

Safe cities are smart cities

Vumacam research – SafeCity Initiative

Draft insights report
Research conducted under fletcher advisory

4 September 2022



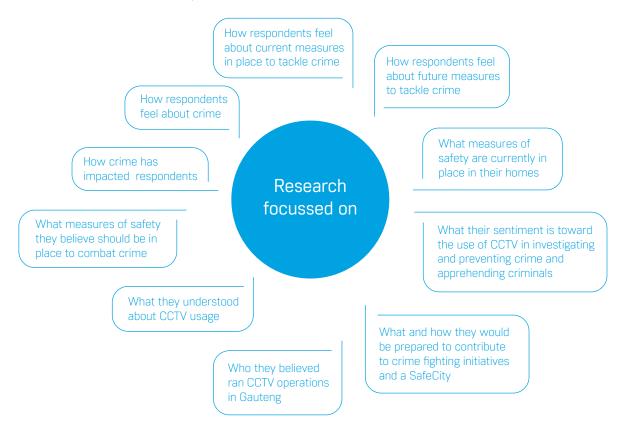
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In March 2022, Vumacam - South Africa's largest technology-driven CCTV network provider - commissioned research in Gauteng, the region with the highest network coverage, with a view to establishing residents' perceptions and experience of both crime and the means to tacking, preventing and investigating crime.

With the company's focus on the use of technology to private security companies and public law enforcement to assist in preventing, investigating and combating crime, Vumacam wanted to assess citizens' views to establish public support levels for the rollout of its SafeCity initiative as it seeks to expand its footprint nationally.





The current environment

South Africa is plagued by some of the highest levels of crime worldwide. Statistics show that South Africa has the third-highest crime rate in the world, globally, expressed in per 100,000 people. The Gallup Law and Order Index ranked South Africa the fifth most dangerous country out of the 144 countries covered.

In June this year, Police Minister Bheki Cele and SAPS management briefed the police portfolio committee on the fourth quarter crime statistics which showed an increase in all contact crime.



Murder: Increased by 22,2% - 6 083 people were killed between January and March this year



Women and children: Of those murdered, 898 were women and 306 were children (a 37,2% increase)



Rape: Increased by 13,7% (10 818 people raped in the period)



Trio crimes: Carjacking increased by 19,7%; residential robberies decreased by only 0,4% and nonresidential robberies by 3,5%



Cash-in-transit heists increased by 26,2%



Kidnapping: Increased by a startling 102% (3306 kidnappings took place in the period)

According to the Global Peace Index, South Africa has been ranked as the tenth most unsafe place in the world. This index also estimates that violent crime consumes as much as 19% of the country's GDP. If one thing is clear, it is that crime robs South Africans of lives, livelihoods and possessions.

It also has long-term impact on mental health where people are directly affected or witness to violent crime. Fourways-based Witkoppen Clinic (an NPO) warned about the long-term impact of trauma on people living in South Africa. The nonprofit organisation (NPO), which services many communities including Diepsloot, Msawawa and the surrounding areas, has seen increases in individuals seeking mental health services in the past year. Shelley Bernhardt, Counselling Psychologist at Witkoppen Clinic reports that "Exposure to such high levels of violence can lead to complex trauma and other psychological problems," says Shelley Bernhardt, Counselling Psychologist at Witkoppen Clinic. Trauma can lead to a number of serious mental health issues, such as depression and anxiety. "Left untreated, trauma can affect a person's ability to function in their daily lives."

All hope is not lost, however.

Collaboration

President Cyril Ramaphosa has recently announced that government will focus on "closing capacity gaps" in terms of understaffing and lack of adequate training which he cites as having "a particularly dire impact on the community and Public Order Policing". Encouragingly, he noted that government was drawing on the lessons of last July's unrest, and said that state is working to improve cooperation between law enforcement agencies and the private security industry in the fight against crime. "We need close coordination with all stakeholders, including businesses, so that resources and crime intelligence are shared to both improve public safety and deal with crimes that disrupt economic activity."



Vumacam's role

It is against this backdrop that Vumacam has sought to establish a view of both crime and potential solutions for support that look at public and private law enforcement and the support of technology.

Vumacam's technology has revolutionised how private and public crime fighting forces collaborate and maximise resources efficiently.

Vumacam has also launched an initiative called SafeCity to focus collaborative efforts in technology and manpower, as well as public-private partnerships nationally - just as shocking recent crime statistics highlight the need for smarter solution to fighting crime.

Part of this drive is Vumacam's support of E2 - an official and coordinated joint crime fighting initiative between the South African Police Service (SAPS), Business Against Crime South Africa (BACSA) and the Private Security Industry (PSI). This

technology-driven initiative sees the use of CCTV, Artificial Intelligence (AI) and analytics to drive a highly coordinated, agile response to criminal events in process, as well as enhanced investigative capabilities.

It is in this context that
Vumacam launched its
research as a means to
establish both the experience
of ordinary citizens and crime,
their perceptions of how safe
they feel and, their views
on the use of technology to
support public and private law
enforcement in fighting crime.

About this research

A total 1201 respondents have participated in the SafeCity Survey to date.

Respondents are from 260 areas/suburbs of Gauteng (only tracked where respondents entered their addresses) and was conducted through a variety of means:

- An online survey was distributed via email, WhatsApp and social media
- In-person interviews were conducted

- Telephonic interviews were conducted

Research was conducted in areas in which Vumacam services do and don't exist (and of the total respondents, 12% said they weren't sure if they lived in an area where there were CCTV cameras present, 48% said there were no cameras in their area and 40% said they did live in areas where CCTV cameras are present).

Across multiple LSMs, cultural, and ethnic groups. Participants had the option to enter various biographical details or to enter only what they were comfortable sharing and as such, details represented in the report indicate data submitted and do not reflect the details of the full sample group.

Questions not related to personal and biographical detail, reflect the input of the full sample group.



Confidence level and margin of error

A total of 1201 respondents have completed the survey by 5 October 2022.

The total results showed:

- A confidence level of 89% (85% and higher is acceptable for research of this nature)

- A margin of error of 4% – (5% and lower is acceptable for research of this nature).

Conclusion:

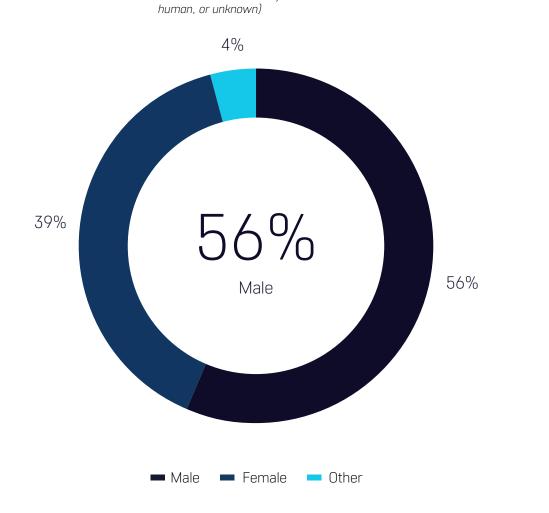
- The margin of error and confidence levels are adequate to draw valid conclusions.

Survey Results & Insights

Biographical data

Of the total 1203 respondents, 1154 people chose to disclose their gender as follows:

Gender	Total	Percent
Male	676	56%
Female	479	39%
Other (described as non-binary,	47	4%



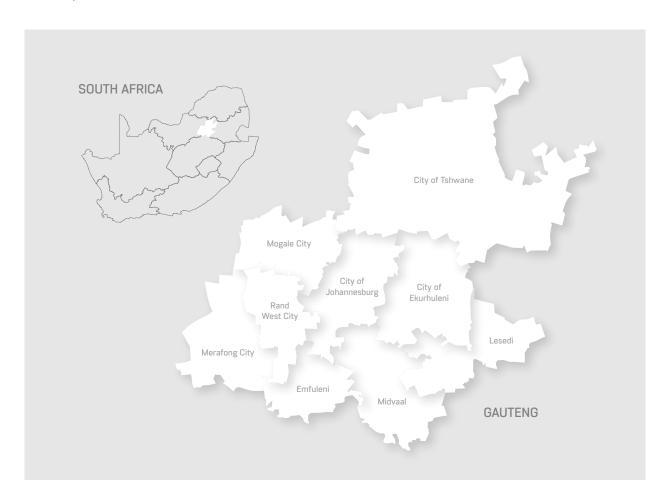
Place of Residence

Respondents participating in the survey were from a broad range of geographical areas that spanned urban, peri-urban, suburbs, townships, and semi-rural or agricultural areas including Fourways to Soweto, Pretoria, Germiston, Benoni, Bedfordview, Alexandra, Mnandi, Diepsloot, Sandton, Orange Grove and Sydenham among many more.

Where respondents indicated their place of residence, approximately *234 suburbs were listed with the highest rate of respondents from Soweto, Johannesburg (Parkhurst, Orange Grove, Linksfield, Bryanston and Alexandra) and Pretoria.

Note: A small percentage of respondents listed their places of residence as being outside of the Region where these respondents travel to Gauteng for work and/or live or stay in Gauteng regularly for work purposes.

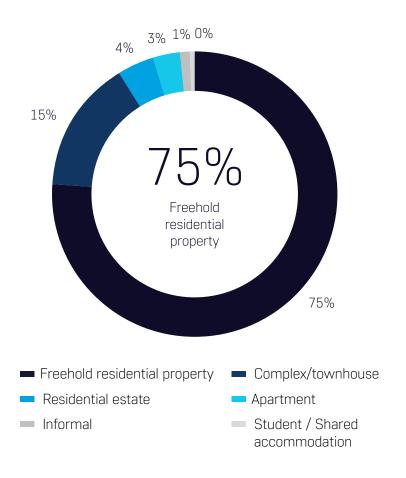
Some duplication and errors may exist in suburbs listed due to respondent errors (all data is recorded and reported as received). The full list of suburbs/ areas are listed (in alphabetical order) as an appendix at the end of this report.



Dwelling Type:

Of those who provided details, the majority (75%) live in freehold residential properties, followed by complexes or townhouses and apartments.

Type of residence	Total	Percent	
Freehold residential property	899	75%	
Complex/townhouse	186	15%	
Residential estate	52	4%	
Apartment	40	3%	
Informal	18	1%	
Student/ Shared accommodation	2	0%	



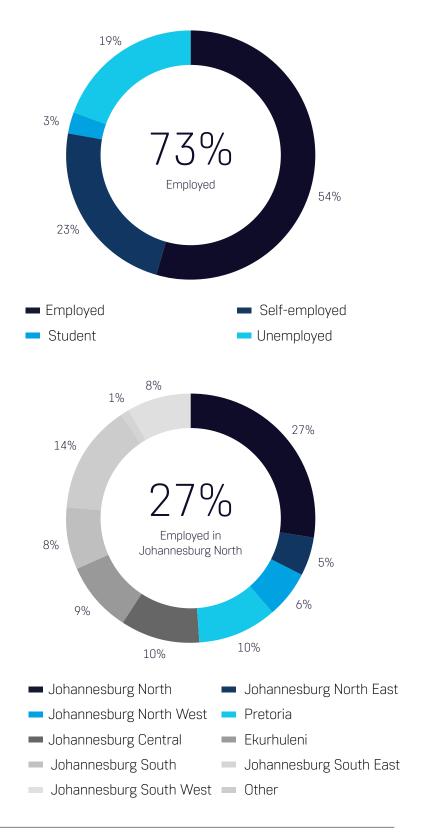


Property ownership

The majority interviewed owned their property (70%); 19% leased their property and 11% were dependents (ie, their living space was dependent on another).

Employment

The majority of respondents (73%) were employed while 27% are either unemployed or studying and of those, the majority are employed in Johannesburg North (27%); Johannesburg North East (5%); Johannesburg North West (6%), Pretoria (10%); Johannesburg Central (10%); Ekurhuleni (9%); Johannesburg South (8%); Johannesburg South East (1%); Johannesburg South West (8%) and 14% of respondents indicated their workplace as "other."







Mode of transport

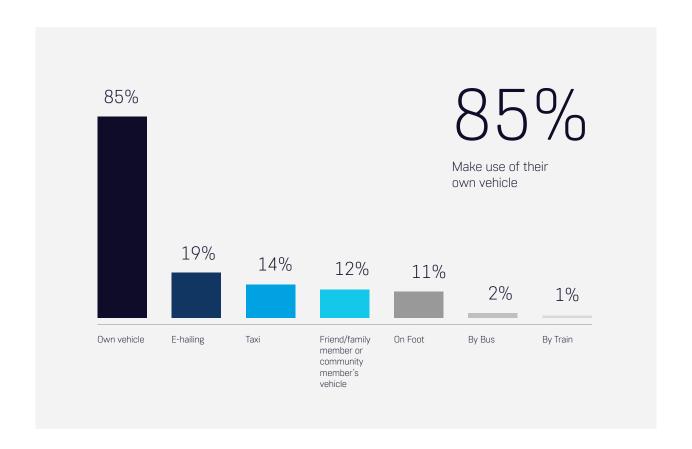
Respondents were asked to list the modes of transport they most use to travel.

While the majority made use of their own vehicle (85%), 17% made use of public transport;

12% made use of a friend/ family member or community member's vehicle and 11% travelled on foot.

*Research note: Respondents indicated later in the survey, which modes of transport incidents of crime had taken place, and, in some cases, the incident percentage exceeds

the percentage of transport used. For example, where only 2% of respondents report using buses, 3% reported being a victim of crime while using a bus. This is likely due to respondents no longer using this mode of transport regularly however, were, at some point a victim of crime while using such transport.



Overall results

Experience of crime

Every respondent indicated that they had been impacted by crime on some level at some point of their life. While this research focused mainly on how crime had impacted respondents while in public, a high percentage of respondents indicated that crime had resulted in non-public (private) areas such as damage to their home (68%). This was followed by damage to their vehicles (55%); shops most often visited (45%) and office and workspaces (28%).



Of those using their own vehicle most regularly for transport, 70% said that they had been impacted by crime.



71% using taxis had been impacted by a crime



116% while using a bus (more people noted incidents that had occurred while traveling by bus while not noting that this was the most frequent use of transport)



21% noted incidents occurring while using e-hailing services (Uber/Bolt etc)



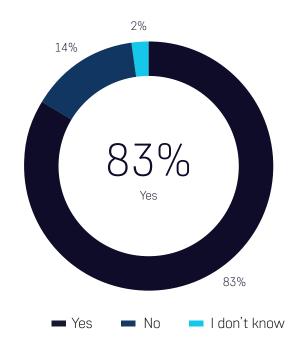
25% while walking (respondents who didn't note this as their most frequent mode of transport noted that they were at some point impacted by crime while walking) with 96% who travel on foot most frequently reporting being impacted by crime while doing so.

Fear of crime



- 84% of respondents said that they have a personal fear for their safety
- 15% said they didn't and 1% said they didn't know.
- Of those who said they did not fear for their personal safety, 63% had access to a private security company and indicated they would call them in an emergency. Only 2% said they would call SAPS and 36% said they would rely on a WhatsApp Group. 47% live in areas where there are CCTV cameras and 83% felt that CCTV is an effective tool to tackle crime.
- Of those who said they did fear crime, 34% said they would call SAPS in an emergency, 59% had access to a private security company and 39% live in areas that have CCTV cameras. 80% said they believed that CCTV would be a powerful tool against fighting crime.

Personal fear for safety





Fear of crime when traveling or waiting for transport 72% 72% 69% 69% 63% 57% Fear being Hijacked when traveling or waiting for transport 51% 45% 33% 28% 24% 21% 19% 15% Hijacking smash Robbery and grabs your vehicle kidnapped kidnapped while while while while while while kidnapped waiting on waiting on while while using waiting on public public the transport transport using public the the walking roadside roadside for roadside transport transport transport for transport you up you up to pick



Impact of public infrastructure damage

99% of respondents said they had at some point in time been impacted by damage to infrastructure.

Where respondents indicated "other" this referred to additional forms of damage (not listed in the survey) by which

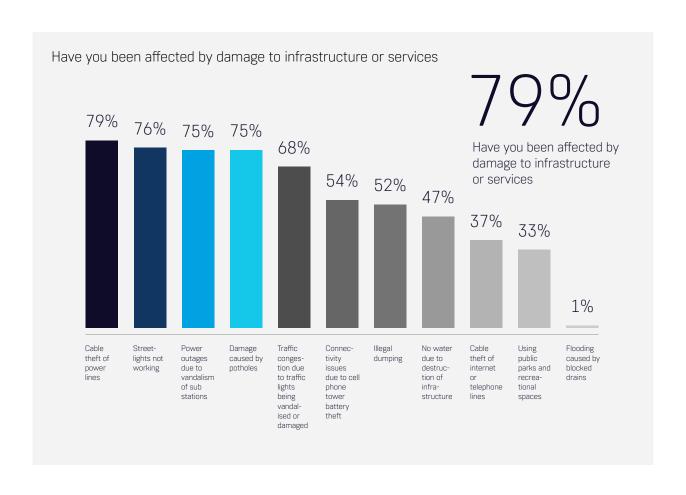
they may have been affected. Respondents listed:

- The deliberate sabotage of Eskom infrastructure by Eskom employees
- Potholes in pavements causing people to trip and fall
- Theft of drain covers causing great damage
- Power outages causing home alarm systems to fail and break ins resulting
- Intentional vandalism of streetlights making it easy to commit crimes

- Theft of circuit breakers
- avTheft of JPC land intended as parks

One respondent noted the risk of a seemingly minor offence causing great impact when they did not have access to a pavement as cars had parked illegally there and she/he/they were forced to walk in the road and were run over by a moving vehicle.

Respondents otherwise reported the most impact due to:



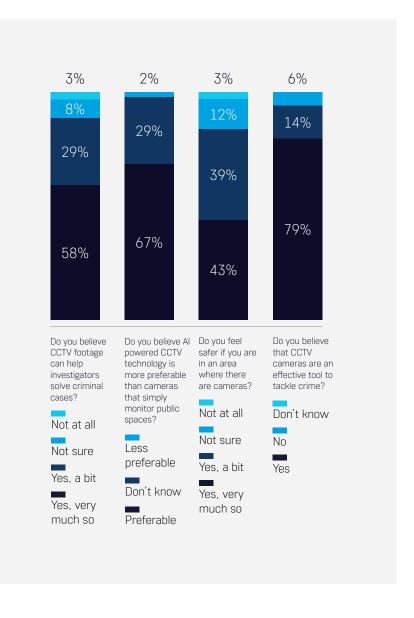


CCTV

Of the total respondents, 14% said they weren't sure if they lived in an area where CCTV cameras were present, 39% said there were no cameras in their area and 39% said they did live in areas where CCTV cameras are present.

Sentiment related to CCTV

Views on CCTV were greatly positive with most respondents indicating a very strong preference for the use of CCTV to assist in preventing crime.





Those who said they did not believe CCTV was preferable listed reasons for saying so related to privacy, lack of confidence in the system working effectively and a lack of faith in system security.

They would capture the same thing nothing different.

Because no one is strict on the proof that the police get.

Power over my person in the hands of people with no accountability to me does not help me. It's invasive and controlling. What people do generally is nobody's business but their own.

far enough. A capable programmes with facial recognition that is linked to the police wanted and missing people would be even better. And should also be in malls and places of public transport. And sensors that detect gun shots and triangulates it should also be incorporated. And a service to assist traffic police and assist with a smart city traffic management system.

Those who said CCTV is preferable believed so for several reasons that are categorised from respondents who felt it would...

enhance the ability to tackle crime, be always-on, save time, increase manpower, increase privacy, be more reliable than human monitoring, create the ability to link various crimes, be used for identification, prevent harm to victims or potential victims; be a smarter way to outsmart criminals.

Comment	Category
Reduces pressure on security staff (SAPS & Security Companies), can be used later to educate or as evidence.	Increased manpower ability / Training
Provided that the parameters which are set-up on the cameras are correct and they are maintained in good working order, then benefit of such cameras is that they should operate 24 hours a day, 7 days a week not having to rely on human failings.	Always-on
It sounds like the obvious answer. I have previous experience with the old system that only monitors spaces. It is almost useless.	Enhanced ability to tackle crime
We need to come up with innovative ways to fight crime.	Enhanced ability to tackle crime
Monitoring CCTV isn't that effective, and it doesn't stop crime because criminals normally cover their faces when committing crime in areas with CCTV, but if there is the alert type of cameras, then I think these would be very helpful in fighting crime, the criminals would swiftly be dealt with.	Smarter ways to outsmart criminals
Impossible to monitor cctv by eye alone! Pro-active and fast identification of issues are essential.	Proactive and saves time
SAPS are useless. Circulating perps' faces will warn other potential victims or help with community justice.	Identification
The police can stop a crime in progress and lessen the chances of victims being seriously hurt during the commission of the crime.	Prevention of harm to viicitms or potential victims



Manpower if technology works well
Specifiic to criminal events
Enhances manpower ability
More reliable than humans / Increased privacy
Data enhances crime prevention capability

CAUTIONARY (respondents who are positive but cautious or need more information and proof that the technology works

I have seen it work where there are these camera but problem is in our area there are only a few cameras and not in our street so unless something happens near a camera it doesn't get picked up.	Insufficient cameras
It can hopefully bring CPF and police faster to the crime scene or best case scenario even prevent a crime if it can pick up loitering or suspicion vehicles before a crime takes place. In isolation it doesn't work though.	Proactive and collaborative if manpower is used correctly.

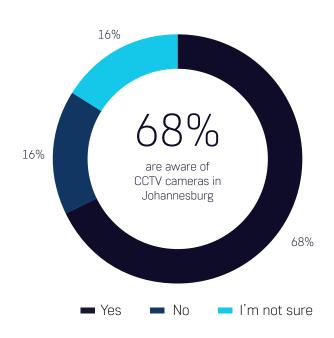


Awareness of CCTV cameras

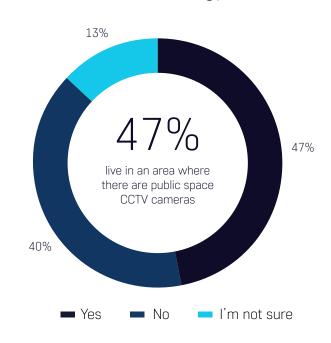
While overwhelming positive sentiment exists for the potential of CCTV and the technology that supports it, most respondents are aware that such CCTV already exists in Gauteng.

While the majority of respondents have noticed cameras, a large percentage (32%) are either still not entirely aware of camera presence or don't understand that the cameras are CCTV cameras.

Have you noticed CCTV cameras in Johannesburg?



Do you live in an area where there are public space CCTV cameras (cameras monitoring public streets)?



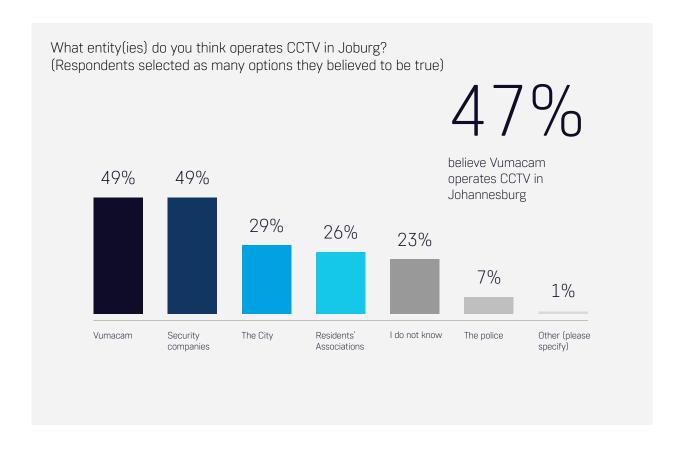


Awareness of CCTV Camera Operators

68% of respondents are aware of CCTV in public spaces in Gauteng, the majority of

respondents understand that Vumacam operates CCTV in Johannesburg, this amounts to less than half the respondents. This figure is, however, high considering that 30% of respondents are either not aware of cameras at all, or, not

sure if they have seen cameras in Joburg. Where "other" was indicated, respondents mentioned homeowners, banks, and shopping centres indicating a lack of understanding between public and private space CCTV.





Respondents were asked to rank how safe they feel when inside their property, just outside their property, on their street, inside and outside their suburb on a scale of 1 to 10. (10 being very safe)

Ranking	Inside Home	Directly Outside Home	In your street	Suburb	Outside suburb
1	1.0/	70/	0.0/	00/	100/
<u>1</u>	1%	7%	8%	9%	10%
2	2%	3%	4%	9%	10%
3	2%	4%	5%	9%	15%
4	3%	8%	9%	7%	14%
5	8%	20%	21%	14%	26%
6	6%	9%	10%	8%	7%
7	13%	17%	17%	14%	9%
8	29%	18%	16%	14%	3%
9	17%	7%	4%	7%	2%
10	17%	5%	5%	7%	2%



On average, respondents feel safer the closer they are to home and less safe as they move away from their home.

Place	Average Safety Rating			
Inside home	7,6			
Directly outside home	6			
In your street	5,7			
Suburb	5,4			
Outside Suburb	4,4			

On average, those who rated feeling safer in their homes or closer to home, have access to better security measures at home, access to private security companies (82%).

Those who feel safer in their suburbs mostly have CCTV in their areas (63%), a high understanding of what CCTV is and does (80%), and high awareness of cameras and who operates them (85%).

This provides strong motivation for increased security through CCTV as where respondents have control over their safety, they feel more secure.

Traveling outside of their suburbs, where they do not have access to private security and are not necessarily within a CCTV coverage area, makes them feel less safe.

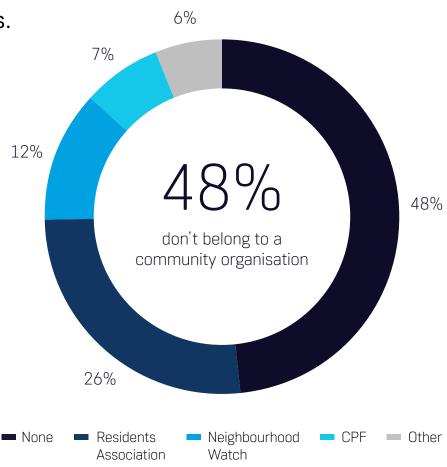




Community Group Membership

A small percentage form part of community groups.

Are you part of a community organisation and if so, what kind?

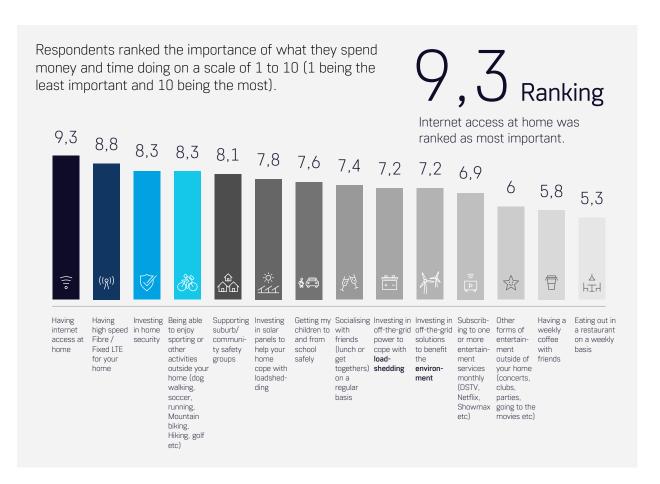


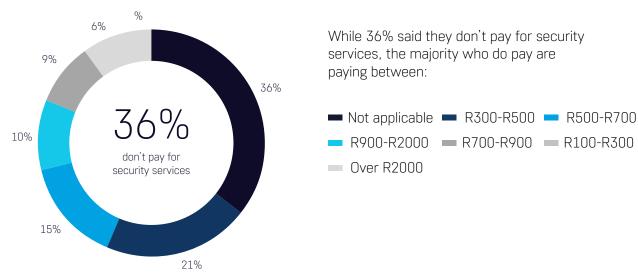
Security - Affordability and Importance

Respondents were asked to rank the level of importance of what they do and spend money doing. While internet access at home ranked highest (9,3), home security, community safety groups and outdoor activities ranked second (8,3)

while ensuring alternate means of power to assist with loadshedding (7,3 to 7,8) and to benefit the environment were lower. Getting children to school safely ranked 7,6.

Safety, internet and electricity all ranked higher than outside entertainment, dining out or having coffee with friends (5,3 to 5,8) while home entertainment ranked slightly higher (6,9%).









Support for a SafeCity

On average, the majority of respondents showed great affinity for the concept of SafeCity and more collaboration between the SAPS, private security companies and the use of technology.

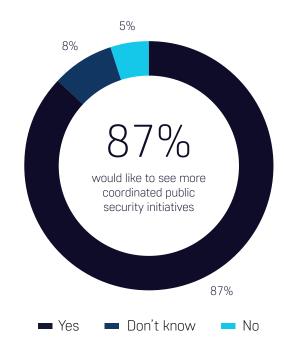
Where respondents were asked to comment on why they thought this approach would or would not be more effective, a number of reasons were listed.

Those who believed it would be effective listed a number of reasons from increasing manpower, proactive responses, offering exact locations, sharing expertise, and enhancing resources.

One respondent from Diepsloot had this to say:

When I got shot nobody saw and I waited a long time for people to find me and then I didn't remember what those guys looked like so until today nobody has arrested them 9 9

Would you like to see more coordinated public security initiatives to combat this type of criminal behaviour (in other words, between private security, SAPS, CCTV and other technology)?

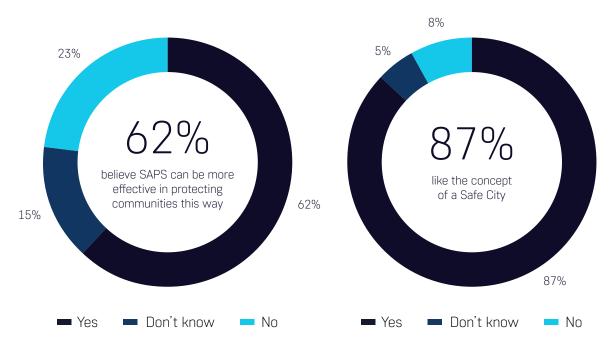


ACTION: Those who felt it was not worthwhile, in all cases, cited a lack of faith the SAPS as well as concerns around privacy. An important part of ensuring public buy-in hinges on effective communication on successes due to collaborative operations. SafeCity could be crucial in cementing public confidence in private security and restoring public confidence in the SAPS.

A full report of commentary will be provided as an appendix to the report.

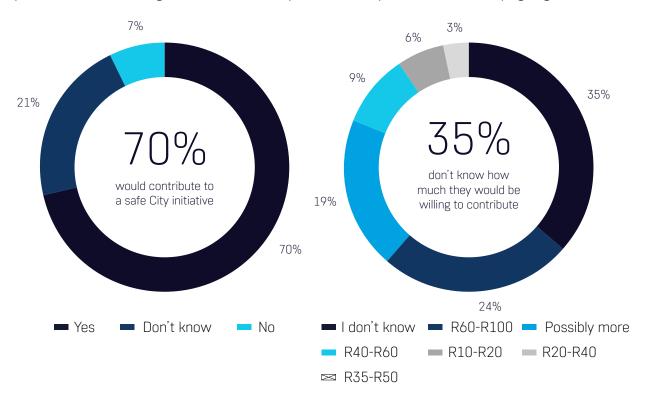
Do you believe that SAPS can be more effective in protecting communities this way?

Does the concept of a Safe City appeal to you?



Would you contribute to a SafeCity Initiative if you knew it was tackling crime across the city?

When asked respondents how much they would be prepared to contribute monthly - to make Joburg a SafeCity through an initiative that promised to tackle crime and help make all communities safer - the majority of respondents said they would do so to varying degrees.



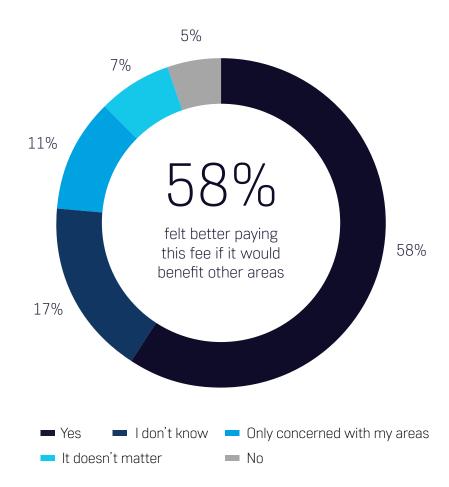


Support To Protect the Unprotected

When asked if respondents would feel better paying this fee if

- currently unprotected areas (that cannot afford these services were also benefitting)
- it enhanced network protection to areas that don't benefit from technology and security

the majority, almost 60%, said they would while only 23% were either only concerned about the area where they lived or not at all.





Conclusion

While all respondents show that they have been impacted by crime in some way there are also high levels of confidence in both private security companies and CCTV technology to battle, challenge and investigate crime in the city.

Where respondents have shown that they feel safer where they can either install or benefit from security technology and CCTV,

they show low confidence in the ability of public law enforcement to protect them.

There is, however, high confidence in a collaborative approach and a willingness to both participate and contribute to SafeCity initiatives.

With effective, ongoing, and enhanced communication around SafeCity initiatives and successes, it seems likely that those who are uncertain, or who do not currently believe that the initiative will be feasible, will buy in over time.

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Appendix

Respondent Places of Residence

The full list of suburbs/ areas respondents submitted under their place of residence

- 7	ΔΙ	ΔV	' 2	nr	tra

- Algoa park

- Annlin, Pretoria

- Asaja

- Atteridgeville

- Auckland Park

- Bedfordview

- Bester Pimville

- Beverley Gardens

- Bezuidenhout valley

- Blairgowrie

- Blue Downs, Cape Town

- Boksburg

- Bordeaux South

- Brackendowns

- Brackenhurst

- Brackenhurst Extension 1

- Bramley

- BRAMLEY VIEW EXT2

- Brentwood Pak

- Bromhof

- Bryanbrink

- Bryanston

- BultfonteincPretoria

- Centurion

- Chiawelo

- Constantia Kloof

- Cyrildene

- Dainfern Ridge

- Dawn Park

- Diepkloof

- DIEPSLOOT

- Dinwiddie

- Discovery

- Dlamini

- Dobsinville

- Doornpoort

- Dooronkop

- Doringkloof

- Douglasdale

- Dube

- Dube Village

- Dullstroom

- Drive

- Dunvegan

- Durbanville

- Eastleigh Edenvale

- Edelweiss Springs

- Edenburg

- Edenglen

- Edenvale

- Elarduspark

- Eldoraigne

- eldoraigne

- Eldoraigne

- Eldoraigne X2

- ELM PARK VILLAGE

- Emmarentia

- Ext 4 Fochville

- Extention

- Faerie Glen
- Fairland
- fairland, jhb
- Featherbrooke Estate
- Ferndale
- Ferndale
- Ferryvale Nigel
- fleurhof
- Fourways
- Fourways Gardens
- Fourways, Sandton, South Africa
- Gallo manor
- Garsfontein
- Germiston
- Glamorgan Road, Parkwood, 2193
- Glen Marais
- Glenvista
- Great Britain
- Greenside East
- Greenside
- Hartebeesport
- Hatfield
- Heidelberg
- Henley on Klip
- Highlands North
- Highveld, Centurion
- Honeydew

- Honeyhill
- Houghton Estate
- Hyde Park,
- Hyrleyvale
- Illiondale
- Illovo
- Jeppe
- Kempton Park
- Kensington
- Kew, Johannesburg
- Khyber Rock
- Kibler Park
- Killarney
- Klipspruit
- Kruger Avenue
- Krugersdorp
- Kumalo Street
- Laezonia Pretoria Rural
- LAMBTON GERMISTON
- Lenasia
- Linden
- Linden Extension.
- Linksfield North
- Linmayer
- Lydenburg
- Lyndhurst
- Lynnwood
- Magaliessig
- Malanshof

- Marlands
- Maroeladal
- Mbele Street
- Mdeni North
- Meadowlands
- Meadowlands
- Melville
- Menlo Park
- Menlyn, Pretoria
- Meredale
- Meyersdal
- Midrand
- Mnandi
- Mondeor
- Moreleta Park
- Morningside
- Morula View
- Mountainview
- Mthatha
- Mulbarton
- Northwold
- Naledi Drive
- Naturena
- Noordheuwel
- Northmead
- Northmead, Benoni
- northriding
- Northwold
- Norwood

- Oakdene
- Orange farm
- Orange Grove
- Orchards
- Orlando East
- Orlando West
- Orlando West Ext
- Orlando West Soweto
- Ormonde
- Ormonde Gardens
- Ormonde View
- Ornado West
- Parkdene, Boksburg
- Parkhurst
- Parkmore
- Parktown
- Parktown north
- Parkview
- parkwood
- Parkwood
- Paulshof
- Pimville
- Pimville Zone 6
- Pimvillle Zone 5
- Pitcairn Road
- Poortview
- President Park
- President Ridge

- President Ridge Randburg
- Pretoria
- Pretoria East
- Primrose
- Protea Glen
- Protea Glen Ext 11
- Protea Heights
- Proteaglem
- Randburg
- Randjesfontein
- Randpark
- Randpark Ridge
- Robin Acres
- Robindale
- Robinhills
- Rockville
- Roodepoort
- Roseacre
- Rynfield
- Rynfield
- Sandown
- Sandringham
- Sandton
- Savoy Estate
- Sebokeng
- Shadow Creek
- Shophiatown/Triomf
- Sinoville, Pretoria

- Soweto
- Springs
- Spruitview
- Steyn City
- Strandfontein
- Strathavon
- Suideroord
- Suideroord
- Suideroord, Mondeor2091
- sunninghill
- Sunward Park
- Terenure
- Theresa park
- Tulisa Park
- Valhalla
- Vosloorus
- Vrededorp
- Waterfall
- Waverley, Pretoria
- Weltevreden Park Roodepoort
- Weltevreden Sun
- Westdene
- White City, Kwa-Thema
- Wilro Park ext 1
- Wilropark, Roodepoort
- Winchester Hills
- Windmill Park
- Zonnehoewe