

Pennsylvania School Recycling Study

Summary Report

July 2021- June 2022





Overview

There were 3,770 public and private schools solicited for the School Recycling Study Survey in the 2021-2022 fiscal year (FY) with 313 responses. This was the second year of the survey and there was an 8.30% response rate. In the 2020-2021 fiscal year there was a 7.34% response rate from the 2,713 schools that were surveyed with 199 response. The overall response rate from the schools surveyed for the 2020-2021 FY and 2021-2022 FY was 13.1% from a total of 3,969 schools. There were a total of 484 unduplicated school responses in the combined years. The School Recycling Study is sponsored by the Pennsylvania Department of Environmental Protection (PA DEP). The Professional Recyclers of Pennsylvania (PROP) is working in collaboration with the PA DEP on the survey and school outreach.

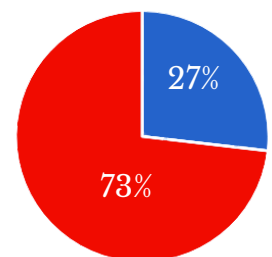
Schools were asked to complete a brief survey, providing details on their

current recycling programs and practices. Eleven schools that submitted responses in 2020-2021 FY updated their response and eleven School Districts updated their information to provide the school names.

Is the school Private or Public?

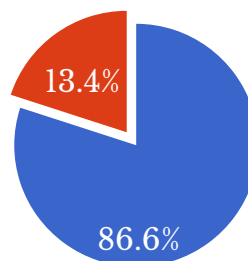
Private
Public

Private schools account for 27% of the schools that responded totaling 84 respondents and 229 respondents or 73% are public schools.



Does the school recycle?

Yes
No



86.6% of the schools that responded recycle. Out of all the schools surveyed 43.5% of schools have a recycling awareness program.

2020-2021 FY	No	Yes	Total
Public	37	162	199
Private	18	66	84
2021-2022 FY	No	Yes	Total
Public	24	205	229
Private	18	66	84

Compared to 2020-2021 FY where 81.4% of schools that responded recycle and of those 50.3% had a recycling awareness program within the school. Schools that responded other indicated one of the following:

- We would like to begin
- Sporadic reminders
- Containers are in the classrooms
- Budget cuts
- Stopped due to COVID Protocols
- In the process of introducing composting would like to introduce recycling

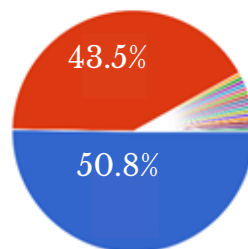
Does your school have a recycling awareness program?

Yes

No

Other

Schools that do have a recycling awareness program consist of 50.8%.



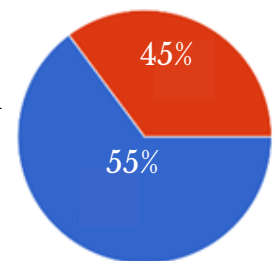
In 2020-2021 FY 113 of the schools that responded stated they had a recycling awareness program. In 2021-2022 FY there were 151 schools that responded they have a recycling awareness program

Is cost a barrier?

Yes

No

A large majority of the schools still deem cost an issue when improving their recycling efforts. However, cost is NOT a barrier for 45% of the schools that responded, for either implementing existing or additional recycling efforts. In comparison to last year in which 35.2% of respondents stated cost was NOT a barrier.



2020-2021 FY	No	Yes	Total
Public	70	129	199
2021-2022 FY	No	Yes	Total
Public	31	53	84
Private	110	119	229



Survey Statistics

86.6%

OF SCHOOLS WHO RESPONDED
RECYCLE

There are 61.6% that are single stream, 34.3% that are source separated, and 4.1% that were not aware of how their recycling was handled and marked not applicable.

In 2021, 69% of the schools that responded recycled. 44.9% were single stream and 39.4% were source separated.



2020-2021 FY	Not Applicable	Single Stream	Source Separated	Total
Public	-	89	78	198
2021-2022 FY	Not Applicable	Single Stream	Source Separated	Total
Public	22	30	32	84
Private	25	140	64	229

Several school districts responded that they do not recycle. Further research is being conducted to determine if they are in mandated communities. If they are in mandated communities, county coordinators will be contacted to evaluate the situation and assist as needed.





82.8%

LIST CORRUGATED CARDBOARD AS THEIR MOST RECYCLED ITEM

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

The top three items that schools requested more information on from the list of source separated items are Plastic Bottles/Jars, Office Paper, and Mixed Paper.

Items and the number of schools that want more information:

- Aluminum - 8
- Batteries - 15
- Corrugated Cardboard - 8
- Electronics - 17
- Glass Bottles/Jars - 18
- Ink/Toner - 16
- Light Bulbs - 16
- Mixed Paper - 19
- Office Paper - 20
- Plastic Bottles/Jars - 23
- Steel Cans - 4

26.4%

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

None - 10.2%

25% - 23.2%

50% - 26.4%

75% - 25.5%

Over 75% - 14.7%



Compared to 2020-2021 FY the top answer to the percentage of paper/cardboard that is recovered is the same, however in 2020-2021 FY respondents answered as follows:

- None - 13.6%
- 25% - 25.1%
- 50% - 35.2%
- 75% - 16.1%
- Over 75% - 10.1%

2020-2021 FY	25%	50%	75%	None	Over 75%
Public	50	70	32	27	20
2021-2022 FY	25%	50%	75%	None	Over 75%
Public	51	66	65	21	26
Private	22	17	15	11	19





62.3%

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

- Auditorium - 14.1%
- Cafeteria - 57.8%
- Copy Areas - 55.6%
- Gym - 15.3%
- Hallways - 33.5%
- Library - 32.6%
- Lobby - 19.5%
- Office - 57.8%
- Stadiums - 12.8%

Location of bins listed in the other category include the kitchen, outside, faculty lounge/breakroom, media center, maintenance building, bus garage, district offices and n/a.

89.1%

OF SCHOOLS DO NOT COMPOST ORGANIC MATERIALS

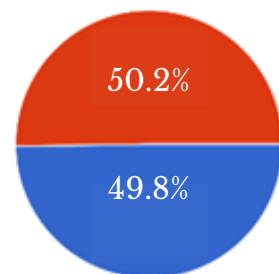
Out of the 10.9% that do compost; 20 compost food, 19 compost leaves, and 16 compost yard waste. In Comparison to 2020-2021 FY there were 21 that compost food, 7 compost leaves, and 10 compost yard waste.

2020-2021 FY	No	Yes	Total
Public	174	25	199
2021-2022 FY	No	Yes	Total
Public	211	18	229
Private	68	16	84

50.2%

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

Just over half of the schools that responded do not have enough recycling bins on the school property. Out of the schools that said no, 120 of them currently recycle.



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

Yes

No

2020-2021 FY	No	Yes	Total
Public	100	99	199
2021-2022 FY	No	Yes	Total
Public	91	114	205
Private	29	37	66

231

SCHOOLS LISTED THE JANITORIAL/CUSTODIAL STAFF AS WHO COLLECTS RECYCLABLES

Janitorial/Custodial - 73.8%

Faculty/Teachers - 40.3%

Students - 36.4%

Volunteers - 8%



63.8%

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

Contracted Waste Hauler - 63.8%

Recycling Vendor - 17.6%

Janitorial Staff - 20.4%

Faculty - 7.7%

Paper Shredding Company - 12.5%

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 that all garbage and recycling ends up in the same bag or dumpster. system.



42.5%

OF SCHOOLS HAVE RECYCLING PICKED UP ONCE PER WEEK

- Once per Week - 42.5%
- Twice per Week - 16.6%
- Daily - 14.1%
- Other

The "other" option includes four times per week, bi-weekly, monthly, twice per month, quarterly, 1-2 times per year, and as needed.

55.2%

OF SCHOOLS USE RECYCLING CONTAINERS AT THEIR CENTRALIZED LOCATION

Roll-off containers are used by 25.2%. Toters are used by 16.6%, and the other schools either don't know or use some other kind of container. Some schools listed that they used several types of containers (i.e. the use of roll-off containers and toters, etc.)

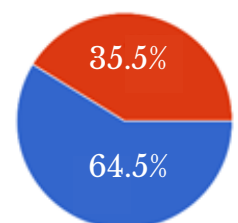
35.5%

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

Does your school currently have enough outside recycling containers/dumpster at the school's centralized collection area?

Yes

No



2020-2021 FY	No	Yes	Total
Public	82	117	199
2021-2022 FY	No	Yes	Total
Public	49	156	205
Private	22	44	66



CHALLENGES AND OBSERVATIONS

Education, information, and awareness were the most commonly listed as challenges. Schools indicated a need for information on recycling, not only what can be recycled, but programs that are available and where to recycle certain items. There were a few requests for composting information, specifically on how to start a composting program.

Posters to hang in the schools and presentations not only for the students, but for the faculty and janitorial staff was also listed. A few schools iterated that faculty, students, and staff come from various municipalities with differing recycling expectations which makes it difficult to reinforce their recycling protocols.

Students and public need to understand the reason recyclables end up in landfills is largely due to contamination. The perception is that recycling facilities can't handle the volume or don't have the resources to adequately handle the material. Contamination or the combining of garbage and recyclables, whether by the students putting items in the bins or from staff when collecting was listed as a key observation.

Cost to start, re-start, or expand recycling in the schools was listed a number of times. The other factor contributing to not starting, re-starting or expanding recycling was the struggle to get students, staff, school board, or district on board.

Other challenges include but are not limited to COVID-19, haulers emptying garbage and recycling into the same truck, and recycling not offered at their building or in their area.

The next steps include working with individual coordinators with results from their counties and a second survey. The second survey will be used to collect more detail about the types of education and training that is needed for the schools and who is in need of the training. The outcomes of the surveys will result in the creation of tools and resources for schools and school business officials which will be made available on a website.