



PENNSYLVANIA AND SOUTH CAROLINA LITTER LAW ENFORCEMENT STUDY

JOINT PROJECT



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PENNSYLVANIA AND SOUTH CAROLINA LITTER LAW ENFORCEMENT STUDY

JOINT STUDY EXECUTIVE SUMMARY

Keep Pennsylvania Beautiful and PalmettoPride actively promote the enforcement of state litter laws to protect their respective state's environments. Litter and littering behavior, however, continue to be an issue. The organizations initiated a comprehensive joint study on the efficacy of state litter and illegal dumping statutes and enforcement practices and procedures. This multi-state study can serve as a benchmark to measure litter control enforcement efforts across the country. The mixed-methods study examined five years of data, from 2016 – 2020, for both states and conducted interviews with law enforcement and judicial officers to gain on-the-ground insights. A primary focus of the research includes examining Pennsylvania and South Carolina littering and illegal dumping statutes regarding penalties and reviewing the attitudes, behaviors, and influences that emerge from case disposition data and interviews.



The research shows that law enforcement officers believe that enforcement is integral to preventing littering and illegal dumping. Still, it also reveals that more than law enforcement alone is needed to solve the problem. It must be a piece of the process. A key finding from both interviews and the analysis of ticketing data is that higher fines, especially for litter violations, are not considered a deterrent. Officers in both states expressed a desire to seek compliance for illegal dumping, e.g., cleanup, over court action or fines. The officers and magistrates interviewed stated they were hesitant to give high fines in light of other crimes that those magistrates and officers were dealing with regularly. South Carolina's decision in 2018 to streamline the penalty process with a more defined fine and community service process appears to be a practical approach to dealing with littering and illegal dumping violators. The community service process has also been streamlined in some South Carolina counties to allow an unsupervised cleanup. This approach could reduce some obstacles that the Pennsylvania interviewees expressed. Challenges in both states include the small number of counties reporting ticketing for littering or illegal dumping, staffing issues, shifting priorities at state and local levels around the topic, and the need for continuing public education and engagement about the multiple impacts of littering and illegal dumping.

KEY FINDINGS



Littering and illegal dumping enforcement remain important issues.

Littering and illegal dumping enforcement is an important issue and essential to ending littering and illegal dumping; however, ticketing data shows enforcement activity in relatively few locations. Interview participants in Pennsylvania and South Carolina showed dedication to enforcing litter and illegal dumping laws and expressed the importance of enforcement. The interviewees also expressed concerns about the amount of visible litter in their respective states. The county-level participation shows opportunities to increase participation.

- In South Carolina, the number of littering and illegal dumping offenses in the state data search showed that only 25% of counties significantly issued tickets between 2016-2020. South Carolina's Zero Tolerance Program reports showing participation in 36% of counties.
- In Pennsylvania, data showed a 43% growth in the number of state-issued tickets over 2016-2020, but the numbers per county ranged significantly from as few as 14 to 1441 in the same 5-year period.
- Interviewees in both states preferred compliance or cleanup of illegal dumping sites over fines. The compliance emphasis in a county may be a reason for fewer tickets in some jurisdictions.
- Participants in both states expressed concerns about insufficient officers to cover the geographic areas efficiently and safely.
- Several South Carolina interviewees and survey participants mentioned a challenge with officer classification. The code enforcement officers' status may cause duplicative procedures when officers are not permitted to stop litterers while the vehicle is in motion or conduct license plate research.



Both states expressed concerns about an insufficient number of officers for proper enforcement



Higher fines for littering are not favored.

Participants, whether officers or magistrates, do not favor higher litter fines. The overwhelming response of interview participants, especially enforcement officer participants, was that a higher penalty makes it less likely that officers will issue a littering ticket.

- In South Carolina, participants similarly stated that a higher penalty made it less likely that officers would issue a littering ticket. In 2018, the South Carolina Code of Laws, §16.11.700, was streamlined into a tiered format based on littering under 15 pounds and illegally dumping under 15 pounds, 15-500 pounds, and over 500 pounds with set fines and community service. The statute also provides an option for a cash bond instead of requiring an immediate court appearance.
- In Pennsylvania, interviewees noted that a fee, similar to a parking ticket, would be more likely to be used for littering offenses and offer more transparency for the violator. The fee structure described has similarities to the South Carolina statute or City of Allentown PA's SWEEP ticketing.
- Participants in Pennsylvania and South Carolina expressed that catching an individual litterer was rare as most violators do not litter or drop items in the presence of an officer or within an area monitored by cameras, which are more commonly used to catch dumpers. Based on the lack of witnessing the offense, a higher fine does not deter the litterer as tickets are rarely issued.
- The consensus of both groups was that illegal dumping fines should be structured to match the volume or weight of the materials dumped. Additionally, the penalty should consider the removal costs with offenders required, when possible, to be involved in community service either at that dump site or for litter pick or gathering to emphasize the nature and impact of their offense.

Fines should be structured to:

- Match volume/weight of dumped material
- Consider removal costs
- Require offenders to participate in clean-up or community service
- Add on education component

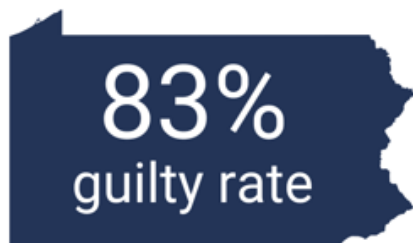


High rates of guilty penalties are imposed.

In Pennsylvania and South Carolina, the outcome when a ticket reaches the magistrate or court is likely a guilty sentence. In Pennsylvania, the guilty verdict, guilty plea, and guilty negotiated plea were the decision in 83% of the cases.

In South Carolina, the most frequent case disposition is guilty, forfeiture, and pled guilty, with an average guilty rate was 87% guilty. Officers occasionally mentioned the magistrate dismissing cases or the judge not accepting camera or video evidence; however, the data shows that guilty sentencing is high.

Magistrates recommended training for officers presenting cases to alleviate some of those concerns. Officers suggested that magistrates understand the environmental, social, and economic impacts caused by littering and dumping. Understanding those impacts may assist the judge since most hear other types of criminal cases regularly and likely receive more information about the effects of those offenses.





Community service can be an effective enforcement option.

The community service requirement cited in statutes is an effective part of the sentencing procedures, and participants believe it changes offenders' attitudes regarding littering and dumping. Based on the interviews from both states, the South Carolina system appears to have a better process of assigning or implementing community service hours.

- The model used in Aiken County, South Carolina, was referenced where offenders are assigned a road or highway with a set number of hours estimated to clean that section, e.g., 4 hours to clean all litter and bag the litter along both sides of the road. The system provides flexibility for the county and the offender. The verification process is simple, with the county office counting the bags, visually assessing the cleanliness of the road, collecting the bags for proper disposal, and reporting the hours for the offender to the court.
- In Pennsylvania, officers and magistrates raised several concerns about the assignment of community service hours. The community service requirement cited in statutes may be complex for magistrates to include in sentencing and is only sometimes imposed. Some officers noted that although they had cases where disposition should include community service, they have received no referrals. Disposition data shows a relatively low level of assignments statewide. Magistrates expressed concern that they assigned hours in their jurisdictions, but local jurisdictions did not want to manage the community service hours.





Officers perceive a need for more public understanding of the impacts of littering and illegal dumping.

Participants in both Pennsylvania and South Carolina expressed a lack of knowledge about litter and illegal dumping's environmental and financial impacts and illegal dumping.

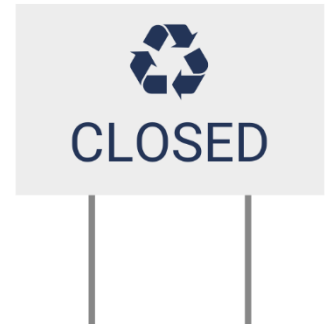
- The interviewees, especially in Pennsylvania, commented that littering and illegal dumping are often used interchangeably, but all officers interviewed expressed that the enforcement process is very different. Therefore, some confusion may exist with the public in understanding that both offenses have similar but different impacts.
- The most common solution to the problem listed by the participants and those surveyed was a need for more education, public awareness, and community engagement. Most interviewees were unaware of any statewide messaging or public awareness campaign. The Pennsylvania campaign PA Fights Dirty: Every Litter Bit Matters launched in August 2022, shortly after the completion of the Pennsylvania interviews. Two South Carolina interviewees mentioned an anti-litter message, but neither could expressly state the message's slogan, "Litter Trashes Everyone," unaided.





Waste management infrastructure or service may contribute to intentional and unintentional littering and illegal dumping.

Interview participants in both states expressed frustration with the operating hours and the availability of appropriate waste disposal options. Officers in both states described the need for consistent waste management practices or services as a challenge primarily related to frequent illegal dumping during closed operations in and around waste or recycling drop-off centers. The distance between centers may also lead to dumping and unintentional littering due to litter escaping from uncovered vehicles.



- In Pennsylvania, interview participants expressed frustration with jurisdictional differences in waste management practices and procedures. The lack of consistent waste management practices and services among jurisdictions adds a layer of confusion and a challenge to enforcement, e.g., two communities with abutting jurisdictions may have different policies and procedures regarding collection.
- In South Carolina, officers expressed concerns about uncovered loads entering landfill and waste transfer facilities.
- Other issues raised by representatives of both states include the frequency of waste services, insufficient or open-top containers, and the design or type of collection vehicles.

RECOMMENDATIONS



Continue to promote littering and illegal dumping law enforcement.

- Encourage all counties within both states to participate in proactive enforcement activities. Consistent enforcement across all jurisdictions, similar to DUI and speeding enforcement, is needed to emphasize the negative impacts caused by littering and illegal dumping.



Support simplified littering and illegal dumping laws.

- Eliminate the complexity by creating a common law for littering and illegal dumping regarding penalty language. The current South Carolina statutes are easily explained by officers and magistrates with a fine structure and community service based on offense, littering or dumping, and weight.
- Align littering and illegal dumping laws and policies among all levels of government by combining statutes and expanding authorized users to those statutes.
- Involve law enforcement officers in the review of statute amendments whenever possible.



Develop enforcement data collection process to support prevention and compliance.

- Use technology to gather data for littering and illegal dumping offenses to ease reporting and improve accessibility to data.
- Create best practices for using cameras as evidence in court cases.





Increase education, public awareness, and community engagement.

- Implement consistent awareness campaigns on littering and illegal dumping, including the laws and penalties, along with the impact of litter on the community and environment—neighborhoods, land, and waterways.
- Conduct training and education using a systems approach for enforcement officers and judicial representatives to understand all aspects of dealing with cases, from investigation to sentencing, and expand the training opportunities to involve members of the judicial system.
- Support training for officers annually, including but not limited to presenting court cases.
- Explore requiring offenders to attend a class similar to a DUI violation or a defensive driving course as an innovative practice to address long-term prevention and reduce recidivism.



Improve waste management policies and practices to reduce illegal dumping and littering.

- Identify policies and practices causing unintentional or intentional littering and illegal dumping.
- Explore policies to provide accessible and affordable waste disposal and recycling and determine ways to increase opportunities for proper disposal.

PENNSYLVANIA LITTER LAW ENFORCEMENT STUDY

EXECUTIVE SUMMARY

Keep Pennsylvania Beautiful actively promotes the enforcement of state litter laws to protect Pennsylvania's environment. Litter and littering behavior, however, continue to be an issue. Keep



Pennsylvania Beautiful and PalmettoPride initiated a comprehensive joint study on the efficacy of state litter statutes and enforcement practices and procedures. The organizations undertook the study to understand the effectiveness of state litter statutes and enforcement. The mixed-methods research examined five years of data, from 2016 – 2020, for both states and conducted interviews with law enforcement representatives and judicial officers to gain on-the-ground insights.

The Pennsylvania portion of the study reviewed 13 Pennsylvania statutes from the Commonwealth of Pennsylvania Administrative Office of Pennsylvania Courts (AOPC) with cases filed in district courts and the Philadelphia Municipal Court. The research focuses on enforcement across the Commonwealth but excludes enforcement of local jurisdiction ordinances. Based on the research's key findings, recommendations are proposed to help Pennsylvania establish a more integrated and effective enforcement system for reducing littering and illegal dumping.

KEY FINDINGS



Littering and illegal dumping are continuing issues for the Commonwealth of Pennsylvania.

From 2016-2020, the available data shows an increase in littering and illegal dumping cases filed each year, with peaks in Spring and Summer.

43% INCREASE

Between 2016 and 2020

- The number of littering and illegal dumping offenses reported between 2016 - 2020 for all 13 statutes shows a 43% increase. The annual growth rate varied from 5-16%.
- Interviewees expressed concerns about the amount of visible litter and illegal dumping while sharing success stories on cleanups at specific locations.



Confusion exists between “littering” and “illegal dumping” leading to enforcement challenges.

Policymakers often group the two when creating statutes, causing confusion and potential problems for those issuing tickets and individuals charged with an offense, especially regarding understanding the fine structure. A review of court data and interviews shows some confusing results from statutes covering “littering” and “illegal dumping” and the range of possible applications of multiple laws.



- While these terms may be interchangeable in the statutes, they are very different regarding the enforcement process. An illegal dumper may be caught in the act but more likely to be caught on camera, through a report, or by law enforcement examining the dumped items and then tracing evidence to an individual or business. Littering violations are more complicated, requiring the observation of a person littering, which is rare, according to interview participants, making it extremely difficult to enforce violations.



Four of the 13 Pennsylvania statutes and subsections are the most frequently cited.

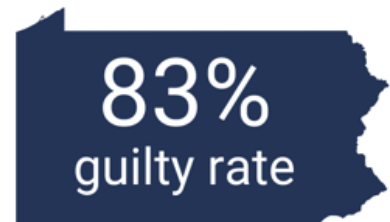
A review of the state statute data shows that the frequently charged offenses – nearly 80% – fall under four laws under the Title 18 PA Crimes Code and Title 75 Vehicle Code. Because different entities are authorized to enforce specific statutes, this may contribute to the frequency of issuing violations under these laws.

- The two most frequently charged offenses are Title 18, scattering rubbish on land or streams (25%), and Title 75, depositing waste on a highway (24%).
- These are followed by Title 18 violation of rules on Commonwealth lands or roads (15%) and Title 75 driving with an unsecured load (15%).
- All 67 Pennsylvania counties reported cases, but ticketing activity focused in 10 counties. Luzerne County reported the highest number of cases and 43 reporting agencies.



Higher fines for littering are not favored, and assessed penalties are low.

Interviews show that participants do not favor higher litter fines, and case data shows penalties are frequently at the lowest levels of the eligible range. While the most frequent case disposition is a guilty verdict, guilty plea, or guilty negotiated plea (83%), the mean fine for all cases over the 2016-2020 period was \$100.



- The overwhelming response of interview participants, especially enforcement officer participants, was that a higher penalty makes it less likely that officers will issue a littering ticket. The officers shared their experiences with magistrates not imposing high fines. They also expressed concern that fines for littering a single item, e.g., a bottle, should have a different fine structure than fines for larger items or high quantities of illegally dumped items.
- Interview participants noted that a fee, similar to a parking ticket, would be more likely to be used for littering offenses and offer more transparency for the violator.



Community service penalties are not regularly imposed.

The community service requirement cited in statutes is only sometimes imposed or may be difficult for magistrates to include in sentencing.

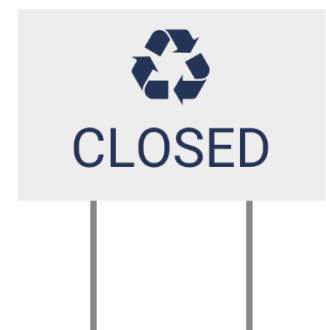
- Under several statutes, community service, e.g., litter pick-up, is a penalty either separately or in combination with a fine. However, case disposition shows a lack of hours assigned.
- While interview participants identified community service as a good alternative or in addition to a fine, they also expressed challenges in scheduling the service.
- Magistrates expressed concern that they assigned hours, but local jurisdictions did not want to manage the community service hours.



Variation in waste management infrastructure and services among jurisdictions contributes to intentional and unintentional littering.

Interview participants expressed frustration with jurisdictional differences in waste management practices and procedures.

- Lack of consistent waste management practices and services from one jurisdiction to another adds a layer of confusion and a challenge to enforcement, e.g., two communities with abutting jurisdictions may have different policies and procedures regarding collection.
- Other issues raised include the frequency of waste services, insufficient or open-top containers, design or type of collection vehicles, and littering and illegal dumping during closed operations in and around waste drop-off centers.



RECOMMENDATIONS



Simplify littering and illegal dumping laws.

- Reduce the number of littering laws by creating a common law for littering in the Commonwealth and focusing on littering as separate from illegal dumping.
- Eliminate the complexity of penalty language included in most statutes to assign a fine and/or community service specific to the offense without requiring an appearance in court.
- Align littering and illegal dumping laws and policies among all levels of government by combining statutes and expanding authorized users to those statutes.



Streamline the littering enforcement process to support ease of ticketing, fine consistency, and community service infrastructure.

- Implement a ticketing process similar to a traffic ticket, with consistent fines and community service penalties for violations and reducing the need for a court appearance for the defendant to know the penalty.
- Use technology to gather data for littering and illegal dumping offenses to support prevention and compliance.
- Encourage local ordinances to align with Pennsylvania statutes creating consistency between state and local enforcement to reduce confusion around definitions and fine structure.
- Identify alternative supervision methods for community service similar to South Carolina.





Increase education, public awareness, and community engagement.

- Develop and implement awareness campaigns on littering and illegal dumping, including the laws and penalties and the impact of litter on the community and environment — neighborhoods, land, and waterways.
- Conduct training and education using a systems approach for enforcement officers and judicial representatives to understand all aspects of dealing with cases, from investigation to sentencing.
- Require offenders to attend a class, similar to a DUI violation or a defensive driving course, as an innovative practice to address long-term prevention and reduce recidivism.



Improve waste management policies and practices to reduce illegal dumping and littering.

- Coordinate with waste management services to ensure policies and practices are not causing unintentional or intentional littering and illegal dumping.
- Explore opportunities to ensure accessible, affordable disposal and recycling to all residents.

PENNSYLVANIA LITTER LAW ENFORCEMENT STUDY

FINAL REPORT

BACKGROUND



Keep Pennsylvania Beautiful and PalmettoPride in South Carolina actively promote the enforcement of state litter laws to protect each state's respective environment. Litter and littering behavior, however, continue to be an issue. The creation of zero tolerance and increased enforcement zones in some locations encourage increased ticketing as a deterrent to littering. But law enforcement agencies and elected officials often disagree on whether higher or lower fines impact littering behavior. Another factor is the general public's belief that issuing more tickets to motorists will solve the littering problem. To better understand the effectiveness of state litter statutes and determine opportunities or obstacles to enforcement, a joint research project was undertaken to evaluate enforcement's efficacy in reducing littering behavior.

The organizations retained a researcher to develop and conduct a mixed-methods study to assess current statutes and the attitudes and behaviors around litter law enforcement. Of particular interest was whether higher fines impact an officer's decision to issue a ticket or enforcement in general and if judicial representatives have similar or differing opinions on the fine structure. The research also examined cases filed in the state over five years. Based on these findings, the organizations can better determine policy changes, education, and public awareness to reduce litter and increase the effectiveness and efficiency of litter and illegal dumping enforcement.

Methodology

A general inspection of the literature on litter enforcement shows a gap in documented results regarding the effectiveness of higher fines and the long-term impacts of enforcement in reducing roadway litter and littering or illegal dumping behavior. A decision was made to conduct a mixed-methods study examining quantitative data on cases filed and qualitative data gathered from interviews. The data includes thirteen Pennsylvania and four South Carolina statutes. The Pennsylvania data is from the State of Pennsylvania Administrative Office of Pennsylvania Courts (AOPC), including statewide case details for dockets filed in district courts and Philadelphia Municipal Court from January 1, 2016, through December 31, 2020. The South Carolina data includes case data from the Judicial Branch Court Administration and Zero Tolerance Enforcement Reports for the same period. The research excludes enforcement of local jurisdiction ordinances. To gain on-the-ground insight, 12 Pennsylvania and 7 South Carolina interviews were conducted with law enforcement officers and judicial officials solicited by the organizations based on geographic location and job function. The central question was: What attitudes, behaviors, and influences emerge about litter and illegal dumping comparing quantitative data on case disposition with outcomes from qualitative data gathered from interviews? This report summarizes the results of the Pennsylvania research.

Research Approach

Ticket and Fine Analysis

- Reviewed existing data, including the number of cases, fines assessed, and disposition of tickets either through payment or court action.
- Analyzed case and disposition data from 2016-2020 to determine trends.
- Identified and correlated any difference in adjudication and dismissal.
- Compared fines and restitution across jurisdictions and timeframe.

Officer and Judicial Interview Analysis

- Interviewed officers with knowledge about litter issues in Pennsylvania and South Carolina to gain insight into ticketing, fine rates, and impact on litter and illegal dumping conditions.
- Interviewed judicial officers, e.g., magistrates and prosecutors, to gather their perceptions about littering and illegal dumping violations.
- Analyzed interviews and compared with quantitative results to better understand enforcement strengths or gaps.

KEY FINDINGS



Littering and illegal dumping remain an issue in the Commonwealth of Pennsylvania.

From 2016-2020, the available data shows an increase in littering and illegal dumping cases filed each year, with peaks in Spring and Summer.

43% INCREASE

Between 2016 and 2020

- The number of littering and illegal dumping offenses reported between 2016 - 2020 for all 13 statutes shows a 43% increase. The annual growth rate varied from 5-16%.
- Interviewees expressed concerns about the amount of visible litter and illegal dumping while sharing success stories on cleanups at specific locations.



Confusion exists between “littering” and “illegal dumping” leading to enforcement challenges.

A review of court data and interviews shows some confusing results from statutes covering “littering” and “illegal dumping” and the range of possible applications of multiple laws. Policymakers often group the two when creating statutes, causing confusion and potential problems for those issuing tickets and individuals charged with an offense, especially regarding understanding the fine structure.



- While these terms may be interchangeable in the statutes, they are very different regarding the enforcement process. An illegal dumper may be caught in the act but more likely be caught on camera, through a report, or by law enforcement examining the dumped items and then tracing evidence to an individual or business. Littering violations are more complicated, requiring the observation of a person littering, which is rare according to the interview participants, making it extremely difficult to enforce violations.



Four of the 13 Pennsylvania statutes and subsections are the most frequently cited.

- A review of the data shows that the frequently charged offenses – nearly 80% – favor four laws under Title 18 PA Crimes Code* and Title 75 Vehicle Code. Because different entities are authorized to enforce specific statutes, this may contribute to the frequency of issuing violations under these laws. *Note:* §18.7506 is a general statute relating to the violation of rules regarding conduct on Commonwealth property which was included in the research project; however, all cases may not have been litter or illegal dumping.
- The two most frequently charged offenses are Title 18, scattering rubbish on land or streams (25%), and Title 75, depositing waste on a highway (24%). These are followed by Title 18 violation of rules on Commonwealth lands (15%) or roads and Title 75 driving with an unsecured load (15%).
- While cases were recorded in all 67 Pennsylvania counties, most of the activity was focused in 10 counties. Luzerne County reported the highest number of littering and illegal dumping cases and the highest number with 43 reporting agencies.



Higher fines for littering are not favored, and assessed fines are low.

Interviews show that participants do not favor higher litter fines. Overall, court ticketing data shows that penalties are not imposed at the highest amount and frequently at amounts lower than the stated statute amount or the lowest levels of the eligible range. While the most frequent case disposition is guilty verdict, guilty plea, or guilty negotiated plea (83%), the mean fine for all cases over the 2016-2020 period was \$100.

- The overwhelming response of interview participants, especially enforcement officer participants, was that a higher penalty makes it less likely that officers will issue a littering ticket.
- Local jurisdiction officers expressed that they preferred remediation or cleanup over ticketing when handling illegal dumping cases.
- Interview participants noted that a fee, similar to a parking ticket, would be more likely to be used for littering offenses. The simple fee structure would streamline the enforcement process and offer more transparency for the violator.



Community service requirements are not regularly imposed.

The community service requirements cited in statutes may be complicated for magistrates to include in sentencing and is not always imposed,

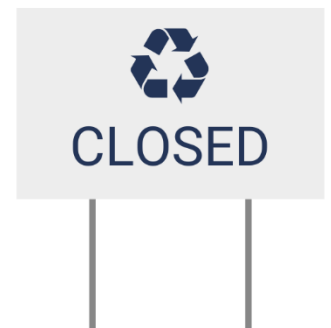
- Under several statutes, community service, including litter pick up, is a penalty either separately or in combination with a fine; however, case disposition shows a lack of hours assigned.
- While interview participants identified community service as a good alternative or addition to a fine, interviewees also expressed challenges in scheduling the service.
- Magistrates expressed concern that in their jurisdictions, they assigned hours, but local jurisdictions did not want to manage the community service hours.



Waste management infrastructure and services differ in each jurisdiction, contributing to intentional and unintentional littering.

Interview participants expressed frustration with jurisdictional differences in waste management practices and procedures.

- Lack of consistent waste management practices and services from one jurisdiction to another adds a layer of confusion and a challenge to enforcement, e.g., two communities with abutting jurisdictions may have different policies and procedures regarding the frequency of collection and items acceptable for collection curbside.



Other issues raised include the frequency of waste services, insufficient or open-top containers, design or type of collection vehicles, and littering and illegal dumping during closed operations in and around waste drop-off centers.

QUANTITATIVE ANALYSIS

Littering and Illegal Dumping in Pennsylvania from 2016-2020

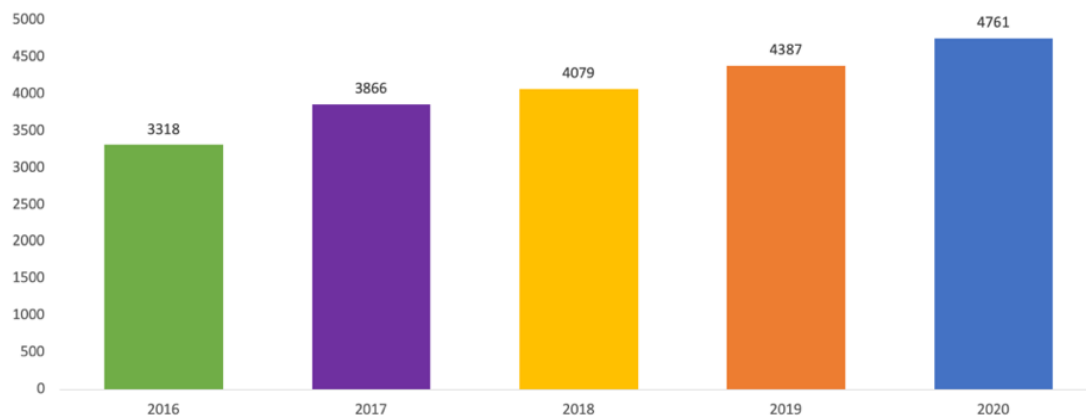
Through a request to the State of Pennsylvania Administrative Office of Pennsylvania Courts (AOPC), the researchers analyzed case and disposition data from 20,457 records. The request was for thirteen state statutes (see Table 1) for inclusion in this study. The data includes statewide case details for dockets filed in District Courts and Philadelphia Municipal Court from January 1, 2016, through December 31, 2020. The details include, among other information, the arresting agency, offense description, and offense disposition. Additional detail, when applicable, provides penalty type and financial assessments.

Table 1. PA Litter and Illegal Dumping-Related Statutes Reviewed

TITLE	SECTION	SUBSECTION	DESCRIPTION
18	6501	a.1	Scatter Rubbish Upon Land or Stream
18	6501	a.2	Interfere with Contents of Trash Receptacle
18	6501	a.3	Deposit Trash on Street
18	7506	a	Violation of Rules on Commonwealth Property
18	7506	b	Violation of Rules on Commonwealth Property
30	2503	a	Littering Near Waters
34	2510	a	Littering While Hunting/Furtaking
75	3709	a	Depositing Waste On Hwy
75	3709	b.1	Removal of Deposited Material
75	3709	b.2	Removal of Deposited Material/Driver
75	4903	a	Driver with Unsecured Load
75	4903	c.1	Load of Loose Garbage
75	4903	c.2	Load of Baled Garbage

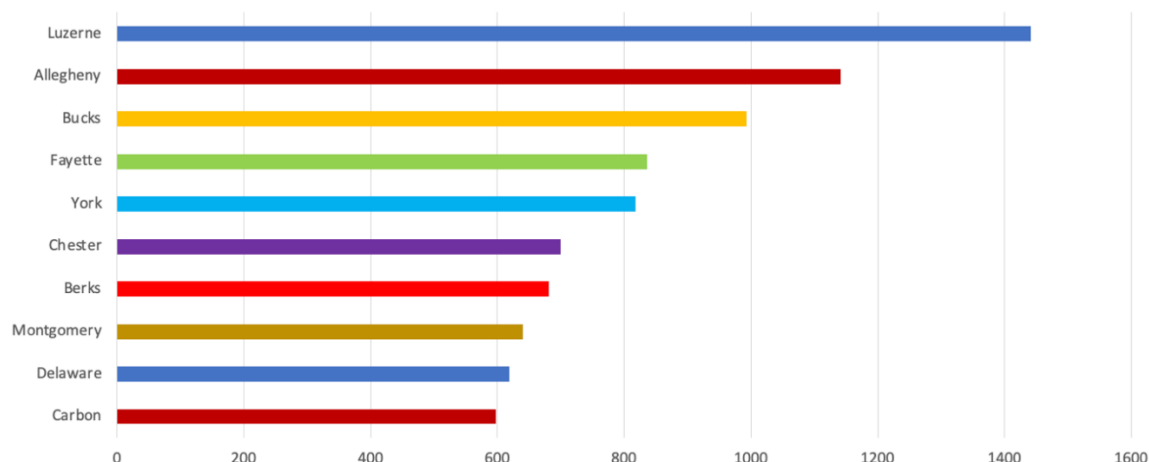
A review of five years of data – from 2016-2020 – shows an annual increase in littering and illegal dumping cases, with peaks in Spring and Summer. The number of littering and illegal dumping offenses reported between 2016 - 2020 for all 13 statutes shows a 43% increase. The number of offenses reported between 2016 and 2020 shows a yearly growth ranging from 5-16%. Figure 1 shows the distributions by year. The data shows a steady increase over the five years, with a 43% increase from 2016 to 2020. The 2020 increase is somewhat surprising due to the COVID pandemic.

Figure 1. PA Littering and Illegal Dumping Violation Cases Over Years 2016-2020.



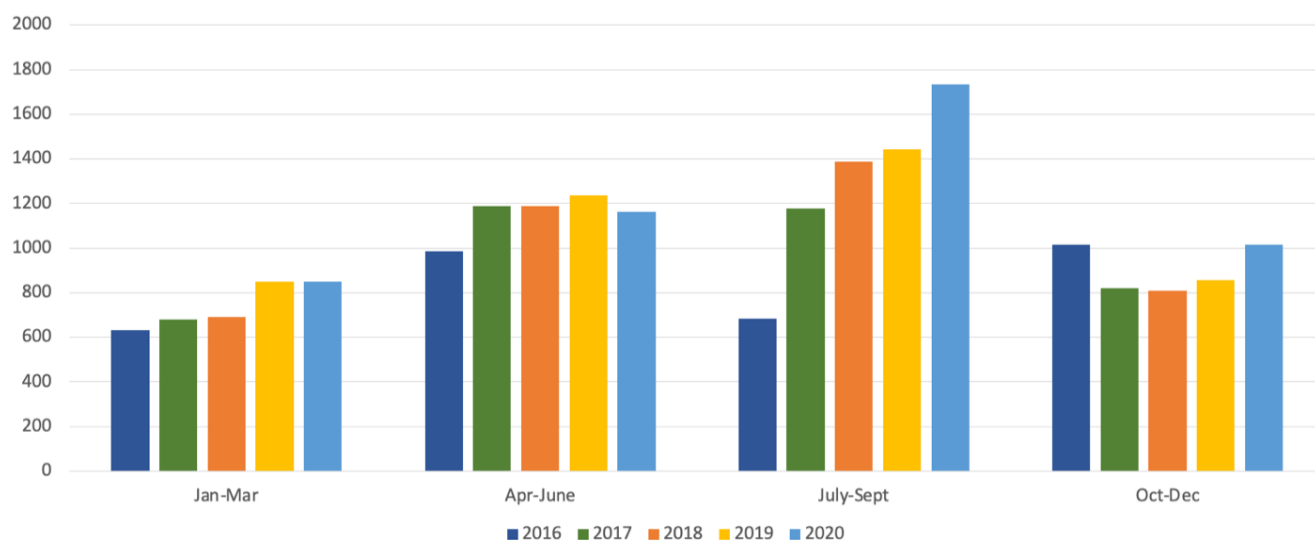
The Commonwealth of Pennsylvania includes 67 counties. Examining five years of data, cases were recorded in every county, ranging from 14 to 1,441 cases per county. Figure 2 shows the top ten counties based on total cases and dispositions. The Philadelphia Municipal Court was part of the request, but the total cases are small ($n = 27$); however, Philadelphia has a local litter ordinance that is not included in the data. Luzerne County reported the highest number of cases, with 43 arresting agencies, including State Police, Game Commission, PA Fish and Boat Commission, State Forest, State Park, Reading and Northern Railroad, a school district, universities, and local police departments. Appendix B provides a list of all cases by county.

Figure 2. PA Top Ten Counties with Littering and Illegal Dumping Cases 2016-2020.



The research explored seasonal differences using a schedule of January-March, April-June, July-September, and October-December. The seasonal data shows an increase in the Spring and Summer except during the Summer of 2016. The most significant rise in offense records is for the Summer of 2020, the first year of the COVID pandemic. The researcher does not have enough information to determine the exact reasons for seasonal differences, but people tend to spend more time outside in Spring and Summer, which may be a contributing factor. Figure 3 displays the data divided into seasons.

Figure 3. PA Litter and Illegal Dumping Violation Cases by Season 2016-2020.



Pennsylvania Statutes Most Frequently Violated

The number of cases ranges from over 5,100 to as few as 8, with a total of 20,457 cases during 2016-2020. Table 2 shows the number of cases per statute for the 13 state statutes. The PA Crimes Code and Vehicle Codes were most frequently cited.

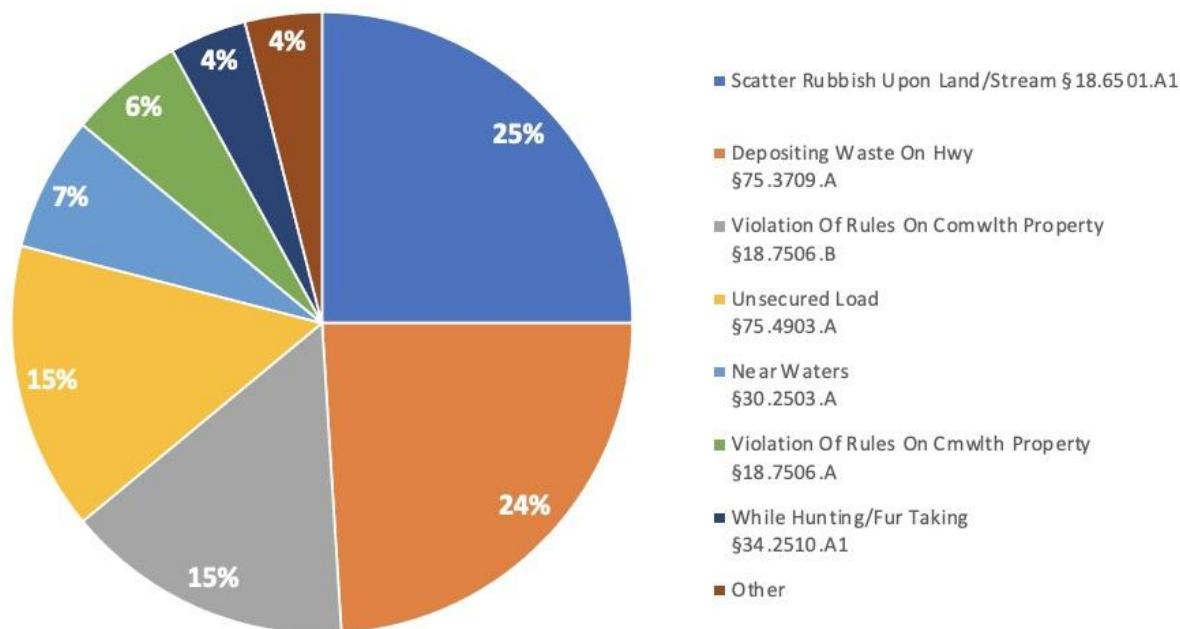
Table 2. PA Littering and Illegal Dumping Statutes Violated by Number of Cases 2016-2020

ORDER BY # OF CASES	STATUTE DESCRIPTION	NUMBER OF TOTAL CASES
1	Scatter Rubbish Upon Land/Stream §18.6501.a1	5150
2	Depositing Waste On Hwy §75.3709.a	4964
3	Violation Of Rules On Commonwealth Property §18.7506.b*	3160
4	Driver with Unsecured Load §75.4903.a	3154
5	Littering Near Waters §30.2503.a	1355
6	Violation Of Rules On Commonwealth Property §18.7506.a*	1176
7	Littering While Hunting/Furtaking §34.2510.a	873
8	Load Of Loose Garbage §75.4903.c.1	199
9	Load Of Baled Garbage §75.4903.c.2	145
10	Interfere W/Contents Of Trash Receptacle §18.6501.a2	131
11	Deposit Trash On Street §18.6501.a3	71
11	Removal Of Deposited Material §75.3709.b1	71
12	Removal Of Deposited Material/Driver §75.3709.b2	8

** KPB included §18.7506 because of its use in conjunction with the enforcement of illegal dumping using cameras. The researcher did not have information to isolate litter and illegal dumping from other uses of this general statute. The total cases likely include other violations authorized under the statute.*

Of the 13 Pennsylvania statutes, a review of data from 2016-2020 shows that most frequently charged offenses – nearly 80% -- favor four statutes. Figure 4 shows the distribution by percentage of cases for 2016-2020.

Figure 4. PA Littering and Illegal Dumping Statutes Violated by percentage of Cases 2016-2020.



The two most frequently charged offenses are Title 18 scatter rubbish on land or streams (25%) and Title 75 depositing waste on a highway (24%). These are followed by Title 18 violation of rules on Commonwealth lands (15%) or roads and Title 75 driving with an unsecured load (15%).

The most charged offense is Pennsylvania Crimes Code, §18.6501.a1. This offense under the Title 18 criminal code, is available to a wide variety of officers, such as local police officers, DCNR forest rangers, etc., who may not be able to write citations under the Title 75 vehicle code. The offense for §18.6501.a1 defines an offender as being a person that:

"causes any waste paper, sweepings, ashes, household waste, glass, metal, refuse or rubbish or any dangerous or detrimental substance to be deposited into or upon any road, street, highway, alley or railroad right-of-way, or upon the land of another or into the waters of this Commonwealth."

If a person is found guilty of a violation of §18.6501.a.1, a first offense is a fine of \$50 to \$300 and picking up litter or illegally dumped trash for not less than five nor more than 30 hours to be completed within six months, or imprisonment for not more than 90 days or both.

The second most charged offense is PA Vehicles Code §75.3709, relating to depositing waste and other material on highways, property, or waters. The statute states that the general rule is:

"no person shall throw or deposit, upon any highway, or upon any other public or private property without the consent of the owner thereof or into or on the waters of this Commonwealth from a vehicle, any waste paper, sweepings, ashes, household waste, glass, metal, refuse or rubbish, or any dangerous or detrimental substance."

The penalty for this offense is either paying a fine, picking up litter, or combining a monetary amount and cleanup hours. According to the statute, the monetary fine is between \$300 and \$900 depending on the specific location, plus the requirement for picking up litter is between eight and 80 hours, depending on the number of convictions.

Pennsylvania Litter Statutes Case Disposition, Fines, and Other Penalties

The most frequent case disposition is a guilty verdict, guilty plea, or guilty negotiated plea. Table 3 shows the primary disposition of all cases over the five years. From 2016-2018, the rate was 83% guilty. The 2019 guilty rate dropped to 79%, and the 2020 guilty rate was 66%. The difference in 2019 and 2020 is likely pandemic related, with an increase in waived or inactive cases and active cases.

Table 3. PA Case Disposition 2016-2020

DISPOSITION	2016	2017	2018	2019	2020
Guilty/ Plea or Negotiated	2750	3205	3376	3479	3143
No information - active	11	19	24	74	425
No information - inactive	108	143	272	279	424
Waived	204	233	249	359	368
Held for Court/Closed	67	137	72	73	147
Withdrawn	138	50	45	58	103
Dismissed	13	27	10	7	40

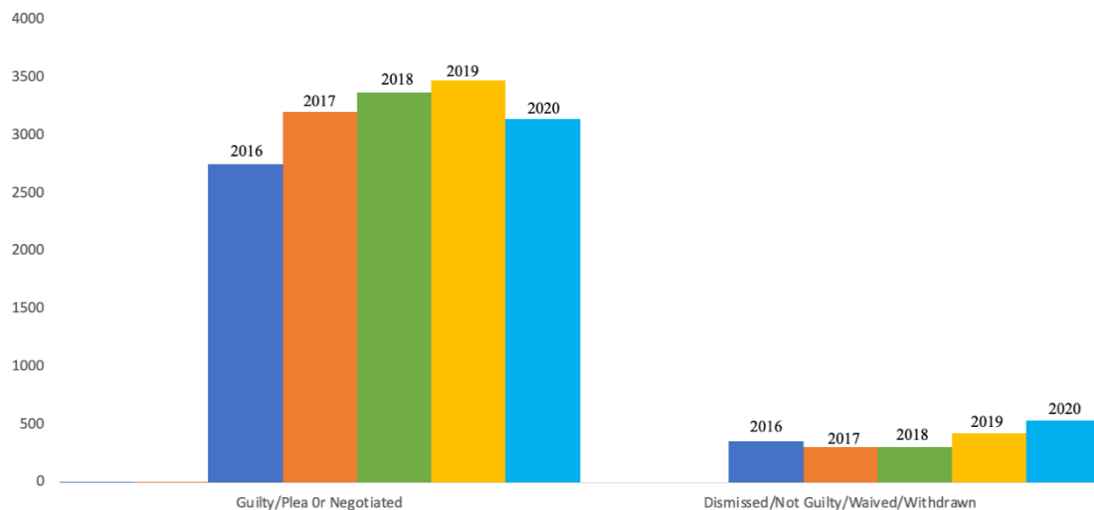
The conviction rate for twelve statutes exceeds 60%. One statute, depositing trash on the street (§18.6501.a3), has a lower conviction percentage, but the disposition record shows a high percentage of pending cases for 2020. This supports the conclusion of a high rate of guilty disposition if a case reaches court. Table 4 shows the percentage of guilty, guilty plea, or guilty negotiated by statute over the five years.

Table 4. PA Littering and Illegal Dumping Statutes Guilty Disposition 2016-2020

STATUTE DESCRIPTION	% GUILTY VERDICT, PLEA OR NEGOTIATED PLEA
Removal of Deposited Material/Driver §75.3709.b2	100%
Littering While Hunting/Furtaking §34.2510.a	93%
Load of Loose Garbage §75.4903.c.1	92%
Violation of Rules on Commonwealth Property §18.7506.b	90%
Driver with Unsecured Load §75.4903.a	90%
Littering Near Waters §30.2503.a	89%
Violation of Rules on Commonwealth Property §18.7506.a	79%
Load of Baled Garbage §75.4903.c.2	73%
Depositing Waste on Hwy §75.3709.a	71%
Causing the Scattering Rubbish Upon Land/Stream §18.6501.a1	69%
Removal of Deposited Material §75.3709.b1	68%
Interfere with Contents of Trash Receptacle §18.6501.a.2	64%
Deposit Trash on Street §18.6501.a.3	36%

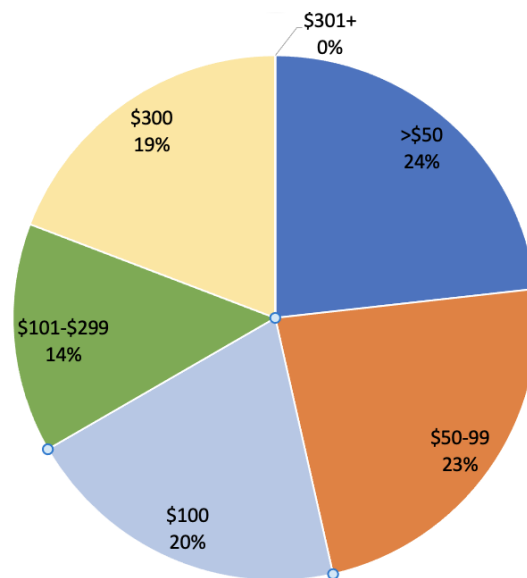
Figure 5 shows the difference between guilty, guilty plea, or guilty negotiated and cases dismissed, not guilty, or withdrawn. The not-guilty disposition increased in 2020 to 40 cases, with only one case each in 2016 and 2017 and four cases in 2018 and 2019. The dismissed number for 2020 was higher at 40 compared to a range of 7-27 in 2016-2019.

Figure 5. PA Littering and Illegal Dumping Disposition Guilty Versus Dismissed or Not Guilty, All Cases 2016-2020



The penalty associated with different statutes varies, with some providing a minimum while others state the penalty is not to exceed a specific amount. The range of fines for all statutes based on the data was \$1 to \$4,200 ($M = \$100$, $SD = \$140.95$). The most frequently cited statute §18.6501.a1 has a first offense penalty of not less than \$50 or more than \$300, and a second offense is not less than \$300 or more than \$1,000. Figure 6 shows the penalties assessed for §18.6501 a.1 violations showing a tendency for lower fines with 24% less than \$50 and only 19% \$300. Without further analysis of the actual cases, it is difficult to determine if the cases are first or second offenses, but data shows fines at the lower levels of the penalty range

Figure 6. Fines Assessed for §18.6501 Cases 2016-2020



Over the five years, fines assessed and associated costs from guilty pleas or negotiations amount to over \$4.4 million. The cost associated category shows an assessment range of \$.47 to \$903 (M = \$118, SD = \$60.32). The restitution assessed on 396 dispositions ranged from \$5 to \$10,150 (M = \$150.59, SD = \$930.89) which is relatively low. Table 5 shows the total financial collections from 2016-2020.

Table 5. Financial Collections 2016-2020

ACTION	TOTAL COLLECTED 2016-2020
Guilty pleas and court action	\$2,460,820
Court Cost Assessed	\$2,087,449
Restitution Cost	\$156,592

The data on penalties identifies ten possible outcomes. The most common is payment, categorized as able to pay and jail time compensation. An alternative sentence, which the AOPC report does not describe, and confinement in the county jail are the next most frequent penalties. Under several statutes, community service, including litter pickup, is a penalty either separately or in combination with a fine. However, the case penalty data shows a low number of only 24 cases with community service hours assigned.

Based on an analysis of the data provided by AOPC, the community service or litter removal requirements of §18.6501 and §75.3709 was not regularly imposed. The fines associated with these specific cases show a fine range from \$1 to \$300 (M = \$50), and the court costs range from \$55.25 to \$225.75 (M = \$161.22). Table 6 shows the community service assigned based on the statute over the five years. The data shows a tendency for a low fine when community service was part of the disposition based on the data provided. Without further inquiry, it is not possible to determine if community service may have been required by other actions of the magistrates.

Table 6. Disposition of Community Service for Litter Removal 2016-202

STATUTE	COMMUNITY SERVICE ASSIGNED
§18.6501.a1	14
§75.3709 a	6
§18.7506.a	2
§30.2503.a	1
§75.3709.b1	1

QUALITATIVE ANALYSIS

Methodology and Emerging Themes

The qualitative component of this study involved gathering data through semi-structured interviews. Keep Pennsylvania Beautiful representatives shared information about the purpose of the research with individuals, agencies, and organizations engaged in litter and illegal dumping enforcement in Pennsylvania to identify interview participants.

The twelve participants represented individuals at all levels of the judicial process dealing with litter and illegal dumping. The individuals were from rural, suburban, and urban settings representing jurisdictions with populations from under 5,000 to over 575,000 and representatives from local and state facilities and statewide agencies.

Data was gathered from state, county, and local-level law enforcement and judicial officials during 30- 60-minute interviews. To delve deeply into the enforcement challenges, no direct quotes were attributed to a specific person without consent, and interviews were randomly assigned a code for reporting purposes. A similar set of questions was used for each group of interview participants but customized depending on jurisdiction and roles as an officer, supervisor, prosecutor, or judge. Questions included in the Appendix were adapted to match the interviewee's role.

The interviews sought to identify attitudes, behaviors, experiences, and influences on litter law enforcement in their geographic location and perspective on litter, illegal dumping, and the enforcement process.

The researcher used statutes and case disposition data to provide a framework for the interviews and to understand the case disposition data. The participant's responses to open-ended questions were coded to identify terms and concepts. From the keywords, specific themes emerged from the interviews.

Interview Participants

- Local solid waste and recycling officer
- Local solid waste supervisor
- State parks administrator
- County enforcement supervisor
- Prosecutor
- State law enforcement
- Local enforcement officer
- Local environmental director
- County code enforcement
- Municipal waste management police
- State enforcement administration

The emerging themes are listed from the narrowest perspectives:

- Challenging and Conflicting Public Policy
- Fostering Political Will
- Determining Consequences: Ticketing, Community Service, and Procedures
- Addressing a Lack of Education and Training and Increasing Public Awareness
- Tackling Inconsistency in Waste Management Services
- Using Technology to Improve Enforcement

► Challenging and Conflicting Public Policy

The consensus of participants is that Pennsylvania has a litter and illegal dumping problem. Participants described different policy approaches for handling littering and dumping and challenges related to policy decisions. Interview participants identified several public policy issues that affect the litter law enforcement process:



- Distinction between the terms “littering” and “illegal dumping” and their enforcement
- Complexity of statutes
- Maintaining the issue as a state priority
- Lack of state funding for litter and illegal dumping programs
- Inconsistent waste management practices

Littering and illegal dumping are similar, but the participants’ priority was given to illegal dumping enforcement. A concern expressed by participants was treating littering and illegal dumping as the same, even though they are “wildly different,” as described by Participant F. While the participants defined littering and illegal dumping differently, many stated that decision-makers use the terms interchangeably. Participants said that statutes addressing both litter and illegal dumping interchangeably adds to the complexity of the enforcement process.

Participants expressed challenges that the importance of litter and illegal dumping problem seems to change constantly. Participant J commented that *"no one single factor will solve the litter problem, but we need to make it a priority and stop deviating from that, and we need to fund solid waste as a priority issue in the Commonwealth."* Participant I referenced the priority their county jurisdiction has for funding cleanups and education, but other entities at the state level do not adequately fund litter programs.

Participant H stated, *"Public policy on investment in recycling and reuse infrastructure would make a difference. You increase recycling rates, and you decrease litter. Two-thirds of the stuff that's along the road are bottles and cans, which are recyclable."*



The lack of consistency in funding was mentioned by 83% of interviewees. Two participants said the state had redirected state-level funds from environmental programs in the past, demonstrating a lack of support for these issues. The consensus of the participants was the need for consistency in education and enforcement to solve the problem.



Jurisdictional differences, including solid waste management contracts and procedures, were mentioned frequently in the interviews. The differences in service, lack of priority for solid waste management, and inadequate waste management practices are mainly local public policy issues. But state-level decisions and a lack of clear direction on the

importance of waste management have an impact on local policy. Participant I said, *"Our authority falls under the Solid Waste Management Act, but the townships and boroughs are trying to figure out how to manage litter and waste issues with code enforcement or specific township guidelines. It's very challenging for the jurisdiction, and then we wonder why citizens don't understand it."* While no one solution was mentioned, all participants expressed the need for more community engagement, public awareness, and education opportunities.

Fostering Political Will

While no participant argued that decision-makers support littering or illegal dumping, the majority did express that their decisions, or the lack of ones, lead to practices, procedures, and policies that exacerbate the problem. This issue appears more challenging in rural areas but is mentioned by individuals representing all jurisdictional areas.

Interview participants identified the following specific challenges:

- Desire of officials to be reelected
- Indecision on waste management practices
- Lack of a coordinated approach

Most participants shared one or more challenges connected to a lack of political will at rural, suburban, urban, and state levels. Participant H stated, *"We need every jurisdiction in our county to be more specific and consistent. But they're all concerned about getting reelected, so they only make partial moves on solid waste issues."*

Participant B commented, *"Most of our municipalities have under 3,000 people, so politics plays a big part. They want to get reelected."* Participant G stated, *"solutions are easier than we realize, and we just don't have the political will or the social awareness to make it happen."*

Interview participants identified the following specific challenges:

- Desire of officials to be reelected
- Indecision on waste management practices
- Lack of a coordinated approach

The consensus of those interviewed was that elected officials' actions about litter, illegal dumping, and solid waste change frequently depending on who is complaining and whether officers are doing too much or too little.

Public officials at every level should support cleanliness—most of the interviewees voiced this message. Participant C shared that state employees understand that keeping the state clean is part of their everyday jobs. The participant said that in their area, *"You see trash. You should pick it up and put it in the garbage but trying to get that messaging out to other state staff is not as easy."*

Participant L commented, *"When I talk to our state police because we don't have a municipal police department in this township, individual state troopers have been very helpful with cases where they can, but I think generally that the attitude among police departments is don't bother me with that stuff."*



The participants concurred that more messaging from elected and appointed officials are needed and that everyone, no matter their position or role, is responsible for their environment.

The political will to create a coordinated effort also appears to be lacking as no one takes the lead, or when they do, the issue is not considered a priority. Enforcement is essential in dealing with improper disposal of all types of waste, but participants voiced a lack of coordinated approach. Overall, the interviewees are frustrated but concur that enforcement can make a difference, but it alone will not solve the problem. Participants expressed the need for statewide public awareness, education, and programming consistency to change littering and dumping behaviors.

Determining Consequences: Ticketing, Community Service, and Procedures

Enforcement is critical to maintaining a clean environment. Participants shared an array of responses on what is most and least effective, including:

- Emphasis on compliance, especially to resolve illegal dumping
- Complexity of statutes
- Simplify ticketing and enforcement process
- Higher fines for littering are not viewed favorably
- Challenges with community service not being implemented
- Witnessing littering is uncommon or infrequent

While all participants agreed that issuing a ticket may be needed, the real goal is compliance, especially when addressing illegal dumping. Based on interviews, illegal dumping offenders usually have opportunities to comply before issuing a citation. The officers seemed frustrated that compliance is not an easy option with litterers.

The most frequent response by participants was that litterers should face some consequence and that consequences matter. When prompted for a way to make litter enforcement more effective, participants said a change in legislation and procedure was the answer.

The penalty language in the statute may deter officers from writing a ticket. Participant C summarized the issues with the following example, *"With our Solid Waste Management Act, it's like a penalty range from \$100 to \$1,000. And it's up to the magistrate to make that decision. So pretty much any citation we file has to go to a court hearing because nobody's going to plead guilty when the amount is blank, right? No, so they have to have a hearing, we got to put on a case together, and then the magistrate decides what the penalty is going to be. Some magistrates are better than others. If we have a magistrate that's just going to say \$100, and I have to have an attorney and the witness and a bunch of people spend a couple of days preparing for this case, then we ask, is it even going to be worth it?"*



The participants expressed challenges with the legislation's complexity, including the combination of different fines, court costs, and community service.

One of the magistrates commented on the challenges, *"We have a range in the fine structure. If I find somebody guilty, I need to impose court costs. I thought that since those costs can be high, I would issue a low fine, like \$25 instead of the \$300. The officer was very upset with me because I didn't take into account the township's cost of getting it to the court. I now understand that issue and will be more aware of it. But the whole process could be designed to be simpler."*

Participants also expressed the complicating issues of collecting the fine revenue. Participant J stated, *"Once the magistrate finds them guilty, the magistrate's office handles collecting that money. Our normal penalty works that way, they can order them to pay a penalty, but then if they just ignore it and refuse, then we gotta get a judgment at a court hearing. If they still refuse to pay, we end up going to a sheriff's sale of their stuff to get the money for the fine, and it has to be a pretty substantial amount to get through all that, you know, to make it worth it."*

While a range of penalties on the surface seems to provide flexibility, the complexity may not benefit the enforcement process. Participant D clarified, *"We need everyone involved to understand the process."* All parties in the enforcement process must understand their role and the role of others in the process to implement the complex statutes effectively.

Concerning litter enforcement, six officers and two magistrates mentioned a more straightforward ticket process, similar to a traffic or parking ticket. Two of the participants cited the issuance of administrative tickets by local jurisdictions. The City of Allentown's SWEEP violation ticketing system, similar to a parking ticket, appears to match the recommendation made by both interviewees. Participant J commented, *"Ideally if the state police saw someone throw a cup out the window, they*

could pull them over and give them a written fine for a specific amount. The person knows right there how much it's gonna be. They can pay it, or they can take it to a judge. We might actually see some immediate consequences if it's more like a traffic ticket. An offender may be more likely to pay it, and an officer may be more likely to issue a ticket."

Participant D explained, *"It's easier to handle the illegal dumping than the littering. Littering is a big problem. How are you going to catch somebody? You have to literally be right there with them."*

The participants agreed that a simplified litter ticket could make a significant difference.

Overall, the participants conclude that higher fines, especially for littering, are not considered effective. Eight participants were either current or past officers, and only three participants had written a littering ticket during their careers. Participants commented that officers would not write a \$300 ticket for a single item like a cigarette butt or beverage can; others stated a judge would not make an offender pay up to \$1,000 for one or a small number of littered items.

Participant J stated, *"I can tell you, dozens of experiences that I've had where a judge has said to me that I think this penalty for this provision is too severe, and I'm not going to charge the minimum fine or something to that effect."* Participant C stated, *"The fine should hurt them enough that they're not going to do it again, but by that same token, you don't want it to be so high that there is this residual anger that kicks in. Or they could request a long payout of fine with a small amount every month, which increases court staff frustration with the collection process."*

Community service as part of the penalty was considered valuable, but the process does not seem to work effectively. One participant complained that they have been waiting for offenders to be assigned with *"no luck receiving even one individual."* Another comment from a magistrate expressed issues with the community service requirements commenting, *"I cannot get the county officials to agree to supervise community service. They complain they do not have the staff to manage community service."* Participants I and J commented on reviewing the management of community service hours, including an option for an entity other than the county enforcement office to supervise, for example, another department or a nonprofit.

A general lack of coordination or understanding between all parties emerged around the enforcement process. Some local officials see state police and magistrates either as not considering litter a serious issue or they do not consider it a priority. Participant J stated, *"These magistrates are handling DUIs*

and rape and robbery, all of this stuff, and it comes down someone is at a hearing for "a beer can or cigarette butt and a minor thing compared to what they usually deal with."

Alternatively, state representatives disagree that the cause is lack of importance on the part of state police and magistrates, and instead explained that it is the difficulty of catching a litterer. The two interviewed magistrates themselves voiced frustration with the system regarding the lack of cases or the ability to sentence offenders to community service.



All parts of the enforcement system seem frustrated, and all would be willing to work together to create a more effective enforcement system, especially for dealing with litterers.

Finally, witnessing littering is uncommon. Participant K stated, *"People don't often litter in the presence of an officer."* Local officials expressed concern that state police do not enforce littering violations. State agency and police participants shared the challenges of actually catching a litterer. Participant K stated, *"We could sit all day and never see someone litter. It might be more likely that if we were doing a stakeout at night. We might see someone throw a cigarette butt out of a window because that lights up in the dark."*

Participant H commented, *"We have a lot of litter from pick-ups. Pennsylvania is beautiful, and probably 80% of the stuff on the roads comes out of the back of a truck."* Participant I added, *"We usually don't have an opportunity to ticket the litterer. We look at the location and try to determine how to do something positive, getting it cleaned up by a property owner, the street department, the township, or private citizens."* The interviewees' consensus was that an officer witnessing an individual littering along a rural roadway or a busy urban street is highly unlikely.

Addressing a Lack Education and Training, and Increasing Public Awareness

All twelve participants mentioned education, training, and public awareness as solutions to littering, illegal dumping, and proper waste management issues. This included:

- Educate the public on littering and illegal dumping impacts
- Create a public awareness campaign

- Train individuals at all levels of the enforcement process
- Establish an offender education program

The majority of participants mentioned educating the public on the impacts of littering and illegal dumping. Participant E commented, *"We've failed to give the general populace an appreciation for the magnitude of their impacts on the environment."* Participant B added, *"I don't think the general public realizes, or maybe they don't even care how much of a drain on tax money the problem is."*



We've got Pennsylvania DOT spending something like \$18 million a year just on litter pickup, and that doesn't even take into consideration what the cities, the townships, and boroughs spend on addressing the problem." The majority expressed a need to share the negative economic, environmental, and health impacts but emphasized a need to highlight the positive outcome of a cleaner, beautiful landscape.

Participant B stated, *"Education is a real key"* and added, *"a before action is better than an after an activity like a ticket or a cleanup."*

Participant J felt that *"only through more and consistent education for all ages will individuals finally understand that litter is preventable."* The participants expressed strongly that education must be ongoing and consistent, and too frequently, priorities shift, reducing or changing education leads to more littering and illegal dumping.

The participants expressed the need for more education on accidental littering to clarify that it is still littering when items blow away. A frequent comment by all participants was a hope that if enough people get caught, and the word gets out, maybe that begins to make a difference in reducing littering behavior and the need for consequences.

Ten interviewees suggested a public service campaign to build general awareness. The interviews were conducted prior PA Fights Dirty launch. Research shows that a public awareness campaign is a valuable element of behavior change in literature reviews. The most successful campaign dealing with litter is the Don't Mess with Texas, which recently celebrated its 35th anniversary. A campaign involves a consistent message that rarely changes with an organized set of tactics that adapts to different audiences over time. Participant J expressed the following sentiment that summarizes most comments, *"We not only need education. We need a public service announcement that really gets to the meat of it to let people know that they're being irresponsible by tossing stuff out of their vehicles or letting stuff*

fly out the back of a truck. I know it's difficult to find the target audience, but a PSA that really has meaning, I think, could make a difference. We need to a consistent message and stick with it."

Nine participants expressed the importance of incorporating enforcement when building awareness. Participant C commented, *"Publicize getting caught. Nobody told you to throw your cigarette butts on the ground like you did that yourself, and you got caught. You get punished for it, and word spreads."* Three participants specifically mentioned the targeted effort by Mothers Against Drunk Driving, which focuses on educating the public about drunk driving while encouraging legislation changes, implementing technology, and supporting enforcement.

Training was also identified to build awareness and consistency in enforcement.

Participant H stated, *"I'd like to see us be more connected with professional certification for all organizations in the state. We have guidelines that deal with recycling. We talk about green business, but we really should include litter in everything."*



Cross-training emerged as a need. Each group, officers, prosecutors, and magistrates, expressed concerns when working with representatives from another group. Officers commented that magistrates did not understand the investigation process and issued low fines. However, magistrates expressed frustrations in the low number of cases and challenges in community service assignments when the local government refused to supervise. Expanding the current Department of Environmental Protection and Keep Pennsylvania Beautiful training efforts to include magisterial district judges and others within the judicial system would be beneficial.

An effective education program requires consistency and funding.

Participant I mentioned a best practice example for a reliable education funding source, *"For five years, we have been working on changing people's attitudes. We negotiated in our disposal contract for additional funds based on each ton of trash coming into our scales, with \$.25 a ton designated for the cleanup fund and \$.25 that goes to education, that makes a difference. We have a full-time education coordinator on staff. They do a lot of things to teach about litter and illegal dumping as part of their job."*

Participant I concluded, *"I think the two critical pieces are being well funded and providing education."* This best practice should be replicable in other jurisdictions to make education a priority. Targeting education to individuals most likely to litter was another recommendation.

Participants also identified targeted education for offenders, recommending that offenders be required to attend a training class similar to DUI or defensive driving. Participant C expressed, *"Some sort of class they must go through to educate them to become more aware of why they shouldn't have done*

what he did. Hopefully, then they will not repeat it." Participant L added, *"I think this would add consistency and be beneficial."* Other participants concurred, adding that the education needed to be, as one mentioned, "something significant" in the amount of time required. An offender education program does not appear in the current literature review on this topic. An innovative, coordinated education program for offenders would offer another component to the multi-faceted approach to reducing littering and illegal dumping.

► **Tackling Inconsistency of Waste Management Services**

Participants mentioned that inconsistency in waste management services leads to intentional and unintentional littering and illegal dumping.

- Inconsistent waste services between different jurisdictions
- Lack of proper containers or receptacles
- Need for funding and placement of material-specific containers

Waste management refers to curbside collection, drop-off or convenience centers for waste or recycling, and containers in public spaces. The participants commented that inconsistency in waste management service often leads to confusion about what can and cannot be collected. Additionally, participants shared that some types of containers, either for curbside or public collection, result in the scattering of debris and litter. These topics also appeared in comments about public policy and political will.

A frequent comment by participants was the need for updates to waste management practices at the local level, including more consistency in removal services at both residential and commercial sites. Six participants discussed the different systems used for waste collection. Participant A expressed concerns about the 27 townships and municipalities in their area all having different types and levels of waste collection.

Participant B stated, *"We've got two that are really good that have contract programs with one having curbside pick-up. Another has pick up with totes at businesses. But you get a lot of stuff that blows out of the trash when the lids aren't on the containers."* Participant B added, *"Most municipalities are truly behind the times. They still have a lot of open-top containers. We have lots of litter on roads which appears to be things blown out of trash or recycling open-top containers. The item gets picked up by the wind, and stuff blows around. It's accidental littering, but it's*



a big problem in many communities.” Coordination of waste services within a specific geographic area would require considerable coordination, but a regional approach could simplify the waste management process leading to a reduction in both illegal dumping and litter.

The type and quantity of public space receptacles were also a frequent topic of concern. Seven participants mentioned the need for containers or receptacles to reduce litter in public spaces.

Many participants expressed the need for specific disposal containers for different materials. Participants added that containers for cigarettes, fishing lines, and dog waste might reduce litter in public spaces. But participants also understood that even with containers, people may still not use them unless they are convenient.

Participant C relayed this story of a litterer, *"I witnessed littering, and it was a lady with a dog poo bag. She picked up after her dog but then she didn't walk the 50 feet to the container. She sat it down on the ground. I was driving by and said, 'Hey, you know that the receptacles are right over there. They're newly installed. And she was like, 'Oh,' and then she walked over and put it in. I caught her littering, and I got her to comply."*

Three participants requested research on the type and placement of containers and funding for trash, ash, or recycling receptacles. While research exists about the accessibility of trash containers and their placement, the information needs to be localized and implemented to determine if the receptacles reduce littering behavior.

Using Technology to Improve Enforcement

- Cameras for litter prevention and enforcement
- Clarifying the use of technology for evidence
- GIS mapping of littering and illegal dumping hotspots
- Database of reporting system

Participants believed that technology could make a difference, and they wished they had an opportunity to learn more about available innovations.

Technology discussions included using cameras and drones and designing a database to identify trends and track success. Participants shared concern that current technology decisions are more about cleaning up than prevention or enforcement. Three participants mentioned the challenges of some types of technology, specifically discussing the placement of floating nets or filtration devices in waterways which *"does not stop people from littering or dumping"* and could accidentally give the impression that it is okay to continue these behaviors.

Cameras were the most common suggestion for enhanced enforcement. Participant B commented that municipalities are receptive to the camera programs *"because it takes them off the hook if someone questions if a person really was caught illegally dumping."* Participant A echoed the sentiment that the camera footage made it difficult for individuals to claim they did not commit the offense.



Participant J shared, *"Cameras can be a great enforcement asset in court. If the person says, I didn't do it. The officer shows the picture, and it's hard for them to argue when they are caught on camera."* Video can be even more powerful in court.

According to Participant J, the judge said that *"actually seeing the video of a person throwing materials was different from photos that did not show action. The judge commented that photos could leave reasonable doubt."* Using a camera to capture video or photos can be a deterrent or provide evidence, especially in illegal dumping cases.

Identifying litterers via a camera was also a topic of discussion, with five interviewees exploring it from different perspectives. One participant described setting up cameras in rural areas with a camera aimed at both directions of traffic to identify the vehicle's license plate. The participant continued that *"the local jurisdiction could identify hot spots and inform people that a camera was set up in different locations to catch litterers. The camera records the litterer's vehicle, but more importantly, it could also be an awareness campaign to deter a litterer."*

A state enforcement officer, however, doubted the effectiveness of catching a litterer on camera. The officer commented, *"While the camera is up there 24-7 still, we might not catch a license plate of someone driving by and throwing something out a window."* The officer added that the process could be very time-consuming, having a person watch the video to identify anyone littering from all the vehicles that might be recorded on a specific road segment. Using a camera to capture a litterer is challenging, but it may be a possible deterrent in some locations.

Accessible information would be beneficial for public policy consideration and decision-makers to point to when asked about enforcement. The technology mentioned included a statewide or national reporting system for ticketing detail and a hotline. Four participants expressed that more accessible access to ticketing data and enforcement procedures would be valuable in working on changes to

statutes and is needed to determine the effectiveness of enforcement processes and procedures. Officers expressed challenges in determining if an individual is littering or dumping in multiple jurisdictions due to the lack of a tracking system for possible repeat offenders. Officers and prosecutors mentioned DUI systems established at the encouragement of Mothers Against Drunk Drivers. The data on the number of tickets issued and individuals ticketed was cited as valuable to determine the effectiveness of enforcement and possibly catching repeat offenders.

Another technology mentioned was mapping hotspots and dump sites. Participant I discussed the value of data to tell the enforcement story beyond the number of tickets issued. Participant I shared details, *"We found 63% of the dumping sites we investigate are within 100 feet of an area with water. Traffic density was always low. 81% of the sites were within rural areas without homes. 69% of the sites were over a hillside. 51% of sites were visible from a road."*

The participants expressed that accessible data would be beneficial in developing plans and enforcement strategies.

Participant E commented that a lack of data and reporting details created challenges for their enforcement program. As few officers directly witness littering, interviewed officers also noted that a hotline or reporting process might reinforce public awareness and serve as an alternative method of enforcement. Access to data and consistent metrics statewide would assist all jurisdictions.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The quantitative data shows an increase in litter cases yearly, even during the pandemic. The court data also indicates a high percentage of guilty dispositions. Based on statute language, however, the data does not show consistency with fines and penalties. The data suggests that fines assessed on average are low based on amount range options in the statute, and magistrates did not consistently impose community service hours. Based on the case data available, the research cannot conclude that higher fines or enhancements with community service result in less littering or illegal dumping.

The interviews provided insight into the day-to-day litter and illegal dumping operations, enforcement process gaps, and improvement opportunities. While the interview participants represented different parts of the enforcement process as officers, supervisors, prosecutors, and magistrates, all echoed the difficulties in enforcing littering and illegal dumping laws, whether at the state or local level.

Specific challenges identified both through the data and participant interviews include:

- Confusing litter and illegal dumping statutes and ordinances.
- Inconsistent litter enforcement statewide and within some jurisdictions.
- Complexity of ticketing procedures for littering violations.
- The need for improved infrastructure and consistent waste management services.
- Insufficient funding and lack of staffing to support litter collection and enforcement of litter laws.
- Low level of understanding by the public of the impacts and costs of littering and illegal dumping.

Recommendations



Simplify littering and illegal dumping laws.

- Reduce the number of littering laws by creating a common law for littering in the Commonwealth and focusing on littering as separate from illegal dumping.
- Eliminate the complexity of penalty language included in most statutes to more specifically assign a fine and/or community service specific to the offense without requiring an appearance in court.
- Align littering and illegal dumping laws and policies among all levels of government by combining statutes and expanding authorized users to those statutes.



Streamline the littering enforcement process to support ease of ticketing, fine consistency, and community service infrastructure.

- Implement a ticketing process similar to a traffic ticket, with consistent fines and community service penalties for violations and reducing the need for a court appearance for the defendant to know the penalty.
- Use technology to gather data for littering and illegal dumping offenses to support prevention and compliance.
- Encourage local ordinances to align with Pennsylvania statutes creating consistency between state and local enforcement to reduce confusion around definitions and fine structure.
- Identify alternative supervision methods for community service similar to South Carolina.





Education, public awareness, and community engagement.

- Develop and implement awareness campaigns on littering and illegal dumping, including the laws and penalties and the impact of litter on the community and environment — neighborhoods, land, and waterways.
- Conduct training and education using a systems approach for enforcement officers and judicial representatives to understand all aspects of dealing with cases, from investigation to sentencing.
- Require offenders to attend a class, similar to a DUI violation or a defensive driving course, as an innovative practice to address long-term prevention and reduce recidivism.



Improve waste management policies and practices to reduce illegal dumping and littering.

- Coordinate with waste management services to ensure policies and practices are not causing unintentional or intentional littering and illegal dumping.
- Explore opportunities to ensure accessible, affordable disposal and recycling to all residents.



APPENDICES

Appendix A

Pennsylvania Statutes Researched

PA Crimes Code, Title 18, Chapter 65, § 6501 (a)(1), (a)(2), (a)(3)

PA Crimes Code, Title 18, Chapter 75, § 7506 (a), (b)

PA Fish and Boat Code, Title 30, Chapter 25, § 2503

PA Game and Wildlife Code, Title 34, Chapter 25, § 2510 (a)

PA Vehicle Code, Title 75, Chapter 37, § 3709 (a), (b.1), (b.2)

PA Vehicle Code, Title 75, Chapter 49, § 4903 (a), (b)

Appendix B

Litter and Illegal Dumping Cases Filed by County 2016-2020

Note: Data from State of Pennsylvania Common Pleas Criminal Court Case Management System

COUNTY	CUMULATIVE 2016-2020	2016	2017	2018	2019	2020
Adams	264	50	77	32	45	60
Allegheny	1142	145	217	252	292	236
Armstrong	121	19	20	25	29	28
Beaver	241	47	63	45	43	43
Bedford	164	36	23	27	37	41
Berks	681	114	143	153	145	126
Blair	122	19	13	29	30	31
Bradford	103	14	20	15	19	35
Bucks	993	91	113	297	292	200
Butler	309	40	83	92	42	52
Cambria	269	32	70	53	60	54
Cameron	14	7	3	1	1	2
Carbon	598	34	65	154	112	233
Centre	296	42	59	59	62	74
Chester	699	133	149	123	113	181
Clarion	139	21	24	35	27	32
Clearfield	194	47	41	32	31	43
Clinton	82	12	18	10	18	24
Columbia	197	36	26	45	39	51
Crawford	210	30	46	30	37	67
Cumberland	446	68	84	75	105	114
Dauphin	464	87	100	100	103	74
Delaware	619	136	111	96	113	163
Elk	57	8	18	9	11	11
Erie	283	51	52	55	54	71
Fayette	836	195	190	184	130	137
Forest	34	10	10	2	5	7
Franklin	214	40	39	47	36	52
Fulton	96	25	23	7	22	19
Greene	93	18	19	28	17	11
Huntington	98	11	20	23	23	21
Indiana	102	12	19	25	24	22

Jefferson	83	15	17	17	9	25
Juniata	91	15	16	25	18	17
Lackawanna	361	85	73	86	67	50
Lancaster	317	38	60	57	89	73
Lawrence	353	40	53	105	55	100
Lebanon	180	9	36	40	47	48
Lehigh	406	70	86	77	90	83
Luzerne	1441	190	268	277	326	380
Lycoming	393	42	61	66	104	120
McKean	182	27	24	34	39	58
Mercer	133	12	20	37	24	40
Mifflin	89	15	19	17	16	22
Monroe	484	59	72	71	135	147
Montgomery	640	126	127	88	139	160
Montour	27	0	12	9	4	2
Northampton	554	170	123	75	88	98
Northumberland	301	76	61	42	62	60
Perry	127	14	37	28	23	25
Philadelphia	70	15	11	8	20	16
Pike	398	16	22	84	136	140
Potter	114	23	24	22	23	22
Schuylkill	380	64	53	67	91	105
Snyder	88	14	8	13	39	14
Somerset	498	61	122	109	121	85
Sullivan	131	39	18	14	30	30
Susquehanna	85	8	17	16	15	29
Tioga	194	58	27	35	55	19
Union	80	23	9	9	19	20
Venango	120	13	26	31	23	27
Warren	85	21	16	8	17	23
Washington	343	51	72	86	55	79
Wayne	95	11	14	15	21	34
Westmoreland	518	83	105	105	108	117
Wyoming	52	6	6	12	13	15
York	818	179	193	134	149	163
	20411	3318	3866	4079	4387	4761

Appendix C

Sample Interview Questions for Participant

- Please share your involvement with litter law enforcement.
- How do you define litter and illegal dumping?
- How frequently do you witness littering or find an illegal dump site?
- What factors are involved in your decision to issue a ticket or citation?
- Which action do you take most frequently ticketing, warning, and remediation?
- How do fines impact your decision on ticketing?
- Does the judicial system/process impact your decision to issue a ticket?
- What are the major obstacles to stopping illegal dumping and/or litterers?
- Have you noticed patterns with litter and littering? Are you familiar with hotspots?
- What resources are needed?
- Do you have suggestions on innovations or ways to reduce litter?

Appendix D

Summary by Themes

THEME	QUANTITATIVE SUMMARY	QUALITATIVE SUMMARY
Public Policy	<ul style="list-style-type: none"> • 13 Statutes with subsections • Different financial fines and community service requirements 	<ul style="list-style-type: none"> • Complexity of statutes • Inconsistent waste management services • Clarify differences between littering and dumping • Jurisdictional differences • Fund research, infrastructure, education, public awareness, and adequate enforcement staffing
Political Will	<ul style="list-style-type: none"> • Differences in the number of cases and disposition per jurisdiction and by agency • Percentage of cases per county 	<ul style="list-style-type: none"> • Desire to be reelected • Officers focus on compliance to reduce writing tickets • Indecision on waste management practices • Differences in waste services by jurisdictional • Need coordinated approach
Consequences	<ul style="list-style-type: none"> • Inconsistency across different jurisdictions • Questions about case disposition matching statutes 	<ul style="list-style-type: none"> • Complex enforcement process • Higher fines not viewed favorably • Emphasis on compliance, especially to resolve dumping • Challenges with fine and community service not being implemented • Witnessing littering is uncommon • Simplify ticketing process
Education, Training, and Public Awareness	<ul style="list-style-type: none"> • Number of statute sub-sections and labeling in court disposition results • Inconsistency with fines and community service hours 	<ul style="list-style-type: none"> • Educate the public on litter and dumping impacts • Train individuals at all levels of the enforcement process • Create public awareness campaign • Establish an offender education program • Residents of littered neighborhoods might litter in public space • Short-term residents lack community connections
Waste Management Services	N/A	<ul style="list-style-type: none"> • Inconsistent waste services between different jurisdictions • Use of open top containers
Technology	<ul style="list-style-type: none"> • Common Pleas Criminal Court Case Management System 	<ul style="list-style-type: none"> • Increase the use and type of cameras for litter and dumping enforcement • GIS mapping of litter hotspots and dumping sites • Assessable database and protocol to collect data

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Research and Data Limitations

- Case data is limited to tickets filed under state statutes in each state; therefore, no data is included for local ordinances. Because each local ordinance would need to be searched for on its own, making a state-wide data request for this information would take time and effort and would likely be challenging to obtain due to the current reporting process for litter and illegal dumping violations and the lack of a centralized data center.
- The case data only includes public cases, which would not include those removed under the PA Clean Slate program and possible cases for juvenile defendants.
- PA state statutes do not differentiate between litter and illegal dumping, so there is no way to count how many were dumping and how many were littering. Enforcement officers and judges may treat these two types of activities differently. Additionally, as noted in the Pennsylvania report, one of the statutes may include cases that may not be litter or illegal dumping related, but state agencies frequently cite the statute regarding these issues.
- Keep Pennsylvania Beautiful included §18.7506 in the records request to AOPC because of its use in conjunction with illegal dumping cameras. The researcher did not have information to isolate litter and illegal dumping from other uses of this general statute. The total cases likely include other violations authorized under the statute.
- South Carolina data includes data requested from state courts and supplemented by reports to PalmettoPride.
- Although every effort was made to include a wide variety of enforcement partners in the interview and survey portion, those who did respond do not necessarily constitute the opinions of all officers, judges, or prosecutors in Pennsylvania and South Carolina.

SOUTH CAROLINA LITTER LAW ENFORCEMENT STUDY

EXECUTIVE SUMMARY

PalmettoPride actively promotes the enforcement of state litter laws to protect South Carolina's environment. Litter and littering behavior, however, continue to be an issue. Keep Pennsylvania



Beautiful and PalmettoPride initiated a comprehensive joint study on the efficacy of state litter statutes and enforcement practices and procedures. The organizations undertook the study to understand the effectiveness of state litter statutes and enforcement. The mixed-methods research examined five years of state law data, from 2016 – 2020, for both states and conducted interviews with representatives of law enforcement and judicial officers to gain on-the-ground insight.

The South Carolina portion of the study reviewed South Carolina statutes from the State of South Carolina Judicial Branch Court Administration (SCJB). The research focuses on enforcement across the state but excludes enforcement of local jurisdiction ordinances. Based on the research key findings, recommendations are proposed to help South Carolina enhance the effectiveness of its enforcement system to reduce littering and illegal dumping.

KEY FINDINGS



Littering and illegal dumping remains an important issue for the State of South Carolina.

The interview participants show dedication to enforcing litter and illegal dumping laws. But the ticketing data shows minimal enforcement statewide.

- The number of littering and illegal dumping offenses reported by the state shows that 36% of counties reported Zero Tolerance data between 2019 – 2021, and only 25% of counties significantly issued tickets between 2016-2020.
- Interviewees expressed concerns about the amount of visible litter in the state.
- Participants expressed concerns over the consistency in enforcement efforts within counties, especially with challenges filling vacant officer positions.

ONLY 36%

**of counties reported Zero
Tolerance data between
2019-2020**



Positive reaction to 2018 amendment restructuring of fines and community service.

Interviews show that participants understand the South Carolina Code of Laws, §16.11.700, concerning litter and illegal dumping and penalties. All participants could respond to questions about the penalties with a high degree of understanding.

- The overwhelming response of interview participants, especially enforcement officer participants, was that a higher penalty makes it less likely that officers will issue a littering ticket.
- Local jurisdiction officers expressed that they preferred compliance or clean-up of illegal dumping sites over fines.
- Interview participants supported the fee structure for each violation category and the streamlined enforcement process, offering more transparency for the violator.
- Participants agree cash bond in lieu of an immediate court appearance is a good alternative.



Community service flexibility important.

Community service cited in statutes is an effective part of the sentencing procedures, and participants believe it changes offenders' attitudes regarding littering and dumping.

- The model of assigning offenders a section of a road or highway with a set number of hours to clean that section provides flexibility for the county and the offender. The verification process is simple: count bags and visually assess the cleanliness of the road.



Challenges with staffing and officer classification.

Participants expressed concerns about the ability to hire sufficient officers to cover the geographic areas and efficiently conduct business with officers with different classification levels. Some officers and supervisors expressed concerns over the ineffectiveness of procedures when code officers are not permitted by law to conduct research or stop litterers in progress.

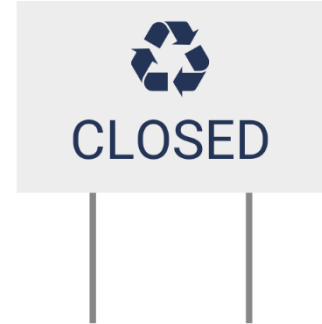




Waste management infrastructure and services differ in each jurisdiction contributing to intentional and unintentional littering.

Interview participants expressed frustration with operating hours and the availability of appropriate waste disposal options.

- Lack of consistent waste management practices and services challenges enforcement with frequent littering and illegal dumping during closed operations in and around waste or recycling drop-off centers.
- The distance between centers may also lead to dumping and unintentional littering due to uncovered loads.



Lack of public understanding of the impacts of littering and illegal dumping.

Participants expressed a lack of knowledge about the environmental and financial impacts.

- Limited effectiveness of littering and illegal dumping public awareness campaign, including most officers unaware of statewide messaging.
- Interviewees shared that the public needs more awareness of litter and illegal dumping and its impacts through educational campaigns.



RECOMMENDATIONS



Continue to promote littering and illegal dumping law enforcement in the State of South Carolina.

- Encourage all counties to participate in the annual Zero Tolerance campaign and proactively participate in enforcement activities. Only 36% of counties reported between 2019-2021.
- Develop enforcement incentive programs or establish statewide reporting standards to encourage officer engagement.



Review enforcement authority at different officer classification levels.



- Review options for all officers to pursue vehicles witnessed in a littering violation and conduct related vehicle research.



Develop enforcement data collection process to support prevention and compliance.

- Use technology to gather data for littering and illegal dumping offenses to ease reporting and improve accessibility to data.
- Investigate options to integrate hotline data into the data gathering and sharing process.
- Create best practices for using cameras as evidence in court cases.





Expand education, public awareness, and community engagement.

- Expand awareness campaigns on littering and illegal dumping, including the laws and penalties and the impact of litter on the community and environment — neighborhoods, land, and waterways.
- Increase promotion of the “Litter Trashes Everyone” message or similar message to inspire individuals not to litter.
- Conduct training and education using a systems approach for enforcement officers and judicial representatives to understand all aspects of dealing with cases, from investigation to sentencing. Expand the training opportunities to involve members of the judicial system in training.
- Support training for officers annually, including but not limited to presenting court cases.



Improve waste management policies and practices to reduce illegal dumping and littering.

- Identify policies and practices causing unintentional or intentional littering and illegal dumping and determine ways to increase opportunities for proper disposal.
- Explore policies to provide accessible and affordable waste disposal and recycling and determine ways to increase opportunities for proper disposal.

SOUTH CAROLINA LITTER LAW ENFORCEMENT STUDY

FINAL REPORT



PalmettoPride and Keep Pennsylvania Beautiful actively promote the enforcement of state litter laws to protect their state's environment. Litter and littering behavior, however, continue to be an issue. The creation of zero tolerance and increased enforcement zones in some locations encourage increased ticketing as a deterrent to littering. But law enforcement agencies and elected officials continue to debate over whether higher or lower fines impact littering behavior. Another factor is

the general public's belief that issuing more tickets to motorists will solve the littering problem. To better understand the effectiveness of state litter statutes and determine opportunities or obstacles to enforcement, a joint research project was undertaken to evaluate enforcement's efficacy in reducing littering behavior.

The organizations retained a researcher to develop and conduct a mixed-methods study to assess current statutes and the attitudes and behaviors around litter law enforcement. Of particular interest is whether higher fines impact an officer's decision to issue a ticket or enforcement in general and if judicial representatives have similar or differing opinions on the fine structure. The research also examined cases filed in the state over five years. Based on these findings, the organizations can better determine policy changes, education, and public awareness to reduce litter and increase the effectiveness and efficiency of litter and illegal dumping enforcement.

Methodology

A general inspection of the literature on litter enforcement shows a gap in documented results regarding the effectiveness of higher fines and the long-term impacts of enforcement in reducing roadway litter and littering or illegal dumping behavior. A decision was made to conduct a mixed-methods study examining quantitative data on cases filed and qualitative data gathered from interviews. The data includes thirteen Pennsylvania and six South Carolina statutes or subsections.

The South Carolina data includes statewide cases filed from January 1, 2016, through December 31, 2020. The South Carolina data includes information from the Judicial Branch Court Administration and Zero Tolerance Enforcement Reports. To gain on-the-ground insight, 12 Pennsylvania and 6 South Carolina interviews were conducted with law enforcement officers and judicial officials. Additionally, 17 surveys gathered information from South Carolina law and code enforcement officials using the same questions as those used for the in-person interviews. The central research question is: What attitudes, behaviors, and influences emerge about litter and illegal dumping comparing quantitative data on case disposition with outcomes from qualitative data gathered from interviews? This report summarizes the results of the South Carolina research.

Research Approach

Ticket and Fine Analysis

- Reviewed existing data, including the number of cases, fines assessed, and disposition of tickets either through payment or court action.
- Analyzed case and disposition data from 2016-2020 to determine trends.
- Identified and correlated any difference in adjudication and dismissal.
- Compared fines and restitution across jurisdictions and timeframe.

Officer and Judicial Interview Analysis

- Interview officers with knowledge about litter issues in Pennsylvania and South Carolina to gain insight into ticketing, fine rates, and impact on litter and illegal dumping conditions.
- Interview judicial officers, e.g., magistrates and prosecutors, to gather their perceptions about littering and illegal dumping violations.
- Analyze interviews and compare with quantitative results to better understand enforcement strengths or gaps.

KEY FINDINGS



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Challenges with staffing and officer classification regarding investigation process.

Participants expressed concerns about the ability to hire sufficient officers to cover the geographic areas and efficiently conduct business with officers with different classification levels. Some officers and supervisors expressed concerns over the ineffectiveness of procedures when officers, typically litter or illegal dumping officers, are not permitted to stop litterers while the vehicle is in motion or conduct license plate research.

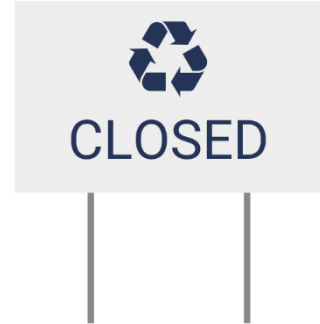




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QUANTITATIVE ANALYSIS

Littering and Illegal Dumping in South Carolina from 2016-2020

Through a request to the State of South Carolina Judicial Branch Court Administration (SCJB), the researchers analyzed case and disposition data from 2,163 records in magistrate courts. The request was for state statutes relating to litter. Table 1 shows different statutes reviewed, including references to specific laws cited and those providing definitions. The data includes statewide case details from January 1, 2016, through December 31, 2020, with a note that the statutes relating to litter and illegal dumping were amended in 2018. The court details include, among other information, the county, offense description, and offense disposition. Additional detail, when applicable, provides penalty type and financial assessments. Additional data was analyzed, including Zero Tolerance Reports provided by PalmettoPride.

Disclaimer: The information in the SCJB database is updated as case information is transmitted to SCJB from the custodians of individual county records. Because SCJB is not by law the custodian of court records and because SCJB receives data as a third party, SCJB cannot guarantee the accuracy of the information contained in these reports. While SCJB strives to keep the reports as accurate as possible, the data contained in these reports rely on information maintained and transmitted at the county level. Any clarification of data should be directed to the pertinent county official.

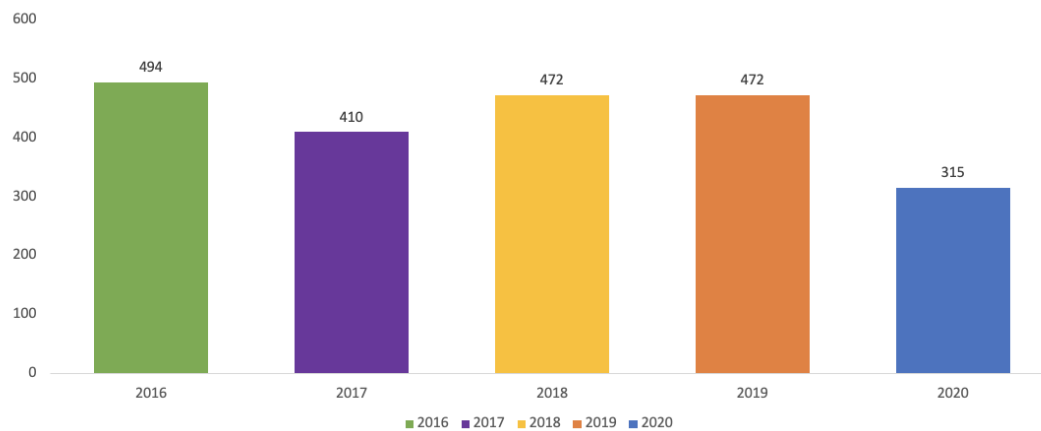
Table 1. SC Litter and Illegal Dumping-Related Statutes Reviewed

TITLE	CHAPTER	SUB SECTION(S)	STATUTE DESCRIPTION
16	11	700	Crimes and Offense/Dumping litter on private or public property prohibited
44	96	40	Health/Definitions
48	53	20	Environmental Protection and Conservation/Cover to prevent litter from escaping
48	53	10	Environmental Protection and Conservation/Definition
56	5	4100 (A)	Traffic / Operating vehicle with loads that drop, sift, leak, etc.
56	5	4100 (B), (C), and (D)	Motor Vehicle / Operating vehicle with certain loads exceeding limits causing escape, etc.
56	5	4110	Motor Vehicle/ Preventing escape of materials loaded on vehicles
56	5	20	Motor Vehicle / Suspension on license

A review of five years of data – from 2016-2020 – shows a consistent number of littering and illegal

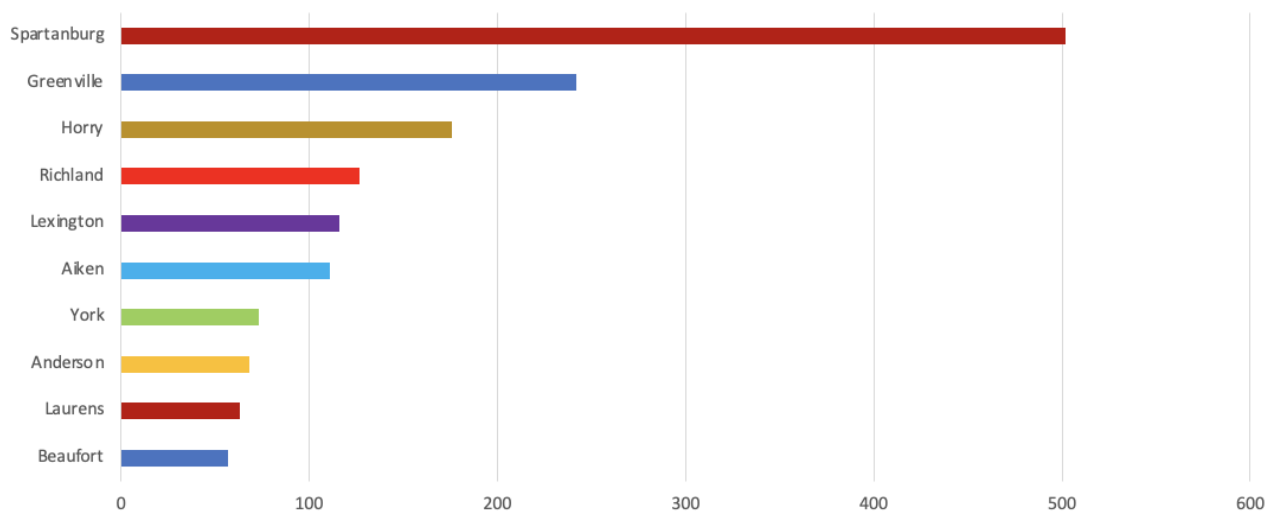
dumping cases, except for a significant decrease in 2020, likely due to the COVID pandemic. The number of littering and illegal dumping offenses shows consistency in 2018 and 2019, with a 66% reduction in 2020. Figure 1 shows the distributions by year.

Figure 1. SC Littering and Illegal Dumping Cases Over Years 2016-2020.



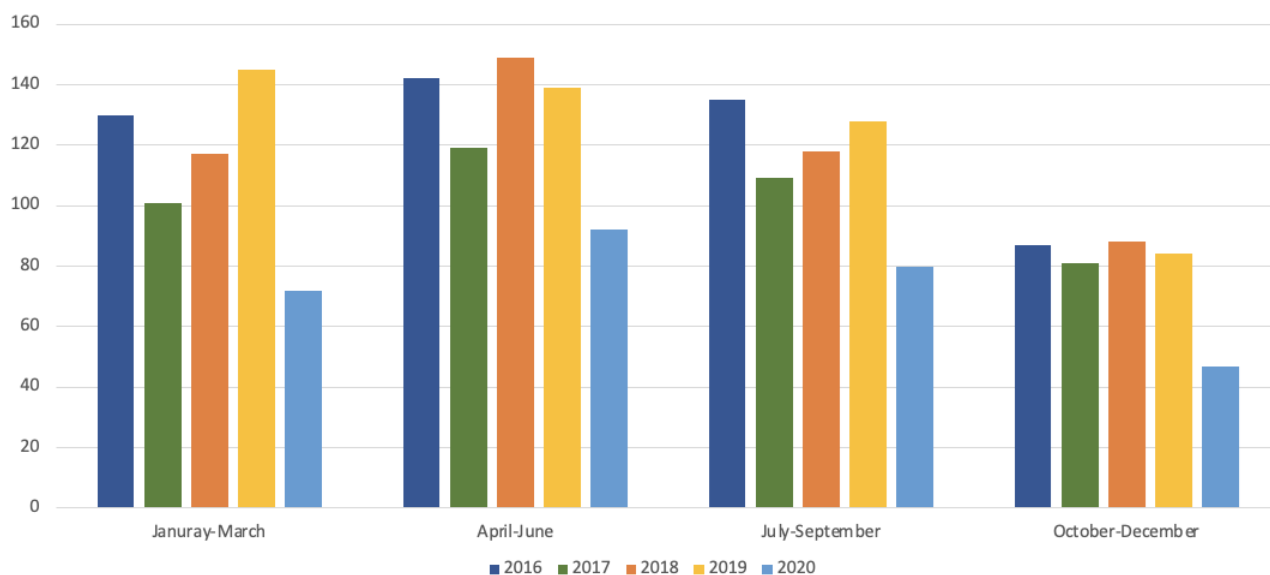
The State of South Carolina includes 46 counties. Examining five years of data, cases were recorded in every county, ranging from 1 to 502 cases per county. Figure 2 shows the top ten counties based on total cases and dispositions. Spartanburg County reported the highest number of cases, with 79 to 127 per year, with 2019 as the highest year (n=127). Greenville County was the second highest, with cases filed with 48% fewer filings. The counties with the most infrequent cases filed are the smallest counties of Hampton and Allendale. Appendix B provides a list of all cases by county.

Figure 2. SC Top Ten Counties with Littering and Illegal Dumping Cases 2016-2020.



The research explored seasonal differences using a schedule of January-March, April-June, July-September, and October-December. The seasonal data shows a substantial decrease in the fourth quarter months. The April-June period is slightly higher but not significantly. The 2020 data shows an impact due to the first year of the COVID pandemic, with fewer cases filed than in previous years during each quarter. Figure 3 displays the data divided into seasons. SCJB provided information on 44 cases filed in General Session Courts in 2019-2020, but data was not provided by the filing date.

Figure 3. SC Litter and Illegal Dumping Cases Distributed by Season 2016-2020.



South Carolina Litter Statutes, Case Disposition, Fines, and Other Penalties

The data request by PalmettoPride included two CDR Codes and four offenses under the Motor Vehicle Law and Crimes and Offense relating to dumping litter on private or public property prohibited. The most charged offense is the South Carolina Code of Laws, §16.11.700. The offense defines an offender as being a person that:

"may not dump, throw, drop, deposit, discard, or otherwise dispose of litter or other solid waste, as defined, and including cigarette butts and cigarette component litter, upon waters or public or private property in the State for which he is not the legal owner or a person otherwise granted permission by the legal owner including, but not limited to, a highway, park, beach, campground, forest land, recreational area, trailer park, road, street, or alley."

In 2018, the statute was amended to include cigarette litter and deceased animals and restructure penalties (see Table 2). The amendment authorized a cash bond in lieu of requiring an immediate court appearance, with the bond forfeited if the person charged fails to appear in court.

Table 2. SC Litter and Illegal Dumping Fine Structure

CATEGORY	BASE FINE AND COMMUNITY SERVICE	ACTUAL FINES WITH ASSESSMENTS AND BUYOUTS
Litter > 15 pounds	\$25-\$100 & 8 hours	\$221.88-\$377.50
Litter > 15 pounds dumpsite	\$50-\$150 & 16 hours	\$393.75-\$601.25
Illegal Dumping > 15-500 pounds	\$200-\$500 & 16-32 hours	\$705-\$1,327.50
Illegal Dumping > 500 pounds	\$500-\$100 & clean site	\$1,567.50-\$2,605

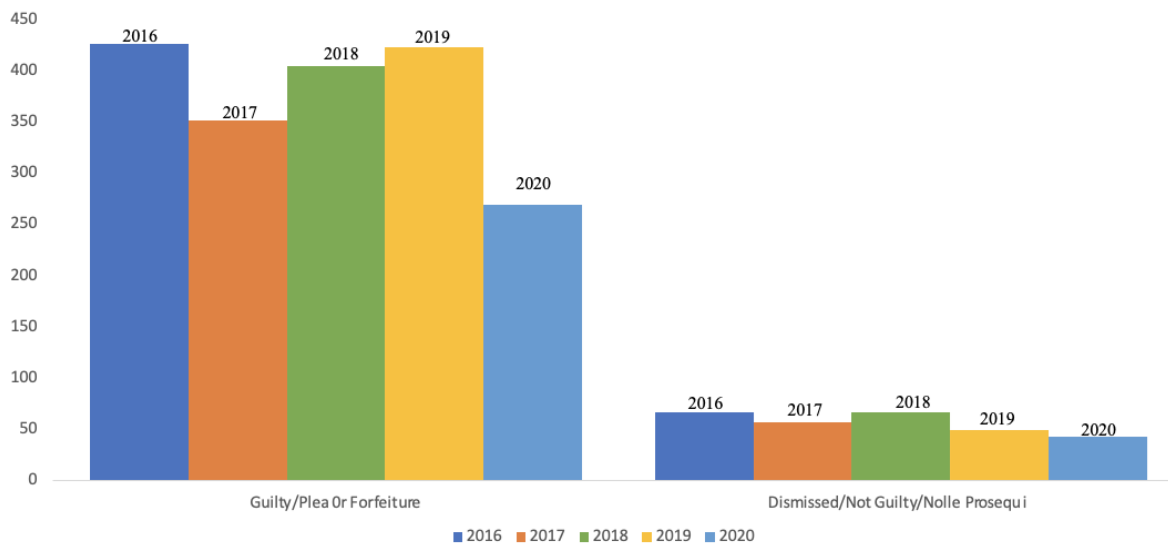
The most frequent case disposition is guilty, forfeiture, and pled guilty. Table 3 shows the primary disposition of all cases over the five years. From 2016-2020, the average guilty rate was 87% guilty, with a 90% rate in 2019 and 86% in 2020. The slight difference in 2019 and 2020 is likely pandemic related.

Table 3. SC Litter and Illegal Dumping Case Disposition 2016-2020

DISPOSITION	2016	2017	2018	2019	2020
Guilty	170	103	116	117	60
Forfeiture / Criminal Traffic	161	173	211	230	155
Pled Guilty	96	76	78	77	55
Not Guilty	36	26	28	16	13
Dismissed/Nolle Prosequi	24	26	34	30	28
Transferred	4	4	1		2
No Info/Active					1
Traffic	3	1	2	2	
Sealed			2	2	

Figure 5 shows the difference between guilty, guilty plea, or forfeiture and cases dismissed, not guilty, or Nolle Prosequi. The not-guilty disposition decreased each year by 37% between 2016 and 2020. The dismissed number remained relatively consistent from year to year between 2016-2020.

Figure 5. SC Disposition Guilty Verdict Versus Dismissed or Not Guilty, All Cases 2016-2020



The penalty associated with the statute provides the penalty with a fine and community service. Instead of paying the monetary fine imposed for a violation of this section, the court may direct the substitution of additional litter-gathering labor or another form of community service.

PalmettoPride, in partnership with the South Carolina Litter Control Association, promotes a “Zero Tolerance for Litter” campaign every year. The campaign encourages law enforcement agencies to target littering and illegal dumping, including uncovered loads. The campaign's outcome seeks to increase awareness of littering and illegal dumping. The campaign may be conducted on any three days throughout the entire state. Table 4 shares data, including the number of tickets, number of warnings issued, and fines collected. The Zero Tolerance Report also contained the number of violations recorded on camera, with 268 reported in 2019 and 373 reported in 2020.

Table 4. Zero Tolerance Campaign Quarterly Report Data 2019-2020.

	2019 STATE	2020 STATE	2019 COUNTY MUNICIPAL	2020 COUNTY MUNICIPAL
Litter > 15 pounds	230	112	152	134
Illegal Dumping > 15 pounds	242	16	110	81
Illegal Dumping > 15-500 pounds	24	27	127	191
Illegal Dumping > 500 pounds	2	24*	72	1
Warnings Issued	254	216	247	307
Fines Collected	\$75,974	\$39,767	\$32,249	\$37,096

* All Aiken County

QUALITATIVE ANALYSIS

Methodology and Emerging Themes

The qualitative component of this study involved gathering data through semi-structured interviews. PalmettoPride representatives shared information about the purpose of the research with individuals, agencies, and organizations engaged in litter and illegal dumping enforcement in South Carolina to identify interview participants.

The participants represented individuals from different levels of the judicial process dealing with litter and illegal dumping. The individuals were from rural, suburban, and urban settings representing jurisdictions with populations from under 5,000 to over 523,000 and representatives from local and county government and statewide agencies.

Data was gathered from the state, county, and local-level law enforcement and judicial officials during 30- 60-minute

interviews. To delve deeply into the enforcement challenges, no direct quotes were attributed to a specific person without consent, and interviews were randomly assigned a code for reporting purposes. A similar set of questions was used for each group of interview participants but customized depending on jurisdiction and roles as an officer, supervisor, or judge. Questions included in the Appendix were adapted to match the interviewee's role. The interviews sought to identify attitudes, behaviors, experiences, and influences on litter law enforcement in their geographic location and perspective on litter, illegal dumping, and the enforcement process.

The researcher used statutes and case disposition data to provide a framework for the interviews and to understand the case disposition data. The participants' responses to open-ended questions were coded to identify terms and concepts. From the keywords, specific themes emerged from the interviews.

Interview Participants

- State forest official
- County enforcement supervisor
- Local law enforcement
- Local code enforcement
- County code enforcement

The emerging themes are listed from the narrowest perspectives:

- Challenging and Conflicting Public Policy
- Fostering Political Will
- Determining Consequences: Ticketing, Community Service, and Procedures
- Addressing a Lack of Education, Training, and Increasing Public Awareness
- Using Technology to Improve Enforcement
- Tackling Operational Issues with Waste Management Services

Challenging and Conflicting Public Policy

The consensus of participants is that the state has a litter and illegal dumping problem. The participants agreed that the 2018 change in public policy to streamline the enforcement process and adopt new legislation was beneficial. Participants described different enforcement approaches for handling littering and dumping and challenges related to policy decisions, and the need to educate the legislators on why changes were needed in the fine structure and changes in policies related to dumping connected to hunting. Interview participants identified several public policy issues that affect the litter law enforcement process:



- Success in reducing the complexity of statutes
- Certification status
- Maintaining the issue as a state priority
- Need for additional officers

While all interviewees agreed that littering and illegal dumping are similar, they all explained the differences regarding weight and littering being more likely to occur while driving and illegal dumping while stopped. The officers experienced different techniques needed to investigate and prevent illegal dumping. Participant 5 stated the need to explain the differences in the terms to state legislators when working on updating the state laws and the need for ongoing discussion with community leaders to explain the differences. All participants stated that the current statutes using weights help to clarify the

difference between litter and illegal dumping but added that the complexity of the enforcement process still is misunderstood by most people not directly involved.

All participants expressed praise for the current statutes.

The officers were able to state the different provisions of the statutes with some ease and focused their conversations on enforcement methods which reflects well on the existing public policy. All participants also supported the penalty provisions of a fine and community service with flexibility for offenders to submit a cash bond in lieu of immediate court appearance in litter control prosecutions. The option for additional community service hours was mentioned favorably by all. Three participants expressed support for enhanced sentences for repeat offenders or the suspension of an offender's license for failure to comply with a summons for litter violation. The participants overwhelmingly support the current statute, which may be in part due to the involvement of officers in the public policy review process.

An issue of public policy concern involves the certification status of officers. A frequent comment by those interviewed and surveyed referred to Class 3 versus Class 1 status, with Participant 1 clarifying, *"the classification level makes a difference when trying to stop a litterer."*



Participant 2 further explained the challenges stating, *"If I see somebody going down the road, and they throw something out, or they're losing something out of the back of the vehicle because I'm not considered a law enforcement officer under South Carolina state law, I do not have pullover power. So, I have to either follow them and hopefully, they stop somewhere within the borders of the County. And then write him a ticket. Or I have in the past got the tag number and then go find a deputy and have the deputy run it."*

According to Participant 5, changes have been made to academy training, and different training options are becoming available to better match job duties with the training needed. The public policy ramification of this process seems to have the unintended consequences of the possibility of an officer not being able to stop an offender or additional work by others to enforce the state or local laws.

Participants expressed challenges about the priority or importance of litter and illegal dumping and that the priority seems to change frequently. Participant 5 commented, *"to solve the litter and illegal dumping problem, we need to make it a priority, and we need consistency and convenience."*

The lack of consistency in funding officers was mentioned by 85% of interviewees.

The number of officers appears to be impacted by the public policy decisions relating to the classification of officers and the financial commitment for additional personnel.

► Fostering Political Will

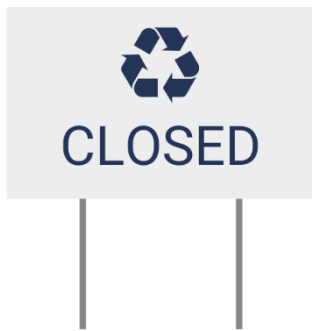
According to participants, no decision-makers have directly expressed support for littering or illegal dumping behavior, but the participants did frequently state that the public official's decisions on procedures and policies may exacerbate the problem. Whether rural, suburban, urban, or state, participants shared one or more challenges connected to a lack of political will. Interview participants identified the following specific challenges:

- Number and relocation of officers
- Availability of proper waste solid facilities
- Lack of a coordinated approach

Several officers expressed challenges with the number of officers and issues when officers get moved from litter and illegal dumping duties to other jobs. Most officers interviewed and surveyed expressed concern over the lack of adequate staff. Participant 2 stated, *"we've got over 100 square miles to control. We can't be everywhere."* One participant said, *"there are safety issues when one officer is out doing an inspection, and no one else is around to support. We have to rely on communication technology working if we need help, but partner enforcement agencies may be miles away or unavailable."* Another concern Participant 3 explained, *"the sheriff moved one of our officers because he needed someone who had Class 3 credentials even though they did not want a new assignment. The sheriff said it would be easier for us to find someone new, which really is not true."* The issues are different but similar in that the lack of staff may be either a funding or credentials issue or both.



The lack of availability to open solid waste or recycling facilities was mentioned as a contributing factor to illegal dumping. Officers and the magistrate all described cases where dumping occurred when facilities were closed. The political will to create a coordinated waste management approach appears to be lacking. Enforcement is essential in dealing with improper disposal of all types of waste. Participant



5 stated the centers are available but *"For most, they have to travel 10 miles or 12 miles; it just depends on the route. This is a problem now. They're closed on Tuesdays and Thursdays and a half a day on Sundays. And pretty much when I'll find my trash is on Tuesday mornings or late afternoon because they went to the center and the center is closed. And they're not going to take it back home. The access is there, and it's fairly reasonable to get there and dump it. But it's just, you know, I went, and it was closed. I stopped on the road and chunked it out."*

Other participants voiced similar situations with the facilities. Participant 4 stated, *"littering cases often involve illegal dumping where somebody didn't quite make it to the landfill."*

Overall, the interviewees are frustrated that they cannot solve the problem.

The link exists between littering and dumping behaviors and the lack of convenience to dispose of waste properly, but the political will may also be lacking to prioritize proper waste disposal.

The decision on where litter and illegal dumping enforcement is placed within the county government also impacts successful enforcement. Participant 2 stated, *"the previous sheriff didn't give any support. He wasn't willing to let you run a license plate."* Participant 2 commented, *"no one was doing any kind of litter enforcement for years."* The officer continued that the lack of consistently having officers created many issues about public awareness. Participant 3 stated, *"we operate as a separate division from the sheriff's office"* and added as this system *"gives us opportunities to partner with other entities and the community with the support of county administration."* The effectiveness of enforcement may be enhanced or hindered due to the physical location within the government's organizational structure.

► Determining Consequences: Ticketing, Community Service, and Procedures

A critical element to maintaining a clean environment is enforcement. Participants shared a variety of responses on what is most and least effective, including:

- Emphasis on compliance, especially to resolve illegal dumping
- Success in changing fine structure and simplifying the enforcement process

- Higher fines for littering were not viewed favorably
- Flexibility in community service implementation
- Partnering

Based on interviews and survey responses, compliance is a priority for enforcement, especially when addressing illegal dumping. The officers expressed that the same level of compliance is not an easy option with litterers. Still, all participants said that requiring community service may have a positive impact on reducing future littering by those individuals. Of officers interviewed and surveyed, over 60% investigate littering, and 48% investigate illegal dumping daily. Approximately 63% believe ticketing illegal dumpers have short- or long-term positive benefits, and 81% believe ticketing a litterer impacts the appearance of South Carolina roadways.



All participants stated that higher fines are not considered effective and support the current fine structure adopted in 2018.

Participant 5 provided context to the existing fine structure, *"We were active in 2018 getting laws changed here in South Carolina because what we call window trash like a cigarette butt or candy wrap or whatever, you throw that out the window, and the fine was \$465. Getting the average patrol officer to pull somebody over and charge them for that fine wasn't happening. It was a ridiculous fine. So, we got a litter law change so that the fine can go down to \$187, and we're seeing a little increase in people writing them tickets now."*

Participant 5 added that during discussions with legislators they seemed to favor the higher fines. During the discussion the officer addressed the legislators stating officers may be hesitant to write a litter ticket for high fine because of the small size of an item.

Participant 3 added another issue officers faced when handling cases. *"Before 2018, courts would cut back on the fine, and it was discouraging. Now, most of our magistrates are they're willing to give the fines and require them to do the community service cleanup for the litter. The community service has incentivized some of our officers. They seem to be more willing to write the citations because they know the offenders are not gonna get a slap on the wrist and just walk away. I mean, the sentence is a deterrent. I mean, I wouldn't want to pay that fine and do community service."*

A magistrate interviewed, who started after the 2018 change, stated the current system is simple to implement with the fine imposed and community service required. Overwhelming, the current statute received positive comments on the penalties for littering and illegal dumping offenses.

Participants indicated that “window litter,” as described by Participant 5, was rarely witnessed, but uncovered loads were more frequently observed. Participant 4 stated, *“littering violations are often attached to criminal cases; for example, they throw something out of the car before they are stopped. The officer will add a littering charge to another offense.”* Participant 4 added that in these cases, the offender receives penalties for littering and other offense if convicted. Participant 3 shared tarp giveaways as an incentive to encourage covering loads to reduce litter near the landfill. While challenging, the interviewees all expressed a desire to use enforcement and education efforts to reduce all types of litter.

All participants favorably mentioned community service.



The success of community service appears to be based on flexibility. Participant 3 explained their jurisdictions process, *“The offenders have flexibility. It is done on their own time schedule. The courts will give them a time limit to have their hours completed. They come to us, and we assign them a road or highway. The way we break it down is that for every mile stretch of road on both sides of the road that they cleaned up, they receive five hours. To verify that they go out and pick up the road, bag what they picked up, and leave the bags on the side of the road.”*

Participant 3 continued that they count the number of bags and visually inspect the area after the individual finishes the assignment and then reports to the court. Participant 3 stated that the system works effectively, and *“our roads are visibly cleaner.”* The magistrate added that when an offender did not meet the requirements, the individual served their time in jail, and *“the message seemed to get out that doing community service is better than being in jail.”*

Participant 4 stated, *“You have eight hours mandatorily for a first offense, 16 hours for a second, and 24 hours for a subsequent. I could also suspend a portion of the monetary fines and convert that to community service. I can look at what the case is and sentence accordingly.”* Additional information on community service management would be beneficial, but the community service system works effectively in the jurisdictions interviewed.

All of the officers mentioned the need for partnerships between law enforcement entities.

As previously mentioned, the code enforcement officer, due to their classification level, must work closely with the sheriff or state agencies to conduct some enforcement operations. Participant 5 said one county code enforcement officer partnered one day a week with DNR in order to resolve the operational issues. The participant stated the code enforcement officer monitors an intersection near a forested area and, using a video camera, and would observe individuals *"to see if they're throwing trash out and they've made a bunch of cases doing that."* Participant 2 shared a case partnering with DNR *"I caught this guy coming by with a speedboat on the trailer. I go down the road, and the boat is dumped on the shoulder. I contacted DNR. The boat hadn't been registered in years, but I gave the camera card showing the truck, and DNR identified the vehicle."* As a result, DNR ticketed the vehicle owner for dumping. Over 80% of officers interviewed mentioned the South Carolina Litter Control Association (SCLCA) efforts to promote litter enforcement and provide opportunities for sharing and learning from each other.



The participants did state frustration with providing evidence in some cases. The use of cameras received both positive and negative comments. Participant 2 shared a case, *"I deployed cameras and caught a gentleman dumping tires. There were roughly 70 to 80 tires or probably 1000 pounds. I could only prove that he dumped three because the judge could see him with those tires but not the others in the photos."*

Participant 2 stated that if the magistrate had connected the offender with the dumping of all the tires, the fine would have been higher, and possibly the vehicle involved could have been seized. Based on comments by the officers, the positioning of the cameras and how the officer presents the case may make a significant difference in the case outcomes.

► Addressing a Lack of Education and Training, and Increasing Public Awareness

All participants mentioned education, training, and public awareness as solutions to littering, illegal dumping, and proper waste management issues. This included:

- Educate the public on littering and illegal dumping impacts
- Public involvement
- Train individuals at all levels of the enforcement process

- Increase public awareness campaign

The majority of participants mentioned educating the public on the impacts of littering and illegal dumping. The most frequently mentioned was educating youth.

Participant 3 stated, *"education for the younger crowd. Because unfortunately, most adults are already set in their ways. It's going to be very difficult to change them. If you start younger, teach in middle schools and elementary schools. Teach them we need to take care of our environment, not trash everything."*



Participant 3 also related a story, *"I stumbled over somebody that threw out a cigarette butt out the window, and they had a child in the backseat. The youngster said I told you not to do that."* Participant 5 also mentioned schools but said the efforts need to be more expansive than just schools as *"people have got to buy into this."*

Similarly, comments from participants shared the need for broader public involvement. Participant 3 stated, *"with over 100 square miles to patrol, we need everyone to step up,"* and *"the biggest thing is just having the general public involved."* Participant 4 mentioned adding incentive programs like Crime Stoppers to help catch dumpers.

More training for officers was a frequently mentioned need.

Participant 4 suggested training officers on court procedures and presenting cases to the magistrate. Participant 4 added, *"officers prosecute their cases at this court level. It takes experience. I don't know how much courtroom training they get, but case presentation of evidence can make a difference. I don't think I've ever met somebody who has nothing else to learn."* The idea of continuing annual or advanced training involving all parts of the enforcement system and the public was mentioned. Participant 1 stated that officers tend to group together, but it would be good to have opportunities to meet with decision-makers and the general public.

The general public awareness of the environmental and financial impacts of litter and illegal dumping was also a topic of conversation. Participant 4 stated, *"I've seen some billboards. Keep our state clean, and then you have the Adopt-a-Highway program."* Participant 3 asked, *"how do we get traction for the Litter Trashes Everyone message."* Participants suggested consistency and encouraged a message that could be used in presentations, on vehicles, and with media. Participants also suggested education events such as tarp giveaways or similar opportunities to share information about proper disposal.

► Using Technology to Improve Enforcement

Technology discussions included using cameras and drones and designing a database to identify trends and track success.

- Cameras for litter prevention and enforcement
- Clarifying the use of technology for evidence
- Database of reporting system

Participants shared technology success stories but also some frustrations. Participant 4 stated, *"if you're on camera, you're less likely to do something illegal. How can we use technology as deterrents as much as for gathering evidence."* Participant 3 added, *"our biggest advantage in way of getting them on camera. Surprisingly everybody wants to go all high tech, and we go basically low tech. We set up trail cameras in dark sites. And you catch them on video."* Participant 2 mentioned a need for either a policy change or more transparent procedures for presenting camera evidence to obtain convictions.

Participant 3 also said, *"using the litter hotline where the public can call in and leave us tips. We are looking at some incentives to the people to report, and once we're able to prosecute the case, they are rewarded."*



Access to data on ticketing is a complex process. Accessible information would be beneficial for public policy consideration and officers' tracking of active cases. The technology mentioned included a statewide reporting system for ticketing detail. Automating records could assist in monitoring the status of where cases are in the system. The data on the number of tickets issued and individuals ticketed was cited as valuable to determine the effectiveness of enforcement and possibly catching repeat offenders.

► Tackling Operational Issues with Waste Management Services

Participants mentioned that inconsistency in waste management services and availability of recycling or waste centers leads to intentional and unintentional littering and illegal dumping.

- Operation of centers
- Inconsistent waste services

All participants mentioned closed centers or the distance to centers in connection with littering or illegal dumping. Participant 4 stated, *"The cases from code enforcement are the ones where the drop-off site was closed, so people put their bags on the outside of the gate."* Participant 5 stated, *"I'll find trash on Tuesday mornings or late afternoon because they went to the recycling center and the center was closed."* The access to proper disposal sites and their convenience impact illegal dumping.



Participant 2 shared a story of a trucker that dumped a pallet of juice boxes. The officer shared that the facility where the driver was to drop off the boxes refused the pallet, and *"the driver pulled off on the side of the road shoved it off the back of the trailer."* Participant 2 used a packing slip to identify the driver, who commented that he could not find a place to dispose of the boxes when the delivery location refused to accept them. The driver paid an \$800 ticket for dumping. Access to waste disposal for this situation is different but still points out the attitude that it costs to dispose of properly, but it may cost more for dumping

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The quantitative data indicates a high percentage of guilty dispositions. The 2018 amendment created some challenges in a direct comparison of ticketing practices along with the 2020 COVID pandemic disrupting court and community service implementation. Based on the case data available, the research cannot conclude that lower fines resulted in a higher number of tickets issued or less littering or illegal dumping; however, the interviews and surveys conducted show overwhelming support for the current fine structure with lower fines and required community service.

The interviews provided insight into the day-to-day operation, enforcement process gaps, and improvement opportunities. While the interview participants represented different parts of the enforcement process as officers, supervisors, and magistrates, all echoed the challenges in enforcing littering and illegal dumping laws, whether at the state or local level.

Specific challenges identified both through the data and participant interviews include:

- Inconsistent litter enforcement statewide and within some jurisdictions.
- Improvements in ticketing procedures after the 2018 amendment.
- The need for additional waste management services or expanded operations.
- Insufficient funding and lack of staffing to support litter and illegal dumping enforcement.
- Low level of understanding by the general public of the impacts and costs of littering and illegal dumping.
- Challenges with the officer classification system cause some inefficiencies in procedures.
- The value of partnership to enforce litter and illegal dumping violations.

Recommendations



Continue to promote littering and illegal dumping law enforcement in the South Carolina.

- Encourage all counties to participate in the annual Zero Tolerance campaign and proactively participate in enforcement activities. Only 36% of counties reported between 2019-2021.



Review enforcement authority at different officer classification levels.

- Review options for all officers to pursue vehicles witnessed in a littering violation and conduct related vehicle research.



Develop enforcement data collection process to support prevention and compliance.

- Use technology to gather data for littering and illegal dumping offenses to ease reporting.
- Investigate options to integrate hotline data into the data gathering and sharing process.
- Create best practices for using cameras as evidence in court cases.



Expand Education, Public Awareness, and Community Engagement.

- Expand awareness campaigns on littering and illegal dumping, including the laws and penalties and the impact of litter on the community and environment — neighborhoods, land, and waterways.
- Conduct training and education using a systems approach for enforcement officers and judicial representatives to understand all aspects of dealing with cases, from investigation to sentencing and expanding the training opportunities to involve members of judicial system in training.
- Support training for officers annually, including but not limited to presenting court cases.





Improve waste management policies and practices to reduce illegal dumping and littering.

- Identify policies and practices causing unintentional or intentional littering and illegal dumping and determine ways to increase opportunities for proper disposal.
- Explore policies to provide accessible and affordable waste disposal and recycling and determine ways to increase opportunities for proper disposal.



APPENDICES

Appendix A

South Carolina Statutes Researched

Code of Laws, Crimes and Offenses, Section 16-11-700

Code of Laws, Motor Vehicles, Section 56-5-4100

Code of Laws, Motor Vehicles, Section 56-5-4110

Code of Laws, Motor Vehicles, Section 56-25-20

Code of Laws, Environmental Protection and Conservation, Section 48-53-10

Code of Laws, Health, Section 44-96-40

Appendix B

Litter and Illegal Dumping Cases Filed by County 2016-2020

Note: Data from State of South Carolina Judicial Branch Court Administration (SCJB)

COUNTY	CUMULATIVE 2016-2020	2016	2017	2018	2019	2020
Abbeville	9	2	2	4	1	0
Aiken	111	41	24	17	19	10
Allendale	2	2	0	0	0	0
Anderson	68	14	13	13	12	16
Bamberg	47	12	4	14	7	10
Barnwell	4	1	1	1	1	0
Beaufort	57	13	7	21	11	5
Berkeley	40	8	7	14	5	6
Calhoun	7	1	4	2	0	0
Charleston	51	14	5	17	10	5
Cherokee	11	1	3	1	6	0
Chester	8	4	0	0	4	0
Chesterfield	16	3	5	7	0	1
Clarendon	4	0	2	1	1	0
Colleton	6	0	1	2	0	3
Darlington	17	2	5	3	3	4
Dillon	6	3	2	1	0	0
Dorchester	28	4	9	6	7	2
Edgefield	20	4	13	1	2	0
Fairfield	4	1	2	0	1	0
Florence	42	11	10	14	4	3
Georgetown	16	4	2	1	3	6
Greenville	242	60	40	43	53	46
Greenwood	25	4	10	6	4	1
Hampton	1	0	0	0	1	0
Horry	176	41	36	45	37	17
Jasper	25	5	4	10	3	3
Kershaw	24	3	3	2	4	12
Lancaster	26	8	6	3	8	1
Laurens	63	11	9	12	20	11

Lee	5	0	3	1	1	0
Lexington	116	33	18	22	30	13
Marion	7	2	2	1	0	2
Marlboro	6	1	0	3	2	0
McCormick	4	1	1	0	1	1
Newberry	44	5	9	9	13	8
Oconee	21	5	8	3	2	3
Orangeburg	11	5	2	1	0	3
Pickens	33	9	11	6	6	1
Richland	127	29	17	30	43	8
Saluda	11	2	1	4	0	4
Spartanburg	502	81	79	117	127	98
Sumter	29	5	5	6	10	3
Union	13	2	6	0	1	4
Williamsburg	5	1	3	0	1	0
York	73	36	16	8	8	5
	2163	494	410	472	472	315

Appendix C

Sample Interview Questions for Participant

- Please share your involvement with litter law enforcement.
- How do you define litter and illegal dumping?
- How frequently do you witness littering or find an illegal dump site?
- What factors are involved in your decision to issue a ticket or citation?
- Which action do you take most frequently ticketing, warning, and remediation?
- How do fines impact your decision on ticketing?
- Does the judicial system/process impact your decision to issue a ticket?
- What are the major obstacles to stopping illegal dumping and/or litterers?
- Have you noticed patterns with litter and littering? Are you familiar with hotspots?
- What resources are needed?
- Do you have suggestions on innovations or ways to reduce litter?

Appendix D

Summary by Themes

THEME	QUANTITATIVE SUMMARY	QUALITATIVE SUMMARY
Public Policy	<ul style="list-style-type: none"> • 6 Statutes and subsections • Amended legislation 2018 	<ul style="list-style-type: none"> • Success in changing statutes • Differences between littering and dumping can still be a challenge • Jurisdictional differences • Officer classification and ability to issue tickets
Political Will	<ul style="list-style-type: none"> • Level of cases statewide • Percentage of cases per county 	<ul style="list-style-type: none"> • Desire to be reelected • Officers focus on compliance to reduce writing tickets • Coordinated approach in
Consequences: Tickets and Fines	<ul style="list-style-type: none"> • Inconsistency across different jurisdictions • Questions about case disposition matching statutes 	<ul style="list-style-type: none"> • Complex enforcement process • Higher fines not viewed favorably • Emphasis on compliance, especially to resolve dumping • Challenges with fine and community service not being implemented • Witnessing littering is uncommon • Simplify ticketing process in some jurisdictions
Education, Training, and Public Awareness		<ul style="list-style-type: none"> • Educate the public on litter and dumping impacts • Train individuals at all levels of the enforcement process • More widely distributed public awareness campaign • Establish an offender education program • Short-term residents lack community connections
Technology	<ul style="list-style-type: none"> • Data management system 	<ul style="list-style-type: none"> • Increase the use and type of cameras for litter and dumping enforcement • Assessable database and protocol to collect data

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Research and Data Limitations

- Case data is limited to tickets filed under state statutes in each state; therefore, no data is included for local ordinances. Because each local ordinance would need to be searched for on its own, making a state-wide data request for this information would take time and effort and would likely be challenging to obtain due to the current reporting process for litter and illegal dumping violations and the lack of a centralized data center.
- The case data only includes public cases, which would not include those removed under the PA Clean Slate program and possible cases for juvenile defendants.
- PA state statutes do not differentiate between litter and illegal dumping, so there is no way to count how many were dumping and how many were littering. Enforcement officers and judges may treat these two types of activities differently. Additionally, as noted in the Pennsylvania report, one of the statutes may include cases that may not be litter or illegal dumping related, but state agencies frequently cite the statute regarding these issues.
- Keep Pennsylvania Beautiful included §18.7506 in the records request to AOPC because of its use in conjunction with illegal dumping cameras. The researcher did not have information to isolate litter and illegal dumping from other uses of this general statute. The total cases likely include other violations authorized under the statute.
- South Carolina data includes data requested from state courts and supplemented by reports to PalmettoPride.
- Although every effort was made to include a wide variety of enforcement partners in the interview and survey portion, those who did respond do not necessarily constitute the opinions of all officers, judges, or prosecutors in Pennsylvania and South Carolina.