

# **Service quality in policing: a failure demand perspective**

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## **Abstract**

### **Purpose**

This paper investigates non-urgent demand in one police region of the UK to establish if there are ways to improve the ability of the service to meet demand without compromising service quality. This outcome is achieved using a failure demand perspective of the work entering the system to see if the workload can be reduced overall.

### **Methodology**

This study took a stratified sample of 535 non-urgent incidents that occurred in a two-week period in 2017, re-examining the nature of the demand and how this was met. Sixty separate parameters were recorded for each incident, focusing on the quality aspects of the service.

### **Findings**

The findings showed that 30% of the sample incidents showed unnecessary repeat activity, with some incidents having up to seven episodes of failure demand as a consequence of the failure to deal with the incident at the first opportunity. There are many underlying causes of the failure demand but the work prioritisation system and the consequent decisions taken to postpone dealing with non-urgent incidents are the main cause of the problem. There were also strong links between work postponement, failure demand and reduced service quality. The study also highlighted the need for improved integration with other services such as healthcare and child services.

### **Implications**

The study suggests that many police forces should re-orientate the work prioritisation and allocation system, suggesting that more demand can be met with higher quality and less resource if it is not postponed but dealt with immediately (and remotely) if possible.

### **Limitations**

This is a sample study in one police region. More work can be conducted to show the generalisability of the approach and recommendations.

**Keywords:** Service Quality, Rework, Failure Demand, Police

**Paper type:** Research paper

## Introduction

All public service sectors are under significant financial pressure, especially after the financial crisis from 2007. The UK Government spends approximately £780bn on public services (ONS, 2016) and welfare, but there has been a series of financial constraints applied to public expenditure, with many organisations or departments experiencing real-term cuts to budgets (e.g. HMIC; 2011; NAO, 2015). The situation is often made worse by increasing demand without corresponding increasing revenues.

In a UK context, the Police Service has experienced similar financial pressures to other public services, with a steady real-terms cut in funding from 2015 and other changes to funding from 2009 ( see Elliot-Davies et al., 2016). In the period 2009-2016 the number of full-time equivalent officers fell by 14% according to the Institute for Fiscal Studies (Disney and Simpson, 2017). In the back offices the situation is potentially worse, with a 23% reduction in numbers. At the same time the patterns of demand have been under considerable change (Bercal, 1970; Vinod Kumar, 2014; Boulton et al., 2017). Recorded crime fell by approximately 30% between 2002 and 2011, but has stayed at similar levels, with a slight increase in 2015-16. One of the added complexities, however, is the change in mix away from car theft, robbery and burglary towards “white-collar crime”, internet offences, sex crime and trafficking. This potentially changes the quantity and mix of skills required by forces. These problems have become more obvious in the last two year or so, leading to a series of comments in the 2017 “PEEL” review of UK policing by the Inspectorate of Constabulary (HMIC, 2018):

*“[There are] major concerns that policing is under significant stress. On occasions, that stress stretches some forces to such an extent that they risk being unable to keep people safe in some very important areas of policing... About a quarter of forces are all too often overwhelmed by the demand they face, resulting in worrying backlogs of emergency jobs, with officers not attending incidents promptly, including those involving vulnerable people.”*

Source (HMIC, 2018)

In practice, emergency demand, that needs to be responded to as soon as possible, only accounts for between 15-20% of all demand entering the system via control centres (such as the 999 service). Non-urgent demand accounts for more of the total workload and there is other back office work, such as follow-up and investigation work that absorbs policing resources. Forces often then face a dilemma about resourcing emergency demand where this might mean slower responses or refusal to attend to demand that is classed as non-urgent or where there is no public threat or harm. From the perspective of the public this would manifest itself as refusal to attend to the scene of a minor crime, such as theft from a garage or shed, or delays to visit a scene of crime that result in forensic evidence being lost.

This paper summarises some of the findings of a study of how police respond to non-urgent demand in one police region in the UK. One of the original aims of the study was to contrast how services were being provided with that of a supposed “ideal” service. This analysis was used to understand the potential to define a range of “service offerings” that should meet the needs of the callers requesting service from the police whilst managing risks and maintaining efficiency. The context of this work was that a previous piece of research had suggested there was currently 30% more demand for resource than there was available resource and so mechanisms to manage demand and provide service more efficiently were to be considered. As a consequence the researchers recorded the nature of the demand entering the system, how this was dealt with at the time and what the ideal service delivery might have been. In this paper we discuss the implications for service quality of the ways in which the police service

attempt to manage demand and meet the needs of the callers and victims of crime within the system. One particular perspective was to identify the “failure demand” in the system (Seddon, 2003) and analyse how this impacts upon overall workload and any potential impact on service user satisfaction.

### Service Quality in Policing

Most discussions of quality in a policing context focus on the purpose of policing or the concept of procedural justice. Tyler (1988) identifies seven aspects of fairness within the policing and legal systems, motivation to be fair; judgements of honesty; ethical principles of conduct; opportunities for representation; quality of decisions; opportunities for error correction; any presence of bias. Maslov (2015) focuses on the purpose of policing, including factors such as reduction of crime, calling offenders to account, reducing fear and ensuring civility. However, within these aims is that of the quality of services and customer satisfaction, with a focus on the courtesy with which the police perform their duties.

A small number of studies have used quality management theory directly. Galloway (1994) takes a TQM perspective of policing, identifying a need to create a customer service philosophy. He defined for his own force a service guarantee:

*“We guarantee that police employees will respond to your request for assistance as quickly as possible, and that the service they provide will be caring, courteous, and satisfactory to you*

*We guarantee that you will be treated with respect, dignity and compassion in your time of need*

*We guarantee that we will do whatever it takes to correct any situation that does not meet your high standards and expectations”*

Source: Galloway (1994), p8

Webb (1998) used a Servqual approach to the understanding of the determinants of perceptions of quality in police services. Significant dimensions of service quality within this study are shown in table 1.

**Table 1 Quality determinants in policing (Webb, 1998)**

<b>Reliability/Assurance</b>	<b>Empathy</b>	<b>Tangibles</b>	<b>Responsiveness</b>
Ability to trust provider	Knowledge of needs	Appearance of officers	Communication of service time
Dependable service offered	Receipt of personal attention	Station easy to locate	Attention to public requests
Service performed politely	Prompt service delivery	Appearance of station	Provision of service as promised
Keeping accurate records	Have best interests at heart	using up-to-date equipment	
Service performed sympathetically	Individual attention provided		
Service delivery promises kept	available at all times		

### Failure Demand Literature

Central to the approach adopted in this paper is the concept of failure demand. This can be defined as “demand caused by a failure to do something or do something right for the customer” (Seddon, 2003). In a previous paper (Walley et al., 2015) the author highlighted the potential value of the concept of failure demand as a means of analysis of a service context. The statement by Seddon (2003) encapsulates the potential value of understanding what failure demand there is:

*“In service organisations...failure demand often represents the greatest lever for performance improvement. In financial services it can account for anything from 20 to 60 per cent of all customer demand...in local authorities and police forces as much as 80-90 are avoidable and unnecessary”* [Seddon (2009), p33]

The main focus of most failure demand assessments is on the efficiency gains that are possible by the reduction of failure demand which should, in theory, sustainably reduce the demand for resources within any service system. Reduction of failure demand, however, should also raise the quality of the services provided to users. This is because the presence of failure demand often implies that the customer has been inconvenienced in some way or has received a poor service experience. For example, a study by Jackson et al. (2007) included a list of examples of failure demand present in a council’s Housing Service call centre. Table 2, below, lists these examples and highlights how the failure demand impacts upon the caller:

**Table 2 Failure demand in Housing Services and implications for service quality**

<b>Failure demand category</b>	<b>Implication for customer service</b>
Customer out when someone calls to do a repair	Annoyance, delay to the repair, rebooking/reworking or the request
Job not completed correctly/ on first visit	Annoyance, inconvenience of ineffective repair, having to stay in for repeat visit, delay to the repair
Progressing needed by the service user	Uncertainty, lowered perceptions, poor image of planning processes, inconvenience, delay

Source: Based on Jackson et al., 2007

The approach to the study of failure demand has been extended by the Local Government Association, which has developed perspectives of excessive demand where unwanted demand might originate from sources beyond simple process failure (IDEA. 2008; LGA, 2013; Randle and Kippin, 2014). Table 3 summarises this perspective.

**Table 3 Types of Unwanted Demand (Randle & Kippin, 2014)**

<b>Type of demand</b>	<b>Explanation</b>
Failure	Demand caused by errors or poor processes
Avoidable	Demand arising from behaviours that can be changed
Excess	Demand created by providing more than is needed
Preventable	Demand arising from causes that could be removed earlier
Co-dependent	Demand that is unintentionally reinforced by dependence

In this study we used the idea of unwanted demand to help reflect on the nature of the service that the police need to provide to ensure a satisfactory service without the over-supply of unnecessary service and maintaining some notion of preventing demand (e.g. through crime reduction).

### **Research Methods**

The research occurred in two phases. First, a scoping study was undertaken to investigate the potential of demand analysis in policing. This was achieved by eliciting expert opinions at three “evidence cafes”, based on the method used by Café Scientifique. The cafes were attended by 25-40 police officers and police staff from all levels of each organisation. A short introduction, including an explanation of failure demand, was followed by a discussion in groups of the applicability of the ideas to the police. Questions asked included:

1. What are the main sources of unnecessary demand?
2. Are these sources internal or external?
3. What services do the public want that should not be provided by the police?
4. What services are not currently provided that are needed?

The results of this study were used to inform the design of a larger analysis of incidents within Gloucestershire Constabulary (GC). This second study took a sample of non-urgent incidents that occurred during the first two weeks of February 2017. In order to include data that fairly represents all days of the week and times of day, the sample was stratified and a total of 535 incidents across this time period were re-examined. In March 2017, a group of GC police officers from a wide range of roles were brought together temporarily to carry out the main task of listening to and assessing a sample of recorded calls, emails, linked incident logs and crime logs.

For each incident in the sample (usually) one officer, listened to the original call that came into the control room and recorded these details. The incident logs were then studied to determine any further information about the incident that may have been recorded, either at the time, or at a later date. Officers were able to follow up on what the actual response was, the resources deployed and the outcome of the incident. A pro-forma for each incident was completed, summarising the key details of the incident including:

1. The incident type recorded at the start and end of the incident
2. The urgency grading of the call
3. Characteristics of the call, such as the clarity of the caller and the dynamics of the incident
4. The resources deployed in practice
5. The resources necessary to attend to the incident, and the speed and method of response if the ideal service were to be delivered
6. The outcomes of the incident, including degree of public satisfaction with the response
7. The levels of failure demand, including the number of repeat attendances at an incident, or other avoidable work arising.
8. The ideal service that should have been offered to the caller, including the type of contact and the speed of response

In total, 67 separate details were recorded on each pro-forma and further qualitative information was added where an assessor thought it valuable. Although most incidents were short in duration, the re-analysis of a single incident could take the researcher an hour to

complete if the call duration was long or there was a considerable amount of follow-up work. For incidents that contained significant waste of resource a separate case study sheet was completed to highlight the underlying causes of the waste. These examples were noted with more qualitative detail and converted into short, illustrative case examples.

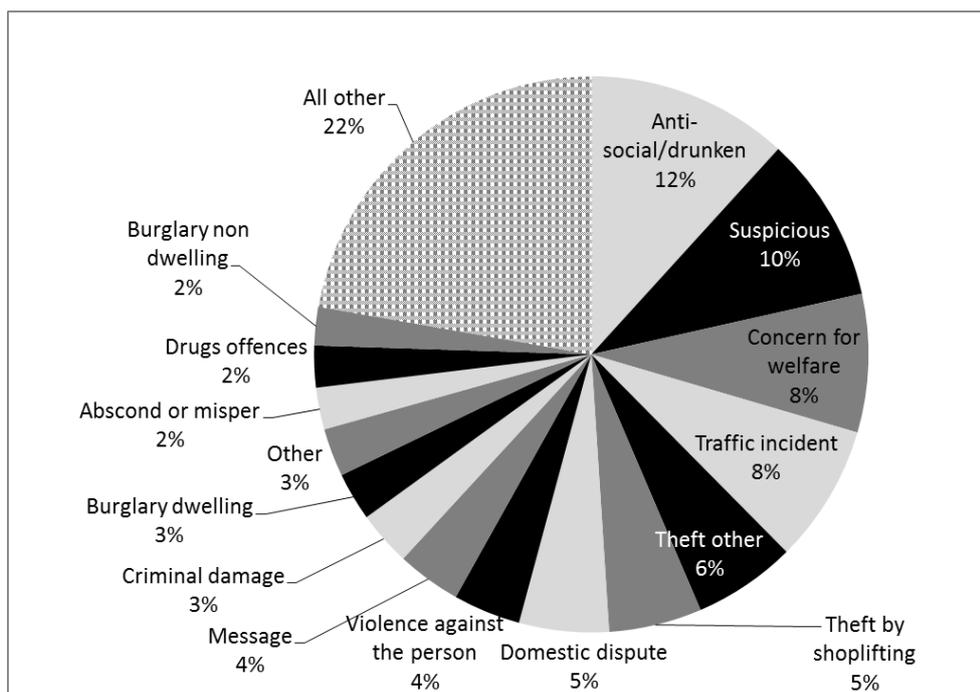
### Findings

The scoping study provided many suggestions for the applicability of the concept of failure demand. Table 4 summarises the types of comments that emerged at the evidence cafes.

**Table 4 Evidence Café suggestions for avoidable demand**

Demand	Examples
Failure	Attendance where victim does not want to report crime Repeat unnecessary contact Defensive approach to risk assessment creates extra work
Avoidable	Mandatory despatch of officers to high risk “mispers” Shed burglaries
Excess	Attendance at non-injury road traffic accidents Attendance for drunk people who are injured Social media bullying, nuisance parking, noisy neighbours
Preventable	Shoplifting, especially from high street chains Theft from unlocked vehicles
Co-dependent	Calls from care home Attendance for other agencies

**Figure 1 Incident type proportions in the study**



The 534 incidents assessed in the larger study covered a wide range of incident types. Figure 1 shows the breakdown. The “All other” grouping included incident types such as malicious calls, lost property, road obstruction, theft from a motor vehicle, Stalking/harassment, noise etc. The services needed by these incidents were defined as follows:

**Table 5 Services needed in 534 incidents**

<b>Type of service needed</b>	<b>Frequency</b>
Give advice	232
Investigate	232
Reassure	143
Collect Evidence.	113
Collect intelligence	55
Arrest	17
Caution	12
Build resilience	5
Transport	4

The table includes data from up to two types of service needed for any one incident, so 534 incidents generated 815 separate necessary actions.

### **Analysis of failure demand**

The incidents where reducible demand was reported predominantly fell into a number of identifiable categories, but these did not entirely match with those used in Local Government. The avoidable demand happened in a variety of ways including:

- Where a previous opportunity to resolve a problem had been missed, so there were several linked incidents *prior* to this one (and potentially, the demand severity is escalating)
- Where opportunities to properly resolve an incident were not pursued, and there were several linked incidents occurring *after* this one
- Linked incidents being dealt with by different officers, unaware of each other’s actions
- Passing of work unnecessarily between police teams, each team defensive about whether the type of work was within their remit.
- Repeated calls between the police and the caller or victim, exchanging further information or giving advice which could have been done within the first call
- Callers making follow-up calls to ask about police attendance or action that had not yet been forthcoming
- Police attending an address or trying to establish phone contact with the caller or victim, and them being unavailable
- Excessive service provision, such as attending non-police matters.

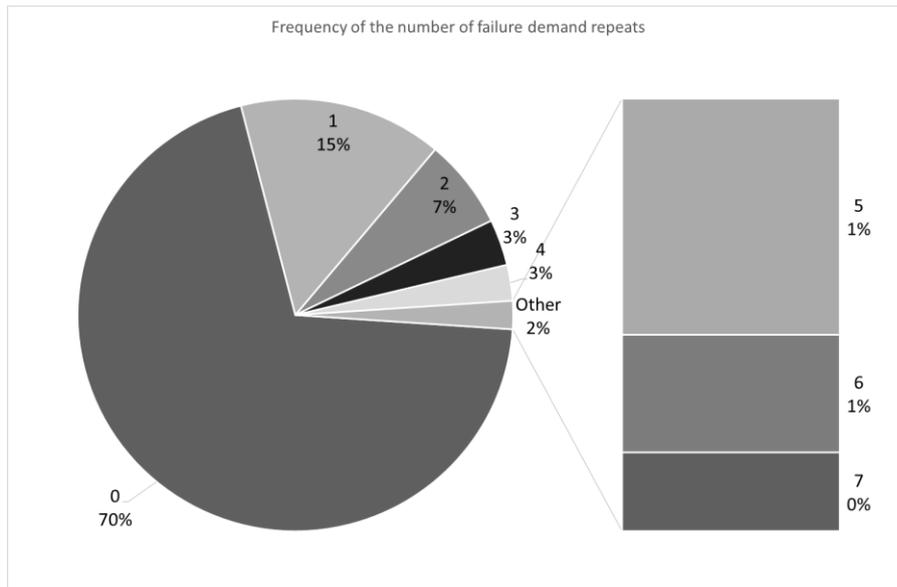
The following sections provide the evidence and case examples that illustrate the above types of issues that were uncovered.

#### *Repeat demands*

In our sample, assessors indicated whether there were any repeat of failure demands in the incident (e.g. rework) – and if so, how many repeats or failures they observed in the recording and incident record. Typical failure demands discussed within the room included incidents where a caller was reporting the same unresolved problem, emails/calls to chase attendance or an update about an incident, and attempts by police personnel to get in touch with a caller when

they were not at home. Approximately one third (30%) of the incidents had some repeat or failure demand, with between one and seven instances of such demands per incident. Once the whole sample was analysed there were 534 separate incidents that needed an extra 353 interventions due to failure demand, making a total of 1168 separate actions created by the calls in total once the previously identified multiple necessary actions are also added in. The increase in workload due to failure demand alone is approximately 30% of the total actions needed to address all incidents. This breakdown of repeat demand is shown in figure 2.

**Figure 2 Number of repeat demands for each incident**



Whilst these failure demands largely described incidents in which the police had failed to do something at an earlier stage, some were due to the failure of another agency to carry out its proper duties. Some notable features of the incidents with failure demand include:

1. They were more likely to be deemed “actual service was worse for satisfaction than my ideal” by assessors and were more likely to be deemed unsatisfying for the caller
2. They were more likely to be deemed unresolved in terms of actions having been taken to prevent future demand
3. Incidents whose dynamics were deemed to be escalating seemed more likely to feature some failure demand

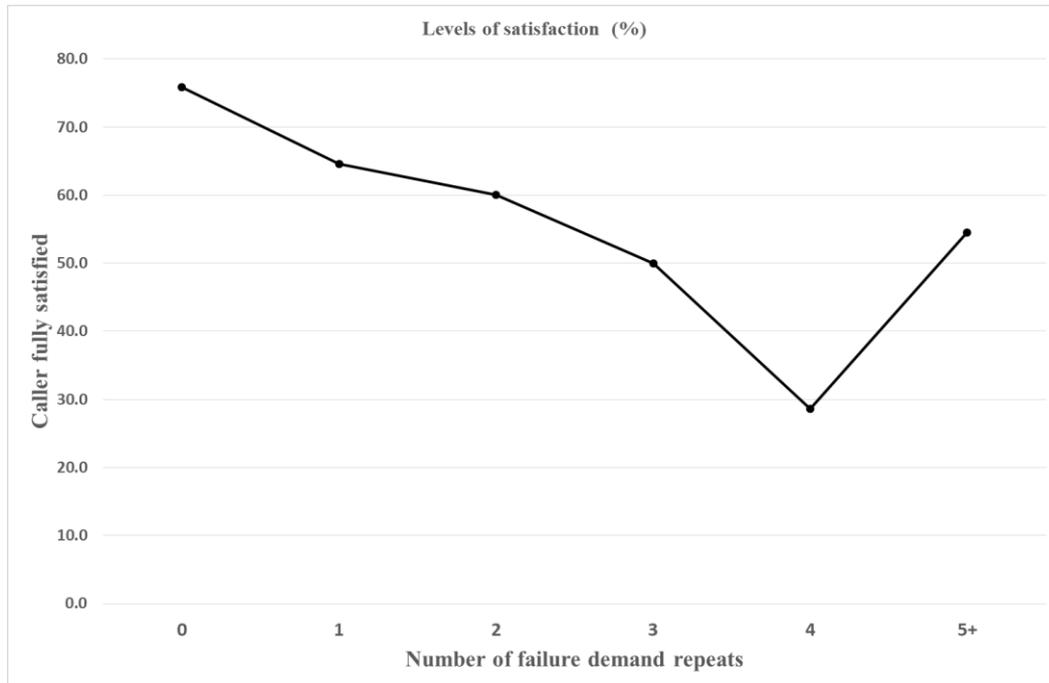
*Case example 1: Failure demand in a shoplifting incident*

The incident that showed the highest levels of failure demand was one of assault and attempted shoplifting at a high-street store. A shop assistant had approached a woman who she suspected of shoplifting and was assaulted when the woman tried to run away from the store. Shop staff had the description of the woman, details of the vehicle she escaped in and a description of the driver. The woman had left her handbag behind, including ID and money. Police failed to attend the incident before the shop shut and then did not collect the handbag and ID for over a week. The shoplifter returned to the store on two occasions trying to reclaim the property, resulting in further calls to the police. 11 days after the incident the items still had not been retrieved, no evidence collected and no-one had been arrested.

### *Links between failure demand and service quality*

The above example highlights a situation where the victim of a crime has not received any service from the police and this raises the question of the presence of failure demand as an indicator of poor service quality.

**Figure 3 Levels of satisfaction with failure demand present**



Analysis of the data suggests considerable evidence to of a strong link between failure demand and failure to provide a service that is satisfactory to the caller or victim. For incidents with no failure demand 75.9% were graded as fully satisfying the caller, whereas only 58.0% of calls with failure demand achieved the same satisfaction grading. (This is statistically significant,  $Z= 16.97$ ,  $p<0.005$ ). Furthermore, the number of repeats of failure demand appears to influence the level of satisfaction, although the relationship is not necessarily linear. Figure 3 suggests that the proportion of incidents fully satisfying the caller mostly decreases as levels of failure demand increase. However, once the number of repeats is five or more there is a slight increase again of levels of satisfaction. The only caveat is that this is based on a relatively small sample of incidents with four or more repeats of failure demand. One possible explanation is that incidents with large numbers of repeats does indicate a belated intention to rectify a situation that has not provided a service “right first time”.

### *Service quality with other forms of unwanted demand*

The study did uncover other forms of unwanted demand and provided examples of where service quality was compromised as a consequence.

#### *Case example 2: Excessive provision of a service*

One example was a neighbour issue over parking conflict, which is a commonly seen type of call into control centres (although it is generally a council matter). In this incident a caller rings the police and describes issues over parking. Due to a neighbour’s previous verbal responses he/she just wants their call logged and incident number in case of any further problems. The caller’s solicitor is involved. Nothing else has happened. The call handler speaks to caller for

15 mins but then passes the incident via 2 separate departments to a local officer who contacts caller. The caller does not need this, or any other service.

*Case example 3: Avoidable demand*

A caller has linked in to a social media site. Someone has set up a ghost account requesting enquiries of a sexual nature towards caller’s mobile phone number. The call handler advises that police can get the number removed from site and that the person can be traced. However, this would not normally be done for a low-level incident. The caller’s expectations have been artificially raised. Two long conversations with caller result, enquiry is sent to local officers who then have to un-pick and lower expectations. An electronic advice leaflet that can be sent to callers by email or smart phone about nuisance/ASB phone calls, texts, social media sites etc. would be an appropriate response where expectations can be managed.

*Case example 4: Co-dependent demand*

Parents have reported that their daughter has climbed out of her bedroom window and gone missing. She tends to be with the same people and in the same location when found. (Multiple officers dealing over multiple days, repeated calls almost daily). There is no perceived responsibility by the parents and any form of Social Services involvement has not been made.

**Analysis**

One of the additional pieces of analysis that was conducted was to investigate any links between the quality of the service and the response times to incidents. There was no strong correlation between actual response times (to the closure of the incident) and levels of satisfaction, but one indirect observation was the actual performance of response times compared with the target set during incident grading. Table 6 shows the actual response time performance for each grade of non-urgent incident.

**Table 6 Incident Response Times**

Urgency	% of grade within time band				
	< 1 hour	1-4 hours	4-8 hours	8-12 hours	>12 hours
<b>Grade 2.1</b>	32.9	24.7	7.1	3.5	31.8
<b>Grade 2</b>	41.7	28.3	4.2	4.2	21.7
<b>Grade 3</b>	41.3	25.4	7.2	5.1	21.0
<b>Grade 4</b>	38.6	25.7	7.1	4.3	24.3

Grade 2.1 incidents need to be attended within an hour, whereas grade 2 incidents need to be attended within 4 hours. The table shows that the 1-hour response time for grade 2.1 incidents is worse than for grade 2 and the overall performance for grade 2.1 is worse. Further qualitative analysis of individual incidents indicates that a number of factors are responsible. First, sometimes the grade is resource dependent, so an incident will be graded as “2” when resource is nearby to respond. Second, once a “2.1” has missed its target of 1-hour response there is often less incentive to commit resource to it in a timely manner, so it is often passed on for “incident assessment” where it is then regraded as non-urgent. This explains why 35% of grade 2.1 incidents take 8 hours or more, with the majority taking over 12 hours.

Part of the problem is that many incidents can be dealt with in a single interaction if the right resource is available at the right time. Once a caller has had the first call terminated by the call handler there appears to be much more scope for failure demand to occur. Case example 2, in

the previous section of the paper, is typical of many calls that could have been resolved in one go but were passed on, generating more than one instance of failure demand. The way to reduce this failure demand, in theory, is to change the way that many calls are handled by achieving remote resolution in one step. In some cases this would involve passing the caller from the call handler to another person, but with the minimum of delay. Figure 4 shows, in theory, how the workload balance might change by acknowledging the most common causes of failure demand as:

- i. incidents being artificially delayed and
- ii. issues not dealt with remotely

The analysis leads to the conclusion that the control system could significantly reduce workload by simplifying the prioritisation system and by generating capabilities to resolve incidents remotely. The analysis produces the recommendation that nearly half of all incidents can be dealt with in this way – double the present proportion – and fewer incidents should be postponed. The number of incidents where the response is postponed (either to be dealt with in person, or remotely) nearly halves. The proportion of incidents dealt with immediately, in person, scarcely changes, perhaps reflecting only a minor adjustment to eliminate some avoidable or excessive service provision.

**Figure 4 Suggested revised approach to call handling to reduce failure demand**

	Deal Now	Deal Soon
In person	<b>Emergency:</b> e.g. threat to life, crime in progress etc. ... <b>Or simple</b> – quick answer 21% to 18%	<b>Does not need to be stabilised</b> or <b>More complex</b> 42% to 24%
Remote	Deal with in order of arrival to FCR <b>Simple</b> (or urgent but remote) First contact resolution 18% to 45%	Deal with in order of arrival in queue (FCFS) Needs specialist or local resource or preliminary research. 19% to 10%
Other	Not a police matter – other agency Hand over to them to take over and manage 0.2% to 3%	

Note: A suggested change in proportions of appropriate incidents shown in shaded text

One of the other unexpected findings within this study concerns the presence of demand that could be met by other agencies. For example, during the evidence cafés the police gave a number of situations where they were called to incidents that were not a police matter. These would include problems with noisy neighbours or nuisance parking, which are both council matters. One commonly held belief was that services such as mental health providers needed to take up more of the workload. In practice 8% of all incidents could have had some mental health care input and just under 10% had other health-related issues attached to the incident record. However, only a total of 3% of all incidents were considered to be not a police matter

at all, and should be dealt with by another agency. This figure is lower than expectations. One of the issues is that many of the interventions to prevent demand are long-term in nature (such as the treatment of drug addiction) and are not actions that can resolve an incident once it has started to happen. There is an issue of how easily work can be passed over from one agency to another, but further study would need to be undertaken to identify the two-way exchange of demand (as some demand will come into the police system from other agencies, once this mechanism is explored).

### **Final Discussion and Conclusions**

The study has revealed the literature about service quality in policing is quite restricted in its scope. Much of the approach to quality in policing comes from a procedural justice perspective that is not concerned with the service element of the contact between the police and victims or other members of the public. There is work using the quality gaps model that has identified some dimensions of service quality from a user perspective, although probably does not capture some of the issues associated with the interaction between police and those requesting a service.

The failure demand approach was useful as it allowed service quality aspects of the nature of contact between victims/callers and the police service to be explored, in relation to meeting the needs of the caller and the ability of the system to provide the service that is required. The study uncovered a number of mechanisms whereby service quality was compromised by failure to deal with the demand at the first opportunity and resulting in difficulties such as failing to re-contact the victim easily or losing the opportunity to collect evidence or pursue action against perpetrators. Once this process of re-contacting callers was established, it was likely that further repeated attempts would be needed before the matter was closed.

The study also provides an example of where a prioritisation system put in place to manage demand and control risk has a number of unintended negative consequences. For example we have observed in our analysis that the service level for 1-hour response time is actually worse than for less urgent. Quality is then diminished further because incidents where the response time has already been missed are often re-graded (to “no response”) leading to a failure to deal with some important incidents. It is for this reason that we would recommend a more holistic approach to incident assessment and provision of service. We suggest that risk (or safety) is one of three dimensions to consider. Police need to also address more clearly what service the caller is needing from the caller’s perspective, not the policing perspective. The financial situation is tight, however, so that the economic sustainability of the service provision is another consideration when designing the service and the system to deliver it. Our analysis reveals that more service provision could be provided with an immediate response but performed remotely, either by telephone or through other communication such as email. One accepted challenge this presents is to manage the public’s expectations about the appropriateness of the response to a non-urgent incident. A useful further piece of research would be to integrate these findings with other work to understand callers’ expectations about what type of service *they* feel is justified. It is a long time since this type of study has been conducted effectively in any police force.

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