



One Week in Heron City (Case A)

A Case Study

Malcolm K. Sparrow, Ph.D.

Introduction

The Heron City case study is divided into three parts — **Case A**, Case B and Teaching Notes. The case study is designed to serve as a basis for discussions regarding: (a) the relationships among a range of current policing strategies, and (b) the nature of analytic support that modern operational policing requires.

The broad strategic or organizational approaches discussed in the case study include:

- Community policing.
- Compstat (as an organizational approach to crime-reduction tasks).
- Problem-oriented policing.
- Evidence-based policing.
- Intelligence-led policing.

Executive Session on Policing and Public Safety

This is one in a series of papers that will be published as a result of the Executive Session on Policing and Public Safety.

Harvard's Executive Sessions are a convening of individuals of independent standing who take joint responsibility for rethinking and improving society's responses to an issue. Members are selected based on their experiences, their reputation for thoughtfulness and their potential for helping to disseminate the work of the Session.

In the early 1980s, an Executive Session on Policing helped resolve many law enforcement issues of the day. It produced a number of papers and concepts that revolutionized policing. Thirty years later, law enforcement has changed and NIJ and Harvard's Kennedy School of Government are again collaborating to help resolve law enforcement issues of the day.

Learn more about the Executive Session on Policing and Public Safety at:

NIJ's Web site: <http://www.ojp.usdoj.gov/nij/topics/law-enforcement/executive-sessions/welcome.htm>

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One Week in Heron City: Case A

Heron City is fictional. So are all the characters in the following narrative.

Monday Morning: Meeting With the Mayor

On her first day as police chief in Heron City, Laura Harrison sat down with the mayor to discuss the major issues facing the city. The mayor had three issues on his agenda:

1. The Hayley Scott murder — Heron City, located 70 miles inland from the Gulf of Mexico, was regarded by its roughly 400,000 inhabitants as a pleasant and safe place to live. But the recent and still unsolved murder of Hayley Scott had cast a pall of fear over the city. Hayley Scott, a 26-year-old mother of two, had been savagely beaten to death one month earlier at an Interstate rest stop in the outskirts of the city, having pulled in briefly to buy lemonade from a vending machine.

The media had dubbed the case the “Stalker Murder” on the grounds that Hayley Scott had called Heron City police four times during the previous month, convinced that she was being followed as she drove around town. She had also complained that someone (whom she assumed must be the same man that was following her) had been stealing from her mailbox and tracking her online. She had provided the police only the vaguest of descriptions for her alleged stalker, and she had not been able to give them any registration numbers or a detailed description of a suspect car. As a result of her calls, Hayley Scott’s community beat officer had helped procure and install a proper alarm system for her house and had checked in with her weekly for any new information and to see how she was doing.

Apart from that, given the lack of details available, the local precinct commander had taken the view that there was not much more the police could do. Even after the murder, police had no evidence that Scott had, in fact, been followed or stalked in any way.

One week after Hayley Scott’s murder, the *Heron City Gazette* ran a front-page story reporting her many pleas to the police for help under the headline “Zero Protection: Victim’s Family Labels Police Useless.” Within days, and with public furor mounting, the mayor had negotiated an early retirement for Laura Harrison’s predecessor. In the four weeks since Scott’s murder, the Heron City Police Department had taken 135 complaints from a further 61 women, all of whom expressed concerns that they, too, were being followed. Police had not been able to substantiate any of those claims and assumed they stemmed mostly, if not completely, from paranoia. The Scott murder was the first stranger-to-stranger homicide the city had seen for three years, but it had the whole city on edge.

2. Car theft — The mayor described a meeting he had held over the weekend with representatives from the auto insurance industry. Apparently, insurers were taking huge losses on policies held by Heron City residents. The most expensive claims, according to the industry’s actuarial analyses, involved thefts of luxury cars less than two years old with a heavy concentration among just three makes of vehicle: Lexus, Mercedes and BMW. Theft of such vehicles had risen 450 percent over the last year, and Heron City was the only city in the state experiencing such a surge. Of the high-end vehicles stolen, less than 10 percent were subsequently recovered.

Owners of such vehicles, apparently aware of the pattern, had all been switching to the “full replacement cost” policy option and were willing to pay the higher premium for this more comprehensive coverage. The insurers were subject to regulation by the state’s insurance commissioner and had been prohibited from raising the price of their policies for Heron City. Premiums, according to state law, had to be based on statewide loss experience and that had only risen by 15 percent. The insurance industry representatives had complained to the mayor that Heron City was “eating their lunch” and demanded to know what he and his newly appointed chief of police were going to do about the situation.

3. Contingency preparations for pandemic flu — The mayor also mentioned that the city’s public health department was embarking on a contingency planning exercise for pandemic flu. The health department’s strategy unit had requested a meeting with Chief Harrison sometime within her first two weeks so they could understand her perspective on the issue and incorporate the police department’s potential contributions into their plans.

Monday Afternoon: Captain David Lawrence, Community Policing Unit

Following are excerpts from a meeting between Chief Laura Harrison and Captain David Lawrence, coordinator of the Community Policing Unit, held Monday afternoon in Chief Harrison’s office.

Chief Harrison: I’m guessing all your resources are stretched to the limit right now?

Captain Lawrence: They are, ma’am. I have my own unit of 10 officers, and they’re helping out with the follow-ups on the “stalker calls,” mostly just spending time trying to calm people down, making sure houses are secure, and giving advice about how to recognize genuinely dangerous situations. We’ve developed some materials for distribution and made those available to all the precinct beat officers. I have some input into their deployment, too — in collaboration with their lieutenants — so I think we are delivering a consistent message to the public. The rate of calls, though, doesn’t seem to be dropping off at all just yet.

Chief Harrison: Do you have all the help you need with the psychology of this? We need folks to be alert, particularly until the Hayley Scott case breaks. But we don't want a completely neurotic city. We want more people out in public places, if anything, not less.

Captain Lawrence: Yes, ma'am. We've had some very good input from other jurisdictions with similar experiences, and we've worked out some referral systems with the health department for folks that just seem generally anxious.

Chief Harrison: Okay. What about the surge in car thefts? What kind of reaction do you see to that?

Captain Lawrence: Well, that's not much of an issue for my unit because it doesn't seem to be much of an issue for the community. We're almost entirely focused on the stalker calls for now.

Chief Harrison: How come?

Captain Lawrence: Basically, the owners aren't losing anything much in the long run. The cheap cars that go usually show up within 24 hours, and that seems to be mostly young kids just joyriding. The really expensive cars — which generally don't show up, by the way — are fully insured. They're gas-guzzlers too, and with the price of gas these days, the owners seem perfectly happy to let them go and switch to something more economical. The insurance payouts are much more than the owners could ever get for a trade-in. Everyone around here with a fancy car now takes the full-replacement option.

Chief Harrison: Just because the owners are not complaining, does that stop it from being a community issue? Do you realize we're the only city in the state with this problem, even though we don't seem to know what it's about?

Captain Lawrence: I know it's an issue, ma'am. But it's not one of their big concerns. The women are afraid. The men are worried about their wives and kids. There's not much energy left over for worrying about cars, or anything else; and what energy there is, at the moment, is focused on glue sniffing in the fourth and fifth grades. We've got a lot of kids getting pretty sick with it.

Chief Harrison: Do you think of the insurance companies as part of the community?

Captain Lawrence: Not really. I think they can take care of themselves. I think that's the general attitude among our residents.

Chief Harrison: How long have you been coordinating community policing in this department?

Captain Lawrence: This is my seventh year now. The previous captain had the idea that we'd just use the community as our eyes and ears to help us solve crime. The chief back then — that's three before you, ma'am — wanted someone who'd make it a two-way deal. We'd actually take community preferences seriously in figuring out what to work on. That way, we get even better cooperation. The idea was to make it a real partnership. So we listen to them. They don't care much for insurance companies.

Tuesday Morning: Major Fred Lucius, Head of Patrol and Director of Compstat

Following are excerpts from a meeting between Chief Laura Harrison and Major Fred Lucius, head of the Patrol Division. Major Lucius was brought into the department five years earlier to implement the Compstat process, which he now directs. The meeting takes place in the chief's office on Tuesday morning.

Chief Harrison: How are the precinct commanders doing with all this pressure?

Major Lucius: Ma'am, we got rid of all the ones that can't handle some reasonable degree of pressure. The nine we have now, I think, do pretty well.

Chief Harrison: What's the approach with the stalker calls?

Major Lucius: We've pretty much left that up to the community beat officers so far. There really hasn't been much to go on in terms of real leads or threats. We can't say it publicly, but we are assuming — unless someone comes up with a real suspect, or a crime attempt, or something tangible — we're assuming this is mostly fear arising from the Scott case. And, so far, we haven't had any other incident remotely like that one. Not even an assault, or even an attempt.

Chief Harrison: But we're up to 61 women calling in the last few weeks, some of them numerous times. One hundred forty-three calls in four weeks, total, including eight since this time yesterday.

Major Lucius: It is tough to know what to do about them. I suppose we could Compstat the calls. But they don't seem to be grouped together in any meaningful way. They don't show up as clusters

at all on the Compstat maps. Neither do the car thefts, for that matter. They're spread all over town.

Chief Harrison: Did you say “Compstat the calls”? Is Compstat a verb now?

Major Lucius: I think it has been for a while.

Chief Harrison: What does it mean to Compstat something?

Major Lucius: It means you hold the precinct commanders unambiguously accountable for reducing whatever the problem is in their precincts. If they succeed, their careers progress. [He smiles.] If they don't, or can't, we find someone who can, and we shuffle the nonperformers off to the side. I think it's fair to say we've had a lot of success with it so far. I think everyone pretty much agrees that it is Compstat that has made this such a safe city overall.

Chief Harrison: What sorts of things do you Compstat?

Major Lucius: I think you can Compstat just about anything. We've done burglaries in public housing, street-level drug dealing, maintenance downtime for police cars, excess overtime, even vandalism and graffiti.

Chief Harrison: But these are mostly “place-based” problems — local disorder problems — aren't they, except for the internal police ones? I imagine for problems like that, it ought to be useful to focus your attention on particular locations and in particular precincts. What about problems that aren't even concentrated by precinct?

Major Lucius: I think the system still works. You'd still get the precinct commanders competing to bring the rates down in their area, even if they didn't own the whole problem. The competition never seems to hurt! Not sure I can think of an example, off the top of my head, of a problem that doesn't belong in the precincts.

Chief Harrison: I can. A physician friend of mine showed me a piece a couple of weeks ago in the *New England Journal of Medicine*. They found that on public holidays you get a significant spike in rates of domestic violence injuries: a big one, close to 40 percent above average daily rates. All across the country, as far as they could tell. Maybe the family spends

too much time together. Who knows? That's from data provided by hospital emergency physicians and analyzed by epidemiologists. And the spike seems to be about the same percentage increase over average daily rates regardless of the socioeconomic status of the family. Rich people. Poor people. Every kind of people. I can't imagine that such a problem is concentrated by precinct, or arranged in terms of hot spots. In fact, the article made it quite clear how these concentrations are arranged: they are arranged in terms of public holidays. Could you Compstat that? And if you did, would you expect that to be effective?

Major Lucius: I don't see why not. We normally use Compstat to reduce the numbers, whatever the numbers are about. And these are numbers, aren't they, the number of domestic violence injuries? So I could just make it the number-one priority for the holiday periods and see what the commanders come up with. They get pretty resourceful when they know their results count for something and have consequences. I guess we'd tell them we wanted a reduction, and we could use last year's figures for the same holidays as the baseline. One problem, though: we'd need to get the hospital admission rates for the violence cases. Can't imagine the hospitals would give that data to us, though. The doctors don't generally seem to like the way we view folks as offenders. My impression is they prefer to think of these things as diseases to be cured. Maybe it would be simpler for us just to focus on the data that we do get and can use, like the number of domestic-dispute-type 911 calls that come in on public holidays? We could Compstat that if you wanted?

Chief Harrison: You mean, and drive down the number of complaints from domestic-abuse victims? Isn't that the worst thing we could possibly do?

Major Lucius: I guess that would depend on how we did it.

Chief Harrison: Do you see the Compstat process as a performance measurement system? If it's that, then I suppose it focuses mostly on the performance of the precinct commanders. Or do you see it as a way of analyzing problems?

Major Lucius: Both, for sure. I see them as connected. It's a way of holding precinct commanders accountable for solving their own precinct-level problems.

Chief Harrison: You said a moment ago that neither of our two current priorities — the stalker fears and the car thefts — seem to be concentrated geographically.

Major Lucius: Yes, that's right. We've had both these issues color-coded on our Compstat maps for a while. The car thefts have been going up all across town, but there isn't much difference in the rates or patterns across the various precincts. The commanders complain they don't really have any meaningful way of concentrating their patrols. They are also complaining about the lack of alerts from the ALPR¹ system. We've got 18 locations in and around town with ALPR cameras up and running, and we are supposed to get instant alerts when a stolen car, or one flagged of interest, goes by. With all these stolen cars around, you'd imagine we'd be getting a lot of alerts. But no, next to nothing. I'm afraid the patrol side assumes the system doesn't really work, but the IT² department won't admit that. Maybe it's something to do with the upgrade in the computer system that runs ALPR, which they're doing now, and which seems to be taking forever. They're upgrading the communications and data storage capacities, I believe, because there's now more data than the original system could ever handle.

Chief Harrison: And what are you doing with the stalking complaints?

Major Lucius: I guess we wouldn't necessarily want to drive down the number of stalking reports, either — just like the domestic victim reports — at least not until we know whether they have any basis in fact. But that issue is with the community group for now, so we're letting them do the handholding. I think all this craziness will stop anyway, the day we catch the bastard; and the detective branch is driving that investigation. I think what's upsetting everyone is the idea that he's still out there, and nobody knows what he's doing. If anything.

Chief Harrison: One last thing. I'm curious. When we do have problems — crime problems — and they really don't have a shape or concentration that lines up in any meaningful way with our precinct boundaries, why do you assume that the right thing to do with them is to chop them up and hand them out to the precinct commanders, just like we do with local disorder hot spots and things like that?

Major Lucius: That's the organization I have, ma'am. I have to use the rank structure. I have to use my organization. The structure we have determines who we can hold accountable, and for what.

¹ Automatic License Plate Reader

² Information Technology

Tuesday Afternoon: Captain Josephine Smithers, Director of the Intelligence-Led Policing Unit

Following are excerpts from a meeting between Chief Laura Harrison and Captain Josephine Smithers. Captain Smithers runs a relatively new Intelligence-Led Policing Unit that consists of 10 criminal intelligence analysts (some civilian and some sworn officers), that has also been given responsibility for the Heron City Police Department's strategic planning process. The meeting takes place at the chief's reserved table in the headquarters dining room, over coffee.

Chief Harrison: I understand from Detective Superintendent Gill that you've been supporting his investigation as much as you can.

Captain Smithers: Yes, of course we have. But it has been very frustrating. We haven't been able, at least not yet, to find any link between the Hayley Scott case and any of the people on our lists.

Chief Harrison: Your lists? What kinds of lists do you have?

Captain Smithers: These are the lists of serious and prolific offenders who we know are operating, or who we think are operating, in or around Heron City.

Chief Harrison: And how do you use these lists, normally?

Captain Smithers: Well, the whole basis for intelligence-led policing is the 80/20 rule, you know, 80 percent of the offenses are actually committed by a small number of offenders. Actually, I think the reality is more like 95 percent and 5 percent. We keep track of these people, and work with the precincts where they live and where they work, and almost anywhere else they go, to make sure they don't get room or time or much opportunity to make trouble.

Chief Harrison: So this is a crime-prevention operation?

Captain Smithers: Both preventive and reactive, ma'am. The whole idea is to nail them quickly when they step out of line and shut them down. And, if you shut down all your worst offenders, you get a safer city. I think that's the idea, and I think that's why Heron City is generally so safe. I think we've been pretty successful. Of course, my unit can't take all the credit for that. We've had excellent cooperation from the patrol side and from the detectives. We've built the targeting into our strategic-planning priorities for the department, and I think just about everyone has played their part.

- Chief Harrison:** Why do you suppose this is called “intelligence-led?” If it’s not this, then it must be stupidity-led? Who invents these names?
- Captain Smithers:** I think the name comes from England originally. We’ve studied the Kent model. It seems to be a much sharper and more focused version of a very long criminal intelligence tradition. In the past, we always had intelligence analysts — and in the English version they called them “collators” — who would gather any data and organize it into files based on criminals and criminal groups. And maybe they’d use those files when it came time to do an investigation, but they didn’t use them proactively in any way to set priorities for the department.
- Chief Harrison:** So, our strategic-planning process now organizes the department’s attention around specific offenders? What did you call them? Serious and prolific?
- Captain Smithers:** Yes, that’s the core of the idea.
- Chief Harrison:** Does the strategic-planning process take into account community concerns, supposing for a minute that some of those concerns might not necessarily involve any serious or prolific offenders?
- Captain Smithers:** Like what, ma’am?
- Chief Harrison:** Like glue sniffing in the primary schools? Like domestic violence incidents on public holidays? Like stalking, if it’s a stalker we’ve never seen before and who therefore doesn’t appear on any of your lists?
- Captain Smithers:** The idea is to be driven by facts. By intelligence. And a lot of research shows that a few offenders do most of the damage.
- Chief Harrison:** Whose research is that?
- Captain Smithers:** Well, I don’t follow the literature very much. You’d have to ask Dr. Tom Boden about that; he’s our evidence-based policing expert. He seems to know the research literature pretty well.

- Chief Harrison:** Have you discussed with Dr. Boden the relationship between intelligence-led and evidence-based policing? Are these the same idea, in your view, or different?
- Captain Smithers:** Basically the same, I think. Driven by the facts. I'd say that's the core of them both. If there's a difference, I'd say that intelligence-led is the version that the police profession has embraced, and the evidence-based version is more for academics.
- Chief Harrison:** Guess I'll have to ask Dr. Boden what he thinks about that! Can you tell me how your unit is supporting the murder investigation?
- Captain Smithers:** I sat down with Ken Gill right at the outset to see what we could do. First thing we did was check out the whereabouts of our top 20 violence and sex offenders on the evening of the murder. That didn't turn up anything useful. They all had pretty solid stories about where they had been and what they were doing.
- Chief Harrison:** What else?
- Captain Smithers:** Well, we did do some work with Mr. Goring, head of IT. We were trying to figure out how we could tell if any of our known offenders were actually following Hayley Scott at the time. One problem with that was the fact that we don't have any ALPRs on the stretch of road where Scott pulled off. We've got 18 locations, but not around there. If we had, then we'd have been able to search through all the other cars traveling that road at about the same time and check them against our list of flagged cars.
- Chief Harrison:** Flagged cars?
- Captain Smithers:** Yes, ma'am. We keep an active list of flagged vehicles being driven by persons-of-interest. We call them "vehicles-of-interest" or VOIs. I believe our current list of active VOIs is more than 300. Once we've set them up in the ALPR system, we get automatic printouts every morning of all the ALPR sightings in the previous 24 hours. It's a pretty big report.
- Chief Harrison:** What do you do with it?
- Captain Smithers:** Nothing, normally, unless there's heightened interest in a particular player. Then, we begin to actually map their movements from the reports, and if their travel patterns seem

to line up with any particular crime patterns, then we might bump them up to active surveillance.

Chief Harrison: So you move offenders into and out of different categories? On the list. Off the list. Into active surveillance. Out of active surveillance. And this is all based on just how serious and prolific you think they have been lately? Is that the model? By the way, can you tell if Hayley Scott was being followed by any of your VOIs? I don't mean on the night she was killed. I mean at any time in the previous month. Or since she complained to police the first time around.

Captain Smithers: Actually, we did do that. Phil Goring had one of his guys pull a data dump from the ALPR system, and we contracted with a local data-mining company to run some tests on it. The job cost us over \$10,000 and didn't actually show anything terribly useful.

Chief Harrison: What did you ask the contractors to do?

Captain Smithers: The first thing was check for VOIs traveling close behind Scott's car, and we asked them to find any VOIs sighted more than once, any time within that preceding month, traveling less than 15 seconds behind her. We figured that 15 seconds is a pretty good guide for line-of-sight following.

Chief Harrison: And what did they find?

Captain Smithers: They found 17 VOIs that hit just once. None of them hit twice. But hitting once doesn't really mean anything, because Scott's car was recorded 403 times during the month, and the contractors said there were on average about 50 cars within 15 seconds each time. So that's roughly 20,000 cars. You'd expect to find some VOIs among 20,000 cars by just ordinary luck.

Chief Harrison: What about VONIs?

Captain Smithers: What's a VONI? Did you just make that up?

Chief Harrison: That would be vehicles-of-no-interest. Or vehicles-of-no-prior-interest. Were there any other vehicles, not connected in any way to your serious offenders and maybe not even criminal at all, that appear more than once close behind this victim?

- Captain Smithers:** Actually, the contractors checked that too. That was the bigger piece of the job we gave them in the end. It was the contractors' own idea. They said they could take the 403 lists from the 403 Hayley Scott sightings and check for any common elements cross them.
- Chief Harrison:** What did that show?
- Captain Smithers:** They said there were actually around 19,000 plates that scored just once, about 400 plates that scored twice, and 67 that scored three times, and just one that scored seven times.
- Chief Harrison:** Seven times! Wow. So we have a suspect now — the one that scored seven?
- Captain Smithers:** Afraid not. It was her husband's car. Once they gave us this result, we checked it out with the beat officer who had been talking with her from time to time. Scott used to have her husband follow her home from different events. Usually last thing at night, and they'd be at some event together but he had come from work, so they had two cars. She was already nervous, so he'd drive home right behind her. For all seven of these joint sightings, the two cars were within 10 seconds of each other. Guess they were a pretty typical two-car family. One small car and one minivan.
- Chief Harrison:** And the 67 plates that scored three hits? Is that the list of 67 that Mr. Gill tells me they are working through now, checking out their alibis? He briefed me last week on the investigation and again last night. He said this particular list is not yielding anything so far. He has no witnesses, and he doesn't have much else to go on at this point, unless forensic turns up something useful.
- Captain Smithers:** I assume that's the same list. Most of the 67 seem to be moms, and very few dads, of other kids at the same school. Guess they all drive similar routes at about the same time each day. It's not really surprising they'd coincide this closely, at least a few times in a month.
- Chief Harrison:** Why did we have to use contractors? Isn't this something we could have done ourselves in-house?
- Captain Smithers:** Apparently not. You'd have to talk to Phil Goring and the IT people about that. They are in the process of upgrading the ALPR system and I gather the way it has been set up you can't really play around with the data yourself. The vendor set the system up to link directly to

our lists of VOIs, and stolen cars of course, and to generate real-time alerts to Ops Room for the stolen ones, and daily reports to us for the VOIs. So we've been getting about five alerts a day on average for stolens, and very few arrests from those. Apart from that, the system archives all the data for six months or so — which is already a massive dataset — just in case they need it for some investigation, like this one.

Chief Harrison: What can you tell me about the car thefts in town?

Captain Smithers: Not much, really. Heron City does not have any particularly prolific car thieves on record. At least not in our files. We have looked at this problem, but it seems to be scattered all over town. And that means it must be some sort of broader community issue. We can't see any evidence that this is about a particular group or a few really bad apples. So we're assuming the problem is best dealt with by the precincts and the Compstat process. The precinct commanders should be able to drive this down. Most of my unit's work focuses on more serious matters, like bank robbery and serial sex offenders. We're keeping the lid on those problems, so we figure we're doing our job.

Wednesday Morning: Phil Goring, Director of Information Technology Services

Following are excerpts from a meeting between Chief Laura Harrison and Phil Goring, director of IT Services. The meeting takes place in Dr. Goring's office in the IT department.

Chief Harrison: Tell me about the ALPR upgrade. What's the problem it's designed to fix?

Phil Goring: Data accuracy, ma'am. And data storage. From 18 readers running 24/7, we are accumulating masses of data, and we can only keep it for 6 months. We promised the city we'd be able to keep it a full year. We also promised the city, based on assurances from the vendor, that the data would be at least 98-percent accurate. From the tests we've done so far, we're only hitting about 92 percent at the moment.

Chief Harrison: Where's the problem? In the cameras? The software? Lighting?

Phil Goring: Mostly, it's in the software, we think — the image enhancement and the optical character reading. The vendor has set up a workstation for us here so we can actually pull up the images. That's Nigel out there in the hallway, at the workstation, working on the images. You passed him on the way in.

Chief Harrison: The youngster?

Phil Goring: Yes. 24 years old. He's actually a marine biologist by training, and he's waiting for a job to open up at NOAA.³ He's filling in here for a few months, and I'm happy to use him for a short while. I don't think he'd belong here in the longer term. He really doesn't seem too happy sticking to the job I've given him. But I can't really blame him. I guess it is a bit repetitive.

Chief Harrison: What does he do at the workstation?

Phil Goring: His job is to look at the errors the system has made, group them together and present dossiers of errors to the vendor. Part of our agreement with the vendor says we will cooperate with them on data-quality enhancement. So the system logs all the cases where a plate has been read, but the number it thinks it read doesn't have a match in the registry files; in that case, we assume the photo interpretation is wrong. Nigel pulls up the original picture on the screen, reads the license plate number if he can, and compares it with what the machine said it was. There are a lot of cases where Nigel can read the number quite easily but the machine got it wrong. Usually dirty license plates and some out-of-state plates with unusual shapes, complicated frames, or lots of stickers.

Chief Harrison: Who does analysis of the data?

Phil Goring: Well, the system is designed to do some analysis. It gives us overall volumes at each location, by hour. And it generates alerts for VOIs and stolen cars when they roll by. Apart from that, the system just archives the data on a rolling six-month basis. We want to boost that to 12 and bring the accuracy rate way up to what it's supposed to be.

Chief Harrison: But can you do other types of analysis on the data? Can you search for odd patterns?

Phil Goring: Like what? Sudden drops in volumes? Traffic jams? That kind of thing? What did you have in mind?

Chief Harrison: I didn't really have anything particular in mind. It just seems odd to have all this data and not really do anything much with it.

³ The National Oceanographic and Atmospheric Administration

- Phil Goring:** I don't think we'd dare to do anything much with it, when the accuracy is so bad. We could end up messing up all kinds of people's lives by mistake. We'd look like idiots. We treat the alerts we get now with a lot of caution, and we require patrol officers to check the license plate number for themselves before they make any arrests. We did try an experiment with outside contractors, to do some analysis for the Scott inquiry. But it didn't reveal anything useful, except to show us what we knew already — that the Scotts had two cars, and they sometimes went out together!
- Chief Harrison:** Seems to me that even if it didn't show anything useful in the end, it was still a good thing to try.
- Phil Goring:** We had to deal with some others who didn't think that. Getting permission from the city's general counsel for the contract was a real pain. Their office was all worried about the idea of police doing anything that smacked of data-mining, especially on ordinary citizens' travel patterns, with almost none of them being suspects for anything in particular, and they were all just going about their ordinary daily business. The GC said they saw civil liberties issues all over it, and ACLU lawsuits, and they were really nervous. In the end, it was the mayor who told them to shut up and approve it, and told us all not to talk about it in public.
- Chief Harrison:** Can you explain why we are not getting more alerts for stolen cars? We've become the stolen car capital, at least for luxury cars, for the entire state!
- Phil Goring:** We've been puzzled by that. Maybe the thieves know where the ALPRs are. It's not exactly a secret. We assume they are simply avoiding those locations. The reading errors might be hurting us as well. I've been trying to figure out what else might be wrong.
- Chief Harrison:** Phil, I appreciate your time. I also appreciate that the technical side of these issues can be pretty demanding. But, in my role, what I have been trying to figure out is who, within this department, can do the analysis and thinking that we really need to help us come to grips with the problems we have: the car-theft problem, the murder investigation, the fears about stalking. All the systems we have, it seems, even though they're run by top-notch people, don't seem to be quite right for these problems. You and I need to figure out how to make a better link between our technological capabilities and operations. I think line management should be asking you for a lot more analytic help, and the help

you provide them ought to shape and change the way they tackle things. We've got a lot of experienced officers, and some particular systems — like Compstat and community beat policing — that seem to work reasonably well in organizing people around certain types of tasks. But for these problems — the ones we face right now — it's hard to see whose job it is to study them, pick them apart and then organize everyone else around what needs to get done. Can you help me figure that out?

Author Note: Malcolm K. Sparrow is professor of the Practice of Public Management at the John F. Kennedy School of Government at Harvard University. This case study was written in support of the Executive Session on Policing and Public Safety at the Harvard Kennedy School of Government. It is designed to serve as a basis for discussions regarding the nature of analytic support for modern policing. The author acknowledges valuable research assistance provided by Baillie Aaron, with respect to policing strategies, and by Dr. Libby Jewett, Hypoxia Research Program Manager at the National Oceanographic and Atmospheric Administration, with respect to marine biology.



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