RESEARCH

Low Impact, Wrong Direction: Why São Paulo State Drug Policy Is Inefficient and Ineffective

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This paper is the result of the study *Apreensões de drogas no estado de São Paulo: Um raio-x das apreensões de drogas segundo ocorrências e massa* [Drug Seizures in the State of São Paulo: An In-Depth View of Drug Seizures Broken Down by Number of Incidents and Drug Amounts], conducted by *Instituto Sou da Paz* to encourage a discussion about Brazil's drug policy. The study focuses on drug incidents in the state of São Paulo, the richest and most populous in Brazil, which accounts for 28% of all drug incidents in the country. São Paulo is also the state with the largest police force—about 100,000 *policiais militares* [ostensible police officers] and 30,000 *policiais civis* [investigative police officers]. São Paulo law enforcement seized over 100 MT [metric tons] of drugs in the state in 2015. In 2016, drug seizures totaled over 160 MT.[1] Data on drug seizures in Brazil are still scarce. It is crucial to have those data to assess the performance of the institutions comprising the criminal justice system as far as drugs are concerned. Based on statistical resources, we found that a large number of drug incidents involve small amounts of drugs, whereas large seizures account for a significant share of the total amount of drugs seized. By comparing those data, we show police resources are largely used in incidents that have no impact on the drug trafficking chain and in which only drug users and small drug dealers are charged.

Keywords: Drug seizures; drug policy; policing; violence; illicit markets

Introduction

Brazil is a continent-sized country, with 8.5 million square kilometers. The IBGE [*Instituto Brasileiro de Geografia e Estatística*, or Brazilian Institute of Geography and Statistics] estimates Brazil has 207 million inhabitants.[2] Brazil shares its land borders—over 15 thousand kilometers—with major marijuana and cocaine producers, such as Paraguay, Peru, Bolivia, and Colombia.

It is a federative republic organized in 26 states and one federal district; as a result, each of the 27 federal units has at least two law enforcement agencies (LEAs), the PM [*Polícia Militar*] and the PC [*Polícia Civil*], which share law enforcement tasks. The former has a larger force that wears a uniform; it is in charge of preventive patrolling and is the first to respond to calls for service. In turn, the latter is responsible for investigating and clarifying crimes, as well as gathering evidence before court proceedings. In addition, Brazil has a *Polícia Federal* [Federal Police], a *Polícia Rodoviária Federal* [Federal Highway Police], and some municipal police agencies [often referred to as GMs, or *Guardas Municipais*], which usually have less comprehensive powers to protect public property.

Enacted in 2006, the drug legislation in force[3] in Brazil introduced some important changes regarding drug users, who have not been subject to compulsory hospitalization for treatment since then. In addition,

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[1] According to data published by the SSP-SP [*Secretaria de Segurança Pública do Estado de São Paulo*, or São Paulo State Department of Law Enforcement].

[2] ftp://ftp.ibge.gov.br/Estimativas_de_Populacao/Estimativas_2017/estimativa_TCU_2017_20181108.pdf.

[3] Law 11.343, dated 2006. Full text available at http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2006/lei/l11343.htm.

drug users caught carrying drugs for personal use are no longer liable to imprisonment. Therefore, possession of drugs for personal use or drug use are no longer punishable by imprisonment even though they are still considered criminal offenses and, as such, carry punishments such as warnings, community service, and compulsory participation in educational activities (subsections I–III of Section 28 of the Anti-Drug Act).

As far as drug trafficking is concerned, the main changes introduced by the Anti-Drug Act were the criminalization of certain acts (financing, aiding and abetting, and transporting drugs on aircraft and vessels) and the imposition of harsher punishments for drug trafficking, the minimum sentence for which was raised from three to five years in prison.[4] However, the maximum term, 15 years, was maintained. That is a harsh sentence by Brazilian standards considering the term of imprisonment for murder of the second degree is from 6 to 20 years.[5] In addition, drug trafficking became a heinous-like crime. In practice, this prevents certain benefits, such as release on bail, from being granted and requires a convict serve a longer portion of his or her prison sentence before being eligible for transfer to less strict punishments (similar to intermittent imprisonment or home detention in the United States). The connection between the changes introduced by the 2006 law and incarceration are explained by Machado (2019).

It is worth noting RE [*Recurso Extraordinário*, or Appeal to the Brazilian Federal Supreme Court] 635.659],[6] which the São Paulo Public Defender's Office filed with the STF [*Supremo Tribunal Federal*, or Brazilian Federal Supreme Court] in 2011 to request Section 28 of the Anti-Drug Act be ruled unconstitutional, is currently pending decision. If it is upheld, possession of drugs for personal use will cease to be a criminal offense.

The most noticeable effect of the 2006 law was a rise in the number of people imprisoned for drug trafficking, from 47,000 in 2006 to 176,691 in June 2016, according to data from the DPN [*Departamento Penitenciário Nacional*, or Brazilian National Prison Department] (2016: 42). Some authors argue that rise occurred because the law now makes it possible to charge more drug users as drug traffickers (due to a lack of objective criteria to distinguish between both categories), whereas others say it is more closely connected with an expansion of the illegal drug market. Concerning the first hypothesis, Zaluar (2004) says,

> Due to our inquisitorial traditions, the criminalization of certain substances, such as marijuana and cocaine, gave the police tremendous power. It is police officers who decide who will or will not be prosecuted for mere drug use or for drug trafficking because they are the ones that present evidence and initiate proceedings. (p. 88)

Some studies attribute that rise to the development of the illegal drug market, thus ratifying the second hypothesis mentioned above. For example, Hirata and Grillo (2019) point out the development of drug-trafficking organizations and describe how they have expanded in different ways in Rio in Janeiro and São Paulo over the last few decades. Following the same line of reasoning, Misse (2007) traces the history of the expansion of drug trafficking—at the heart of the illicit activities emerging in recent decades—by describing the gradual growth of this market.

However, 277,092[7] police incidents involving drugs were reported in Brazil in 2016, requiring different types of measures and procedures from all the institutions comprising the justice system—LEAs, courts, and prisons. DPN data (2017) show drug-trafficking cases account for 28% of the entire prison population. This trend is more clearly observed among specific groups. For example, most female convicts (62%) are serving sentences for drug trafficking. Among adolescents, drug trafficking is the second most frequent reason for imprisonment (24%).[8]

Recent studies show Brazil's role in the global drug market has increased in importance. A text we studied, Cohen (2019), explores the roles of Brazil and Africa in that market. There are no data on the amount of

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[4] The minimum sentence was increased from three to five years. As Machado et al. (2019) points out, this created a restriction on imposing noncustodial sanctions on people involved in drug trafficking, which is only possible for crimes carrying sentences of up to four years.

[5] Sentence for homicide stipulated by Section 121 of the Brazilian Penal Code. Executive Order 2.848/1940.

[6] For information about the processing of this Appeal to the STF, refer to https://bit.ly/2tFHoeq.

[7] According to the Source: 11º Anuário do Fórum Brasileiro de Segurança Pública, p. 51. Available at http://www.forumseguranca.org.br/wp-content/uploads/2017/12/ANUARIO_11_2017.pdf.

[8] The SINASE report published by the Brazilian Federal Government's Ministry of Human Rights in 2017 states 24,628 adolescents and young people were in custody (including commitment, determinate commitment and probation) in Brazil in 2014. Report available at https://bit.ly/2NccsdJ [Accessed on 04/23/2018].

drugs seized nationwide, but the number of drug seizures in each state indicates this trend, as seen below. Nevertheless, it should be noted the size of the drug market cannot be determined from data on drug seizures, which reflect only the amount of drugs removed from circulation. In fact, it is impossible to infer the amount of those that remained on the market, evading seizure by authorities.

There are few regular nationwide surveys on drug use.[9] In any case, the federal government published in 2009 a survey showing marijuana as the most used illegal drug and a rise in drug use.

The Ministry of Justice's report 'Tráfico de Drogas e Constituição: um estudo jurídico-social do artigo 33 da Lei de Drogas e sua adequação aos princípios constitucionais penais' [Drug Trafficking and the Constitution: A Legal and Social Study of Section 33 of the Anti-Drug Law and its Adequacy to the Constitutional Principles of Criminal Law] points out the following data.

> The latest survey on the demand for drugs in Brazil, conducted in 2005, indicates cannabis (or marijuana) is the most commonly used illicit drug in the country—consumed by 8.8% of all drug users (lifetime use), up from a lifetime use of 6.9% in 2001. In turn, lifetime use of cocaine stood at 2.9% in 2005, up from 2.3% in 2001. However, those numbers are much lower than those recorded in developed countries, mainly the U.S. (Brazil 2009: 75–76)

This paper focuses on drug-related incidents in the state of São Paulo—the richest and most populous in Brazil, with 41.2 million inhabitants according to the 2010 census—which accounts for 28% of all drug-related incidents in the country.

São Paulo is also the state with the largest police force—about 100,000 *policiais militares* [ostensible police officers] and 30,000 *policiais civis* [investigative police officers]. São Paulo' LEAs seized over 100 MT of drugs in the state in 2015. In 2016, drug seizures totaled over 160 MT.[10]

We focused on São Paulo State data, presented below, because that state accounts for a large share of all drug-related incidents in Brazil.

Most of the data presented in this paper are part of the study[11] *Apreensões de drogas no estado de São Paulo: Um raio-x das apreensões de drogas segundo ocorrências e massa* [Drug Seizures in the State of São Paulo: An In-Depth View of Drug Seizures Broken Down by Number of Incidents and Drug Amounts], conducted by the authors for Instituto Sou da Paz,[12] with the support of the Open Society Foundations and published in May 2018.[13]

Methodology

Few Brazilian states, such as Rio Grande do Sul,[14] Santa Catarina,[15] Ceará,[16] and Rio de Janeiro report the number of drug seizures and the amount of drugs seized. The reason is that most federal units tally up those events in a simplistic manner by associating them with positive police productivity. Unfortunately, very few federal units publish data such as the amount of seized drugs regularly.

As a result, we structured this paper by systematizing data to provide a different view of the issue, from the perspective of the effectiveness and efficiency of anti-drug operations.

To conduct our study, we used data on drug trafficking, drug possession, and drug seizure incidents[17] since 2001, available on the SSP-SP's [*Secretaria da Segurança Pública do Estado de São Paulo*, or São Paulo State Department of Law Enforcement] website. In addition, we requested two other sets of data by using the Access to Information Act (Law 12.527/2011). The first set was the total amount of seized drugs broken

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[9] For more recent regional studies on cocaine, we recommend the paper "Assessing Cocaine Use Patterns in the Brazilian Capital by Wastewater-Based Epidemiology," conducted in the Federal District and published in the *International Journal of Environmental Analytical Chemistry*.

[10] According to data published by the SSP-SP.

[11] The full report in Portuguese can be accessed at http://www.soudapaz.org/upload/pdf/pesquisa_completa_drogas_sp.pdf.

[12] Instituto Sou da Paz is a Brazilian nongovernmental organization based in São Paulo in operation for almost 20 years. Its mission is to help develop public policies to reduce and prevent violence in Brazil.

[13] Published in an article running in the *Folha de São Paulo* newspaper on May 27, 2018. Available at https://www1.folha.uol.com.br/cotidiano/2018/05/pesquisa-traz-alerta-sobre-eficiencia-da-policia-contra-trafico.shtml.

[14] Available at http://www.ssp.rs.gov.br/indicadores-de-eficiencia.

[15] Available at http://portal.ssp.sc.gov.br/sspestatisticas.html.

[16] Available at http://www.sspds.ce.gov.br/estatisticas-2.

[17] Considering only police incidents in which drugs were seized (with no one involved).

Table 1: Discrepancy Between Drug Amounts Described in Data Aggregated by Police Precints and in Microdata for Period Between 2015 and 2017* (in g).

Type	Aggregate Base	Microdata	Discrepancy %
Cocaine	39,028,054	37,900,177	−3.0%
Crack	5,294,374	5,955,317	11.1%
Marijuana	372,808,659	354,501,588	−5.2%

Source: CAP [*Coordenadoria de Análise e Planejamento*, or Analysis and Planning Commission]/SSP-SP (Data aggregated by PP) and Microdata.
* Up to September.

down by police precincts[18] in the state of São Paulo, consolidated based on the *Sistema Estadual de Coleta de Estatísticas Criminais* [State Criminal Statistics Collection System], introduced by Resolution SSP 160.[19] The other set consisted of microdata (the most disaggregated data possible) on everyone identified in police reports about any type of drug seizure, along with the respective drug amount.[20] The data covered both adult and juvenile offenses.

The **Table 1** shows discrepancies between both sources even though we used a data correction algorithm. We calculated that discrepancy and included it in this paper to show the degree of accuracy of the procedures we used.

Just as in many parts of the world, countless types of drugs in different forms for use are seized in the state of São Paulo (e.g., synthetic drugs in the form of pills or injectable). To be able to analyze the data, we focused on the three most common types of drugs: marijuana, cocaine, and crack. Data on all others were excluded from our databases because they are not satisfactorily recorded in police reports, making it impossible to treat the data and correct any inconsistencies.

It should also be noted the source of data we used in this research did not allow us to identify and distinguish between different types and purity levels of the drugs. For example, the seized drugs may be either ready for use (often mixed with other substances) or in paste form (in the case of cocaine). We do not have many papers focusing only on the different purity levels of seized drugs, but we can point out Botelho et al. (2014), which analyzed 210 drug samples seized by the *Polícia Federal* in eight Brazilian regions between 2009 and 2012. The authors conclude over 50% of the samples contained no adulterants, consistently with cocaine paste traded internationally according to the research.

Presentation of Data

We found different types of drug-related incidents followed different trends in São Paulo. Whereas drug trafficking has increased gradually over the last 12 years, from 14,000 cases in 2004 to almost 50,000 in 2017, the number of incidents of drug possession for use has risen less steeply and less steadily. The number of drug seizures without arrest (cases in which the police find drugs but are unable to associate them with anyone) (Source: Coordenadoria de Planejamento e Análise, Secretaria da Segurança Pública de São Paulo 2005) remained stable, never exceeding 5,000 per year, and accounted for about 6% of all drug-related incidents throughout the time series (as shown in **Chart 1**).

However, we segmented the state data into three geographic regions—the capital [the city of São Paulo], Greater São Paulo (GSP), and the interior—given the size of the state of São Paulo, in which each area has

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[18] Police precincts or police stations are government offices in which a chief of police oversees judicial police activities. They may be responsible for a territorial area or specialize in serving a specific segment of the population (e.g., police stations assisting women) or handling a specific type of crime (e.g., police stations investigating murder).

[19] Available at https://www.imprensaoficial.com.br/DO/BuscaDO2001Documento_11_4.aspx?link=/2001/executivo%2520secao%2520i/maio/10/pag_0006_656A2BPFQURIFe692CUMH94NSQ0.pdf&pagina=6&data=10/05/2001&caderno=Executivo%20I&paginaordenacao=10006 [Accessed on 04/15/2018].

[20] The first stage is the production of the police report (from which we obtained the microdata); further information can be added later, such as the expert report about the drugs (produced by the Scientific Police.) We consolidated the aggregate data we received based on information from expert reports. We considered the aggregate data more reliable in view of the circumstances in which each type of report is produced and the moment at which the information from both data sources (aggregate data and microdata) is obtained. Therefore, we used the aggregate data as quality indicators for the procedures we performed.

specific social and demographic features. The purpose was to identify how those peculiarities are reflected in the field of law enforcement as far as drug-related incidents are concerned.

Charts 2 and **3** show most drug trafficking and drug possession incidents occurred in the Interior. Nevertheless, we observed each type of incident followed a different trend. Drug-trafficking incidents rose in number in all regions, mainly in the Interior in view of the large number of incidents.

On a regional level, drug possession incidents followed a different trend, rising and falling in number year over year in each region along the time series. The drug possession chart shows an abrupt change from 2013: a fall in the number of cases in the Interior, and a rise in the Capital and in GSP.
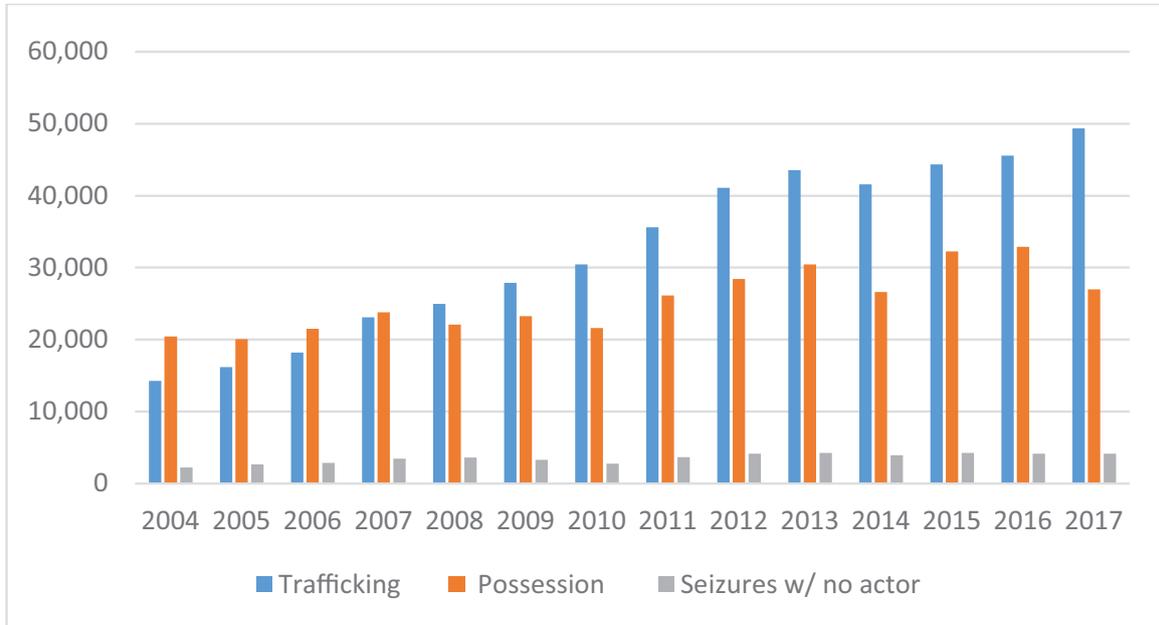
Chart 1: Drug Incidents in São Paulo State—2004–2017.
Source: *Secretaria da Segurança Pública do Estado de São Paulo* [São Paulo State Department of Law Enforcement] website.
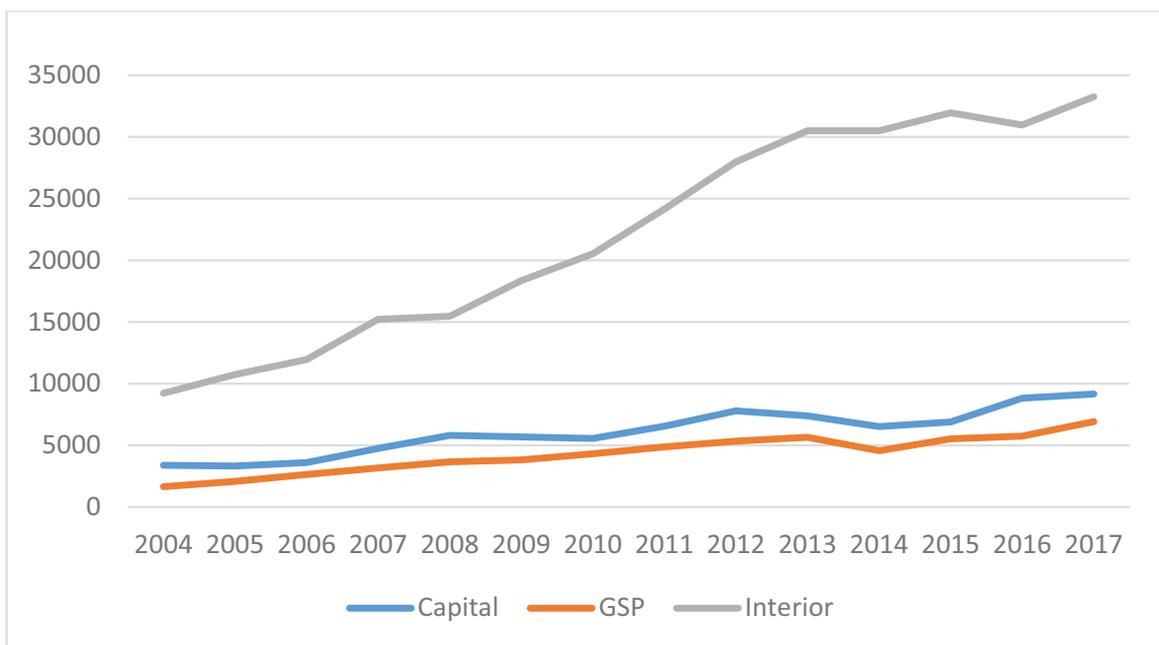

Chart 2: Drug Trafficking Incidents by Region—São Paulo State, 2004–2017.
Source: *Secretaria da Segurança Pública do Estado de São Paulo* [São Paulo State Department of Law Enforcement] website.
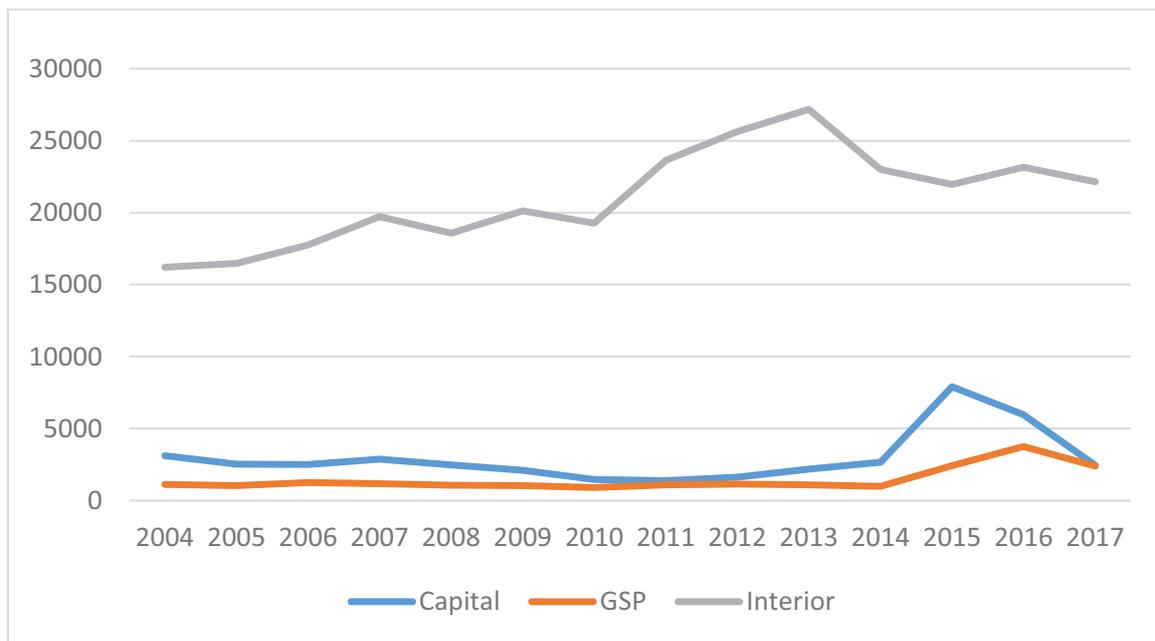
Chart 3: Drug Possession Incidents by Region—São Paulo State, 2004–2017.
Source: *Secretaria da Segurança Pública do Estado de São Paulo* [São Paulo State Department of Law Enforcement] website.

Table 2: Share of Drug-related Incident Types by Region—São Paulo State, 2015–2017.

Region	2015			2016			2017		
	Traffick-ing	Posses-sion	Seizures w/no actor	Traffick-ing	Posses-sion	Seizures w/no actor	Traffick-ing	Posses-sion	Seizures w/no actor
Capital	45%	51%	4%	58%	40%	2%	77%	21%	2%
GSP	65%	28%	7%	58%	38%	5%	69%	24%	7%
Coast	57%	38%	5%	49%	46%	5%	50%	45%	5%
Interior	56%	39%	5%	55%	39%	6%	58%	36%	6%

Source: *Secretaria da Segurança Pública do Estado de São Paulo* [São Paulo State Department of Law Enforcement] website.

The **Table 2** more clearly displays a comparison between regions. It stands out that the Capital's share in drug possession incidents decreased, from 51% in 2015 to 21% in 2017.

Although they're an important indicator of how LEAs deal with the drugs issue, data on incidents do not allow us to analyze or classify the results of those events. Therefore we have to complement those data with information that provides a more thorough view of law enforcement's action against drugs. Consequently, we present data on the amount of seized drugs to be able to assess the quality of those incidents and the effectiveness of police strategies to some extent.

Table 3 shows the time series of the amounts of drugs seized in the state of São Paulo. The large amounts and the sharp rise since 2012 stand out. Marijuana and cocaine seizures have shot up by over 70%, whereas crack seizures have been falling since then. Concerning amounts, we chose to use different units (metric tons for marijuana and cocaine and kilos for crack). We analyzed other federal units that provide data on drug amounts[21] and observed the amount of drugs seized in São Paulo is at least five times larger than that seized in the state of Rio de Janeiro, which ranks second among the five states that published drug seizure data for 2015.

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[21] The states of Rio de Janeiro, Rio Grande do Sul, Santa Catarina, and Ceará published those data.

Table 3: Amounts of Drugs Seized by Year—São Paulo State Marijuana, Cocaine, and Crack.

Year	Marijuana (in MT)	Cocaine (in MT)	Crack (in kg)
2012	66.9	8.8	2987.6
2013	70.2	8.6	1928.3
2014	72.3	9.4	1627.8
2015	102.9	11.6	1727.3
2016	148.1	12.3	2079.8
2017*	121.7	15.1	1487.2
Total	582.2	65.8	11838.1

Source: CAP [*Coordenadoria de Análise e Planejamento*, or Analysis and Planning Commission]/SSP-SP (Data aggregated by PP).
* Up to September.

It is worth noting the data we analyzed indicate only one type of drug was seized in 69% of the cases, whereas two types of drugs were seized in 21% of the incidents. Less than 1% of the drug seizures we examined involved the three types of drugs studied in this paper. In fact, 51.5% of the 173,000 incidents in our database involved marijuana only.

Just as we did when we analyzed drug-related incidents, we decided to break down drug amounts by region based on the borders of police precincts in the state of São Paulo.[22] This showed us drug seizures follow different patterns depending on the type of drug considered. The largest amounts of marijuana and crack were seized in the Interior, whereas the largest amounts of cocaine were seized in the Capital and in GSP, confirming information from other papers that show the existence of drug-trafficking routes through the Interior of São Paulo State to other countries. In fact, national borders and state lines are clearly an important factor in marijuana trafficking. Paraguay is a major supplier of marijuana to Brazil, which explains the large number of marijuana seizures in the northwestern part of São Paulo State, in areas closest to states neighboring that country.

Concerning cocaine, large numbers of seizures were recorded in GSP, in the Capital, and on the State Coast, where the main Brazilian port is located, in the city of Santos.[23] Seizures of cocaine paste being shipped from the Port of Santos to Europe—not included in our database[24]—have hit record high numbers in recent months. Cohen (2019) also points out the use of sea routes, which make it possible to ship drugs in bulk (**Maps 1, 2** and **3**).
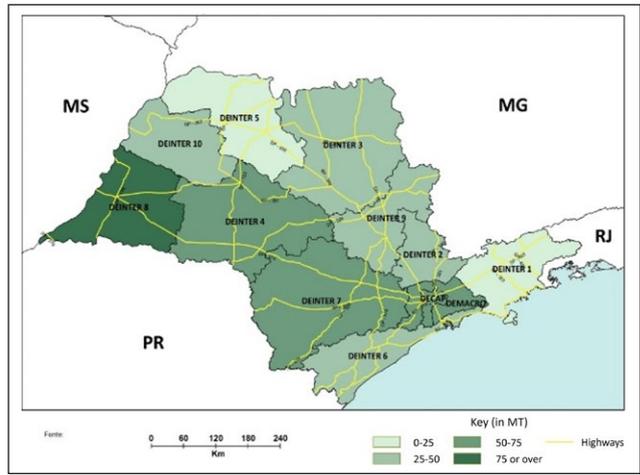
Other papers, such as Abreu (2017) and Peralva, Sinhoretto, and Gallo (2012), have explored the use of the Interior of São Paulo State in international drug trafficking routes, as well as the state's role in the international drug trade. They point out that:

> The state of São Paulo, in turn, seems to play a key role in the international drug trade, and its roads, airports and ports seem to constitute an important drug route to the U.S. and Europe. In addition, the state is a major consumer market. There was said to be a drug trafficking route in the interior of the state due to data from the Polícia Militar published in local print media. It was believed to be part of a network used to import and distribute drugs throughout Brazil and to be connected with international trafficking routes from the 1990s. Drugs coming from producing countries would be unloaded in the western part of the state, in the Presidente Prudente region, and go to the cities of São Paulo and Rio de Janeiro through Campinas, Ribeirão Preto and Atibaia. (Peralva, Sinhoretto, and Gallo 2012: 223)

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[22] Based on this geographic division, we have the Capital, Greater São Paulo, and the Interior, which is subdivided into 10 areas, thus allowing us to point out the parts of the Interior with the largest concentrations.

[23] The official website says Santos is the largest port complex in Latin America and handles almost one-third of Brazil's foreign trade operations. Available at http://www.portodesantos.com.br/institucional/o-porto-de-santos.

[24] In 2017, 11.5 metric tons of cocaine was seized in the Port of Santos alone. In 2018, 14 metric tons had been seized by mid-August. Survey available at http://www.atribuna.com.br/noticias/noticias-detalhe/policia/apreensao-de-cocaina-no-porto-de-santos-chega-a-14-toneladas/?cHash=49480b12946073e08af3703e51be4b3a.

Map 1: Marijuana Seizures by São Paulo State Region (2012–2017*).
Source: CAP/SSP-SP (Data aggregated by PP).
* Up to September.
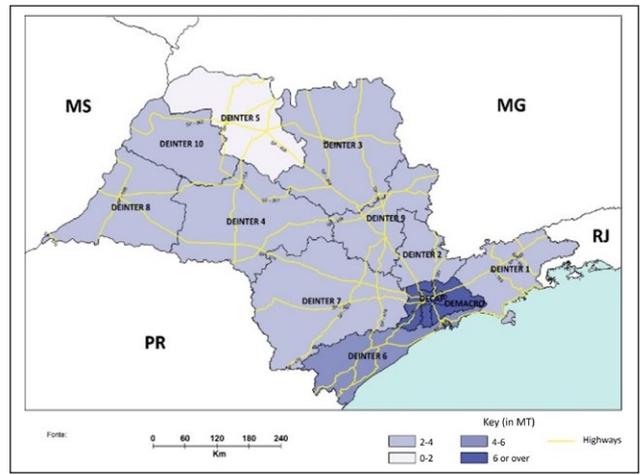
Map 2: Cocaine Seizures by São Paulo State (2012–2017*).
Source: CAP/SSP-SP (Data aggregated by PP).
* Up to September.
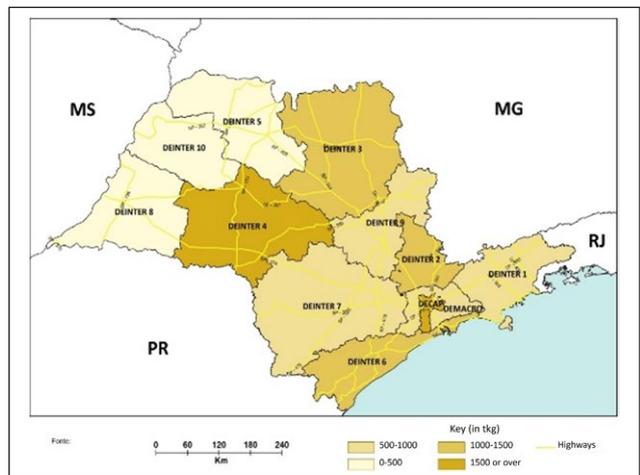
Map 3: Crack Seizures by São Paulo State Region (2012–2017*).
Source: CAP/SSP-SP (Data aggregated by PP).
* Up to September.

Law enforcement action is usually qualified and guided by the connection between the type of incident and the amount of drugs seized. We used different methods to establish that connection in order to ratify our findings.

First of all, we determined the amount of each drug by type of incident. This showed us the tens of thousands of incidents of drug possession for personal use account for a tiny share of the total amount of seized drugs, a pattern we observed across all the three types of drugs we analyzed (**Charts 4, 5** and **6**).

Considering possession for personal use accounts for about 38% of all drug-related incidents, the police expend a large amount of resources arresting drug users only to seize a tiny amount of drugs, thus producing a questionable effect on illicit drug consumption.

We also categorized the data by LEA reporting each incident at the police station for the appropriate measures.
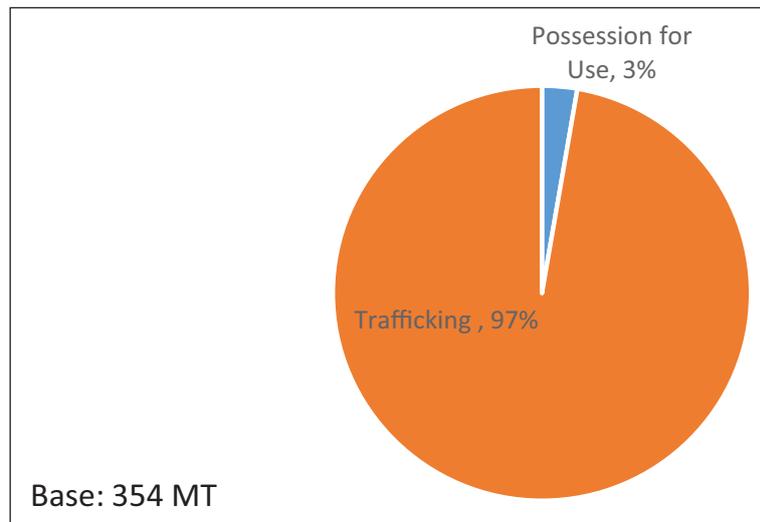

Chart 4: Marijuana Amount Seized by Incident Type (Possession and Trafficking) in São Paulo State, 2015–2017*.
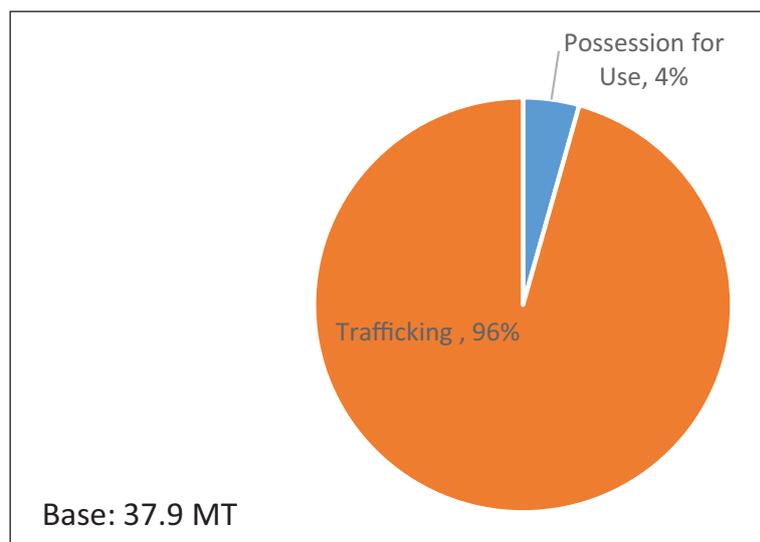Sources: Microdata.
* Up to September.

Chart 5: Cocaine Amount Seized by Incident Type (Possession and Trafficking) in São Paulo State, 2015–2017*.
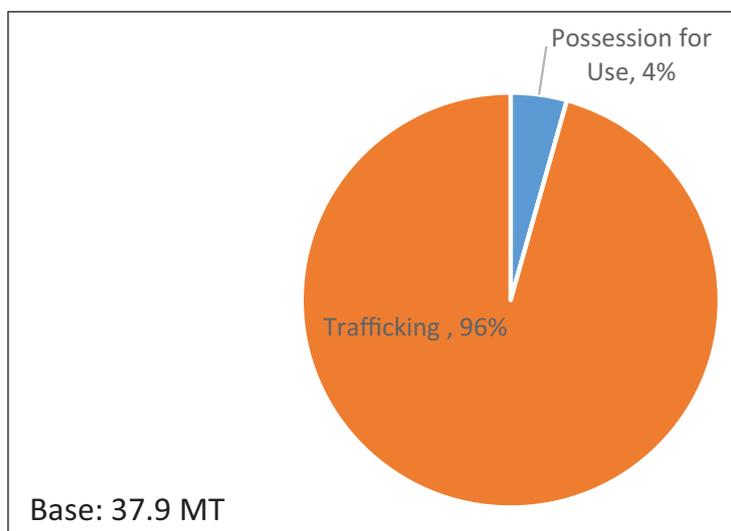Source: Microdata.
* Up to September.

Chart 6: Cocaine Amount Seized by Incident Type (Possession and Trafficking) in São Paulo State, 2015–2017*.
Source: Microdata.
* Up to September.

Table 4: Incidents by Type and Arresting Agency (2015–2017*).

Arresting agency	Possession	Trafficking
PM	50%	60%
PC	32%	25%
GM	9%	9%
Others	9%	6%

Source: Microdata.
* Up to September.

Table 5: Median Amount of Each Drug Type by Incident Type (in g) (2015–2017*).

Drug	Possession	Trafficking
Marijuana	2.18	39.83
Cocaine	2	21.61
Crack	1	9.4

Source: Microdata.
* Up to September.

The **Table 4** shows that half of the drug possession incidents in the state of São Paulo were reported at police precincts by the PM. The PC ranks second at 32%. Ranking third, GMs reported 9% of all drug-possession incidents. It is worth noting not all cities in the state of São Paulo have a municipal guard. The PM accounted for an even larger share of drug-trafficking incidents reported even though the PC (mainly its expert departments) would have been expected to show greater efficiency due to its natural inclination (as an investigative agency), as well as its greater expertise and better tools to fight more organized crime structures shipping drugs in bulk. Even though this is brief analysis, the fact that the PC has such a small share, mainly in drug trafficking incidents reported, is a cause of concern.

Another method to relate incident types to seized amounts is by using measures of statistical dispersion. We calculated the median amount of each drug by each incident type to discard any discrepant values in the distribution of the data, as seen at **Table 5**.

Overall, all the medians we determined can be considered low, which confirms other papers, such as Jesus et al. (2011), whose findings indicate the same. The median amounts in the drug report with data on Rio de Janeiro State, published by the ISP [*Instituto de Segurança Pública*, or Law Enforcement Institute], were also low.

We observed major differences among incidents, even among drug-trafficking cases, because most incidents involved relatively small amounts, which applies to all types of drugs see table 5.[25]

To illustrate this heterogeneous distribution of drug trafficking incidents by seized amounts, we calculated the share of each percentile range. This allowed us to analyze different segments (**Charts 7, 8** and **9**).

The data above show that the share of the 99 percentile—that is, the 1% corresponding to the largest drug seizures—accounts for over half of the total amount seized of all the types of drugs we analyzed, hitting a high of 76% in the case of marijuana (**Chart 7**).

Those data allow us to say large drug seizures account for a significant share of the total amount of drugs seized in the state of São Paulo. On the other end of the graph, we see the 89% smallest drug seizures have an insignificant share in the total, between 3% and 10% of total drug seizures depending on the type of drug. This shows police operations should focus on the types of incidents leading to larger drug seizures.
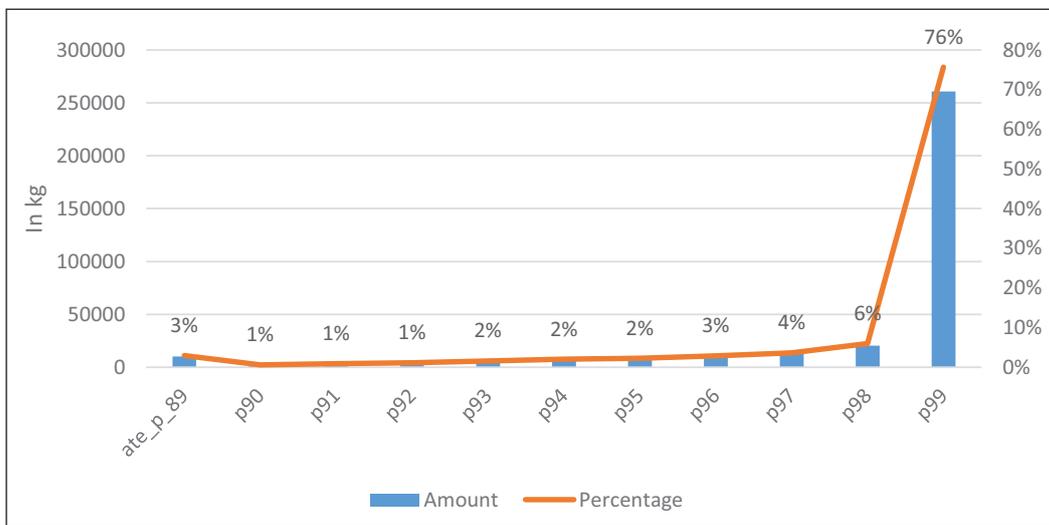

Chart 7: Share of Marijuana Amount Seized by Trafficking Incident Percenles in São Paulo State, 2015–2017*.

[25] According to data from the report *Panorama das apreensões de drogas no Rio de Janeiro* [Overview of Drug Seizures in the State of
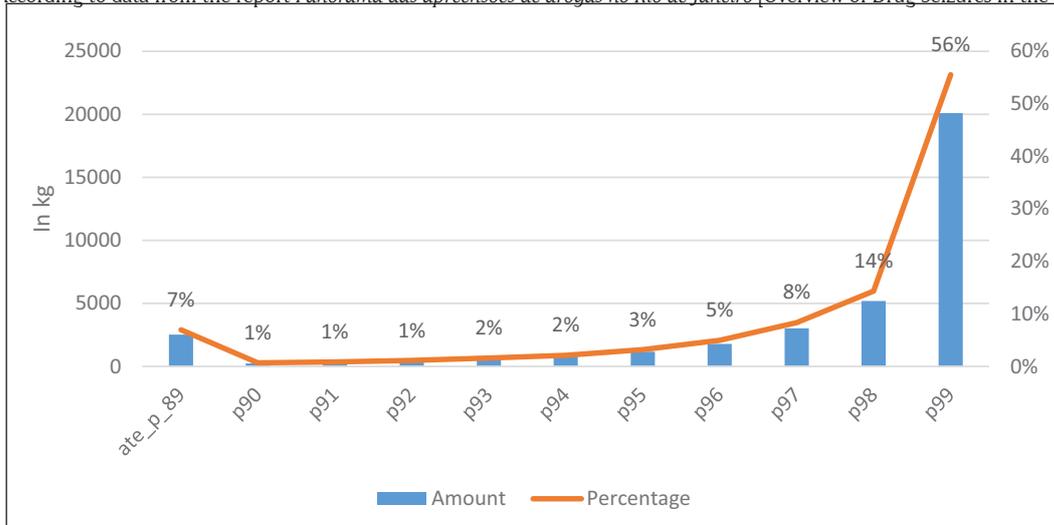

Chart 8: Share of Cocaine Amount Seized by Trafficking Incident Percentiles in São Paulo State, 2015–2017*.

Rio de Janeiro], the median amounts in drug-trafficking incidents in 2015 were 56 g marijuana, 32 g cocaine, and 14 g crack.
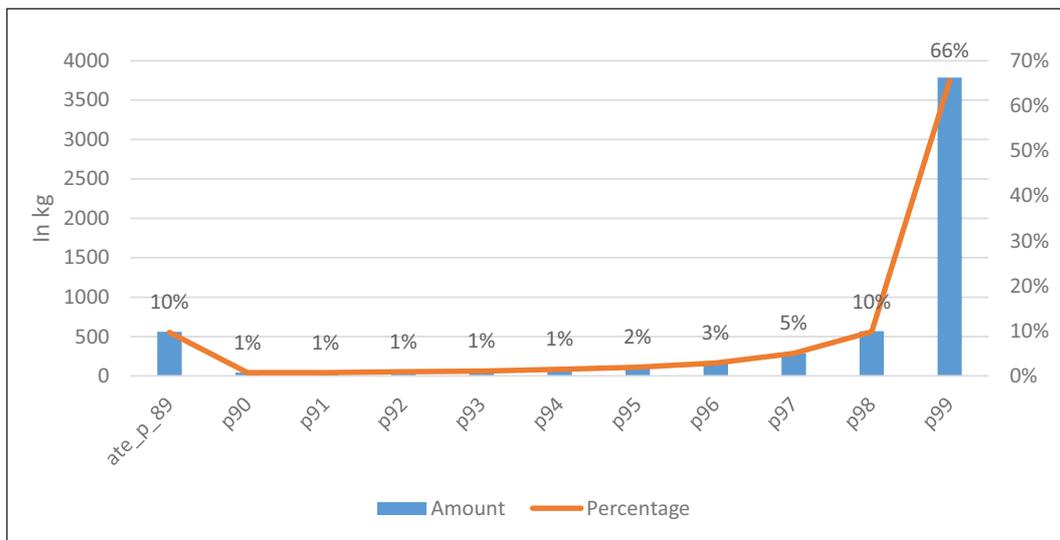
Chart 9: Share of Crack Amount Seized by Trafficking Incident Percenles in São Paulo State, 2015–2017*.
Source: Microdata.
* Up to September.

Table 6: Share of Top 100 Incidents in Total Seized Amount by Type of Drug—São Paulo State (2015–2017*).

Drug	Amount (in MT) TOP 100	% of total seized amount	Total amount seized in drug trafficking incidents (MT)	% of TOP 100 in total incidents	Total incidents in the period
Marijuana	178.1	52%	344.8	0.12%	80,893
Cocaine	10.3	28%	36.1	0.14%	71,237
Crack	2.5	43%	5.7	0.23%	43,899

Source: Microdata.
* Up to September.

Table 7: Drug Amount in Top 100 Seizures (in MT) in São Paulo State by Year and Drug Type (2015–2017*).

Year	Marijuana (MT)	Cocaine (MT)	Crack
2015	29.7	4.2	0.8
2016	97.7	3.0	1.1
2017*	50.6	1.8	0.6

Source: Microdata.
* Up to September.

To examine the incidents involving the largest seized amounts more thoroughly, we cut off the 100 largest seizures of each type of drug we studied, as shown at **Table 6**.

Tables 6 and **7** shows a very large drug concentration for such a small number of incidents since the top 100 incidents account for over half of the total amount of marijuana seized. In fact, the top 100 incidents comprise less than 0.25% of all the incidents involving each type of drug and stand out due to their specificities, such as distribution across the years analyzed. We see those incidents are unevenly distributed across the different types of drugs, suggesting large seizures of different drug types depend on different factors.

Table 8 displays the number of incidents and the amount of drugs seized to highlight the role of each type of law enforcement action and policing strategy in the state. What stands out is the large share of

Table 8: Top 100 Seizures by Location Type and Drug Type—São Paulo State, 2015–2017*.

Location Type	Marijuana		Cocaine		Crack	
	Incidents	Amount (in MT)	Incidents	Amount (in MT)	Incidents	Amount (in MT)
Highway	34	55.6	13	0.9	13	1.2
Public road	31	56.6	56	3.5	35	0.5
Home	21	32.3	21	3.1	43	0.7
Place of business	4	5.9	8	1.2	2	0.0
Others	10	27.6	2	0.3	7	0.1
Overall Total	**100**	**178.1**	**100**	**9.0**	**100**	**2.5**

Source: Microdata.
* Up to September.

Table 9: Arresting Agency in Top 100 Seizures by Drug Type—São Paulo State, 2015–2017*.

Arresting agency	Marijuana		Cocaine		Crack	
	Incident	Amount	Incident	Amount	Incident	Amount
PM	71	67%	57	41%	58	73%
PC	24	26%	38	56%	34	22%
GM	1	1%	1	1%	1	1%
Others	4	6%	4	4%	7	4%

Source: Microdata.
* Up to September.

seizures of all drugs, mainly cocaine, on highways and public roads since the top 100 drug trafficking incidents involve amounts that can only be shipped by truck or car.[26]

By looking at the LEAs in the **Table 9**, we see the PM once again accounts for a large share of incidents, just as seen above in total drug possession and trafficking incidents. The same can be seen when we consider the total amount seized. The outstanding results achieved by the PM are mostly connected with a specific program in which the highway patrol conducts inspections routinely on São Paulo highways.

We see the PC stands out only in cocaine seizures, possibly due to operations resulting from investigative work and leading to seizures of large amounts of cocaine.

Conclusions

The data presented here are part of a larger project undertaken by *Instituto Sou da Paz* to qualify law enforcement policies in São Paulo State and reduce violent crime. The number of homicides has fallen significantly in the state of São Paulo in recent years,[27] totaling 7 per 100 thousand inhabitants in 2018.[28]

On the other hand, the state's LEAs are still struggling to curb other major violent crimes, such as robberies (defined in Brazil as taking and carrying away someone else's personal property by force or by the threat of immediate force), which came to 396,000 in 2017, and rapes, which totaled 11,000 in the same year (according to official SSP data).

Examining the state's law enforcement assessment and finding out more and more police resources are used to fight drug-related incidents every day prompted us to delve into the data to provide a better evaluation of police strategies, considering the countless challenges before law enforcement.

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[26] The incident in which the highest amount of marijuana was seized involved 15.9 metric tons of the drug shipped in a semitrailer. It would be impossible to ship such a large amount in even the largest passenger cars.

[27] There is an intense debate among Brazilian scholars about the causes of the fall in the number of homicides in São Paulo. For a better understanding of the different explanations, refer to Feltran (2010a, 2010b), Hirata (2010), Peres et al. (2011), and Manso (2012).

[28] Data from the SSP-SP published in August 2018. Available at https://sao-paulo.estadao.com.br/noticias/geral,latrocinios-sobem-no-estado-de-sao-paulo-pela-primeira-vez-no-ano,70002518725.

Each drug-related incident leads to the arrest of a suspect, and the arrest *in flagrante delicto* is recorded, which takes a few hours regardless of the drug amount. In case of drug-trafficking incidents, the suspect is usually remanded in custody, at the cost of about $325 per month.

Incidents of drug possession for personal use also increased in number between 2005 and 2017 (35%), albeit less sharply than drug trafficking cases. However, it should be noted the share of those cases in total drug-related incidents has been decreasing, which is good news.[29]

This fall has been more significant in the Capital in the last few years. Nevertheless, we have to question whether it makes sense for 38% of all drug-related incidents to be still focused on drug users, who should be the focus of health—not law enforcement—public policies. The thousands of incidents occurring every year (mainly in the Interior) require LEAs and courts to expend energy and resources, affecting many people's lives, only to remove from circulation some 3% to 5% of the total amount of drugs seized by the police.

There is no evidence that criminalizing and arresting drug users has any impact on drug consumption. In fact, this strategy may have the adverse effect of leading heavy drug users away from assistance policies.

Therefore, we believe a short-term solution would be for the police to stop arresting drug users gradually, as they have been doing in the city of São Paulo.

It would be helpful to obtain data from other states and discuss them rationally with society and government institutions now that the Supreme Court is about to reach a decision about the constitutionality of the criminalization of drug possession for personal use.

The data show a steep rise in the amount of drugs seized in the state of São Paulo, mainly of marijuana and cocaine. Indeed, 66 MT of marijuana was seized in 2012, versus 148 MT four years later.

Some of the possible explanations for this dramatic rise are higher drug consumption, increased use of the state of São Paulo as a route to other states and countries, and improved efficiency of police operations.

Only one type of drug (of the three we analyzed) was seized in 69% of the cases we analyzed. It should also be noted 51.5% of all drug seizures consisted of marijuana only. Considering the movement for the regulation of marijuana sales in several countries (most recently in Canada), it is interesting to envision about half of all drug-related incidents in São Paulo State could be eliminated if the marijuana market were regulated in Brazil.

An analysis of only historical data on drug seizures could lead us to believe law enforcement is more efficient than it really is; however, we see police operations achieve extremely discrepant results if we consider the entire universe of drug-trafficking incidents. On the one hand, tens of thousands of incidents result in an almost negligible amount of drugs being seized; on the other hand, only a few drug seizures involve significant volumes. Marijuana provides the most striking example because 1% of all marijuana seizures accounted for 76% of the entire amount seized in the state during the period we analyzed. The concentration of cocaine and crack in the top percentile is 57% and 66%, respectively.

On the other hand, thousands of people[30] having very low amounts of drugs in their possession are approached by the police, charged with a crime carrying a minimum sentence of five years in prison, and usually remanded in custody.[31]

The median we calculated indicates the amount of marijuana seized in at least half of all drug trafficking incidents was equal to or lower than 40 g, corresponding to two chocolates.

Our goal in analyzing those data was to contribute to the debate about law enforcement's priorities.

Because each of those incidents leads to police time spent recording the event (which in Brazil usually means police cars and officers off the street for hours), the production of expert reports about the drug, and hours of evidence processing in police stations and courts, we must reflect on the ideal focus for our law enforcement policy.

We highlighted the top percentile of the ratio between the top 100 incidents and each drug to show which police strategies led to the largest drug seizures, thus making it possible to improve resource allocation.

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[29] To test the hypothesis that incidents of drug possession for personal use could be categorized as drug trafficking, we checked the time series of median amounts for any changes that might indicate this practice. However, the numbers we found changed only slightly over time.

[30] Data from the SSP-SP indicate 48,807 people were arrested for drug trafficking, both in flagrante delicto and with a warrant, in the state of São Paulo in 2017.

[31] According to a report from *Instituto de Defesa do Direito de Defesa* [Institute for the Defense of the Right of Defense], the temporary detention of 67.7% of people arrested for drug trafficking is converted into preventive detention. That is the second highest percentage, behind temporary detention for robbery only (p. 52). Available at https://bit.ly/2cLCylV.

Our analyses of those data allowed us to examine drug trafficking in relation to each of the substances we studied, along with its regional differences and specific dynamics, and discuss the focus adopted by each law enforcement agency.

By reading and examining news about major incidents, we found intelligence (anonymous tips, ongoing investigations, etc.) is frequently used, making it clear that it is crucial to more intensively explore these strategies. Improving intelligence collection not only increases efficiency but also reduces the violence associated with drug trafficking (shootings, car chases, etc.), which helps protect police officers and decrease the number of victims.

It is worth noting that our data show a mismatch between, the extensive media coverage crack attracts and the heated public debate about it on the one hand and the very small seizures of this drug on the other hand. In addition, crack does not seem to be among the PC's priorities. Those findings may indicate that either the crack market is not very large, or the police do not focus so heavily on seizing crack. Improving the collection of intelligence about the crack market will certainly help overcome the discussion about the crack issue in the state of São Paulo.

Competing Interests
The authors have no competing interests to declare.

References

Abreu, A. 2017. Cocaína: A rota caipira: O narcotráfico no principal corredor de drogas do Brasil. Rio de Janeiro: Editora Record.

Botelho, ÉD, Cunha, RB, Campos, AFC and **Maldaner, AO.** 2014. Chemical profiling of cocaine seized by Brazilian Federal Police in 2009–2012: Major Components. *Journal of the Brazilian Chemical Society*, 25(4), 611–618. DOI: https://doi.org/10.5935/0103-5053.20140008

BRASIL; Ministério da Justiça/Programa das Nações Unidas (PNUD). 2009. Tráfico de Drogas e Constituição: um estudo jurídico-social do artigo 33 da Lei de Drogas e sua adequação aos princípios constitucionais penais (Série Pensando o Direito). Brasilia: Ministério da Justiça.

Cohen, C. 2019. Development of the Brazilian drug market toward Africa: Myths, evidences and theoretical questions.

Coordenadoria de Planejamento e Análise, Secretaria da Segurança Pública de São Paulo. 2005. Estatística de Criminalidade, Manual de Interpretação. Available at https://bit.ly/2IAB7Fj [Accessed on April 17, 2018].

Departamento Penitenciário Nacional. 2017. Levantamento Nacional de Informações Penitenciárias. Updated in June 2016. Available at https://bit.ly/2tQngWi [Accessed on April 18, 2018].

Feltran, GS. 2010a. Crime e castigo na cidade: os repertórios da justiça e a questão do homicídio nas periferias de São Paulo. *Cadernos CRH* 58: 59–73. DOI: https://doi.org/10.1590/S0103-49792010000100005

Feltran, GS. 2010b. The Management of Violence on the São Paulo Periphery: The repertoire of normative apparatus in the "PCC era". *VIBRANT – Virtual Brazilian Anthropology*, 7(2): 109–134.

Fórum Brasileiro de Segurança Pública. 2017. Anuário Brasileiro de Segurança Pública, Ano 11. Available at https://bit.ly/2EJYf2e [Accessed on April 06, 2018].

Hirata, DV. 2010. Sobreviver na adversidade: Entre o mercado e a vida. Doctoral dissertation, São Paulo: School of Philosophy, Literature and Human Sciences of the University of São Paulo.

Hirata, D and **Grillo, C.** 2019. Movement and death: Illicit drug markets in the cities of São Paulo and Rio De Janeiro.

Instituto de Defesa do Direito de Defesa. 2016. Monitoramento das Audiências de Custódia em São Paulo. Available at https://bit.ly/2cLCylV [Accessed on April 16, 2018].

Instituto de Segurança Pública. 2017. Panorama das Apreensões de Drogas no Rio de Janeiro 2010–2016. Available at https://bit.ly/2lFi43Q [Accessed on May 07, 2018].

Jesus, MGM, et al. 2011. Prisão provisória e lei de drogas: Um estudo sobre os flagrantes de tráfico de drogas na cidade de São Paulo. São Paulo: Núcleos de Estudo da Violência da USP.

Machado, et al. 2019. Incarcerating at any cost: Drug trafficking and imprisonment in Brazilian court reasoning.

Manso, BP. 2012. Crescimento e queda dos homicídios em SP entre 1960 e 2010. Uma análise dos mecanismos da escolha homicida e das carreiras no crime. Doctoral dissertation, School of Philosophy, Literature and Human Sciences of the University of São Paulo, São Paulo.

Misse, M. 2007. Mercados ilegais, redes de proteção e organização local do crime no Rio de Janeiro. Available at http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-40142007000300010 [Accessed on 12/11/2018]. DOI: https://doi.org/10.1590/S0103-40142007000300010

Peralva, A, Jacqueline, S and **de Almeida, GF.** 2012. Economia da droga, instituições e política no Brasil: a CPI do Narcotráfico". In: Azaïs, Christian, Kessler, Gabriel, and Telles, Vera da Silva (orgs.), Ilegalismos, cidade e política—Belo Horizonte: Fino Traço.

Peres, MFT, Vicentin, D, Nery, MB, Lima, RS, Souza, ER, Cerda, M, et al. 2011. Queda dos homicídios em São Paulo, Brasil: Uma análise descritiva. *Rev Panam Salud Publica,* 29(1): 17–26. DOI: https://doi.org/10.1590/S1020-49892011000100003

Silva, KM, et al. 2018. Assessing cocaine use patterns in the Brazilian Capital by wastewater-based epidemiology. *International Journal of Environmental Analytical Chemistry.* Available at https://bit.ly/2ROV6pg [Accessed on 12/10/2018].

Zaluar, A. 2004. Integração perversa: Pobreza e tráfico de drogas. Rio de Janeiro: FGV Editora.