

## Article

# The cost of missing person investigations: Implications for current debates

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**Abstract** The cost of missing person investigations has been the subject of debate. This article reports a study that sought to establish this cost through a survey of 407 officers and staff in two UK forces and a realistic case assessment undertaken by 33 officers in two UK forces. Both produce cost estimates (£1,325.44 as a realistic minimum and £2,415.80 as a realistic estimate of cost of medium-risk medium-term cases) that are higher than often assumed or previously reported. It demonstrates that missing person investigations are a bigger drain on police resources than either theft or assault. This result is placed into context of current developments such as the commodification and the outsourcing of policing tasks and recent changes in policy involving missing person investigations.

## Introduction

The area of missing person investigations is changing. Over the past decade, a number of influential reports (Hedges, 2002; Biehal *et al.*, 2003; Tarling and Burrows, 2004; NPIA, 2010) assisted in shaping and standardizing operational practices across the UK. Also, a number of high profile cases held a magnifying glass to missing person investigations and highlighted their complexities. This includes the well-known Soham (UK) murder case in 2002 which started as a missing person investigation. Appeals for the return of missing children Holly Wells and Jessica Chapman featured heavily in the media. Both girls were found murdered. This brought home to the wider public the realization that missing person investigations may soon become a murder investigation. Most recently, the

tragic case of Tia Sharp who went missing in August 2012 dominated the UK media. She was found dead in the loft of her grandmother's house 7 days after going missing. These cases become national conversations that last for days or weeks, or in the case of Madeline McCann who went missing in Portugal in 2007, even years. This highlights the importance of missing person cases as they may become the most high-profile criminal investigations. However, such high-profile cases constitute the exception. The police in the UK dealt with 327,000 missing person reports in 2010/2011 (National Police Improvement Agency (NPIA), 2011). This highlights that dealing with missing persons is part of parcel of everyday policing and therefore of considerable policy importance. Most of these cases are classified as medium risk and are

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short to medium term with the individual returning within hours or after a day or two. Medium risk means that these instances require an active and measured response by police and other agencies in order to trace the missing person and support the person reporting (NPIA, 2011). These are what might be referred to as the bulk of missing person investigations and are the focus of this article.

The investigation of missing person cases is highly labour-intensive and hence, costly. Yet, they should be regarded as a high-risk area of policing and given appropriate levels of priority and resources (NPIA, 2010, p. 11). With increased pressures on public spending discussion regarding resource allocation as well as reflection on the role of private policing and policing for profit is topical. These issues have intensified an already established debate on the commodification of policing (Newburn, 2001; Loader, 1999). The area of missing person investigations is one that perhaps lends itself to fit this debate. Missing person investigations tend to be broken down into a sizeable number of generated tasks to be completed and to be reported on. While on the one hand this may result in the operational fragmentation of operational policing, it also will provide a handle on the identification of specific resources spent on individual and isolated tasks. In addition, in the vast majority of cases, missing person investigations will not require special police powers. Therefore, there is room to consider whether such investigations could be contracted out to other providers.

The rise of multi-agency working involving the protection of vulnerable individuals also bears impact on missing person investigations. Multi-agency work tends to involve a myriad of policies on the identification and management of risk of harm to self and others (Pycroft and Gough, 2010). People who go missing frequently are vulnerable. When a person deemed to be vulnerable goes missing this brings obligations to a variety of organizations not least the police. However, the responsibilities for institutions such as care homes, schools, medium secure forensic psychiatry

units, and others tend to be limited and involve a reliance on the police. It places the police arguably in a position of service provider to other agencies when people under their care go missing.

The developments above have led to an increased desire to 'know' the time and costs involved in missing person investigations. Through IT systems like COMPACT (WPC, 2012), missing person investigations are micro-structured and typically meticulously recorded. COMPACT serves as the single reference point for such inquiries that contains all information and automatically generates tasks to be completed. This has opened the possibility for a more precise costing of such investigation than was hitherto possible.

## **An empirical approach to costings**

This study is not the first to consider the cost of missing person investigations. In fact, statements about the actual cost of missing person investigations have been made regularly. Lancashire Constabulary (Middleham and Marston, 2004) set a figure of £880 per missing person investigation, which increases to £1460 should the missing person commit a crime while missing. At the same time, they quote a figure of 9,000 missing persons annually in Lancashire at a cost of 5.4 million. That would equate to a cost of £600 per missing person investigation. None of these figures are further explained in the report and no costing methodology is specified. Hertfordshire Police Authority (2011) estimated that a missing person case costs £1,700 which was broken down in to telephone time cost and staffing costs. A round figure of £1,000 is frequently quoted, not least in policy and government documentation (e.g. Parliamentary Panel, 2007; Child Exploitation and Online Protection Centre (CEOP), 2011), but the status of this figure is unclear and no break down or costing methodology has been provided. Taken at face value, these figures would mean that missing persons inquiries take up more time to investigate than crimes such as

theft, criminal damage or assault (Brand and Price, 2000; Sinclair and Taylor, 2008). However, it is noteworthy that these costings and the methods that produced them are not open to scrutiny at present.

So how can police activity be empirically costed? In initial conversations both with senior officers and with operational staff inevitably the variability of missing person investigations was emphasized. That complicated calculations. However, the literature also highlights that 99% of missing persons are found alive and that the majority (77%) of missing people return or are located within 16 h with only 3% outstanding for longer than a week (NPIA, 2011). It is obvious that costings would be skewed by the inclusion of the more extreme cases. It was therefore important to limit the scope of our research.

It was decided to focus on cases of medium risk. The NPIA guidance defines medium risk as 'The risk posed is likely to place the subject in danger or they are a threat to themselves or others. This category requires an active and measured response by police and other agencies in order to trace the missing person and support the person reporting.' The level of risk is first determined when an officer takes the full report details. An initial decision regarding risk will always be deemed subjective and should be regularly reviewed as part of the supervisory process (NPIA, 2010, p. 24). Medium-risk cases comprise 90% of cases in West Mercia and 81% in Warwickshire in 2011. These cases are part and parcel of everyday policing and likely to be a significant drain on police resources.

We chose an approach that involved both a survey and a real life case review. We surveyed over 400 police officers who routinely carry out such investigations in two police forces in the UK, West Mercia, and Warwickshire police. Of these, 80% of participants in our study had been working for the police for over 5 years and 56% have been involved with over 100 missing person investigations. Two methods were used. The first is a set of specialist online surveys based on the system called

COMPACT, a computer system in use in 22 police forces in the UK, including West Mercia and Warwickshire. When opening an inquiry the system generates 12 tasks to be carried out. Officers were asked how long each task would normally take to complete in their experience. Part of this survey was aimed specifically at specialist units such as Command and Control, Communications Staff, Crime and Incident Management Unit (CIMU) officers as they carry out actions that are integral to the course of missing person investigations. They were all asked to assess the time it would take to complete the relevant activities when asked to assist.

The second method involved an actual missing person investigation that ran for 27 h in 2011. Judged to be a representative case of 'medium risk medium range', it involved a 30-year-old woman who went missing after a hospital appointment. She had been reported missing 11 times before and was located safe and well at her home address the next day. The case was presented as print outs from COMPACT. This was to ensure that the case was as realistic as possible, both in content and in presentation. In West Mercia, 50% of people who are reported missing do so more than once. Therefore, we deemed it important to explore such a case as part of this study. The case was suitably anonymized.

## Quantifying police time and resources

### Missing person survey

Overall, 407 West Mercia officers and staff were involved in this survey. Of these, 47.5% were police constables (PCs), 13.8% were sergeant, 8.9% were inspector, and the remaining 29.8% comprised a range of roles including control room, intelligence, chief inspector, superintendent, and forensic investigator. In majority (57.5%) their role in missing person investigations is that of investigator. The respondents were highly

experienced. Over 80% had more than 5 years of police experience. Most are highly familiar with missing person investigations: 78.8% have undertaken at least 50, whereas 23.4% estimate that they have been involved with over 500 investigations; 32.8% of respondents are women.

In order to analyse the data we took the middle of the range of each category (e.g. 10 min for 6–15 min category, and 22.5 min for the 16–30 min category), multiplied that by the number of respondents who chose that category, and divided these figures by the total number of respondents. Weighted averages of the time estimates were subsequently used for cost calculations. For the latter we worked with the annual salaries typical for those undertaking the tasks under calculation (see [Table 1](#)).

Command and control, communications staff, and CIMU officers (237 in total) answered questions about the length of time usually required in the initial investigative stages. These include taking an initial call, logging a call into Command and Control, updating COMPACT with a skeletal missing persons report, and further updating COMPACT (WPC software Ltd (2012)). Based on weighted averages we estimate that this phase of the investigation requires 1 h and 31 min.

All respondents completed questions on the duration of a number of other automatically generated tasks. These are: filling out a missing person report

(C8); for the duty inspector to assess the case and identify priorities; obtaining and scanning a photograph of the missing person; checking custody; re-searching the missing person's previous missing history; checking access to mobile phone/pager; and PNC checks and checks of local intelligence and Crime Recording systems and for the results to be recorded. Based on weighted averages we estimate that this phase of the investigation requires 4 h and 26 min.

Subsequent actions involve searches of premises, both of the location from where the person went missing, as well as their home. It is obvious that the time this takes is highly variable depending on circumstances. Officers, however, indicated that on average this would take 2 h and 57 min.

A further set of actions is likely to occur when a missing person is not found in the short term. They may include a Press appeal (when appropriate) and the 48-h review. If the missing person is in local authority care, notification of Social Services, or a Community Mental Health Team may take place, and also the PNC Circulation of a missing person's vehicle, checks with Banks/Credit cards companies, scrutiny of the missing person's diary/address book from which further actions may arise. Some of these actions are specialist and time consuming as liaison with other agencies is not always effective so that delays may easily occur. Altogether these tasks are

**Table 1:** Costs of automatically generated tasks

	Actual cost (£)
Morning briefing: superintendent, two detective chief inspectors, two duty inspectors, detective sergeant (intelligence), press officer, detective inspector (reactive), detective sergeant (protection)	31.64
Automatic tasks generated by case management system	355.89
New shift handovers and formal briefing/a parade	466.2
10 PCs, two inspectors, two sergeants	
Repeat missing persons liaison	180
Extras	26.62
Car, phone, COMPACT (case management system), dedicated form generation	
25% overhead	265.09
Total	1,325.44

estimated to take 9 h and 4 min. Thus, based on the specialist survey, the automatically generated tasks in a medium-risk missing person investigation without the involvement of specialist units is estimated to take in total 17 h and 58 min.

In addition, a good deal of liaison takes place that is mainly internal to the police. A morning briefing will take 10 min and will include a superintendent, two chief inspectors, a local duty inspector, a detective inspector reactive, a detective sergeant—intelligence, a detective sergeant public protection, and a press officer. Even a case of relatively short duration (under 24 h) may see through two changes in shifts with the handover liaison and formal shift briefing/a parade taking place. It is estimated for this to take 45 min and for it to involve 10 PCs, 2 sergeants, and 2 inspectors. In addition, repeat cases of missing persons may be subjected to a review meeting which may take 4 h involving a PC and a sergeant.

In order to progress from times estimates to an overall cost we sought information on the salaries of PCs, sergeants, inspectors, superintendents, etc. We also received information on the pay for communication staff. That allowed us to exactly price the time spent on investigations.

In addition, we sought to uncover further costs. These include usage of police cars, telephone, and the cost of the COMPACT software system through licensing and the generation of a so-called C8 form. Finally, we needed to include an overhead fee. Overhead refers to cost that facilitate policing in general but is not allocated to specific operational tasks. They include personnel, training, maintenance, estate maintenance, and support services. We estimate that to be 25% of the overall cost.

Altogether that brings cost of a medium-risk medium-term missing person investigation without specialist services such as dog handlers or air support breaks down as follows. The automatically generated tasks cost £355.89. The handover and meetings and other types of police liaison cost £677.84. Extra's such as car usage, and COMPACT come in at £26.62. That leads to a total cost prior to overhead of £1,060.35.

Therefore, the cost of a medium-risk medium-term missing person investigation, including investigation costs, staff liaison costs, and further cost including a 25% overhead cost is £1,325.44. This figure is calculated based on the estimates of 407 experienced police officers and civilians.

### Realistic case analysis

The other task involved the appraisal of the duration of tasks in a realistic case. This task is different for several reasons. First, the realistic detail puts flesh and bones on a case, which may affect officers' judgements on time. Secondly, the case contains a number of repeated actions which is quite common in a missing person's investigation. It may for instance require several attempts to visit and speak to an individual and additional tasks may be generated due to the history or the characteristics of the person going missing. We therefore expect the previous survey task to list the realistic minimum time for such investigations to take place whereas realistic cases are expected to be more time consuming due to these complexities.

The case used and adapted for this study was of a 30-year-old woman who went missing for 27 h and had gone missing eleven times before. The COMPACT data of this case documented no less than 65 actions. Some of these are initially suspended. It highlights in part the repetitive nature of the investigation and in part the unpredictability of these inquiries, so that many more than the 12 automatically generated tasks need to be carried out.

In total, 33 experienced officers undertook this task, 23 from West Mercia and 10 from Warwickshire. They were 16 PCs, 8 sergeants and 6 inspectors, and three others. Twenty-four had over 5 years experience with missing person investigations and virtually all (30) had been involved with at least 50 such investigations. Eleven officers were women. They judged the tasks as before, estimating in which time bracket the completion of each task would fall.

In the case that was used, the search of relevant addresses took place and the average time judged

was 48 min. The next task was the obtaining and scanning of a photograph, judged to take 27 min. Subsequently the PNC circulation of the missing person's vehicle took an estimated 19 min. The custody check involved three separate actions that together were estimated to take 1 h and 7 min. Together these actions were estimated to require 2 h and 41 min.

The 48 h review was judged to typically take 31 min. Liaison with dog handlers on the parameters of a search was judged to typically take 57 min. Consideration of a press appeal is judged to take on average 26 min. The research of the missing person's history in terms of going missing is judged to take 44 min. The check of the missing person's mobile phone was judged to take 1 h and 53 min and involved two separate mobile numbers. Altogether these actions were judged to take 4 h 31 min.

From here the investigation became more active in the sense that various tasks were undertaken in the community. It is from here that each missing person's investigation takes its own direction. The search of the missing person's home address also involved a conversation with a person living in the same block of flats. Such occurrences are not uncommon and add to the duration of such a task, as well as to the paperwork required afterwards. Also, we need to add the travel time/cost in case there is no one there and officers need to return at later stage. Altogether it was judged to take 1 h and 45 min.

In between, a further PNC check was undertaken in order to identify possible new lines of inquiry. A separate task involved the handover of the investigation, in which a number of ongoing processes were identified and discussed. In the process of uncovering data from previous reports, a good number of individuals with relevance to the inquiry had been identified and added to the COMPACT data. This included parents, boyfriend, ex boyfriend, and four friends/acquaintances, a mental health community outreach worker and two support workers. All these involve administrative tasks

in COMPACT. These actions altogether were estimated to take 11 h and 3 min.

In the meanwhile, the investigation continues at pace in the community. The missing person's home address was rechecked in the mid afternoon, approximately 24 h after reported missing. At 5pm a telephone call was received that the missing person had returned home, some 26 h after going missing. A PC visited her home soon after only to find that she again had left. Another visit was made at 9pm without success. In the meantime, the address of her boyfriend was visited but the missing person was not there either. It did transpire that the missing person had had a mental health appointment that she kept, after returning home. The missing person was eventually seen the next day, after follow up of the car (her boyfriend's) in which she was seen leaving the morning of the next day. These actions including the administrative actions or recording and updating COMPACT and closing the investigation and liaison with CIMU to update the system were judged to take 9 h and 45 min.

In cases such as these there are further activities of internal police liaison. A morning briefing and three shift handovers would have taken place to add a further 8 h and 32 min of police time. In addition, where an individual goes missing for more than three times further liaison takes place. This may take 4 h of work from individuals including those of senior rank.

Overall, a medium-risk case in which the missing person was confirmed found less than 48 h after going missing, and without input from specialist teams (with the exception of liaison with dog handlers), was judged to take 36 h and 37 min, based on respondent's weighted average scores.

As this case was selected for its typicality and confirmed as such by expert officers, it provides a good indicator of a realistic estimate of the resources required for such cases. It means that in case of a medium-risk medium-term missing person investigation of a repeat missing person where several visits and searches are undertaken, several shift handovers take place as well as



**Table 2:** Tasks and unit cost of real-life case

Task	Actual cost (£)
Early tasks	54.30
PNC (Police National Computer) check, custody check, home address check	
Early investigation	136.5
Search of home, obtaining photograph, PNC circulation of vehicle details	
Mid investigation	371.46
Administration and witness interviews, morning briefing	
Four shift handovers and formal briefing/a parade	932
10 PCs, two inspectors, two sergeants.	
Conclusion of investigation	231.80
Revisiting the home, being found, found report	
Repeat missing persons liaison	180
PCs, sergeant	
Extras	26.62
Car, phone, COMPACT (case management system), dedicated form generation	
25% overhead	483.16
Total	2,415.8

specialist liaison, the total police time investment is in fact higher than the total duration of the time the person has gone missing.

Utilizing the same data regarding salaries, extra costs and overhead the cost of this inquiry would break down to is £1,932.64 to which we as before add an overhead of 25%, £2,415.80 (see Table 2).

A number of limitations of the study must be acknowledged. The first is that time estimates are an inexact science. However, by involving over 400 police officers and staff we are confident that their collective knowledge will have overcome that weakness. Secondly, we limited our case analysis to a single case. This was a choice of pragmatics as we had to balance the time and effort required from officers with the demands of this study. Effort was therefore taken to select a case that was typical and recognizable and this was confirmed as such by respondents.

## Discussion and conclusions

This article set out to cost so-called medium-risk medium-duration missing person investigations. Through the careful breaking down into subtasks

and the estimates of 407 police officers who regularly carry out such investigations it was established that a sum of £2,415,80 is a realistic estimate for the overall police cost of such inquiries. This sum excludes costs incurred by other agencies. This cost is higher than the costs frequently quoted by other publications (see Introduction) and it may help put into perspective debates on policing and the financial basis upon which the police are to undertake its duties.

The findings presented in this article highlight the burden of missing person investigations to the police in a different way. If we were to take the above sum as an average cost (although it is debatable whether we can as a small number of high-profile cases will skew the average upwards whereas a large number of quickly solved missing person investigations may pull it downwards) 327,000 missing person cases altogether amounts to well over £700 million. Whatever the caveats, the publication of such sums can propel debates on the contracting out of police services forward. The fact that a good part of this sum is made up of internal police liaison mechanisms may add further impetus to that.

In closing, the development of a costing of missing person investigations goes beyond establishing of a certain economic quantity. The findings reported in this study may be used as a backdrop to discuss the shared responsibilities of police and other agencies and invigorate (for better or worse) debates on the outsourcing of missing person investigations. It may help put into focus debates around who carries the duty of care and who the financial responsibility in cases where the person who is reported missing is under the care of an establishment (e.g. a care home, hospital, or a mental health unit). As such, what may appear a cold sum that overlooks the hurt and anguish of such inquiries, may in fact become a driver of quite dramatic change in how missing person investigations are carried out, by whom, and at whose expense.

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