Pennsylvania School Recycling Study

Summary Report

July 2022 - June 2023

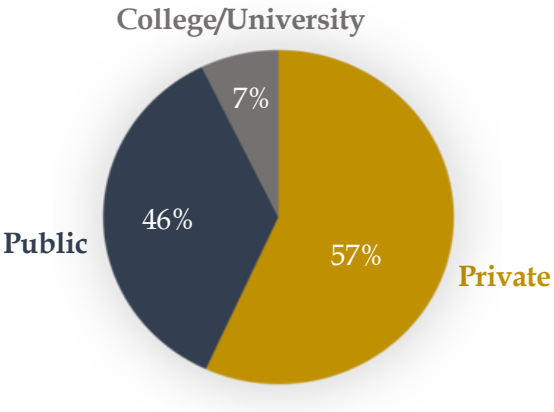
https://www.proprecycles.org/

https://www.dep.pa.gov/

Overview

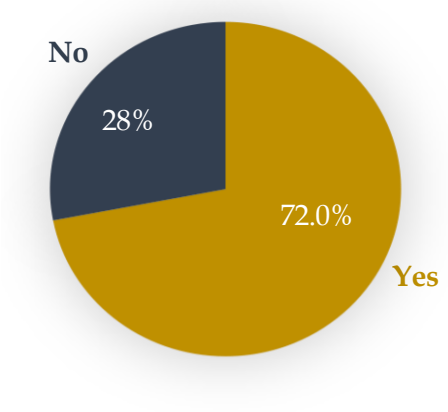
There were 5,076 public and private schools solicited for the School Recycling Study Survey in the 2022-2023 fiscal year (FY) with 125 responses. Schools were asked to complete a brief survey, providing details on their current recycling programs and practices. This was the third year of the survey and there was a 2.46% response rate. Response rates for the 2020-2021 and 2021-2022 FY were 7.34% and 8.30%, respectively. The overall response rate from the schools surveyed for all three fiscal years was 8.68% from a total of 7,340 schools.

Is the school Private or Public?



Public schools accounted for 57% of the schools that responded (n = 71) and 45 respondents or 46% were private schools. Only 7% (n = 9) were College/University.

Does the school recycle?

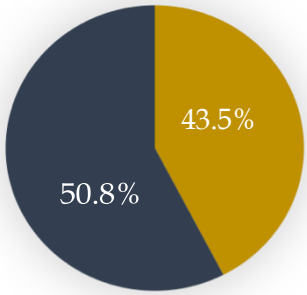


72.0% of the schools that responded recycle. The rate for public schools was 71.8% followed by private schools at 68.8%.

Of the schools that had a recycling awareness program (43.5%), the activities reported as being part of their program included the following:

- Recycling/Environmental Club
- Student led recycling
- Posters/Signage/Flyers
- Teacher led initiatives

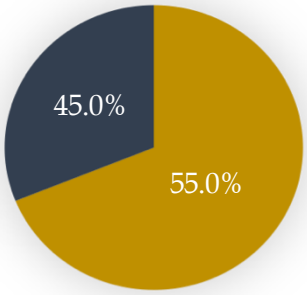
Does your school have a recycling awareness program?
Yes
No



42.4% of schools that responded had a recycling awareness program.

In 2020-2021 FY 113 of the schools that responded stated they had a recycling awareness program. In 2021-2022 FY there were 151 schools that responded they had a recycling awareness program.

Is cost a barrier?
Yes
No



A majority of the schools still deemed cost an issue when improving their recycling efforts.

55.0% indicated that cost was a barrier for either implementing existing or additional recycling efforts. These rates remained unchanged from last fiscal year after seeing an increase from 35.2% during FY 2020-2021.

Survey Statistics

72.0%

OF SCHOOLS RECYCLE

There were 65.6% that were single stream, 17.8% that were source separated, and 15.6% that were dual stream (cardboard and paper separate from bottles and cans).

Rates for overall recycling decreased in comparison to last year (86.6%), although were still higher than rates from 2020-2021 FY (69.0%). Single stream rates this year increased compared to last year (61.6%) but dual stream and source separated combined were slightly less than last year (34.4%).

Among schools that said they did not recycle, 82.9% indicated that "Cost" was a barrier to implementing recycling efforts.

Schools that did not recycle were significantly more likely to believe that the percentage of paper/cardboard actually recovered for recycling was "none" (62.8%).

Schools that recycled had on average significantly more students/staff at their school (n = 1068) than those that did not (n = 645).

Among schools not recycling, the items they most frequently mentioned being interested in beginning to recycle included: plastic bottles, carboard, paper, and aluminum cans.

Schools that did not recycle were more likely to be located in rural counties compared to those that did.

61.1%

LISTED CORRUGATED CARDBOARD AS THEIR MOST RECYCLED ITEM

followed by office paper, mixed paper, aluminum, plastic bottles/jars glass bottles/jars, electronics, ink/toner, batteries, and steel cans.

The top three items that schools requested more information on from the list of source separated items were Batteries, Electronics, and Ink Toner.

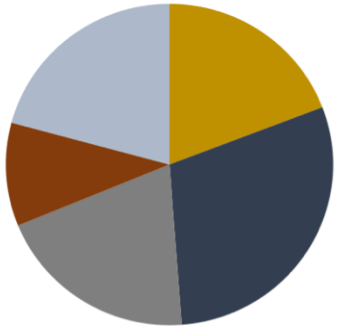
Items and the number of schools that want more information:

- Aluminum - 17
- Batteries – 34
- Corrugated Cardboard - 1
- Electronics - 31
- Glass Bottles/Jars - 22
- Ink/Toner - 27
- Light Bulbs - 20
- Mixed Paper - 22
- Office Paper - 18
- Plastic Bottles/Jars - 26
- Steel Cans - 9

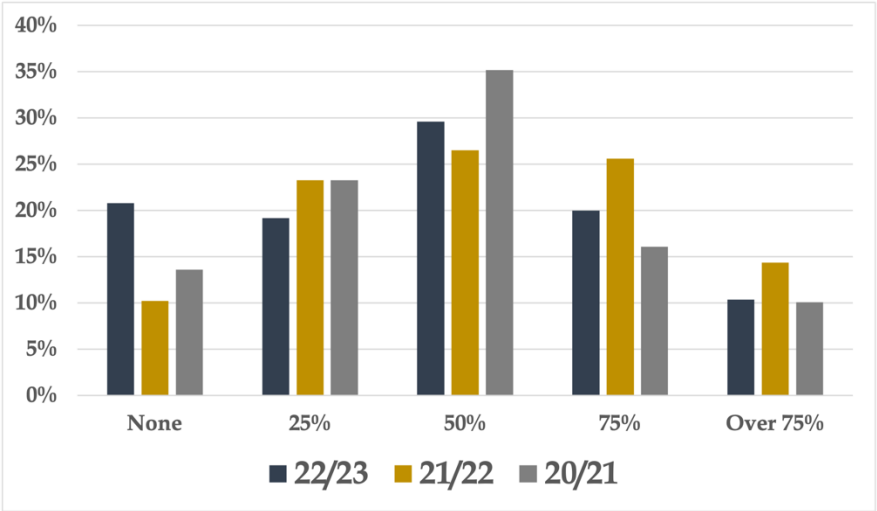
26.4%

OF SCHOOLS FELT THAT 50% OF PAPER/CARDBOARD IS RECOVERED FOR RECYCLING

None – 20.8%
25% – 19.2%
50% – 29.6%
75% – 20.0%
Over 75% - 10.4%



Compared to 2020-2021 and 2021-2022 FY the top answer to the percentage of paper/cardboard that is recovered was the same, however there was a significant increase in those reporting "none" this year.



73.3%

OF SCHOOLS HAVE RECYCLING BINS IN THE CLASSROOMS AND IS THE MOST COMMON AREA FOR BINS

- Auditorium - 22.2%
- Cafeteria - 55.6%
- Copy Areas - 34.4%
- Gym - 22.2%
- Hallways - 25.6%
- Library - 36.7%
- Lobby – 25.6.5%
- Office – 40.0%
- Stadiums - 23.3%

Bins located directly in the classroom increased by over 10% from the prior year (62.2%).

87.2%

OF SCHOOLS DO NOT COMPOST ORGANIC MATERIALS

Out of the 12.8% that did compost; 13 compost yard waste, 10 compost food, and 5 compost leaves. In comparison to last year there was a slight increase in composting (10.9%), however there was also a shift in materials with more food being composted in 2020-2021 FY and 2021-2022 FY.

60.0%

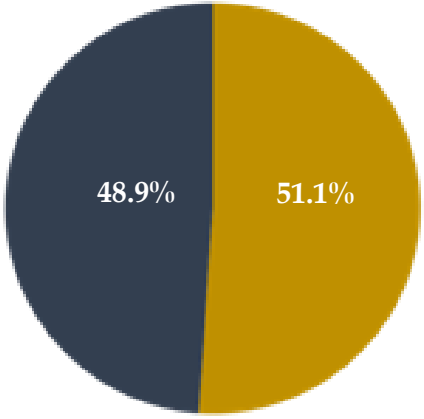
OF SCHOOLS STATE THEY DO NOT HAVE ENOUGH RECYCLING BINS ON SCHOOL PROPERTY

Just over half of the schools that responded did not have enough recycling bins on the school property. Out of the schools that said no, 51.1% of them currently recycle.

Does your school currently have enough recycling bins on school property?

Yes

No



65

SCHOOLS LISTED THE JANITORIAL/CUSTODIAL STAFF AS WHO COLLECTS RECYCLABLES

Janitorial/Custodial - 72.2%
Faculty/Teachers - 40.0%
Students - 43.3%
Volunteers – 4.4%

66.7%

OF SCHOOLS HAVE A CONTRACTED WASTE HAULER WHO PICKS UP THEIR RECYCLABLES

Contracted Waste Hauler - 66.7%
Recycling Vendor - 16.7%
Janitorial Staff - 16.7%
Faculty - 2.2%
Paper Shredding Company - 22.2%

Several of the schools use multiple vendors to pick up recyclables depending on the items. There were a few comments in the other category indicating recycling was picked up by the city, particularly in Philadelphia.

54.4%

OF SCHOOLS HAVE RECYCLING PICKED UP ONCE PER WEEK

- Once per Week - 54.4%
- Twice per Week - 10.0%
- Daily - 13.3%
- Other/Unknown – 22.3%

The "other" option includes bi-weekly, monthly, twice per month, quarterly, when bins were full, and as needed.

54.4%

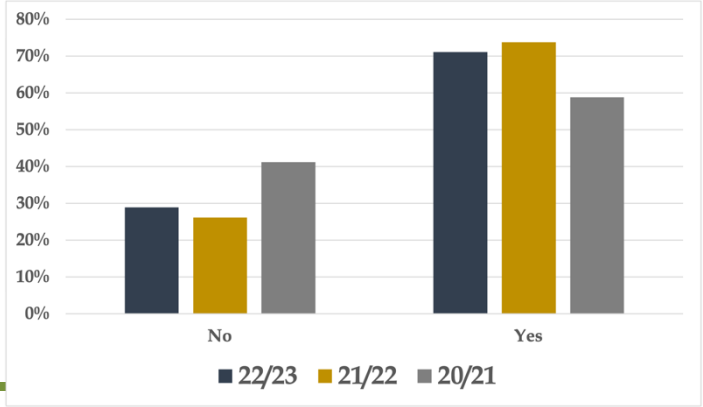
OF SCHOOLS USE RECYCLING CONTAINERS AT THEIR CENTRALIZED LOCATION

Roll-off containers were used by 31.1%, Toters were used by 7.8%, and the other schools either didn't know or used some other kind of container (e.g., cardboard box). Some schools listed that they used several types of containers (i.e., the use of roll-off containers and toters, etc.)

28.9%

OF SCHOOLS STATED THEY DID NOT HAVE ENOUGH CONTAINERS AT THEIR CENTRALIZED LOCATION

Does your school have enough containers?



CHALLENGES AND OBSERVATIONS

Students and others mixing trash with the recycling was the most commonly listed challenge. There is still a need for the students and public to understand why recyclables end up in landfills. While this is largely due to contamination, the general public doesn't know the reason recyclable materials are being discarded in landfills. Additional education on how to properly recycle various materials may be an area of focus. In addition, education, information, and awareness were all reported as challenges. Schools indicated a need for information on recycling, not only what can be recycled, but given the behaviors of mixing trash, the importance of recycling and how the process works. There were a no requests for composting information, which may be an area to promote education efforts in the future.

Cost, in various forms, was described as being a hinderance for some schools. In some cases, it was material specific (e.g., "too expensive to recycle aluminum") while in other instances it was lack of funding to support staff to oversee recycling programs or enough money to pay for routine recycling pick up.

The biggest notable difference in recycling trends this year was related to the increase in desire for the recycling of electronic related items (e.g., batteries, computers, etc.). As schools are emerging from post COVID-19 protocols, and the general trends of education, there is an increase of usage of electronics in day-to-day learning, yet very limited information on how and what to do with these items when it comes to recycling.

Other challenges include but were not limited to not knowing how to recycle large/unique items (e.g., refrigerators, televisions, etc.), distance for rural schools to drop off recyclables, and the need for student engagement.