, 2003). Children are also closer to the ground and to the tailpipes releasing vehicle exhaust. Particle pollution and ground-level ozone can aggravate asthma in children and increase the risk of respiratory tract infection (Earth Day Network, n.d.). With nearly 11.5 percent of all children in Alabama reporting a current asthma diagnosis, the No Idling campaign

is a timely and unique effort to reduce the potential environmental trigger of excessive PM from diesel and gasoline exhaust.

Logic Model

The five-year strategic logic model for the AAP was developed by its program evaluator, Debra Hodges, Ph.D. It provides a visual diagram that sets forth the inputs, activities, outputs, and outcomes for the AAP. The No Idling campaign was originally conceived as a project of two committees of the overall Alabama Asthma Coalition (AAC)—the Community/School Committee and the Environmental Committee. As this evaluation will explore, the primary players in No Idling would turn out to be ADPH, ADEM, and ALSDE, with little participation from other AAC stakeholders.

The logic models presented in Appendix 1 show the measurements included in this evaluation as part of the No Idling campaign’s “outputs”—the number of signs distributed, brochures sent out, pledges received, and media releases can help indicate the desired short-term outcome of increased awareness of AQ by schools, bus drivers, and parents. It is hoped that this interim outcome can create the conditions for the longer-term outcomes, like No Idling policies being adopted in more institutions and public arenas, with the ultimate goal of reducing healthcare utilization associated with asthma, asthma disparities, and improving the quality of life for Alabamians with asthma.

Intervention Activities

The No Idling campaign began in 2009. ADPH and ADEM worked with ALSDE to have the latter pass a statewide No Idling resolution in November 2009, urging school districts in Alabama to adopt “Idle Free Zones” on school campuses and similarly urging all Alabamians to reduce idling.

In that same time frame, ADPH and ADEM purchased and delivered 3,000 No Idling signs to every public school district in the state of Alabama—two signs for each school, usually sent to each school district’s central office. ADEM reported delivering 2,018 total signs, 510 of which were hand-delivered. ADPH was responsible for shipping the remaining 982. All 3,000 signs were confirmed in their delivery by July 2010. School districts were responsible for posting the signs and encouraging parents and bus drivers to recognize the “Idle Free Zones.” Thirty-nine additional signs were distributed in fall 2012 and early 2013 for additional institutions and new schools in Jefferson and Montgomery counties.

ADPH had 100,000 No Idling brochures printed for school children, families, and transportation staff. These brochures explain the purpose of No Idling and include the No Idling pledge for parents and transportation staff to sign (see Appendix 2). ADEM distributed these brochures to school districts who requested them.

AAP and ADEM staff delivered a joint presentation at the state school transportation conference in June 2010. This presentation prepared all school transportation supervisors to add content

related to not idling school buses to the curriculum for the yearly bus driver in-service trainings offered by each school district. This presentation also set forth the requirement that bus drivers sign the No Idling pledge and that the pledge must be placed in each bus driver's personnel file.

Program staff at ADPH and ADEM also offered educational presentations about idling and asthma to schools and school districts. Presentations that were requested were delivered at schools, PTA meetings, and school transportation and health conferences in 2010-2012.

Several media outlets have featured ADPH and ADEM in promoting awareness of the No Idling campaign. A campaign kick-off for No Idling was hosted at Prattville Elementary School on March 23, 2010, with an accompanying press conference and press release published by the Prattville city government. The ADPH quarterly newsletter, *Alabama's Health*, featured the AAP in May 2012 in recognition of Asthma Awareness Month. This included a short piece on the No Idling campaign, along with the other AAP program components. In September 2012, AAP staff appeared in a brief interview on a local television station, WAKA Channel 8, and on a Troy Radio program to promote No Idling.

Evaluation Activities

Evaluation Goals

The goal of this evaluation is to determine the extent of the implementation of No Idling in Alabama schools and among school bus drivers. Ultimately, the purpose is to evaluate the impact of No Idling on the improvement in outdoor AQ at Alabama schools, but this evaluation encountered barriers limiting its ability to measure all that was originally planned. The present evaluation therefore includes a process evaluation of the components of the No Idling campaign and descriptive statistics only.

The individual evaluation plan (IEP) for the No Idling evaluation initially called for surveys of school staff and parents to determine whether parents received No Idling brochures and determine buy-in to the campaign, as well as personal observations of whether bus drivers and parents were idling while waiting to pick up and drop off children. These activities did not occur due to limitations in staff and funding.

Thus, this evaluation answers the following questions:

1. How many schools have received the No Idling signs?
2. How many schools have actually put up the No Idling signs?
3. Which school districts need assistance with implementing the No Idling program?
4. What proportion of school bus drivers have signed the No Idling pledge?
5. What proportion of school bus drivers understand the purpose of No Idling?

Methods

Data were collected from multiple sources according to a mixed method design. The methods included in this evaluation include two telephone surveys, observations and photographs of posted No Idling signs at schools by ADPH staff and members of the AAP Facebook page, and a

pencil-and-paper survey of bus drivers conducted during the annual in-service trainings in August and September 2013. The baseline assessments were taken from the ALSDE Department of Transportation's listing of school districts in the state that were sent signs.

The two telephone surveys targeted representatives of every public school district in the state, usually the superintendent or transportation supervisor (as available). The telephone survey conducted in July and August 2010 was handled by the transportation program manager at ALSDE, Brad Holley. Mr. Holley and other ALSDE staff worked collaboratively with AAP staff to conduct the second telephone survey of school superintendents and transportation supervisors in January and February 2011. All 132 school districts constituted the sample in both telephone surveys. Many of the survey replies from school districts were later found to be inaccurate regarding individual school participation.

Midpoint during the campaign it was learned that Jefferson County had their own No Idling project, named the Auntie Litter program, with their own signs. This has limited information from Jefferson County and the city school districts within the county. No determination has been made of the disposition of the signs sent to Jefferson County. It appears that some schools in that county have Auntie Litter signs and some have the signs produced by AAP.

Observations of posted No Idling signs at schools were collected starting in August 2011. Initially, AAP and ADPH staff made observations on occasional site visits to schools in Alabama. Requests for observations and photographs were published on the AAP's Facebook page and in *Alabama's Health* in September 2012 and March 2013. These observations and photographs were collected as qualitative indicators of whether or not school districts were actually posting the received No Idling signs.

The bus driver survey was distributed through the ALSDE transportation program manager to bus drivers at every school system in early August 2013. Transportation supervisors collected the pencil-and-paper survey and submitted tally sheets with the total responses to the program evaluator at AAP.

Results

2010 Survey

In the July and August 2010 survey, the 132 school districts constituting the public school system of Alabama were polled by Brad Holley, transportation program manager at ALSDE. Seventy-three of the school districts were assigned to ALSDE to conduct the survey, while the remaining 59 were assigned to ADEM. The results from ADEM were unavailable.

Of the 73 school system representatives contacted in the 2010 telephone survey, 42 were nonresponsive. The 31 school districts who responded to the survey answered 3 questions: whether the No Idling signs were received, whether the signs had been posted at the local schools, and whether the system would like to request the No Idling brochures.

Respondents to the 2010 survey included:

- 24 school superintendents,
- 4 transportation directors,
- 1 facilities director, and
- 1 secretary to the superintendent.

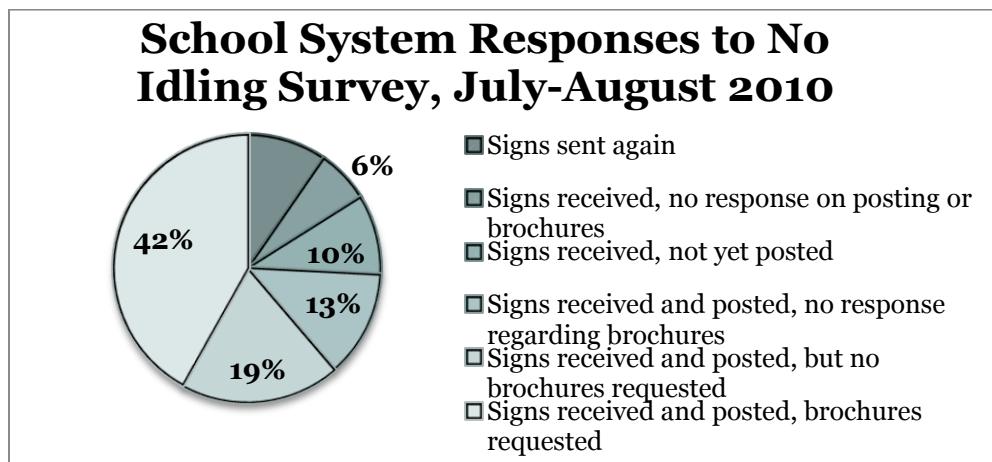
Three of the school districts polled in the 2010 survey required the No Idling signs to be sent again.

Table 1 and Figure 1 describe the array of responses from school system representatives in the 2010 survey. A significant plurality of respondents (41.9 percent) reported that the No Idling signs had been both received by the school system and posted at the local schools, and requested brochures to promote parent and bus driver awareness of No Idling. The running tally of the three groups that include signs received and posted totals 74.2 percent, but it must be noted that this percentage applies only to the 31 school districts that responded to the survey.

Table 1. School system responses to the 2010 survey.

School System Response	Number of Districts	Percentage of All Respondents
Signs sent again	3	9.7%
Signs received, no response on whether signs were posted or brochures were desired	2	6.5%
Signs received, had not yet been posted	3	9.7%
Signs both received and posted, but no response on brochures	4	12.9%
Signs both received and posted, and brochures not requested	6	19.4%
Signs both received and posted, brochures requested	13	41.9%
Totals (percentage not 100 due to rounding)	31	100.1%

Figure 1. Proportions of school system responses to 2010 survey items.



A total of 48,309 No Idling brochures were requested at the time of the conclusion of this survey in late August 2010. ADEM assumed responsibility for distributing these brochures to school districts requesting them.

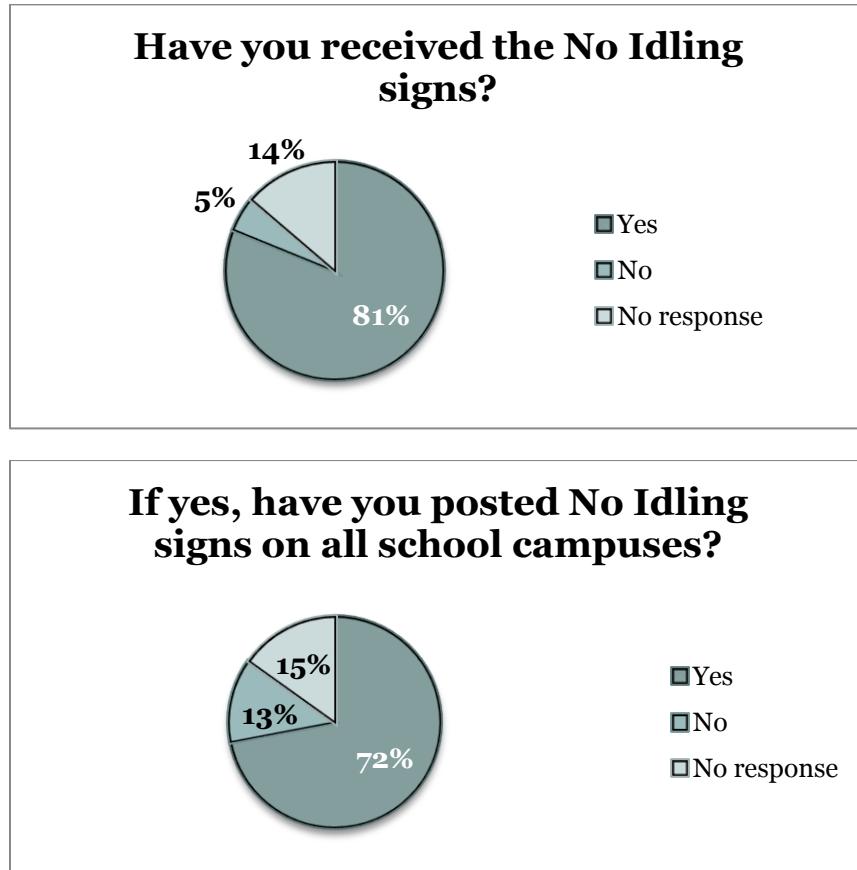
2011 Survey

In the January and February 2011 survey, both ALSDE and AAP staff members telephoned representatives of the 132 Alabama public school districts. In this survey, all 132 school districts, or 87.1 percent, were contacted, with only 17 districts nonresponsive or unreachable. The 115 respondents answered 6 questions:

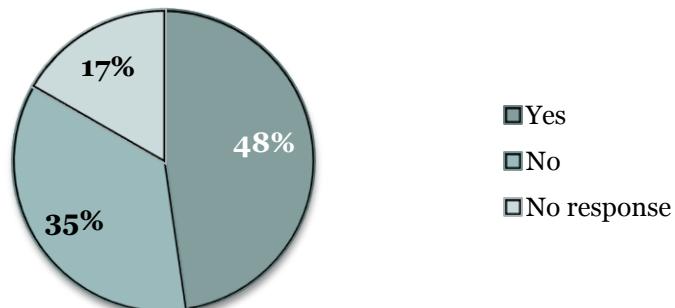
1. Have you received the No Idling signs?
2. If you answered number 1 "yes," have you posted the signs on all of your school campuses?
3. Have you received the No Idling pamphlets?
4. Have you given the pamphlets out to your parents?
5. Has your local board of education adopted a No Idling policy or resolution?
6. Do you need assistance with program implementation?

Figures 2 through 7 provide the proportions of school districts responding "Yes," "No," or having no response to these questions.

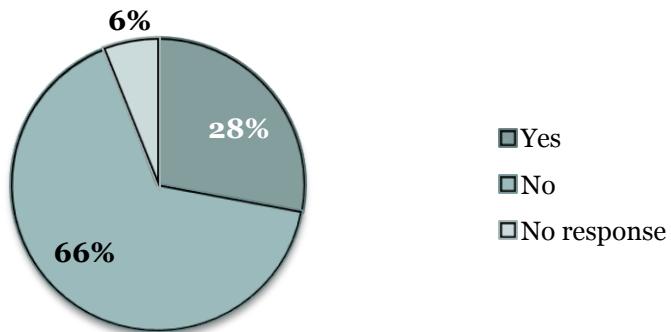
Figures 2-7. Proportions of school system responses to 6 questions in 2011 survey.



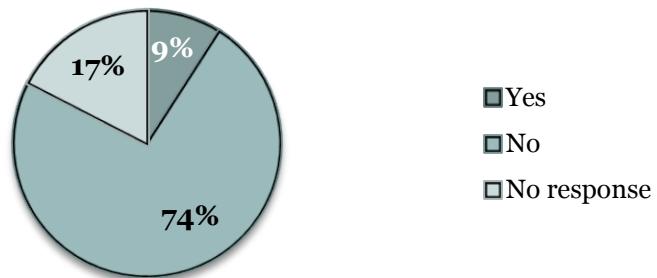
Have you received the No Idling pamphlets?



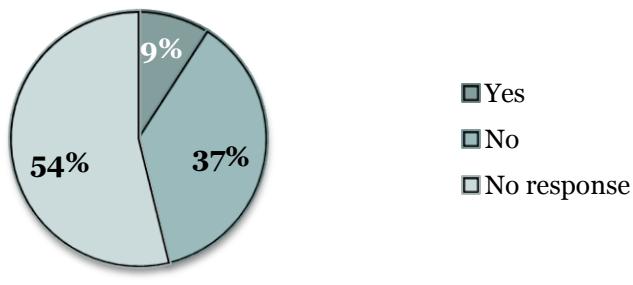
Have you given the pamphlets out to your parents?



Has your local board of education adopted a No Idling policy or resolution?



Do you need assistance with program implementation?



As these figures indicate, the vast majority (81 percent) of Alabama public school districts' representatives acknowledged receiving the No Idling signs. A smaller proportion, 72 percent, stated that the No Idling signs were posted on all school campuses. This survey provided answers for the first two evaluation questions: 107 school districts reported receiving the signs, and 95 school districts reported having their signs posted. If the latter reports could be considered to include every single school campus of those 95 school districts, it is estimated that 1,010 schools in Alabama have the No Idling signs posted. In question three, 48 percent report receiving pamphlets, yet only 28 percent of those had distributed pamphlets to parents. Only 9 percent said that their school board adopted a No Idling policy or resolution. Twelve school districts reported that they needed assistance with implementation of the No Idling program. Most of these schools received this assistance in the form of meetings with or presentations from AAP staff.

However, as explored in the following section, these reports may not have always been accurate or well-informed. School district representatives may have spoken without full knowledge of the extent of the distribution of the signs in their district—although this works in both directions. Some school district representatives believed signs were posted in their district but observed schools did not have posted signs, and some other school district representatives reported that signs were not posted at their district's schools but observations showed some schools with signs posted.

School Observations and Photographs

AAP staff began collecting evidence of No Idling sign placements in August 2011. Other ADPH staff and AAC stakeholders visiting schools for other programs (or for their own children) were requested to submit notifications or photographs regarding No Idling signs beginning in September 2012. Subscribers to the AAP and AAC Facebook pages were also requested to submit written or photographic evidence of sign placement, first in September 2012 and again in March 2013. Some school transportation supervisors spoke with AAP staff at the June 2012 school transportation conference in Clanton, AL, regarding whether or not they believed No Idling signs were posted at their district's schools.

Because this component of the evaluation lacked the staff time and funding to be done systematically, no broad conclusions can be drawn from this evidence. Instead, they are a qualitative indicator of the implementation of the No Idling program (or failure to implement the program) at the specific schools that were visited. Some counties had schools with No Idling signs posted, but other schools in the same county had no signs. Unfortunately, there was insufficient time and flexibility to follow up with individual schools regarding where their signs were, so no data are available on the reasons that individual schools managed or failed to post the No Idling signs. Two school system representatives reported in the first survey that they were waiting to buy posts for the signs, which may have also been the case for individual schools; there may have been other reasons that were not able to be explored by the evaluation team.

In all, photographs and confirmation of sightings were obtained for 25 individual schools (3 unnamed), representing 19 school districts in Alabama. Additional statements from school transportation supervisors would add 11 school districts to this total, although these were not independently confirmed by ADPH staff or other stakeholders. Altogether, the number of school districts confirmed to have posted the signs by someone other than the superintendent or transportation supervisors makes up only 14.4 percent of the 132 school districts in Alabama. However, it is likely that many of the school districts that were not observed or photographed did, in fact, post the No Idling signs; the total number and proportion cannot be estimated from the available evidence.

Schools with submitted photographs

- Greenville Middle School, Butler County
- South Dale Middle School, Dale County
- Reform Elementary School, Pickens County
- Odenville Elementary School, St. Clair County
- Prattville High School, Autauga County
- Louis Pizitz Middle School, Vestavia Hills City¹
- Vestavia Hills High School, Vestavia Hills City
- Albert Turner Sr. Elementary School, Perry County
- Cedar Park Elementary School, Selma City

Schools with ADPH staff or stakeholder confirmation of posted signs

- Springville Elementary School, St. Clair County
- Pine Level Elementary School, Autauga County
- Moundville Elementary School, Hale County
- Reeltown High School, Tallapoosa County
- Orchard Elementary School, Mobile County
- Holloway Elementary School, Mobile County
- Phillips Preparatory Middle School, Mobile County

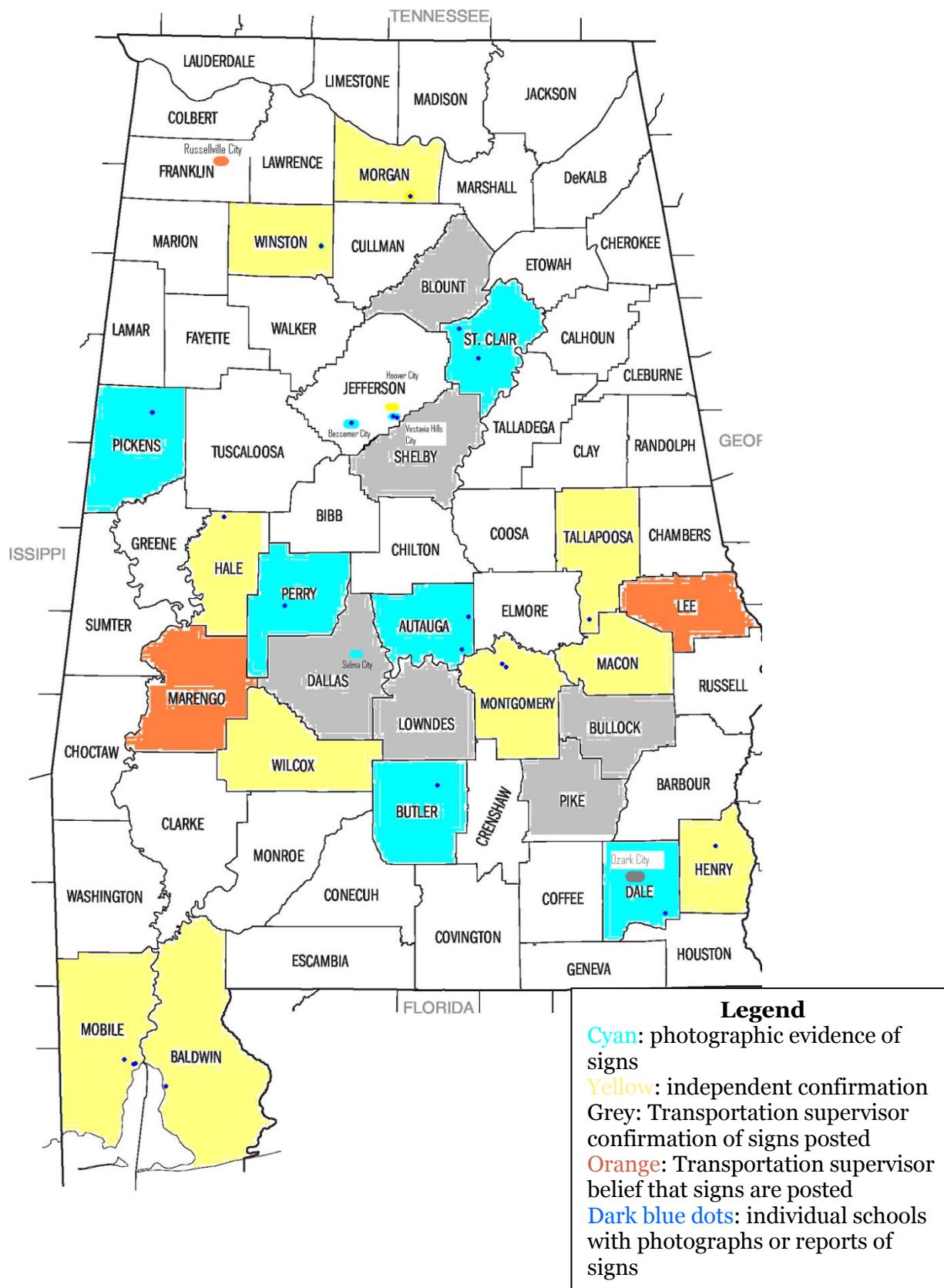
¹ The two schools in Vestavia Hills used signs from the Auntie Litter program in Jefferson County, which promotes no idling but is not affiliated with the Alabama Asthma Program.

- Addison Elementary School, Winston County
- Gwin Elementary School, Hoover City
- Eva Junior High School, Morgan County
- Abbeville Elementary School, Henry county
- Brewbaker Elementary School, Montgomery County
- Brewbaker Technology Magnet High School, Montgomery County
- Unnamed school in Tuskegee, Macon County
- Unnamed school in Daphne, Baldwin County
- Unnamed school in Wilcox County

Certain other institutions expressed their wish to participate in the No Idling program and have obtained signs and brochures. These institutions include the Alabama Institute for the Deaf and Blind and the William Burkett Center for the Multi-Handicapped. Several Alabama bus transportation companies have also adopted No Idling as company policy, and have posted No Idling signs, including CST, First Student Charter Bus Rental in Florence, the Huntsville office of Durham School Services, and Woods Transportation in Gadsden.

The map on the following page shows the Alabama counties and cities with photographs or confirmations of posted No Idling signs at schools. Counties/cities in cyan have photographic evidence of signs posted at schools, while counties in yellow have ADPH or stakeholder confirmation. Grey denotes districts in which transportation supervisors are certain signs have been posted, and orange indicates districts where supervisors believe (without certainty) that the signs have been posted, respectively. Dark blue dots indicate the locations of individual schools with photographic or stakeholder verified evidence of signs posted.

Figure 8. 2013 Map of Alabama county and city school districts with No Idling signs.



Finally, the photographs submitted as proof are shared here as evidence of the implementation of the No Idling program. The photograph of Prattville High School can be found on the front page of this document.

Figure 9. Collage of photographs submitted as evidence of No Idling at schools.



(Top row: Albert Turner Elementary School, Prattville High School; middle row: Cedar Park Elementary School, Reform Elementary School, and South Dale Middle School; bottom row: Greenville Middle School, Odenville Elementary School.)

2013 Bus Driver Survey

This pencil-and-paper survey was conducted by ALSDE transportation supervisors on behalf of ADPH in August and September 2013. Each bus driver was to complete the survey during their annual in-service training prior to the start of the school year. The survey measured whether bus drivers had received information regarding not idling their engines, had signed the No Idling pledge, had seen the signs at the schools in their district, and tested their attitudes regarding the importance of turning off the bus engine for saving fuel and reducing air pollution (please see Appendix 3). This instrument helped the evaluation team understand whether there was compliance to the No Idling policy from transportation supervisors, as it provides evidence

of whether No Idling instruction was included in the annual trainings and whether the No Idling pledges were, in fact, made mandatory for the bus drivers.

To effectively administer this survey, it was designed with five questions in pencil-and-paper format as bus drivers probably do not have access to a computer at the in-service or during their workdays. It could be printed in a half page format for quick administration and a tally sheet was provided for the administrators, usually a district transportation director, to transfer all answer selections and quickly fax, mail, or scan and email the one page results. Results were sent directly to the program evaluator, so that neither the bus drivers nor the administrators would be intimidated into answering untruthfully if submitting the results back to the ALSDE Transportation Supervisor.

The number of responses appears high, but these numbers represent actual school bus drivers and the number of drivers per school district varies widely. Out of a total of 141 school districts (67 county, 65 city, and 9 other institutions), we received responses from 65 districts, or 46.1 percent. These 65 school districts included 3,995 individual bus driver responses. The smallest response was from the city school districts (29.2 percent). County school districts had a higher response rate of 85.8 percent and other institutions had a rate of 55.5 percent.

Results from this survey, although not conclusive, do indicate that four of the five research questions can be answered with respect to much of the state:

2. *How many schools have actually put up the No Idling signs?* Of the 3,995 bus drivers who completed the survey, 2,655 stated that schools they served had No Idling signs posted. Mapping these results in combination with the results of the 2011 survey and further efforts to determine the status of school districts and individual schools yielded a positive response from 44 of 67 counties. Of these, three counties do not have signs posted and eight counties have mixed results. Therefore, 19 counties, or 28.3 percent, have not reported their status. In addition to the county school districts, there are 65 city school districts. Earlier efforts in 2010 and 2011 had responses from five city school districts, with an additional 18 replies by city school districts to the bus driver survey. Although this only comprises 35.4 percent of all city school districts, an additional 10 cities that were not on the district chart (indicating that they actually are part of a county system) have been charted as responding positively.

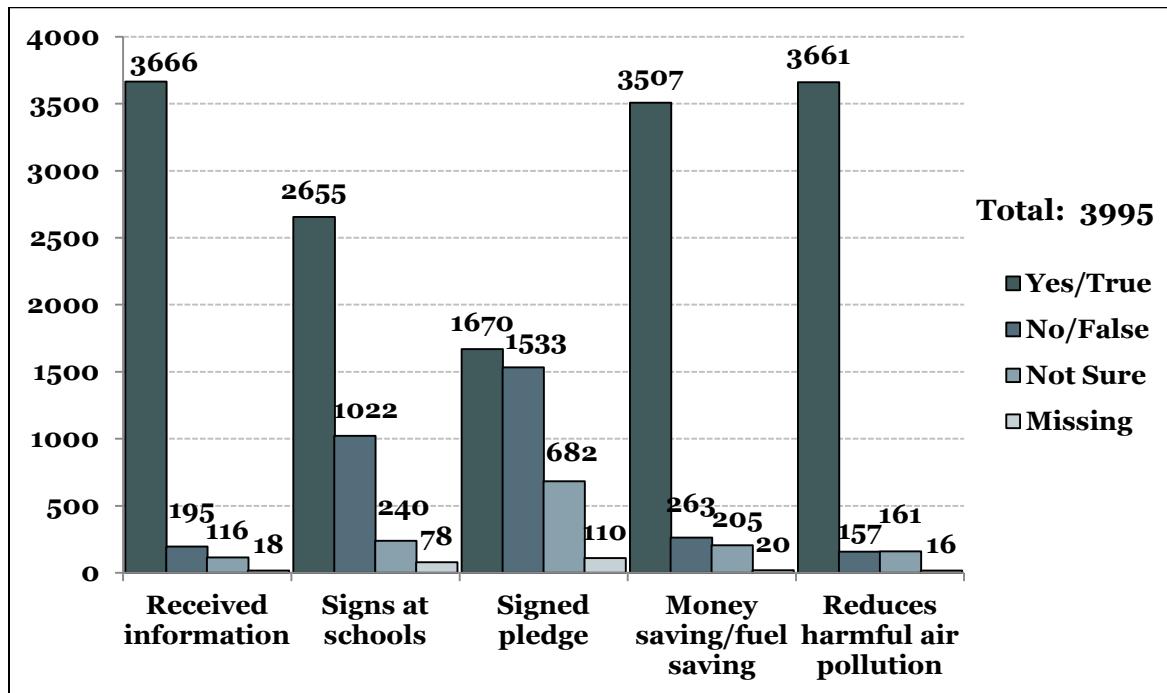
3. *Which school districts need assistance with implementing the No Idling program?* The bus driver survey was completed by 3,995 drivers and 3,666 of those, or 91.8 percent stated that they had received information about the No Idling program. It provides evidence that ALSDE transportation division disseminated the information via in-service trainings and educational literature.

4. *What proportion of school bus drivers have signed the No Idling pledge?* The pledge appears to be an unpopular tool as of the 3,995 bus drivers who answered the survey, only 1,670 stated that they signed the pledge, 1,533 stated they had not signed, 682 were not sure, and 110 did not answer the question.

5. *What proportion of school bus drivers understand the purpose of No Idling?* Two questions on the survey pertained to understanding of the purpose: 1) Turning off my bus engine while waiting to pick up and drop off students can prevent the waste of fuel and save money, and 2) Turning off my bus engine while waiting to pick up or drop off students can reduce harmful air pollution. A high proportion of bus drivers surveyed demonstrated understanding of both questions, with 3,507 (87.8 percent) positive answers to the first, and 3,661 (91.6 percent) positive answers to the second.

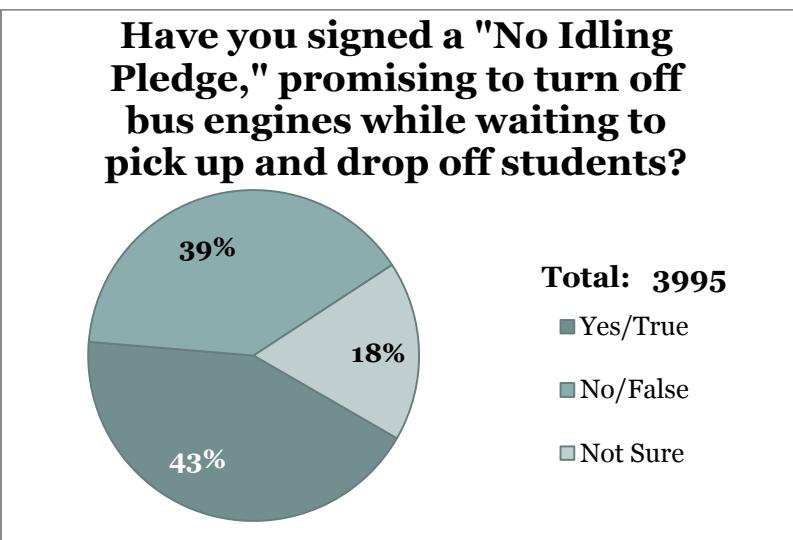
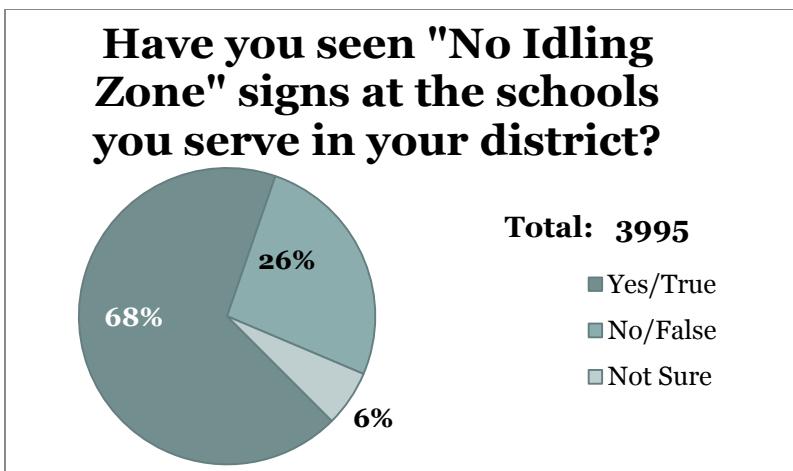
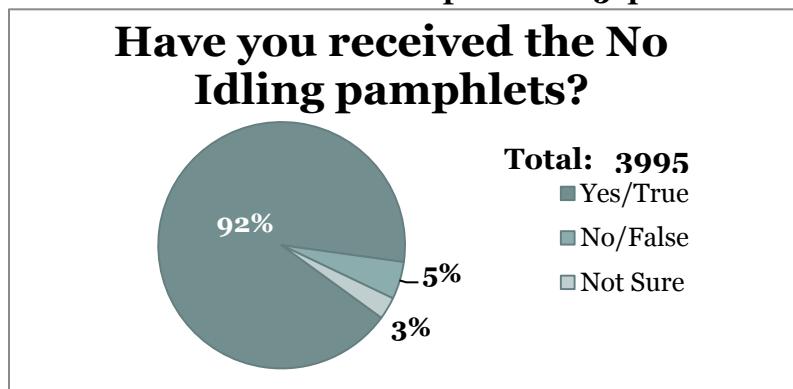
The first question (*How many schools have received the No Idling signs?*) was not included on the bus driver survey, as the 2011 survey question garnered an 81 percent positive response.

Figure 10. Survey results.

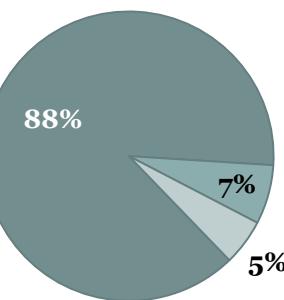


The responses to the five bus driver survey questions are charted below in Figures 11 -1. It is clear that no response to the 2013 bus driver survey does not indicate that the signs are not posted. Data from several counties gathered in 2011 and 2012 indicates signs posted in several counties who did not respond to the 2013 survey.

11-15. Proportions of school bus driver responses to 5 questions in 2013 survey.



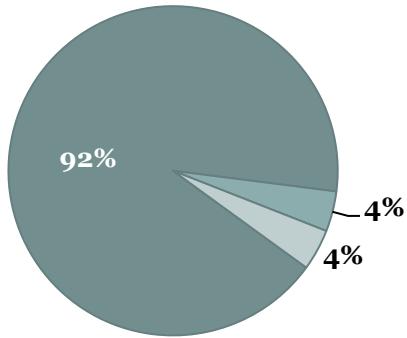
Turning off my bus engine while waiting to pick up and drop off students can prevent the waste of fuel and save money.



Total: 3995

- Yes/True
- No/False
- Not Sure

Turning off my bus engine while waiting to pick up or drop off students can reduce harmful air pollution.



Total: 3995

- Yes/True
- No/False
- Not Sure

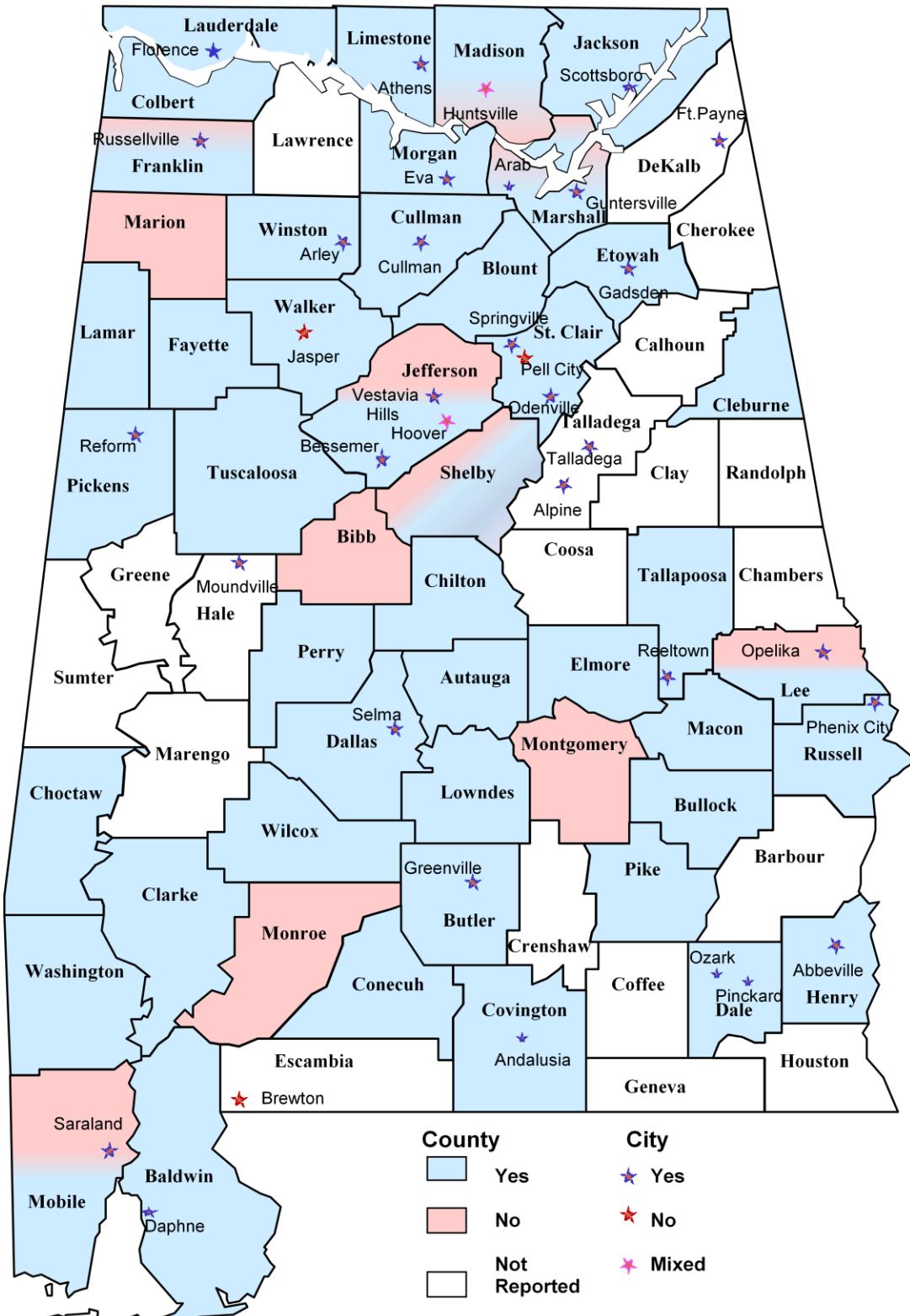
One limitation to the school bus driver survey is the inability to know how much overlap there is between the number of drivers going to the same school, and the number of schools a single driver may service. For example, one “other institution,” the Alabama Institute for the Deaf and Blind reported 12 bus drivers from that institution. This limitation clearly indicates that total numbers must be taken by school districts, rather than by individual schools, and the lack of some school(s) within a single district to comply will inevitably yield mixed results.

It appears that school districts received the signs when originally shipped and distributed them within their districts. It is at this point that it becomes unclear—while the majority of schools appear to have posted the signs, the other elements of this intervention do not appear to be adopted. The partner agencies have made several attempts to determine the status of the additional elements, yet continue to get either a negative response or no response. For whatever reason, whether the top-down approach used in initial implementation by the ALSDE Transportation Division was unpopular, or school level lack of personnel, funding, and/or incentive to complete this intervention, filtering the intervention into the student/parent population did not occur.

All data collected during 2010, 2011, and 2013 efforts have been mapped. This map shows county school districts that have signs posted in blue, those that do not have signs posted in pink, and shading from pink to blue for seven counties with mixed results from the bus driver survey. Nineteen counties are blank, indicating that no responses have been received during any effort to determine status. In addition, city school districts are marked with stars, blue indicating signs are posted, pink indicating not posted, and red indicating mixed results. Although the status of many school districts is unknown, the map indicates that more districts have implemented this campaign than previously known. Only four county school districts and three city school districts reported that they had not posted signs.

School Districts with Posted No Idling Signs

As Reported on Bus Driver Surveys
or verified by witnesses



Media Coverage

One additional evaluation question concerned how many media outlets supported the No Idling campaign. As discussed in the overview of program activities, four different media outlets of varying types promoted the No Idling campaign at different times during its implementation. A press release was published by the Prattville city government to celebrate the kickoff of No Idling in March 2010. A more limited medium was the publicity awarded to the AAP in the May 2012 issue of *Alabama's Health*, for ADPH employees. Finally, AAP staff promoted No Idling in interviews on a local television station, WAKA Channel 8, and on a Troy Radio program.

Limitations

Both the implementation of the No Idling campaign and its evaluation faced a number of difficulties that limit the extent of the conclusions that can be drawn about the program's success. Primary among these reasons was the lack of stakeholder investment in No Idling. Despite the press releases and availability of educational presentations about outdoor AQ and No Idling, few schools requested these presentations or indicated significant buy-in from their parents and surrounding community. There was no significant push from AAC members in their own communities or organizations to adopt No Idling or to promote it elsewhere. A February 2013 conference call for AAC members hosted by ADPH regarding the No Idling intervention had no participants.

Lack of participation and active involvement from the schools may have been the most frustrating barrier to both implementation and evaluation, as well as a lack of direct contact with individual school personnel who may have provided better insight into how best to promote No Idling in their local schools and communities. The inability to provide incentives for participation in the No Idling program may also have contributed to the low buy-in from schools. Although many of the school system superintendents and transportation supervisors were very helpful, it is possible that miscommunications or misunderstandings inhibited the distribution of No Idling signs to individual schools and limited uptake of the program in many areas. Without a systematic method of site visits, however, the true number and proportion of schools implementing the No Idling campaign could not be measured or estimated.

The IEP for the No Idling campaign, prepared in August 2012 by the evaluation team, originally proposed personal observations of parents and school buses in school load-in zones in order to test whether or not the intervention was having its expected result of behavioral change on the part of drivers. It also suggested a survey of school staff and students, and a way of measuring how many parents received the No Idling pamphlets with the associated pledges. Due to staff changes and limits in flexibility and funding, these evaluation activities did not take place. This constitutes one of the most significant limitations to the effort to evaluate No Idling: all that could be measured was the distribution and extent of program components, not subsequent behavioral changes. If staff and funding availability had permitted it, the ideal methodology might have involved site visits for a random sample of Alabama public schools, as well as post-intervention assessments of parent, school staff, and student attitudes and behaviors regarding

vehicle idling. Instead, we are left with a limited picture of the overall implementation of No Idling throughout the state—although some key evaluation questions were answered successfully.

Summary of Results

Despite the limitations of the data, this evaluation found at least moderate success in the implementation of the No Idling campaign. Although no comparisons may be made due to the disparities of counting individual schools versus school districts, this program evaluation shows some major steps toward increased awareness of outdoor AQ issues and the importance of reducing vehicle exhaust from idling.

Based on the responses of the superintendents and transportation supervisors in the 2011 telephone survey, combined with the observations and photograph data, the No Idling signs were received in 107 of the 132 school districts, with about 1,200 schools included. A smaller proportion (72 percent) of school districts reported having the signs posted, or about 1,010 individual schools. However, it cannot be assumed that the district-level reports from the 2011 survey correspond exactly to which individual schools received and posted signs and which did not. Twelve school districts reported needing assistance with implementation of No Idling. AAP staff met with and delivered No Idling presentations to the Wilcox County, Mobile County, Baldwin County, Saraland, and Enterprise city school districts.

A total of 48,389 No Idling brochures were sent to school districts and individual schools upon request.

Four different media outlets promoted No Idling in the 2010-2012 time frame. Information on the reach and impact of these specific promotions was not available.

Recommendations

The following recommendations were developed as a result of the No Idling evaluation. They should be assessed for feasibility and implemented by AAP staff for future asthma interventions.

- Secure and provide funding for AAP staff or other contractors to travel for site visits and presentations.
- Find ways to provide incentives on the school level for participation in interventions.
- Further cultivate partnerships to improve cooperation and compliance with the requirements for interventions.
- Increase the media promotion in additional local media markets; consider distributing a press release for schools to send in to local newspapers and newsletters.
 - If necessary, consult other state asthma programs for effective marketing/promotional activities.

- Secure funding for a larger-scale, more systematic evaluation:
 - Conduct site visits, preferably via random sampling, for assessments of attitudes and behaviors regarding interventions, as well as systematic observations,
 - Repeat the survey assessments and observations after further activities within the intervention.
- Identify and train volunteers in local schools and communities to help with the evaluation.

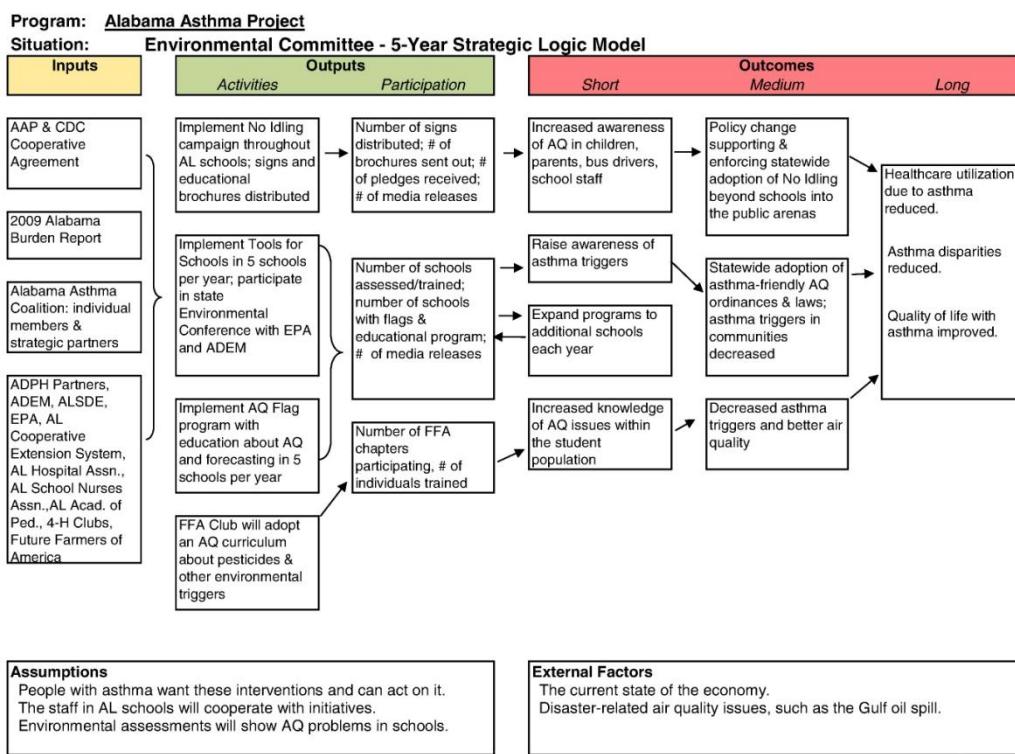
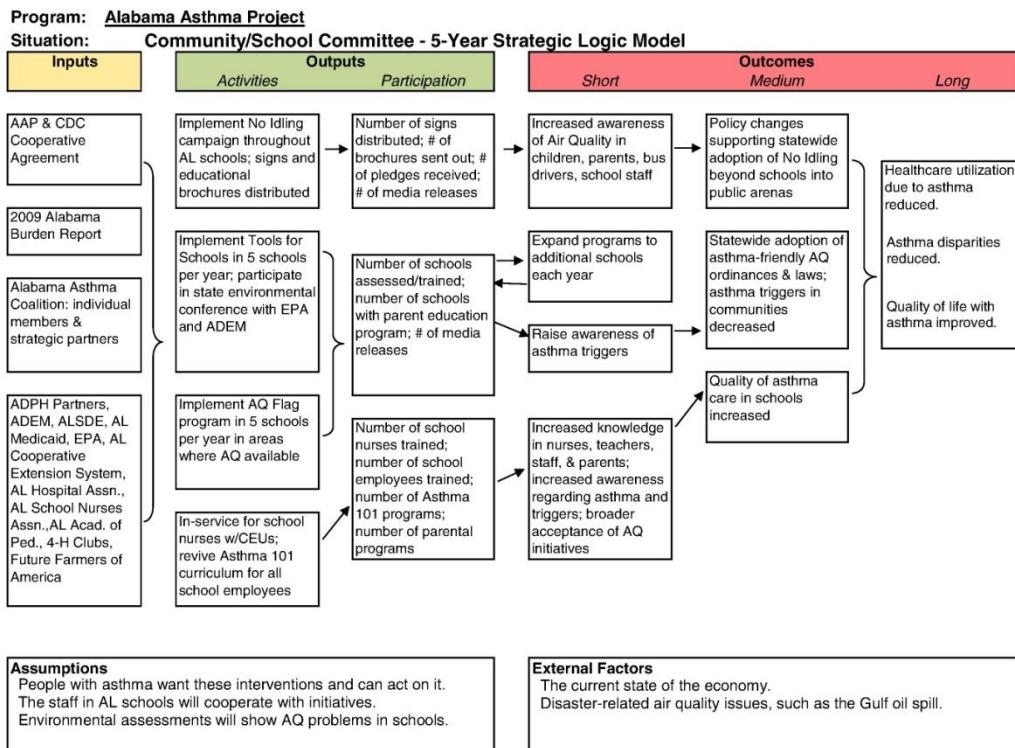
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Appendix 1

No Idling in two of the Alabama Asthma Coalition committee logic models.



Appendix 2

Copy of the interior of the No Idling brochure for parents, including No Idling pledge.

Healthy Air Alabama

No Idling - Young Lungs at Work

The purpose of the No Idling Campaign is to reduce pollution from idling buses and cars that negatively affect a child's healthy lung growth and development.

The need for action is clear: excessive idling unnecessarily exposes vulnerable populations of children and adults to unhealthy plumes of exhaust filled with pollution particles. Airborne particles can cause nasal, throat, respiratory, and eye problems, and are particularly harmful to those with asthma.

Children are more vulnerable to the impacts of vehicle pollution than other populations.

- Their lungs are still in the development phase.
- They breathe, on average, 50 percent more air per pound of body weight than adults.
- They are closer to the ground; closer to tailpipes.
- The World Health Organization found that particle pollution and ground level ozone aggravated asthma in children and contributed to an increased risk of respiratory tract infection.

You save money by saving gas. Ten minutes of idling per day can use as much as \$180.00 worth of gas per year. Wasted gasoline adds up to lots of wasted dollars – and it doesn't even get you anywhere!

You will be helping people who have asthma or other respiratory diseases. Air pollution can bring on an asthma attack and make breathing difficult for people whose respiratory systems are sensitive. Try breathing through a straw to see how it feels when your lung passages are constricted.

You prevent theft. According to the statistics, as many as 25% of stolen cars were the result of keys left in the ignition and the motor running!

It's better for your engine. Cars are not designed to run for extended periods of time at idle. Idling causes unnecessary wear and tear on your engine and actually results in deposits of fuel residues on your engine's cylinder walls that can contaminate oil and damage components.

To protect children and the community from harmful vehicle emissions, we voluntarily pledge:

- To turn off engines while waiting to pick up and drop off children.
- To conduct vehicle maintenance to eliminate any visible exhaust.
- To spread the word to family and friends and encourage others to eliminate unnecessary idling.

School or School District:

Town:



No Idling Pledge

It reduces air pollution. An idling car produces air pollution, even though the car is not in motion. Ten minutes of idling per day adds more than 50 pounds of carbon monoxide, particles, nitrogen oxides, and other toxic gases to the air per year. If you are going to be idling for more than 30 seconds, your car will emit more air pollution than if you turn it off and on again.

Eight Great Reasons Not To Idle

It reduces air pollution. An idling car produces air pollution, even though the car is not in motion. Ten minutes of idling per day adds more than 50 pounds of carbon monoxide, particles, nitrogen oxides, and other toxic gases to the air per year.

If you are going to be idling for more than 30 seconds, your car will emit more air pollution than if you turn it off and on again.

Signature:

Parent's/ Bus Driver's Name (Printed):

Date:

Appendix 3

August 2013 bus driver survey.



1. Have you received information or training about not idling (turning off your bus engine)?

Yes No Not sure

2. Have you seen “No Idling Zone” signs at the schools you serve in your district?

Yes No Not sure

3. Have you signed a “No Idling Pledge,” promising to turn off bus engines while waiting to pick up and drop off students?

Yes No Not sure

4. Turning off my bus engine while waiting to pick up and drop off students can prevent the waste of fuel and save money. True False Not sure

5. Turning off my bus engine while waiting to pick up and drop off students can reduce harmful air pollution.

True False Not sure

Thank you for completing this survey. The No Idling campaign is meant to promote clean air for the health of Alabama students with asthma and other respiratory illnesses.