



The ABC's of a School Recycling Program

FACT SHEET

BACKGROUND

School recycling programs are essential to creating community norms for recycling. Setting one up takes planning to build partnerships, establish long-term collection plans and identify key benefits to the individual school or school system. Relying solely on one motivated teacher or staff member to handle the collection of materials does not always lead to a consistent program from one year to the next. However, motivating those in-house allies to help the program run smoothly is an excellent partnership!



SCHOOL RECYCLING SURVEY

In 2006, DENR's Division of Pollution Prevention and Environmental Assistance conducted a survey about the day-to-day operations of recycling programs in North Carolina schools. Local governments and school systems returned 31 surveys in response to the request, for a response rate of 16 percent. These respondents represent a total of 1,004 elementary, middle and high schools in North Carolina. Of these schools, 77 percent reported having a recycling program. Only one survey respondent, a town, reported having no recycling program in any of its schools.

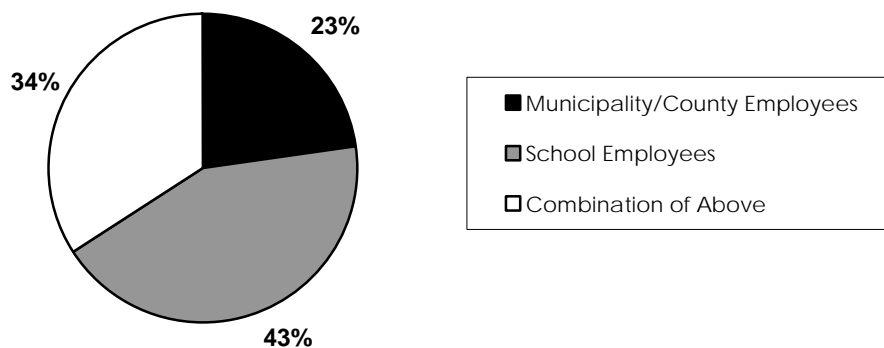
SURVEY OBSERVATIONS

Results from the surveys are presented below in the following categories: program coordination, finances, collection details and recycling responsibilities and training.

Program Coordination

The party responsible for coordinating school recycling programs varies widely across North Carolina, as shown in Figure 1.

Figure 1: School Recycling Program Coordinators



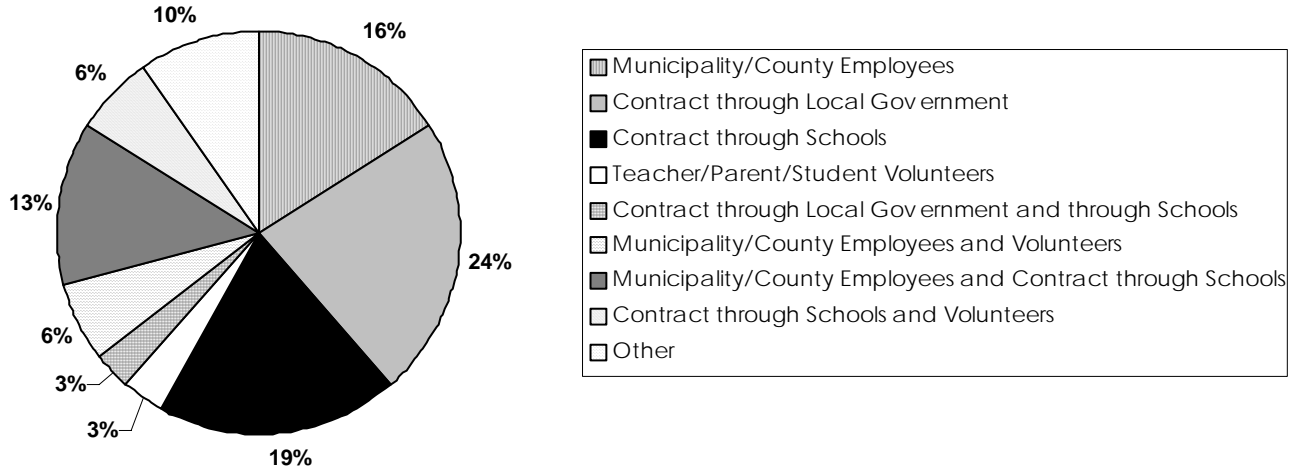
N.C. Division
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A single entity provides recycling to 62 percent of survey respondents. However, another 28 percent do not receive recycling service from a single provider. Often, multiple organizations work together to provide a school with recycling, as shown in Figure 2 below.

Figure 2: Recycling Service Provider

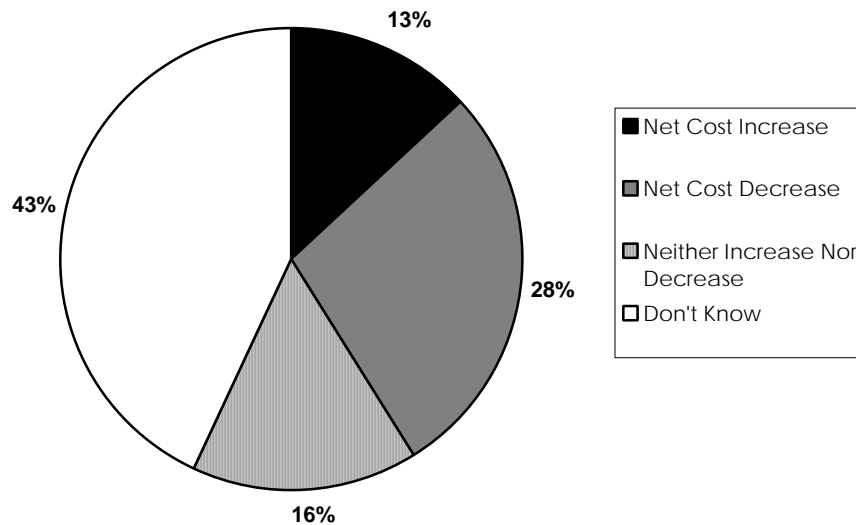


Finances

Twenty-nine percent of respondents reported recycling resulted in a net decrease of costs. Forty-five percent of respondents did not know whether costs increased or decreased, while 13 percent reported an increase and 16 percent reported neither an increase nor decrease.

A small percent of schools, ten percent, reported they received some revenues for the sale of recyclables. Seventy-seven percent of respondents reported schools received no revenues from haulers for the sale of its recyclables. Six percent of respondents did not know whether they received revenues.

Figure 3: Financial Impact of School Recycling Program



Collection Details

School recycling programs use a variety of sizes of recycling containers, as shown in Table 1.

Table 1: Size of School Recycling Containers*

14-18 Gallon Bins	32-96 Gallon Roll Carts	4-8 Cubic Yard Dumpsters	20-40 Cubic Yard Roll Offs	Other
29%	58%	55%	13%	26%

* Totals do not add to 100% because respondents could select more than one option.

The pictures below illustrate various types of recycling collection containers used in North Carolina schools.



18-Gallon Recycling Bin
Winston-Salem Forsyth County



Roll Cart
Wake County



4-8 cubic yard Dumpster
Mecklenburg County



20-30 cubic yard roll-off
City of Conover



Can Trailer
Iredell County

Frequency of recycling collection also varied. Twenty-nine percent of school programs collect recycling weekly, 16 percent collect biweekly, ten percent collect monthly, and on an as needed basis at 19 percent. The remaining 29 percent of programs have collection schedules that vary by school or material type.

The table below shows the different types of items collected for recycling throughout North Carolina schools. Cardboard, a material recycled by 77 percent of respondents, is relatively easy to recycle and can generate funds for schools. Another material that may generate funds is aluminum. In fact, many of the 84 percent of respondents who reported recycling aluminum cans also reported receiving revenues from the sale of cans. The disposal of motor oil in a landfill is illegal in North Carolina and the disposal of oil filters and plastic bottles will be banned in the next few years. Yet only 29 percent of respondents reported recycling motor oil or filters.

Table 2: Types of Materials Recycled

Material Type	Percent of Respondents Recycling at One or More Schools*
White Office Paper	90%
Mixed Paper	87%
Newspaper	87%
Aluminum Cans	84%
Corrugated Cardboard	77%
Magazines	77%
Plastic Bottles	77%
Steel Cans	68%
Glass	52%
Cooking Oil	29%
Motor Oil and/or Filters	29%
Other	19%

* Totals do not add to 100% because respondents could select more than one option.

Respondents reported that school recycling programs most commonly do not commingle materials (55 percent). Thirty-two percent commingle all materials and 13 percent separate fibers from containers (dual stream).

Nineteen percent of respondents reported at least one school in their district has a composting project. Another 23 percent of respondents were unsure if there were any composting projects in their area, and 55 percent said there were none.

Of the respondents able to provide data (32 percent), approximately 11 tons (or 22,848 pounds) of recyclables were collected per school per year. Based on this data, schools recycled approximately two pounds of materials per student per year.

Convenience is always key to the success of a recycling program. Accordingly, more than 50 percent of respondents have a recycling bin in every classroom.

Table 3: Student Access to Recycling Bins

In every classroom	In some classrooms	In cafeteria	Outside	In other locations	Varies by school	Other
55%	13%	39%	6%	26%	65%	13%

Recycling Responsibilities and Training

Table 4 below shows when schools or local governments offer training on recycling operations.

Table 4: Timing of School Recycling Operations Training

Monthly	Several Times per Year	Once per Year	When Program Begins	When Program Changes	Given to New Staff or Students	Upon Request
0%	26%	19%	55%	39%	10%	2%

As shown in Table 5, both students and custodial staff are involved in the collection of recyclables.

Table 5: Recycling Responsibilities and Training Opportunities

	Students	Teachers	Custodial Staff	Administration	Parents	Other/Not Sure
Responsible for emptying bins	77%	48%	81%	13%	10%	19%
Receives Training	74%	87%	71%	39%	**	16%

* Totals do not add to 100% because respondents could select more than one option.

** "Parents" was not a possible answer to the question on who receives recycling training.

SCHOOL RECYCLING GUIDELINES

If you are considering starting a recycling program at your school, there are resources available to help you. DPPEA has collected suggestions in *React*, a guidebook for increasing participation in recycling programs. Follow these guidelines, taken from *React*, when setting up a school recycling program:

- **Organize a coordination team.**
 - o Involve students, parents, teachers, custodial staff, local solid waste or public works departments and community representatives.
- **Determine which recyclables are in your waste stream.**
 - o Perform a Waste Composition Study and categorize the trash to determine what waste can be minimized or recycled. Use the results of the audit to help create a specific recycling program.
- **Identify a local market for recyclables.**
 - o Contact local recycling facilities to see what materials they collect and what services they provide. Be sure to find out how recyclables should be separated and what items can be commingled.
 - o Find local recycling facilities via the North Carolina Markets Directory Web site at <http://www.p2pays.org/DMRM>. Contact the school's current waste hauler to see if they provide recycling services as well. If your local government solid waste office already has a curbside or business-recycling program, see if the school can be added to the pick-up schedule.
- **Select the type of recycling program that would be best for each school.**
 - o Contract with a private hauler, tap into curbside recycling within the community or establish a mini drop-off facility at the school for the entire community. To prevent the accumulation of items that you cannot recycle, make sure to have all aspects of your program in place before collecting any recyclables.
- **Work out a budget for the collection program.**
 - o Obtain money from the school budget, PTA fundraising or partnerships with local businesses or civic groups. Recycling should reduce the school's waste stream, so look into reducing the frequency of trash pick-ups and allocating those savings towards the pick-up of recyclables.
- **Establish a system for collecting and storing recyclables.**
 - o Place bins in easily accessible areas within the school. Focus on areas that generate recyclables, such as classrooms, the cafeteria, teacher lounges and copy rooms.
 - o Bins can be old copy paper boxes, plastic storage containers or a local government curbside recycling bin.

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- Have students decorate the bins with their own artwork or pictures from the Recycle Guys or RE3.org Web pages. Participating helps them feel ownership of the program. Each class could decorate their own bin or the school could have a contest to pick the most creative picture for each grade level.
 - Check with the fire marshal for storage and collection requirements.
 - If a private hauler will be collecting the recyclables, make sure to set aside storage space for the containers that allow truck access. Designate a publicly accessible area if establishing a drop-off facility for the community.
- **Educate the school and the community about the program.**
- Inform all school personnel, students, parents and the community how the program will work. Let everyone know what can and cannot be recycled.
 - Ready-made graphics are available on the RE3.org and Recycle Guys Web sites for easy printing. Monthly newsletters or e-mails can be an effective way to inform the community and parents of the recycling program's progress. Educate volunteers and staff on the storage and collection procedures, and the location of containers.
 - Integrate environmental lesson plans and recycling education into the curriculum. Add a North Carolina recycling fact to the school announcements each week, or show the RE3.org or Recycle Guys commercials on school television.
- **Set overall and individual goals.**
- Convey the goals of the project to all participants and give specific examples of how each person, class or school can help reach these goals. Tally the totals and track progress for all to see. For example, put posters in the hallways with fun facts: "Last month the paper recycled from our school saved four trees."
 - To the extent possible, keep track of how many pounds or tons of materials are collected over time to evaluate the program's performance and to set benchmarks for improvement.
- **Reward the doers.**
- Let students know that a cleaner environment is a prize they can all enjoy. Other incentives can be given to students and classes who participate, such as field trips to a material recovery facility or a landfill and RE3.org or Recycle Guys t-shirts, stickers or posters.



The North Carolina Division of Pollution Prevention and Environmental Assistance provides free, non-regulatory technical assistance and education on methods to eliminate, reduce, or recycle wastes before they become pollutants or require disposal. Telephone DPPEA at (919) 715-6500 or (800) 763-0136 for assistance with issues in this fact sheet or any of your waste reduction concerns.